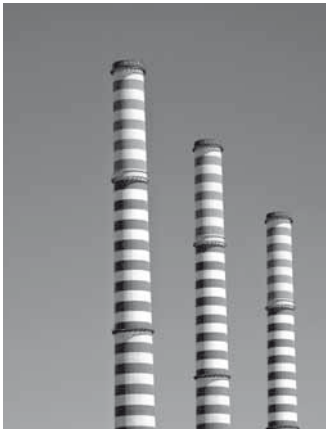


## 2009 results of the verification of CO<sub>2</sub> emissions reduction within the Green Light to Savings programme



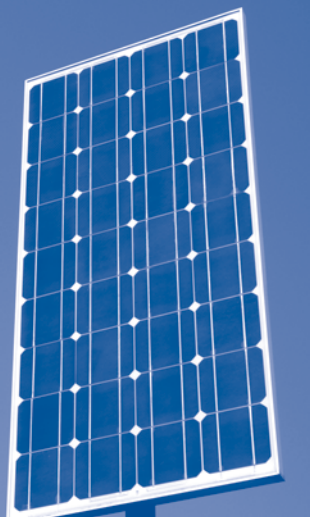
*The Czech Republic has within the Kyoto Protocol period 2008 - 2012 an expected emission surplus of approximately 150 million tonnes of CO<sub>2</sub> eq. (AAU, Assigned Amount Units). From this amount, approximately 100 million AAU can be traded within the international emissions trading mechanism. The major objective of the Green Light to Savings programme, financed from the Czech Republic's revenues from these surplus emission allowances, is to support selected measures aimed at increasing energy efficiency implemented in residential buildings by natural persons and other subjects owning residential buildings, which would*

*result in immediately reduction of carbon dioxide emissions, on the one hand, as well as kick-start the long-term trend of sustainable housing. The administration of the Green Light to Savings programme has been entrusted to the State Environment Fund of the Czech Republic. This article provides information about the results of the verification of CO<sub>2</sub> emissions reductions for the 2009 Green Light to Savings Annual Report, as well as information pertaining to the quantity of AAU sold within the aforementioned international emissions trading mechanism.*

» cont. » page 5

## HOT TOPIC: ACTION PLAN FOR RES DEVELOPMENT TO 2020

*The passions aroused by the massive development of photovoltaics over the past two years have provided sceptics of renewable energy sources with strong arguments for changing their current generous support policy and "economically" planning how much energy from wind, sun and biomass we should afford in the future to cover the country's energy needs. Is this the right path? And is it at all possible to achieve it in practice?*



Great apprehensions as to the unbearable social costs the implementation of all the announced plans for photovoltaic plants would entail have led the respective state institutions, i.e. the Ministry of Industry and Trade and the Energy Regulatory Office, to reassess the hitherto approach to renewables and prepare measures for their more controlled management in the future.

There certainly are reasonable arguments supporting the steps aimed at reducing the number of solar-power stations that will by the end of the year be

placed into operation for generous feed-in tariffs and the plan that those who will have done so will by means of subsequent tax and other tools have disadvantaged the otherwise very lucrative business that owing to the rapid decline in the prices of panels and components over the two past years the Czech Republic offered to investors from all over the world. Significant decrease in support in future years and restriction of the guaranteed feed-in tariffs to small installations only, as well as implementation of the

» cont. » page 2

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- 3 *Tightening of the criteria for selecting appliances within the Green Light to Savings Partnership programme*
- 3 *Energy-efficient lighting in households*
- 3 *Is efficient sufficient?*
- 3 *Household electrical appliances and their replacement*
- 4 *Evaluation of the project aimed at modernising coal-fired power plants in Kazakhstan*
- 4 *Companies awarded for provision of energy services*
- 5 *Research into public lighting in the Czech Republic*
- 6 *The EPC topic at the EEBW 2010*

## Water savings in a shopping centre

*When drawing up energy audits in large shopping centres, the possibilities of saving not only energy but also water can be revealed. The sources can be rainwater and water from cooling towers. Although the two sources have a seasonal character, they are extremely productive. They can be primarily used to flush toilets, for cleaning of common spaces and watering. The difference between the two sources lies in the fact that rain is all-surface and it is not possible to utilise it to the full. Cooling water, on the other hand, is centralised. The use of both water sources leads to financial savings on the water rate, whose price in 2010 was 27.85 CZK/m<sup>3</sup>, excluding 10% VAT, and drain rate (23,53 CZK/m<sup>3</sup> excluding VAT).*

An example of such saving measures is that carried out in the Smíchov Shopping Centre in Prague, which decided to prepare the groundwork for the

» cont. » page 2

## « HOT TOPIC:..., cont.

ban on construction of photovoltaic plants on agricultural land, will terminate the market's dynamism and put it back into the initially intended segment – to constructions and if in free areas, then merely in industrial complexes.

Instead of the currently expensive photovoltaics, owing to which at the end of the year each kilowatt hour of electricity generated from renewable sources in the Czech Republic will be twice as expensive as in neighbouring Germany, it is appropriate to focus the attention on larger energy use of biomass. Various fuels produced from wood and plant biomass contain the greatest growth potential, with relatively acceptable additional costs as against conventional sources. Yet the current biomass market is beginning to suffer due to rapidly rising demand, and the available sources of wood mass from the wood-processing industry and forest management will soon be exhausted. Naturally, this also has an impact on the price, with the prices of the cheapest biofuel, such as wood chips and firewood, being driven up (above 100 CZK/GJ).

In order to steady the market and extend supply, various measures are considered, primarily in the form of investment and operation supports. These will undoubtedly be necessary, since attainment of a 13% share of RES in the domestic energy consumption by 2020 will mean at least a doubling of the biomass used to cover the heating requirements of households and other subjects compared with the present. In practice, this means increased consumption in the order of several million tonnes. And this biomass will primarily have to be gained from agricultural land.

Granting support for generation of heat from biomass in a different manner for small and large sources appears to be the systemically optimal measure. When it comes to small sources, it would definitely make sense to provide investment support for procurement of heat sources specially constructed for combustion of wood biomass in particular (gasifying boilers for firewood and briquettes, or automatic machines for pellets). This is simpler in administrative terms and would ensure that the biomass is combusted in sources designed for it, sources with high efficiency and low emissions. Fuels of wood origin should be directed to small sources – firewood and wood chips, or pellets, since their fuel-producing properties are the most efficient.

On the other hand, in the case of large heat sources the operation form of support, for the heat generated, seems to be more cost effective. It would be the best under the condition that heat is produced from intentionally planted biomass. This would result in curtailing the pressure on the rise in the prices of fuels from waste biomass, which today occurs by reason of their price advantageousness and high demand. Operation support for generated heat would serve as motivation for optimisation of sources in terms of fixed costs (by proper dimensioning and use of a the installed thermal output of a given heat source) and for attainment of the highest possible efficiency of production.

At the same time, it would be suitable to modify the contribution for heat produced in cogeneration plants from RES (and for electricity generated from biogas in particular), since at the current level it does not provide sufficient incentive for efficient use of heat generated by combustion of fuels from biomass or biogas in cogeneration sources.

Time will tell which direction support for renewable energy sources will eventually take in the Czech Republic. Let us hope that it will be a direction that will again convince the public of the meaningfulness of their use.

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# The Covenant of Mayors

*The Covenant of Mayors is a European project entailing co-operation between individual local governments and communities that have pledged to protect the climate and want to create energy conceptions at the local level. This should lead to significant improvement in efficient use of energy and increased energy self-sufficiency.*



More than half of the greenhouse gas emissions in Europe are produced locally, in cities and villages. In these areas, over 70% of the population live and work, consuming approximately 75% of the energy in the EU. That is why the European Commission's initiative is focused on local governments in particular. The Covenant of Mayors entails a voluntary commitment of cities and municipalities to go beyond the objectives set by the EU as regards CO<sub>2</sub> emissions reduction. This can be attained by means of, for instance, reducing energy intensity, changing the energy policy, etc.

Within the Covenant of Mayors, cities and municipalities will draw up the "baseline emission inventory" and a Sustainable Energy Action Plan (SEAP). Subsequently, this plan will be rolled out and evaluated. The advantage of joining the Covenant is not only emissions abatement but also reduction of energy intensity and the possibility of drawing money from the funds allocated for investment in

sustainable energy. A no less significant role is played by the good reputation of a city or village that can be seen to take care of the environmental requirements of its inhabitants.

To date, the Covenant of Mayors has been joined by more than 1,900 cities and municipalities throughout Europe. The town of Jeseník, which joined the Covenant in 2010, says in this respect: "The quality of the environment in our town is remarkable, and we want to further improve it. Another significant factor is the provision of energy security and at least partial self-sufficiency of the town. That is why we plan to build an energy source for biomass."

In the Czech Republic, promotion of the Covenant of Mayors has been dealt with by SEVEN, The Energy Efficiency Center. Within the Come2CoM project, a municipality or city can acquire free basic information about the creation of the initial emissions balance and consultancy when drawing up the Sustainable Energy Action Plan.

For more information, visit [www.svn.cz/pakt](http://www.svn.cz/pakt), or write to the contact email address.

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## « WATER SAVINGS IN A SHOPPING..., cont.

systemic use of rainwater and water from cooling towers.

The long-term average annual rainfall in Prague is 446.6 mm (Prague – Karlov). The highest precipitation is in the period from May to August, and during an average summer it is possible to attain for 60 mm of rainfall 1,040m<sup>3</sup> of water a month. This value is equivalent to water consumption at toilets and bowl urinals in the shopping centre. In other months, the average total precipitation is between 30 and 60% of the maximum, i.e. 310 – 620 m<sup>3</sup>/month. Hence, it is realistic to make use of 70% of the total rainfall volume of 11,878m<sup>3</sup>, i.e. 8,300 m<sup>3</sup>. The water will be gathered in a retention basin with the size of 250 m<sup>3</sup> and located in the 3<sup>rd</sup> sublevel, from where it will be pumped to the take-off places.

The amount of the drained blowdown water is 6,750 m<sup>3</sup>/year. The shopping centre's retention basin takes the one-day volume of 30 m<sup>3</sup> and can be placed on any floor of the building, unless its static load exceeds the safety value.

Another solution is to make use of rainwater from several suitably placed standpipes and the whole volume of the blowdown water. This combination

makes it possible to prolong the use of this water into the spring and autumn too. The size of the retention basin will be 60 m<sup>3</sup>, which corresponds to the shopping centre's two-day water consumption.

All the technical solutions require that the piping be modified in such a manner that it is separate from the retention basin up to the flushing device. The flushing device must be first fed from the retention basin and only after it is emptied by water from the water-supply network.

An economic assessment of investment and operating costs has been carried for the period of 15 years, with the application of the 5% discount rate and at constant prices.

In addition to cost savings, these solutions also save electric energy, which for transportation from the Želivka water treatment plant to the end-consumer in Prague represents in the case of the combination variant an annual saving of 1,600 kWh and after conversion 1.8t CO<sub>2</sub>. Consumption of electric energy for treatment and transportation of drinking water in Prague for the area of the Smíchov Shopping Centre is 0.2 kWh/m<sup>3</sup>.

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| Variant                          | Rainwater | Blowdown water | Combination |
|----------------------------------|-----------|----------------|-------------|
| Volume of water used             | 8,300     | 6,750          | 8,000       |
| Investment (thousand CZK)        | 3,725     | 1,328          | 1,473       |
| Operating cost (thousand CZK/yr) | 96        | 59             | 78          |
| Annual saving (thousand CZK)     | 426       | 188            | 252         |
| Simple pay-back                  | 11        | 10             | 8           |
| Discounted pay-back period       | 17        | 15             | 11          |

# TIGHTENING OF THE CRITERIA FOR SELECTING APPLIANCES WITHIN THE GREEN LIGHT TO SAVINGS PARTNERSHIP PROGRAMME



On 1 January 2011 some of the criteria for selection of appliances within the Green Light to Savings Partnership programme will be tightened up. The reason is the increased efficiency and improving parameters of individual appliance models. Accordingly, the selection criteria will change together with appliances in such a manner that the programme fulfils the function of a database of the truly most efficient appliances on the market.

The changes apply to washing machines and lighting, and are summed up in the following table.

Other currently planned changes for 2011 relate to modifications in the legislation on labelling. There will be a new label for TV sets, and instead of the "A-10%" label energy classes A+, A++ and possibly even A+++ will be introduced for all appliances.

The main objective of the Green Light to Savings Partnership programme is to provide useful information about the possibilities of choosing truly energy-efficient appliances and products. It is a non-subsidy and non-investment project on whose basis consu-

mers will acquire precise instructions for selecting the most energy-efficient appliances that are available on the Czech market.

For more information (in Czech), visit [www.zelenausporam-partnerstvi.cz](http://www.zelenausporam-partnerstvi.cz).

| Appliance   |                            | Current criterion       | New criterion  |
|---|----------------------------|-------------------------|----------------|
| Washing machines Front loading-standard                           | Energy class               | A-10%                   | A-20%          |
| Energy saving Compact fluorescent lamps Non-covered, E27 cap-base | Minimum service life       | 15,000 hours            | 20,000 hours   |
|   | Number of operating cycles | Stating the information | 500,000 cycles |
| LED lamps   | Luminous flux              | –                       | Min. 80 lumens |

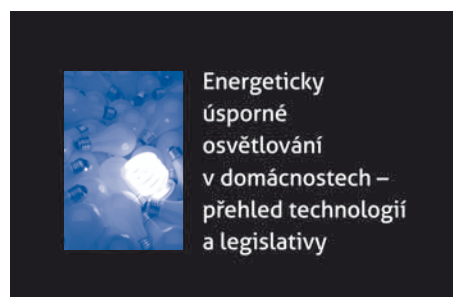
## ENERGY-EFFICIENT LIGHTING IN HOUSEHOLDS

SEVEN, in tandem with the Representation of the European Commission in the Czech Republic, has prepared a detailed publication pertaining to the topic of energy-efficient lighting in households. It was published on the occasion of the launch of the next phase of gradual phase-out of inefficient bulbs, this time 75W, from the market, which occurred on 1 September 2010. The publication is primarily intended for the professional public (retailers, journalists, energy agencies and advisers) and outlines the main criteria for selecting a suitable light source for households and alternatives to traditional bulbs, i.e. halogen bulbs, compact fluorescent lamps and LED lamps.

The publication also contains a summary of adopted European legislation and an overview of EC Regulation No. 244/2009, pertaining to the withdrawal from the market of inefficient light sources used in households. In conclusion, it gives answers to the most frequently raised questions, as well as discussing the problems relating to the use of compact fluorescent lamps and other lights sources in households. The publication can be downloaded in the PDF format in Czech language from [www.svn.cz](http://www.svn.cz) or [www.usporiespotrebice.cz](http://www.usporiespotrebice.cz): <http://www.usporiespotrebice.cz/novinky/publikace-o-energeticky-uspornem-osvetlovani-v-domacnostech/>

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Example of an information activity on energy efficient lighting can also be found at [www.usporvykapse.cz](http://www.usporvykapse.cz) (in Czech).



## IS EFFICIENT SUFFICIENT?

The overwhelming majority of politicians and specialists alike agree upon the fact that energy efficiency is one of the key tools to tackling the problems relating to climate change. According to the International Energy Agency, within the objectives set out until 2030, energy efficiency should play a 50% role in the total CO<sub>2</sub> emissions reduction.

Nevertheless, virtually all the energy efficiency policies have to date "merely" attained reduction of the average energy consumption per given energy service, either in the case of buildings, appliances or other devices. Despite all the efforts made, the total energy consumption has been increasing. This has been caused by other key factors affecting the total energy consumption, especially population growth, the penetration of equipment, the growing number of various items of equipment and appliances, as well as decreasing operating costs, which result in a "rebound effect", i.e. other activities affecting energy consumption have been implemented for the operating costs saved.

When it comes to the building sector, the current average energy consumption is somewhat lower than it was in 1990, yet the total consumption has been constantly growing. The reason for this is the rising number of houses (accompanied by the decreasing number of people living in a dwelling unit), as well as the growing quantity of electrical appliances and lighting per apartment. The result is that, for example, in 2004 the total energy consumption of households rose by 20% annually, even though the average consumption per household actually decreased slightly.

The European Council for an Energy Efficient Economy (ECEEE) therefore presented a concept of sufficiency, through its report entitled "Is efficient sufficient?". Energy experts then discussed the possibilities of tackling this situation and how to change the setup of the tools that would make it possible not only to increase energy efficiency but also reduce the total energy consumption.

The proposals for improvement of the current energy efficiency policies include progressive efficiency standards and overall sufficiency limits on total energy use by a particular product type. In this respect, a large television set, for example, would have to

have the same total consumption as a smaller TV set, unlike the current tools, which only impose requirements on unit consumption. For the future, introduction of the "zero energy-using appliances, ZEAPs" concept could be considered, following the model of buildings with zero net consumption. At the present time, several such appliances are already on the market – for instance, solar-powered mobile phones and radio sets.

More information about the seminar and the report can be found at [www.eceee.org/sufficiency/](http://www.eceee.org/sufficiency/) and [www.eceee.org/eceee\\_events/Is\\_Efficient\\_Sufficient/](http://www.eceee.org/eceee_events/Is_Efficient_Sufficient/).

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## HOUSEHOLD ELECTRICAL APPLIANCES AND THEIR REPLACEMENT

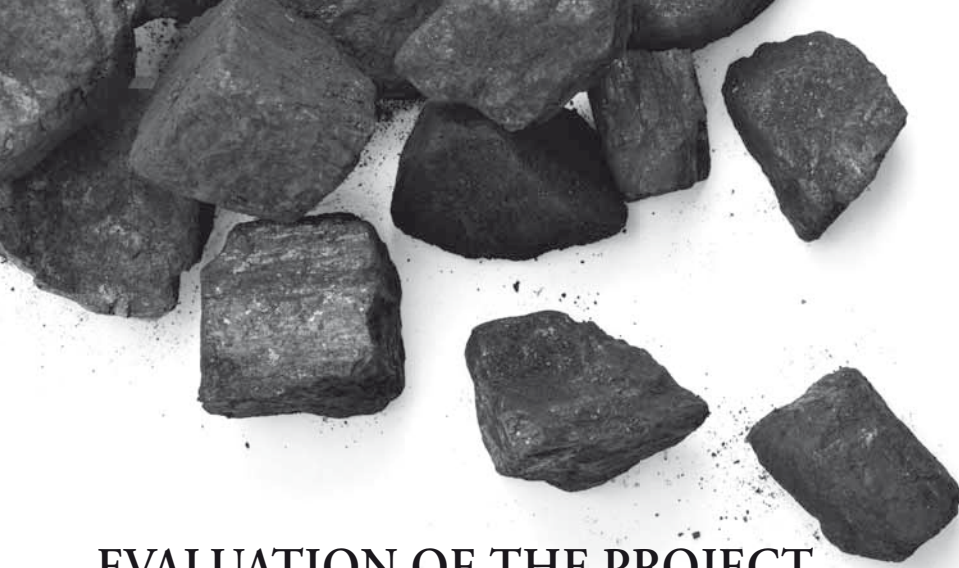
What are the advantages and disadvantages of replacing old electrical appliances for new ones? When will the investment in a new appliance be paid back in terms of reduced energy consumption? Which new energy-efficient appliances should one seek, and where can the information be found? Where can an old appliance be disposed of?

The answers to all these questions can be found in the new brochure entitled Household Electrical Appliances and Their Replacement, which has been published by SEVEN, The Energy Efficiency Center. It aims to present the issues of replacement, purchase and recycling of household electric appliances, and also focuses on their energy consumption.

The publication's main outputs include the following information:

- The average age of the main domestic electrical appliances in Czech households ranges between 8 and 10 years.
- In comparison with the most energy-efficient new electrical appliance models, since the 1970s (washing machines) and the 1990s (refrigerators) the operating energy consumption has decreased threefold.

» cont. » page 6



## EVALUATION OF THE PROJECT AIMED AT MODERNISING COAL-FIRED POWER PLANTS IN KAZAKHSTAN

The World Bank considers as one of its key priorities helping partnership countries to secure reliable access to energy, while placing emphasis on reduction of environmental impacts, especially with regard to local and global emissions.

When it comes to projects using coal as an energy source, the World Bank has adopted special evaluation criteria that serve as guidelines for assessing a project's quality from various aspects of its impact within the context of the respective country or region. These criteria include a project's contribution to improved energy security; inclusion of all costs in calculations, including environmental externalities; and use of the best available technology. The evaluation itself is carried out by the External Expert Panel, usually comprising three independent specialists. In June 2010 a project dealing with modernisation of three coal-fired cogeneration power plants in Kazakhstan was evaluated in this manner. The panel in this case was made up of an independent financial expert from France, a district heating expert from Finland and a SEVEN employee, an expert in standard power plant technology.

The cogeneration power plants are owned by a private Kazakh company and are situated in the northern part of Kazakhstan near the cities of Pavlodar (CHP2 – 110 MWe and CHP3 – 440 MWe), Petropavlovsk (CHP2 – 380 MWe) and Ekibastuz (12 MWe). The first two power plants are of a nature similar to those in North Bohemia and coal is transported to them by railway. Originally, they were built as condensation power stations, yet as heat consumption gradually grew together with the development of the nearby cities they were modified to plants generating heat from turbines' extractions. Following the disintegration of the Soviet Union and the subsequent economic decline, heat consumption decreased and now the partial dependence of electricity production on heat supply is the problem of further development. The third source (Ekibastuz CHP) is essentially a large heating station, with a 12MWe turbine only installed last year. The total electric output of the three cogeneration power plants is 942 MWe.

At the present time, Kazakhstan is experiencing a huge increase in demand for electricity, and even

though the development of production from renewable sources, primarily hydro-electric power plants, is presumed, owing to its availability and low price, coal is set to remain the main primary energy source. The owner of the power plants has prepared an extensive modernisation programme with the outlook up to 2020, whose total investment costs are approximately USD 600 million. The World Bank and the International Finance Corporation (IFC) intend to provide financial support to the project by means of capital entry into the company. Over the past two years, international consultancy firms have drawn up several analyses of the proposed investment plan. The task of the Expert Panel was to assess the project's compliance with the aforementioned World Bank criteria on the basis of careful study of these reports and the other groundwork available.

The report produced by the Expert Panel virtually confirmed that the prepared project does indeed meet these criteria. In the localities in question, coal is the sole primary source for generation of electricity and heat. Although partial modernisation does not come up to the best available technologies, in this specific case it is the most cost-effective. Complete replacement of technology, for example, installation of new blocks with large specific output and high steam parameters, would require much more investment and, with regard to the necessity of district heating supply, is not even technically suitable. The Expert Panel's report gives some additional recommendations for further elaboration of the investment plan; for instance, paying more attention to a design of a flue gas treatment plant and also focus on the consumption side in the district heating system, i.e. gradually replacing a secondary distribution network with house stations that would better react to the needs of individual buildings. At the present time (September 2010), the investment plan is undergoing approval procedure by the WB and IFC managements and subsequently the text of the Expert Panel's report will be published on the World Bank's website.

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## Companies awarded for provision of energy services

*Two companies based in the Czech Republic have won 2009 European Energy Service Awards. ENESA a.s. was voted the best European Energy Service Provider, while Siemens, s.r.o. received the prize for the best European Energy Service Project in Commercial Sector.*

The European Energy Service Awards are given to innovative providers and supporters of energy services within the EU. This year, the prizes were awarded for the fifth time. Since 2005, excellent achievements in successful development of energy savings in Europe have been appraised. The competition is organised by the Berlin Energy Agency under the auspices of Germany's Ministry of the Environment and with the support of the European Commissioner for Energy. The awards are handed over in five categories pertaining to energy services: for the best promoter, the best provider and the best project in the public sector, the commercial sector and the lighting sector.

ENESA a.s. won the prize for the best energy service provider. The company has provided energy services to customers from both the public and private sectors



The awarded Miroslav Marada and Ivo Slavotínek from ENESA a.s. and Radim Kohoušek from Siemens, s.r.o.

since its foundation in 2005, most frequently by means of the EPC method. Among its most significant projects are a project for the National Theatre, a project in numerous buildings owned by the Pardubice Region and a project in the company of Saint-Gobain Orsil. The award for the best project in the commercial sector went to a project implemented by Siemens, s.r.o. in the Siemens Elektromotory Mohelnice factory. The project focused on modernisation and decentralisation of heating of buildings and production halls, preparation of hot water and industrial steam. The project has resulted in savings amounting to 39% of the original consumption.

The awards were officially handed over to the prize-winners on 13 September 2010 at a gala ceremony in Brussels.

In 2005 the award for the best energy services promoter went to SEVEN, while the 2008 award for the best lighting project was given to the Prague Marriott Hotel.

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## « 2009 RESULTS OF THE VERIFICATION OF CO<sub>2</sub> EMISSIONS REDUCTION ..., cont.

SEVen, The Energy Efficiency Center, carried out the verification of expected CO<sub>2</sub> emissions reduction achieved through the Green Light to Savings programme on the basis of allocated requests for 2009 across individual supported areas. The final specification of the results for the first verification period was preceded by validation of calculation methods and related issues (especially data collection).

The validation was carried out by an external, independent subject possessing the due authorisation and experience, the company Det Norske Veritas (DNV). It was performed with respect to the international standards of the JI and CDM schemes within the UN Framework Convention on Climate Change (UNFCCC) and the programme's specificities. The outcome of the validation was the statement that the proposed calculations comply with the methodology requirements. During the course of the verification, experts worked with the data gradually delivered from the State Environment Fund, as well as the information received from the validator of the calculation method, DNV. For 2009, a total of 3,111 requests were evaluated within the verification of the Green Light to Savings programme. Within the verification of these requests, the total expected CO<sub>2</sub> emissions reduction within the Green Light to Savings programme for 2009 was assessed to be 24,483 tonnes of CO<sub>2</sub>/year. The table shows the expected annual CO<sub>2</sub> savings in tonnes, verified by SEVen according to the area of support for 2009.

According to the information received from the Ministry of the Environment on 5 May 2010, a total of 73 million AAU out of the 100 million possible had been sold. The majority of them have been sold to Japan (the Japanese government and the company Mitsui), and emissions credits have also been bought from the Czech Republic by the governments of Austria and Spain. At the present time, almost CZK 18 billion is available in the Green Light to Savings programme. With regard to the data pertaining to the amount of finance already available within the Green Light to Savings programme, it may be stated that over the long term the Czech Republic has been the most successful in sale of AAU. Moreover, the Ministry of the Environment is concurrently negotiating with a higher number of purchasers of emissions credits about the sale of more AAU than the Czech Republic still has available. The support is conceived as semi-mandatory, i.e. prepared in such a manner that the money received within the programme can be utilised throughout the programme period, from 1 April 2009 to 31 December 2012, without radically changing the conditions, and that subsidies are granted to everyone who would ask for support and meets these conditions. The programme will be

continuously monitored, while minor changes in the conditions may occur on the basis of the regular evaluation of the programme's success. The support will only be suspended in the event that the programme's finance has been spent.

According to the information published by the State Environment Fund on 1 July 2010, the total number of requests filed within the programme has already exceeded 33 thousand. These requests represent approximately CZK 9 billion of support. By the end of June, more than 23 thousand requests had been approved, with the money appropriated for subsidies amounting to almost CZK 5 billion. The highest number of people have asked for support for investment in use of renewable energy sources (Area C). Of the various measures falling within Area C, installation of solar-thermal panels is the most popular. The greatest volume of support, however, has been used for thermal insulation of residential houses (Area A), totalling more than CZK 4 billion. Here in particular, the effect of large projects has begun to fully manifest itself (housing associations requesting support for insulation of prefabricated houses), which draw the greatest shares in the volume of subsidies. Prefab houses alone already form 30% of the total promised amount of support, and together with non-prefabricated residential houses more than 45%. On 24 August 2010, the Ministry of the Environment decided to temporarily suspend acceptance of requests for prefabricated houses within the Green Light to Savings programme. The original areas of support for non-prefabricated residential houses and family houses continue and will be further financed without changes.

Moreover, according to the information released by the State Environmental Fund on 11 August, regional workplaces of the State Environment Fund had registered as at 10 August 2010 more than 940 requests for support for insulation of public-sector buildings within a special call of the Green Light to Savings programme focused on the public sector. The sum required for support of insulation of public-sector buildings already amounts to CZK 4.8 billion. The call for submitting these requests, which was announced on 19 July 2010, should last until the amount of CZK 6 billion (i.e. 150% of the allocated support) has been reached, no later than by 31 August 2010.

The aforementioned information confirms that 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.

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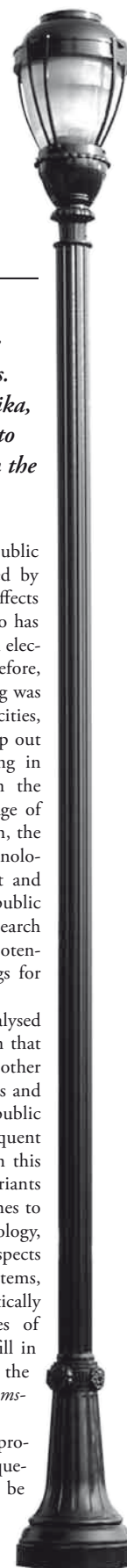
# Research into public lighting in the Czech Republic

*SEVen, The Energy Efficiency Center together with its partners ČEZ, a.s. and Philips Česká republika, organised the Research into Public Lighting project in the Czech Republic.*

Public lighting is an important public service that is usually provided by municipalities and cities. It affects the quality of our lives, yet also has a significant share in the annual electric energy consumption. Therefore, the research into public lighting was focused on municipalities and cities, with its main aim being to map out the situation in public lighting in individual places, to ascertain the age of the light fixtures, the age of lamps, their technical condition, the proportion of particular technologies, the form of management and the average costs pertaining to public lighting. Another of the research objectives was to identify the potential of energy and costs savings for public lighting operation.

The result of the outputs analysed was an information publication that serves to familiarise mayors and other representatives of municipalities and cities with the situation in public lighting, defines the most frequent problems municipalities face in this area and outlines possible variants of their solution – when it comes to standards, light source technology, economic and organisational aspects of managing public lighting systems, etc. The publication is automatically available to all representatives of municipalities and cities that fill in the questionnaire prepared by the project's organisers. -ms-

Further information about the project and the wording of the questionnaire (in Czech only) can be found at: [www.vyzkumvo.cz](http://www.vyzkumvo.cz).



Expected annual CO<sub>2</sub> savings in tonnes according to the area of support for 2009

| Area of support                                      | Number of assessed requests | Subsidies without bonus (CZK) | Annual volume of expected CO <sub>2</sub> emissions savings (tonnes) |
|--|-----------------------------|-------------------------------|--|
| A – Savings of energy for heating                    | 1,126                       | 342,209,752                   | 9,829.24   |
| B – Construction in passive energy standard          | 8                           | 2,000,000                     | 76.70  |
| C – Use of RES for heating and hot water preparation | 1,977                       | 137,425,684                   | 14,577.43  |
| <b>Sum total</b>                                     | <b>3,111</b>                | <b>481,635,436</b>            | <b>24,483.37</b>   |

## « HOUSEHOLD ELECTRICAL ..., cont.

- The most energy-efficient new electrical appliances are labelled as energy class A++; the introduction of energy class A+++ is expected.
- Back in 2007, products labelled with energy classes A and A+ represented 85 – 95% of all refrigerators, washing machines and dishwashers sold in Central and Eastern European countries.
- The energy payback on the replacement of an old appliance with a new one (the quantity of energy

necessary for production and import in comparison with the lower consumption of energy for operation) in the case of washing machines and refrigerators ranges between 3 and 6 years, depending on the type and age of the appliance.

- When it comes to refrigerators, ageing of appliances (especially that of the insulating foam) can cause increase in energy consumption by 1–2% a year.

The publication was co-created by Pražská energetika, a.s., the European Committee of Domestic Equipment Manufacturers (CECED) and ELEKTRO-WIN, a non-profit company operating a collective system of collecting electrical equipment. It has been financially supported by the Ministry of Industry and Trade within the Efekt 2010 state programme for energy saving promotion.

From November 2010 the brochure will be available free at SEVEN or you can download it in Czech in the pdf format at [www.uspornespotrebice.cz/novinky/publikace-spotrebice/](http://www.uspornespotrebice.cz/novinky/publikace-spotrebice/). -mv-

## THE EPC TOPIC AT THE EEBW 2010 CONFERENCE

One of the most significant means and, at the same time, requirements of the Energy Services Directive is promotion of financial instruments to support economically efficient use of energy savings potential. And one such tried-and-tested financial tool is provision of energy services with a guarantee in the form of the EPC (Energy Performance Contracting) method. One full day at the Energy Efficiency Business Week

2010 conference will be given over to the theme of energy services provision, primarily focusing on the EPC method. The topics to be discussed include:

- Information about various forms of energy services provision,
- Indication of the directions in which the energy services market may further develop,
- Indication of the political framework of support for the development of the energy services market,
- Presentation of good practices of provision of energy services through EPC,
- Other topics depicting the current situation regarding energy services provision in the Czech Republic and abroad.

The morning session will be given over to domestic topics and examples in the area of energy services provision, especially those using the EPC method. The afternoon agenda will include discussion of the progress in energy services in Europe and presentations of good practice examples from abroad.

The 12th EEBW: Energy Efficiency Business Week international conference will take place on 23 and 24 November 2010 at the Kaiserstejnky Palace, Prague, and the topic of energy services will be discussed on Wednesday 24 November.

More information about the conference programme can be found at [www.eebw.cz](http://www.eebw.cz), or [www.epc-ec.cz](http://www.epc-ec.cz).

Vladimír Sochor, [vladimir.sochor@svn.cz](mailto:vladimir.sochor@svn.cz)



### 12th International Conference

### EEBW: Energy Efficiency Business Week 2010

23rd – 24th of November 2010, KAISERSTEJNSKY PALACE, PRAGUE

25th of November 2010, EXHIBITION CENTRE LETNANY – AQUA THERM TRADE FAIR PRAGUE 2010

## ENERGY – CONSUME LESS OR PRODUCE MORE?

- New energy strategy – will it be effective?
- Renewable energy strategy – time for a change?
- Will biomass substitute the lack of coal in heat production?
- Energy services – an appropriate tool for the budget accountability government?
- What are zero energy buildings?

### Who should attend:

- representatives of national and local governments
- energy consumers from industry and tertiary sector
- financial institutions
- investors
- energy suppliers
- ESCOs
- producers of energy efficient technologies
- professional associations
- energy legislation experts
- research and educational institutions

Lectures and discussion will be translated simultaneously into Czech and English.

[www.eebw.cz/en](http://www.eebw.cz/en)

Ministry of the Environment  
of the Czech Republic



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



SEVEN is a holder of the ČSN EN ISO 9001:2009 and ČSN EN ISO 14001:2005 certificates approved by Lloyd's Register Quality Assurance.