News at SEVEn

ENERGY EFFICIENCY NEWS FROM THE CZECH REPUBLIC

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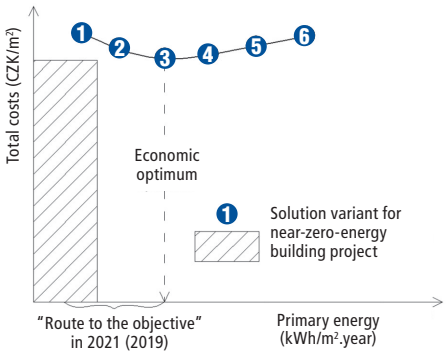
Cost-optimal building performance requirements

The revised Energy Performance of Buildings Directive (2010/31/EU, EPBD II) imposes upon the EU member states the obligation to secure minimum energy requirements for buildings and their systems leading to the energy performance of buildings attaining a level that makes these measures economically optimal. The required standard of consumption has been determined by comparative calculation of defined variants, which present possible structural and technological solutions with the aim to find the cost optimum. This requirement should apply to both new and reconstructed buildings.

The Czech Chamber of Commerce has therefore set up a task force, one of whose members is SEVEn, to carry out calculations of the cost optimum for the Czech Republic. The results of the calculation will be used as the groundwork for the respective legislative requirements that shall be stipulated by the Ministry of Industry and Trade.

The methodology of calculating the cost-optimal level defines variants of counting the energy parameters for comparative analysis, economic calculation and assessment of the variants in question. Energy parameters are understood as specific values of the energy supplied for heating, cooling, ventilation, preparation of hot service water and lighting, including their conversion to specific primary energy. Accordingly, the calculation aims to determine the total specific costs for each of the defined variants. Each variant is assigned with the investment cost of individual measures entering the calculation, operating costs, including costs for energy, maintenance, the maintenance period and the element's service life.



Furthermore, the calculation encompasses the time of the project's evaluation, the discount rate and annual energy price growth. The calculation of the cost optimum is carried out at the nationwide level; accordingly, it will not be determined for each individual project separately. In terms of methodology, the calculation draws upon the ČSN EN 15 459 standard "Energy Performance of Buildings – Methods for economic evaluation of energy systems in buildings".

The result of the optimisation calculation is the points of individual variants of the project's solution, which are interconnected by a notional curve. The cost optimum is the variant to which the lowest point on the curve corresponds. The EPBD II defines another significant term, the near-zero-energy building, i.e. a building with extremely low energy intensity whose energy consumption is to a large extent covered from renewable sources. Construction of such buildings should become compulsory from 31 December 2018 in the case of buildings used and owned by public authorities; in other cases, from 31 December 2020. The chart below shows seeking of the current cost optimum and the route to the expected optimum for new buildings in 2021 (2019).

Zuzana Šestáková, zuzana.sestakova@svn.cz

RESULTS OF VERIFICATION OF 2010 CO_2 EMISSIONS REDUCTION WITHIN THE GREEN LIGHT TO SAVINGS PROGRAMME

Within the Kyoto Protocol scheme, in 2008–2012 the Czech Republic has an expected emissions surplus of approximately 150 million tonnes of CO_2 eq. (or AAU, Assigned Amount Units). About 100 million AAU can be traded within the mechanism of international emissions trading. The goal of the Green Light to Savings programme, financed from the Czech Republic's revenues from these emission surpluses, is to support selected measures aimed at increasing energy efficiency implemented in residential buildings and resulting in immediate reduction of CO_2 emissions, as well as kick-starting the long-term trend of sustainable housing. The Green Light to Savings programme is administered by the State Environmental Fund of the Czech Republic. This article provides information about the results of verification of CO_2 emissions reduction for the Green Light to Savings Annual Report for 2010.

SEVEn has carried out verification of the presumable CO_2 emissions reduction attained through the implementation of the Green Light to Savings programme on the basis of applications registered and approved by 31 December 2010 across individual supported areas. The reduction

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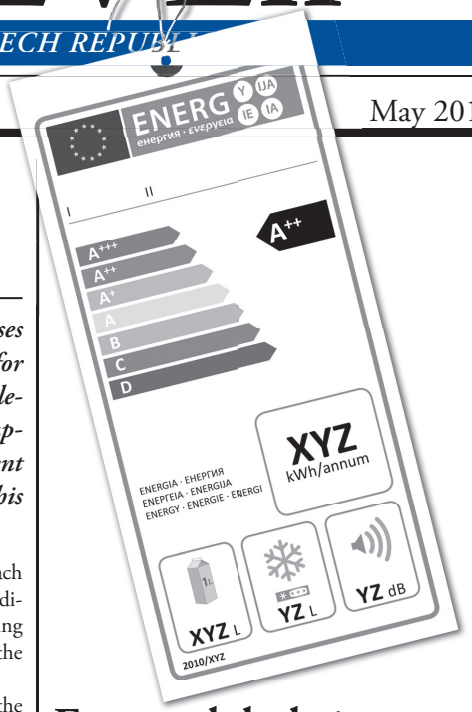

Energy labels in shops – how often do we really see them?

Energy labels ranking products by the energy intensity of their operation are a tool long used with the aim to help consumers with their purchasing decisions. They have been so successful that their usage has been widened from the traditional white appliances to other product types, such as TVs, car tyres or buildings. However, in order for labels to help us to really make an educated purchasing decision, when selecting the specific product we need to clearly see them in shops or at the point of sale. Yet the presence of labels varies significantly across different types of products and different types of shops. The Come On Labels project, active in 13 European countries, has had a look in almost 300 shops to see what the real current situation is from the consumer's point of view.

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inside:

DO YOU KNOW HOW ENERGY-EFFICIENT YOUR DATA CENTRE IS? HAVE IT CHECKED OUT!

On 11 and 26 April, the Energy Advisory Centre of Pražská energetika (Prague Energy Utility) hosted the seminar "Energy Efficiency of Data Centres and Central IT Services". It was part of the information and educational activities within the European PrimeEnergyIT (http://www.efficient-datacenter.eu/) project. Under the guidance of leading specialists from the ranks of the seminar's partners (ALTRON, INTEL, Schneider Electric, VMware), the participants were provided with information pertaining to the latest solutions that can be applied in order to reduce the energy intensity of central ICT.

The discussions that accompanied the presentations have revealed that the potential of energy savings is significant and can be attained by means of appropriate design and selection of more efficient IT equipment and subsidiary technical infrastructure of data centres (cooling, HV/LV transformers, backup sources, lighting, etc.), as well as more efficient operation.

The improvement is based on better planning and use of the computing capacity data centres possess. The first step is to implement regular monitoring, which will make it possible to identify which servers are not being used efficiently – consumption in the idle mode can in the case of standard types be up to 50% of the specific value, as a result of which during the course of the year the server consumes the bulk of the total energy without making any use of its computing capacity.

The second step is to apply the principle of virtualisation, owing to which it is possible to reduce the amount of physical hardware, to "consolidate" 10 or 15 to 1 (i.e. a single real server performing the work of the original 10-15 devices).

The third stage of optimisation is appropriate selection of hardware. Today, energy-efficient servers are designated with the Energy Star logo, indicating that they have a highly efficient power supply unit and relatively low energy consumption in the idle mode. The programme's future criteria should also take into consideration the efficiency achieved in the active mode during the carrying out of computing operations.

In addition to the potential savings at the level of IT equipment, data centres' operation can be made more efficient when it comes to their "non-IT" infrastructure. At the present time, serving this purpose are the international recognised PUE (Power Usage Efficiency) benchmarking standards and the reciprocal DCiE (Data Centre infrastructure Efficiency). Both metrics de facto express the same and show how much additional energy is needed to supply a data centre above and beyond the energy required for the IT equipment itself (typically in annual summation).

The largest amount of this additional energy is consumed by cooling, which also provides a great potential for saving. The key to efficiency is the implementation of natural cooling, using ambient air. It is noteworthy that in Czech conditions this method of cooling with minimal energy intensity can be operated for more than 8,000 hours a year (if adiabatic pre-cooling or cooling of heat-exchanging areas of heat exchangers is applied concurrently).

Significant and, at the same time, economically effective (!) savings can also be attained as a result of the correct selection of HV/LV transformers (definitely a low-loss type of transformer), appropriate dimensioning of backup sources and an economical manner of their keeping in the standby mode, as well as the cabling design and PDU, or lighting control.

The specialists at the seminar agreed that in typical Czech conditions a data centre can be built to attain the average annual PUE parameter of 1.3 (or approximately 77% according to DCiE). It would be interesting, therefore, to know what the reality in the case of the leading providers of hosting services actually is. This could, or rather should, be of keen interest to their customers.

Data centres west of the Czech Republic today compete not only in terms of their connectivity and the price of the services they provide but also their energy efficiency. Can we hope to experience the same standard soon too?

Do you consider your data centre (non-) energy-efficient? Have it checked out and thereby possibly make it more efficient! Within the PrimeEnergyIT project, SEVEn (supported by the project's national partners) offers the opportunity to assess and improve data centres' energy efficiency regardless of their size and prepare them for meeting the conditions of the EU Code of Conduct for Data Centres. Make use of the opportunity and become one of the first data centres in the Czech Republic to endorse it. The offer is limited to the end of 2012. For further information, contact the author, or visit **www.svn.cz** *and* **www.efficient-datacenter.eu**

Tomáš Voříšek, tomas.vorisek@svn.cz

« ENERGY LABELS ..., cont

The shop visits undertaken within the project took place in the period from January to March 2012 in 13 countries, including the Czech Republic. A total of 290 shops were visited, with an average of 22 shops per country.

The following table shows the aggregated data of compliance with regard to different types of shops. The last row of the table shows the weighted average of compliance from all the shops. Some countries' representatives visited the shops on a fully random basis, making sure that each one of the shop types would be represented evenly; other countries reflected the market share of individual shop types.

The results show that the **overall compliance in shops** is slightly above one half (**54%**) in the visited shops. However, the compliance varies greatly according to the type of shop, ranging from as low as 30% in kitchen studios/furniture stores to 76% in electronic superstores. Conversely, from 24% to 70% of appliances in the respective shop types are not labelled at all or are labelled incorrectly (which formally means not labelled as well). The worst situation is in **kitchen studios**, where the compliance rate can be as low as **11%** in the Czech Republic and the UK, 6% in Belgium, and 0% in Italy.

In total, over 50,000 products have been checked. Furthermore, televisions and wine storage appliances with no label have not been included in the compliance check as it was not possible to determine whether these appliances were placed on the market before or after the respective regulations came into force (30 November 2011 for both types of appliances).

In total, 63% of the covered appliances were labelled, 19% labelled partly and 19% not labelled at all. There is a significant difference between the compliance of the "more common" appliances, such as refrigerating appliances, washing machines and dishwashers, and appliances whose penetration in households is lower, such as air conditioners, electric ovens and tumble driers. The average compliance of the former is much higher (almost 70%) than of the latter (13%, 41% and 57%, respectively).

Overview of compliance in shops

Shop type	% of visited shops	Labelled correctly	Partly / Incorrectly labelled	Unlabelled
Electronic superstore	22 %	76 %	7 %	17 %
Electric specialist	35 %	48 %	12 %	40 %
Kitchen studio / Furniture store	20 %	30 %	17 %	53 %
General hypermarket / Cash & Carry	15 %	64 %	12 %	25%
Mail order and internet store	8 %	65 %	24 %	11 %
Total	**100 %**	**54 %**	**13 %**	**33 %**

Labelled, partly labelled and unlabelled appliances per product group

Product group	Labelled correctly	Partly / Incorrectly labelled	Unlabelled
Refrigerating appliances	68 %	20%	12%
Wine storage appliances	11 %	not calculated	
TVs	23 %	not calculated	
Washing machines	68%	15%	16%
Dishwashers	66%	16%	19%
Lamps	not calculated		
Air conditioners	13 %	38%	48%
Electric ovens	41%	23%	35%
Tumble driers	57%	21%	23%
Total	**63%**	**19%**	**19%**

With the aim to improve the situation, the Come On Labels project shares the results of these shop visits with the national market surveillance authorities, as well as the retailers themselves. The project organisers have prepared a training module for shop assistants, available in 11 languages, explaining why and how energy labels should be properly displayed on products.

Visit the project website **www.come-on-labels.eu** or contact us for more information.

Juraj Krivošík, juraj.krivosik@svn.cz

The new Act on supported energy sources and its impact on the efficiency of biomass and biogas use

The new Act on supported energy sources, currently under preparation, should significantly amend the operating subsidies that to date have only focused on electric power. The aim is to make the costs for support of renewable energy sources (RES) more competitive and include other forms of energy too, thus mitigating the impacts on energy prices for end consumers.

Following more than a year of preparation, the bill was adopted by the Chamber of Deputies of the Parliament at the end of January 2012 in the wording modified by the Senate, yet the President subsequently vetoed it. However, as the lower chamber then overturned the President's veto at the beginning of May, the Act will come into force and operation on 1 January 2013 (some of the provisions, especially regarding the new requirements for energy efficiency, will only become effective once the transitional period of 24 months from the Act's announcement has passed).

The main changes include support solely in the form of green bonuses (the possibility of choosing the feed-in tariffs only remains in the case of sources smaller than 100 kWe and small hydroelectric power stations) and the possibility of ceasing support for the areas in which the objectives have been attained according to the Action Plan. The new rules relating to bio-energy are as follows:

- Support for electricity produced from biomass will only be provided for combined heat and power (CHP) generation.
- Subsidies for electric power produced from RES during co-combustion will for the existing sources, pursuant to the current legislation, be terminated in 2015 and from then on will merely be awarded to electricity from highly efficient CHP generation.
- Support for electric power from biogas for new sources will only apply in the case of CHP and if at least 30% of the biogas will come from another type of biomass than that purposely grown on arable land and permanent vegetation and solely if at least 50% of the primary energy of the biomass from which the biogas is made will be efficiently utilised.
- Newly introduced is direct operating support for heat generated from RES in the form of a green bonus (CZK 50/GJ); its financing will be secured from the state budget.
- Moreover, newly implemented will be direct operating support for bio-methane channelled into gas-distribution networks.

In linkage to the planned changes, a series of six seminars focused on combined heat and power generation from renewable energy sources are taking place throughout the Czech Republic. Their participants will be acquainted with the theoretical rudiments of CHP and its role in meeting the country's commitments to achieve a certain share of RES in the final electric power consumption. The seminars also aim at familiarising the participants with the impacts the new Act on supported energy sources will have on efficient use of biomass and biogas in legal, technical and practical terms. The seminars are being held in various parts of the country so as to afford the participants the possibility to visit specific implemented projects serving as good examples of efficient use of RES.

The first seminar took place on 21 March in Třebíč and was connected with visiting a biomass-fired source of the company TTS.

The next seminars will be held as follows:

- On 25 May 2012 in České Budějovice, following up on the Bioplyn (Biogas) conference.
- On 13 June 2012 in Plzeň.
- Another three seminars will take place in the second half of 2012.

CHP Goes Green

The seminars are a component of the European "CHP Goes Green" project. For the latest information, visit **www.chp-goes-green.info**.

Bohuslav Málek, bohuslav.malek@svn.cz

How much do energy-efficiency subsidies cost?

Programmes aimed at supporting energy efficiency possess a great potential benefit for the Czech Republic's economic development and improvement of its competitive strength. Yet, as regards investment of both a private and public nature, when making a decision it is necessary to evaluate the effectiveness of such an investment.

When it comes to subsidy programmes, the criterion for evaluating these programmes is maximisation of benefits (saving of kWh or CO_2 emissions) with the given volume of allocated money.

According to the theory of transaction costs, evaluating effectiveness should include in the costs not only the amount of the allocated money but also other (transaction) costs accruing both on the part of the administrators of the programmes (the subsidy's administrative expenses) and the applicants for and recipients of the subsidies (the programmes' incurred costs).

Within a study drawn up by SEVEn within the EFEKT programme, the company addressed successful recipients of subsidies within the ECO-ENERGY scheme of the Operational Programme Enterprise and Innovation (OPEI) and Priority Axis 3 of the Operational Programme Environment (OPE), both through interviews and questionnaires. At the same time, it evaluated the expected benefits of the projects supported by the aforementioned subsidy programmes that have been or most likely will be implemented.

The results have revealed that the average costs incurred on the part of the subsidy recipients range from 8% to 12% of the amount of the subsidy granted (the median is 6%–10%). The administrative expenses of these programmes can be more or less identified with the costs for technical assistance, which form approximately 3% of the subsidy allocation of these programmes. Accordingly, the total transaction costs amount to an average of 11%–15% of the subsidy. This means that CZK 11, or CZK 15, of transaction costs accrue to CZK 100 of the granted subsidy.

The applicants themselves consider the most time-consuming and financially costly aspect the preparation and organisation of selection procedures, followed by the initial phase of administration, i.e. filing the application for a subsidy. Moreover, the results indicate that there is a (medium-strong) indirect relation between the size of the project and the percentage of transaction costs. It is thus possible to assume that there is also a certain minimum size of project for which it pays off to ask for a subsidy. This conclusion has also been confirmed by the opinions of some of the subsidy recipients.

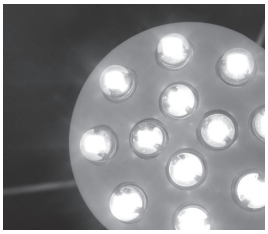
Subsidy programmes serve as a great impulse for increased implementation of projects aimed at energy saving and projects relating to energy generation from RES in the Czech Republic and have largely contributed to the meeting of the objectives the country has pledged to fulfil in this area. At the present time, programmes for the 2014–2020 period are under preparation. The setting up of the parameters for new energy-efficiency programmes has thus become a highly topical subject.

The study "Transaction costs of programmes supporting energy efficiency" (in Czech) can be downloaded from SEVEn's website, **www.svn.cz/cs/informacni-materialy-k-dispozici**.

Michaela Valentová, michaela.valentova@svn.cz

LED light bulbs for households

Over the past few years, every September we have had to bid farewell to a group of traditional clear incandescent lamps that can no longer be placed on the market. The phasing out of the sale of inefficient light sources is stipulated in the European Ecodesign directive and, specifically, Regulation No. 244/2009/EC, which prescribes minimum energy and qualitative parameters for light sources commonly used in households. This September, the last group of bulbs will be withdrawn from the market; namely, 40W, 25W and 15W clear incandescent lamps. Accordingly, from September 2012 on, all clear light sources must be of Energy Class C or better, and non-clear light sources of Energy Class A.



Nejčastější náhrady za tradiční žárovku nejsou The most frequent replacements for the traditional light bulb are well known to consumers. We commonly buy for our households **compact fluorescent lamps**, which can have various designs and whose quality is in most cases usually sufficient. In comparison with incandescent lamps, they bring significant energy savings (they are usually of Energy Class A). In addition to compact fluorescent lamps, there are other possibilities, with one of the lesser known being **halogen lamps**, which are not overly energy-efficient in comparison with compact fluorescent lamps (usually of Energy Class C) yet work on the same principle as traditional bulbs and are indistinguishable for the layperson. Other possible replacements include LED light sources with standard lamp base used in households (E27/E14), which are commonly termed **LED bulbs**.

Properties of LED bulbs

Of late, LED bulbs have been appearing in shops with increasing frequency. Therefore, it is reasonable to know some basic information about them. In comparison with compact fluorescent lamps and incandescent lamps, LED technology is totally different. Hence, the properties of LED bulbs differ too. At the present time, the greatest technological limitation of LED light bulbs is their maximum luminous flux. Today, we can thus find on the market LED bulbs that can, in the best case, replace the traditional 75W incandescent lamp. Accordingly, LED bulbs are primarily suitable for replacing lower outputs: standard 60W, 40W and 25W incandescent lamps. When it comes to other parameters, however, LED bulbs usually outdo other light sources.

Various types of LED bulbs are available on the market and therefore can replace both standard incandescent lamps in common luminaires (E27 base) and candle lamps used in chandeliers (E14 base). With regard to the higher number of light sources in chandeliers, the usually lower output of LED bulbs is not a drawback and the design may please us with its traditional appearance. Shops sell both opaque and clear LED bulbs, which are reminiscent of the classical incandescent lamp.

A relevant advantage of LED bulbs is their high energy efficiency and long service life, with the majority of manufacturers stating it as 25,000 hours. Some design LED sources may have a service life shorter than that declared, while a number of lesser-known producers claim unrealistic figures (above 50,000 hours). So as to increase the service life, it is advised to ventilate properly, i.e. to cool the light source. The energy efficiency of LED bulbs corresponds to Energy Class A and is usually somewhat higher than that of compact fluorescent lamps. A further increase in energy efficiency is expected in the future.

LED bulbs' light quality and operating comfort are high. They switch on immediately, with the start-up time comparing favourably with compact fluorescent lamps and the number of actuations until failure sufficient. Many types of LED bulbs can also be dimmed in the original installations (this must be stated on the light source's packaging). LED light sources are always directional; hence, for households it is more suitable to select LED bulbs with adapted light emission to all directions. This may concern a bulb reminiscent of a traditional incandescent lamp, another optical element or a number of LED chips, which in aggregate emit light in all directions. Using directional LED bulbs in luminaires designed for traditional incandescent lamps is not recommended – the result would be clear illumination of one spot and overall darkening of other parts of the room.

Unlike compact fluorescent lamps, LED bulbs do not contain mercury and do not break into pieces when handled inappropriately. Nevertheless, after their service life has come to an end, LED bulbs should be recycled, since they contain electronic circuits.

At the present time, the greatest disadvantage of LED bulbs is their price (even though it has been decreasing, it is still relatively high). In economic terms, it is above all suitable to use LED bulbs in rooms illuminated frequently (permanently illuminated corridors, workrooms, workshops, etc.). When using LED bulbs in these types of spaces, the investment is returnable. Another aspect that can influence the choice of LED bulbs is design requirements, in the case that we do not want to use compact fluorescent lamps, etc.

LED technology definitely has a bright future ahead of it. LED bulbs are increasingly used in our households. Yet to avoid disappointment, we should select high-quality products from renowned manufacturers and check out the aforementioned basic parameters.

Michal Staša, michal.stasa@svn.cz

« RESULTS OF VERIFICATION..., cont.

of CO_2 emissions was tallied by the State Environmental Fund in line with the validated calculation method for numeration of CO_2 emissions reduction within the Green Light to Savings programme.

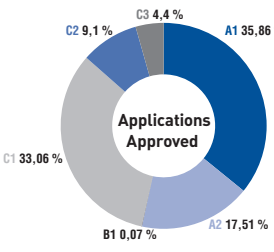
The calculation method was validated in the spring of 2010 by an external independent subject, Det Norske Veritas. According to the Annual Report for the Green Light to Savings programme for 2010, the total number of applications registered within the programme by the end of 2010 was 49,943. A total of 78,156 projects were registered by the end of 2010. The total volume of support allocated for the applications registered in 2010 exceeded the sum of CZK 12.6 billion. The following chart shows the allocation of support across individual areas.

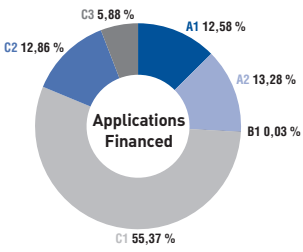
The programme's environmental benefits were assessed on the basis of approved and financed applications. The total expected CO_2 emissions reduction in 2010 in the case of the approved applications amounted to 314,120 tonnes a year. (A total of 31,634 applications had been approved by the end 2010.) As regards the financed applications, the assumed reduction of CO_2 emissions is 132,406 tonnes a year (for 10,311 applications, paid out by 31 December 2010). The following diagram shows the expected annual CO_2 emissions reduction in tonnes by sub-areas of support for approved and paid-out applications by 31 December 2010.

By 31 December 2011, a total of 90.07 million AAU had been successfully traded according to information from Ministry of Environment website. According to the information provided by the Ministry of the Environment on 11 January 2012, until the end of the Green Light to Savings programme all eligible applications submitted until 25 October 2010 should be satisfied. In addition, the programme has found itself with a slight surplus, currently amounting to approximately CZK 130 million. This money will be made further use of within the Green Light for Savings programme, for instance, for successful applicants in the area of public buildings.

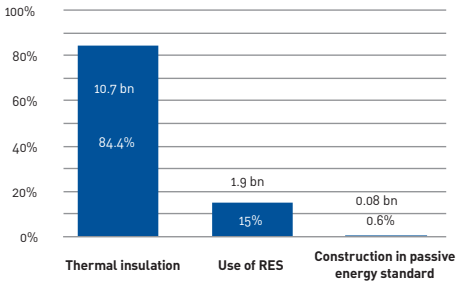
The implementation of the Green Light to Savings programme should serve as a great impulse for the development of energy-efficiency projects in the Czech Republic, primarily in the household sector.

Miroslav Honzík, miroslav.honzik@svn.cz





Expected annual CO_2 *emissions reduction in tonnes by sub-areas of support according to the Green Light to Savings programme for 2010, (A1 Overall thermal insulation, A2 Partial thermal insulation, B. Construction in the passive energy standard, C1 Replacement of non-ecological heating by low-emission biomass-fired sources and energy-efficient heat pumps, C2 Installation of low-emission biomass-fired sources and energy-efficient heat pumps in new buildings, C3 Installation of solar thermal collectors)*



Allocation of support *(in CZK and %) for registered applications across individual areas.*
Source: Green Light to Savings Annual Report for 2010

Improve your driving (energy) class and check out the ECOWILL course!

Since the beginning of May, Czech drivers have been afforded the opportunity to attend a brand-new type of lesson focused not only on improving their driving skills, but also reducing fuel consumption and improving traffic safety. Correct driving technique can result in a saving of fuel costs amounting to 1–2 thousand Czech crowns a year (equal to a full tank!) and, at the same time, faster and safer driving.

The new course does not include testing of knowledge of road-traffic regulations or basic driving skills, which are regularly taught at driving schools. Instead, it is a sort of follow-up to the basic instruction. The approximately hour-long lesson takes places solely in a car (your own, if you so wish) and is given by teachers with special qualifications. In regular traffic conditions, the course participants can test whether or not they have the correct driving habits. Experience has shown that there is always something that can be improved on with all drivers. (By the way, did you know that to start new automobiles you only need to engage the first gear, and don't have to actuate the accelerator pedal?)

You will be able to register for the course on the website www.uspornajizda.cz and it will be offered by a dozen selected driving schools whose instructors have undergone the respective training.

The first registered drivers will receive from the project's initiator, SEVEn, a discount of CZK 500 on the price. Those who have attended the course by the end of July will be included in an accompanying competition, and the best participants will receive attractive prizes and be afforded the opportunity to demonstrate their (improved!) driving skills at the ECONOMy RUN 2012 competition, which will take place in September in Mladá Boleslav.

The offer of "economic driving courses" in the Czech Republic is just one component of the European initiative, implemented under the heading of the international ECOWILL project (www.ecodrive.org)

and supported by the European Commission through the Intelligent Energy Europe programme, as well as by a number of national partners (Škoda Auto, the Ministry of Transport of the Czech Republic, Central Automoto Club/FIA, LeasePlan, Michelin, etc.).

For more information about the ECOWILL courses, visit www.uspornajizda.cz.

Tomáš Voříšek, tomas.vorisek@svn.cz

RE-COMMISSIONING – ENERGY SAVINGS WITH LOW COSTS

Re-commissioning is a method aimed at attaining energy savings by means of improving the operation and maintenance in building complexes. Its advantage is that this improvement results from zero-cost and low-cost measures, and therefore the ratio between the money invested and saved is usually extremely favourable. Re-commissioning consists of five major parts:

- Use of energy information systems,
- Analysis of data and measurement,
- Optimisation of building technologies,
- Informing and motivating buildings' users,
- Measuring and securing of quality.

Re-commissioning is a systematic method that examines a building's current facilities, the operation and maintenance procedures, as well as the interaction with the building's users. So as to attain the target energy efficiency, tools for quality control and guarantee are proposed, implemented and monitored. An interesting feature of re-commissioning is its application of an interdisciplinary approach, within which the technical, economic, financial, as well as organisational and legislative aspects, are scrutinised. This method is most frequently applied on existing technologies in buildings: the heating, ventilation and air-conditioning (HVAC) system, control systems, electrical systems and systems using compressed air. Re-commissioning can be carried out by employees, yet it much more frequently involves services provided by external consultants.

Further information about re-commissioning can be found on the website of the European Re-Co project, www.re-co.eu, or in the bulletin which you will be sent after placing an order with the contact below.

Jana Szomolányiová, jana.szomolanyiova@svn.cz

EPC advancement in the Czech Republic

The Energy Performance Contracting (EPC) method can now boast of possessing a tradition in the Czech Republic that spans almost two decades, and of late the sector has experienced relatively rapid expansion. This spring alone, about a dozen EPC projects are in the phase of selection procedures, and more are in the pipeline.

This trend has recently been provided with systemic support from the state too. In February 2012 the Government of the Czech Republic adopted a decree that has significantly advanced the institutionalisation of the EPC method. Decree No. 109, on completing the methodology for the application of EPC, counts with the drawing up of model examples and accounting procedures for projects financed through this method, as well as elaborating a model contract for concluding contractual relations between public clients and EPC providers. Furthermore, the decree presumes that a programme of energy-saving measures in public buildings financed from the revenues from emission allowances sale will be submitted by the end of 2012.

In addition, within the EFEKT programme, organised by the Ministry of Industry and Trade, this year the Government has supported the preparatory phase of projects applying the EPC method by means of supporting the drawing up of the initial survey of whether the selected buildings are suitable for application of the EPC method. More than 20 projects may be supported in this manner and it can thus be expected that the majority of them would be implemented by means of EPC.

The latest information relating to the EPC sector in the Czech Republic and the European Union as a whole is provided on the websites of two international projects supported by the European Commission: Changebest and EESI. These projects promote the expansion of energy-services markets, particularly the EPC method. More about these projects and their outputs can be found at www.changebest.eu and www.european-energy-services-initiative.net.

Vladimír Sochor, vladimir.sochor@svn.cz

Summary of international activities, seminars and presentations organised by SEVEn:

Energy labelling legislation, Armenia, 11/2011

Within the ESIB project, SEVEn organised a seminar for representatives of Armenian governmental institutions providing a comprehensive overview of the European legislation relating to energy labelling of electrical appliances, its implementation in national legislations and organisation of specific steps when securing supervision of the market. The programme and presentations: **www.inogate-ee.org/news/regional-news/815**

Energy labelling legislation and Ecodesign, Moldova, 3/2012

Within the ESIB project, SEVEn organised for representatives of Moldovan governmental institutions a workshop focused on the preparation of the country's legislation on energy labelling and Ecodesign, preparation and organisation of national supervisory and information activities. The programme and presentations: **www.inogate-ee.org/news/regional-news/930**

Consultancy relating to energy saving, Moldova, 1–3/2012

From January to March 2012, SEVEn participated in the implementation of the "Regional Energy Security and Market Development" project for Moldova. The task included providing

consultancy to the Moldovan government pertaining to the preparation and introduction of legislation relating to heat supplies regulation, as well as implementation of highly efficient CHP generation and the EPC method in the country.

Act on Energy Performance of Buildings, Ukraine, 3/2012

Within the ESIB project, in 2012 SEVEn will be providing the Ukrainian government, parliament and international partners in the country with consultancy aimed at securing the adoption of high-quality legislation transposing the European Energy Performance of Buildings Directive. We will be sharing our experience from the Czech Republic. **www.inogate-ee.org/about/what-is-esib**

Implementation of Directive EPBD 2, Belarus, 2012

Within the "Support to the Implementation of a Comprehensive Energy Policy for the Republic of Belarus" project, SEVEn is currently providing consultancy in Belarus and evaluating the status of implementation of the revised Directive 2010/31/EU on Energy Performance of Buildings (EPBD 2) in the European Union. Our company is mainly analysing the technical, legislative and economic aspects of energy requirements for buildings, and certification of buildings in the form of energy passports.

Round table on the topic of programmes supporting energy efficiency in the Czech Republic, 2/2012

SEVEn organised a meeting at which the future of programmes supporting energy efficiency in the Czech Republic was the focus of discussion. The participants were representatives of the Ministry of Industry and Trade, CZECHINVEST, the Ministry of the Environment and the State Environment Fund, who are responsible for implementation of the priority axes aimed at attaining energy saving and supporting RES within the respective operational programmes. **www.svn.cz/cs/news/kulaty-stul-na-tema-programu-na-podporu-energeticke-efektivnosti-v-ceske-republice**

SEVEn has become a member of the Board of the European Council for an Energy Efficient Economy (ECEEE) – www.eceee.org

SEVEn

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The Prague office of SEVEn is using PREko electricity tariff, contributing to the development of renewable energy sources.