News at SEVEn

VOLUME 10

NUMBER 3

October 2002

ENERGY EFFICIENCY NEWS FROM THE CZECH REPUBLIC

Energy Efficiency Business Week 2002

Energy Efficiency Business Week 2002 ranks among the most important conferences pertaining to energy efficiency in Central and Eastern Europe. This 8th year is focused on Opportunities for returnable investment and brings information not only about technically feasible, but also economically effective, opportunities in energy savings and renewable energy sources.

Conference and exhibition will take place on November, 5-7, 2002 in Prague Congress Centre. More information: www.eebw.cz

Conference sections

Liberalised electricity market - experience, marketing, green electricity

Are you interested in how electricity trading functions in a liberalised market? At EEBW you will obtain comprehensive information on current experience and changes being prepared.

Energy Performance Contracting and Energy Contracting through the eyes of customers in the CR and abroad

Are you considering various possibilities of financing and operating energy projects? *Risks, guarantees, financing, outsourcing: experience with Energy Performance Contracting and Energy Contracting.*

New possibilities for project financing greenhouse gas emissions trading and other tools

How to acquire finance for projects reducing greenhouse gas emissions?

Which financial mechanisms are most suitable for your project?

Energy auditing

Are you also liable to compulsory energy audits? How can you use energy auditing (the obligation arising from the law) to your benefit?

Low - energy low - cost buildings

Are you building a house?

Did you know that for the same investment you can build an identically comfortable house with half the energy consumption for heating?

Biomass? Efficiency essential!

How to heat? Information for investors All you need to know about biomass. When is biomass economically efficient?

Energy-efficient lighting

Visible opportunities (savings) in lighting Improvement of lighting quality, reduction of losses, possibilities of operation and project financing.

Falling energy prices

Who would have credited that energy prices could actually go down? Yet the unthinkable has come to pass and electric power and natural gas prices for both households and companies have declined. Hence, it seems that in the next few years energy prices won't necessarily rise.

What are the reasons for this price retreat? Above all the strong Czech crown and currently favourable prices of crude oil and natural gas on international markets allowing for cheaper purchase of raw materials from abroad.

The price fall could also be caused by the first stirrings of the opening up of the market to competition, i.e. the endeavour of suppliers to win new customers or to keep existing ones.

However, reduction of electricity and gas prices was also possible thanks to the fact that 2001 bore witness to the end of the process of removing cross subsidies, whereby households paid less than larger consumers, although the ratio of costs did not correspond to it. In the period between 1993 and 2000 the level of cross subsidies for electric power amounted to CZK 122 billion, while in the case of natural gas it represented a sum of CZK 10.5 billion from 1994 to 1998.

This all means that the energy prices are not determined by state and its political motivations but by markets and its demand and supply laws. Investors and those interested in energy efficiency will therefore have to calculate with these factors as well, since they influence the rate of return of their projects.

-jk-

Energy efficiency guarantee fund emerges

The International Finance Corporation, integrated into the World Bank group, has developed a new guarantee programme to support energy-saving projects. Countries participating in this programme include the Czech Republic, Estonia, Lithuania, Latvia and Slovakia. The programme has been up and running in Hungary for several years.

The programme is entitled the Commercialising Energy Efficiency Fund and will be implemented by the International Finance Corporation (IFC) in cooperation with local financial institutions to which it will provide partial guarantees for the purpose of sharing the credit risk of financial transactions. Financial institutions, i.e. banks, leasing companies or non-banking financial establishments, will finance the respective projects from their own sources, however, they will obtain a partial credit guarantee, thus reducing the project's costs and increasing its financial attractiveness.

Projects supported by this mechanism include energy efficiency in buildings, industrial and ot-

What's Inside

Energy Efficiency Business Week 20021,3
Falling energy prices1
Energy efficiency guarantee fund emerges1
New possibilities of financing energy projects – sale of greenhouse gas emissions2
Degree of Central European markets' opening to competition2
Low-energy low-cost apartment house in Sušice2
Public tenders and guarantees for energy savings4
New light on the EPC method4
Construction of new buildings and energy auditing4
Lighting manual for electricians4
List of municipalities with centralised biomass heating in the Czech Republic5
SEVEn first contact place of EU GreenLight programme5
Global electricity generation from renewables rising5
Energy efficiency and renewable energy events October – December6
Directory of documents and studies on energy issues published on the internet6

her processes, lighting, heating regulation, cogeneration, utilisation of waste heat and the like. Debtors may be private sector subjects, housing associations and, through ESCOs, also state and municipal organisations. The projects should have the payback period ranging between 2 and 5 years, in financial terms from USD 50,000 up

to several million. Furthermore, within the framework of this programme, the IFC will provide technical assistance for project preparation, as well as aid to entrepreneurs in building up their marketing and financial goals. The reason why the IFC supports energy savings is their commercial potential and stimulus to economic development, as well as global environmental benefits.

In the case of your interest to receive further information or to take part on the project, please contact:

Martin Dašek, SEVEn, martin.dasek@svn.cz Pavol Vajda, IFC Warsaw, pvajda@ifc.org

New possibilities of financing energy projects – sale of greenhouse gas emissions

Trading in greenhouse gas emissions is a new source for financing energy-efficiency projects and utilising renewable energy sources. At the present time, international trade in these emissions is still in its infancy, nevertheless, in the next decade it could reach the annual turnover up to several billion dollars.

Emission trading was proposed as a tool that would allow for cost savings in attaining greenhouse gas emission abatement in accordance with the Kyoto Protocol to the UN Framework Convention on Climate Change. The principle of this mechanism is that those implementing projects reducing greenhouse gas emissions sell emission savings to other polluters who use them for meeting their obligations. In this manner, it is possible to achieve the determined emission abatement as cheaply as possible. Emission trading may be conducted between governments, as well as individual companies.

Emissions can be traded in several manners. At present, from the viewpoint of investors in the Czech Republic, two mechanisms are the most interesting: implementation of joint projects and planned trading with emission permits at the level of the European Union.

On the basis of joint project implementation, it is already possible to offer saved emissions to three financing sources; namely, the World Bank's Prototype Carbon Fund (PCF) and the programmes of the Dutch and Danish governments. Joint project implementation is conditioned on the approval of the Czech government, which has already stipulated certain requirements and rules in this regard.

Another important mechanism is the prepared system of emission trading within the European Union from 2005. If the respective directive is adopted, after its accession to the EU the Czech Republic will also become part of this trading system. Since the estimated emission development in the key years 2008-2012 in the CR is significantly lower than the target level set by the Kyoto Protocol, the Czech Republic will most probably be a net seller of emissions within the framework of this system.

Are you interested in specific and current information concerning the possibility of using emission trading for financing of your projects? If so, you are invited to the international Energy Efficiency Business Week 2002 conference, section "New possibilities of project financing – greenhouse gas emission trading" on November 5, 2002.

Jana Szomolányiová http://www.svn.cz/eebw/html/financovani-e.htm

Degree of Central European markets' opening to competition

As can be seen from the table, most Central and Eastern European countries are preparing to open up electricity markets. The plans are most progressive in the Czech Republic and Poland, where full liberalisation is scheduled for 2006. At the present time, Poland and Slovenia have achieved the highest degree of liberalisation.

	•									
	Czech Republic	Poland	Hungary	Slovakia	Slovenia	Estonia	Latvia	Lithuania	Rumania	Bulgaria
Market										
opening	2002:>40 GWh	2002:>10 GWh	2003:>9 GWh	2002:>100 GWh	All, incl.	2002:>40 GWh	2002:>40 GWh	2002:>40 GWh	2002:>40 GWh	2002:>100 GWh
(annual	2003:>9 GWh	2003:>1 GWh		2003:>40 GWh	households >41kW			2003:>9 GWh		
consumption	2005:>0.1 GWh	Dec.5.2005: all		2004:>20 GWh				2010> all		
of eligible	2006: all			2005:>9 GWh						
customers)										
Degree of										
market opening	30%	51%	0%	31%	50%				33%	15%
as of 2002										

Source: Veselská V.: Introduction of the EU Directive on the internal electricity market in candidate countries, Energetika, 5/ 2002, http://www.volny.cz/ene/e_0502_1.html

More information, opinions and news about energy market liberalisation can be obtained by attending the "Electricity market liberalisation – lessons learned, marketing and green electricity" session of the Energy Efficiency Business Week 2002 conference: http://www.svn.cz/eebw/html/liberalizace-e.htm

Low-energy low-cost apartment house in Sušice

The town of Sušice has become the site of the first real construction of a low-energy low-cost apartment house in the Czech Republic, implemented within the framework of the GEF/UNDP and SEVEn project. This house comprises 9 residential units and its investment costs are fully comparable with those of regular housing construction, however, the resulting energy intensity is reduced by 40 - 50% in comparison with standard designs.

The residential house's specific consumption is 53 kWh/m²/year with total budget costs of CZK 13,5 million and average inhabited apartment area of 85 m². This represents 15 880 Kč/m².

The date for finishing the construction is December 2002 and first residents will therefore move there at the beginning of the next year. Construction of new similar buildings is planned in Železný brod and Humpolec towns.

Contact: Petra Neuwirthová, petra.neuwirthova@svn.cz

Visit the "Low-energy low-cost buildings" section at the Energy Efficiency Business Week 2002 conference and learn all you need to know about building a house without increased investment but with significantly lower energy consumption:

http://www.svn.cz/eebw/html/nnbd-e.htm



Energy Efficiency Business Week 2002

The international Energy Efficiency Business Week 2002 conference and exhibition is a traditional forum for meeting and exchange of information for specialists of various professions - entrepreneurs and top management from the industrial sphere and energy sector, financiers, investors, managers and politicians at both municipal and state level, as well as technicians and power engineers. It is an opportunity for exchanging opinions on specific current issues, new business meetings, informal discussions of entrepreneurs with state administration representatives, as well as a possibility for familiarising with foreign experience and establishing new personal contacts with both Czech and foreign specialists.



State Environmental Fund of the Czech Republic and Czech Energy Agency

Capital City of Prague, Economic Chamber of the Czech Republic, Ministry of Regional Development, Ministry of the Environment

United Nations Development Programme, Global Environmental Facility, International Finance Corporation

KPMG Consulting

Association of Energy Auditors, Association of Energy Managers, Czech - German Trade and Industry Chamber, Czech Lighting Society, Czech Union of Civil Engineers, CZ-Biom, REHVA (Federation of European Heating and Ventilation Associations), Society for the Development of Public Lighting, Society for Environment Technology, Union of Czech Towns and Communities, Union of Entrepreneurs in Technical Equipment

no should atten

Investors, top management and decision makers in both the private and public sectors, representatives of energy efficiency and renewable energy businesses, energy producers and retailers, technical and financial professionals, energy auditors, designers and other specialists

• How to transform energy costs to one's own profit?

• How to contribute in an economically effective manner to meeting environment protection goals?

• Unique possibility to gain comprehensive information, knowledge and opinions from different perspectives, in both the national and international context.

• Experience of investors, developers, financiers, public administration representatives and politicians, operators, designers and other specialists.





Libor Ambrozek,

specialist exhibition focused on low-energy constructions and reduction of power consumption in buildings, renewable energy Ministry of the Environment, sources, energy-efficient lighting and household appliances, hea-Minister, CR

Pavel Brychta,

Energy Regulatory Office, Chairman. CR

Josef Bubeník,

Czech Energy Agency, Director, CR

Radka Bučilová,

Czech State Environmental Fund, Director, CR

Ramiro Cibrian,

Ambassador and Head of the European Commission delegation to the CR

Jan Kanta.

Západočeská energetika, a.s., Manager of the Energy Trading Division, CR

František Kubelka,

Deputy Minister, CR

Andrej Marcu,

Association

Conf. programme Ivana Svoitková, ivana.svoitkova@svn.cz

puter simulation of buildings;

in cooperation with the media;

prosperity and environmental protection;

project or service

Slezská 7 120 56 Prague 2, Czech Republic

Tel.: +420 2 2425 2115, fax: +420 2 2424 7597 e-mail:eebw@svn.cz

ency Business Week 2002 conference and exhibition is available at the address: www.eebw.cz. We will gladly send you the complete conference programme upon request.



tvůj dům praktil



Ministry of Industry and Trade,

International Emissions Trading

Miroslav Marvan,

Electricity Market Operator, Managing Director, CR

Jan Pouček,

Ministry of Industry and Trade, Head of the Energy Policy Department, CR

Drahomír Ruta. Pražská energetika, a.s., General

Director, CR

Helmut Schreiber, World Bank

Russell Sturm,

International Finance Corporation

Giulio Volpi,

European Climate Policy and Energy Unit, World Wildlife Fund

• the **Dissertation Competition** whose goal is to support the interest of young specialists from universities throughout the Czech Republic and Slovakia in energy saving as a route to both economic

• European Union Information Centre with information about projects relating to the environment and the energy sector that have been implemented thanks to financial support from Phare programmes.

ting technologies, financial and investment consultancy and com-

• the NEGAWATT Title awarded by SEVEn on the basis of the re-

commendations of an independent specialist committee to exhibi-

tion participants for the best energy-saving product, technology,

• Energy-Saving Household, a consumer competition for energy-

efficient and consumer-popular household appliances announced

• Energy Consultancy and Information Centre, a free-of-charge service of specialists-consultants who will advise on the selection of a suitable heat source for a family house, on the issues of thermal and technical properties of buildings and alternative energies;

• Consultancy Centre for Biomass Heating at which representatives of the League of Ecological Alternatives will give information about the latest trends in utilisation of renewable energy sources, explain the advantages and risks of particular designs and advise on how and where to obtain finance.

• An independent part of the event will be SBTB: Building Performance and Environment Technology Simulation 2002 pertaining to computer simulation of energy balances of buildings and systems.

Registration

SEVEn, The Energy Efficiency Center, o.p.s.

Detailed information concerning the programme of the Energy Effici-

Romana Dvořáková, romana.dvorakova@svn.cz

Public tenders and guarantees for energy savings

The Public Procurement Act was drawn up and gradually amended with the aim to make it possible in public tenders to choose from the bids of entrepreneurial subjects the cheapest offer whose quality would best comply with the required standard of the goods or service to be delivered. Viewpoints and criteria valid when selecting energy service contractors are different than is the usual scenario since they offer guarantee attainment of financial cost savings when ensuring the energy demands of particular subjects. Part of an energy service with a guarantee entails the offer for repayment of investment or purchase costs for supply precisely from the savings achieved.

This means that the customer is interested merely in whether savings will be sufficient for future instalments. In these "business transactions" not only investment costs for the given supply reflect in the evaluation but, primarily, the volume of future saving of operating expenses. Then, the resulting valuation economic criterion of these bids certainly is not the price of supply, but the saving resulting through it. The investment volume in these cases is not the criterion for the selection of the contractor, but only one of the parameters determining the level of future instalments.

Gradual development of public tenders and calls for tenders in recent years has revealed and subsequently removed some problematic aspects which caused inaccuracies and misunderstandings, sometimes even leading to objections and cancellations of the announced tenders. At the present time, SEVEn cooperates in several public tenders that have been invited according to a brand-new methodology reflecting these well-known aspects and the previous problematic parts of individual orders.

Miroslav Votápek

For detailed information, data and the possibility of discussion, visit the section "EPC and EC through the eyes of customers in the CR and abroad" at the Energy Efficiency Business Week 2002 conference:

http://www.svn.cz/eebw/html/epc-e.htm

New light on the EPC method

At the present time, the term EPC method is quite frequently used in professional circles. Nevertheless, it is less frequently understood in its real form and functioning. The following paragraphs attempt to sum up the ambiguities pertaining to this method and explain them in brief.

An important feature in application of the EPC method is taking over guarantees for the presumed energy consumption reduction. It may be stated that a long-term surety for attainment of energy savings can only be talked about in the case of measures with which due to the wrong behaviour of the energy system user the expected level of savings is usually not achieved. In this regard, it mainly includes measures for management of energy consumption (energy management) and energy consumption regulation, as well as installation of similar technological equipment. It is not necessary to take on guarantees for the "functionality" of building measures that are properly installed. In such cases the construction supervision should guarantee for the high quality of work and, in addition, it should concern current guarantees for work quality. Then it is no longer necessary to guarantee for the fact that the respective measures will result in the presumed financial effects in the form of reduced energy consumption costs over the period of repayment of the initial investment and further down the road. This confirms that it is suitable to resolve "building measures" through the EPC method only as a supplement.

How should we understand the term "clean" form of the EPC method? Simply said, after equipment has been installed investments are paid off over an acceptable period solely from saved costs without any other financial means. However, if the client is also interested in implementing measures with a longer-term payback period, the form of combined project financing can be chosen; it merely depends on the investor which structure of financial means it decides on.

The EPC method is very often mistaken for the manner of financing energy-efficient projects. But this is a confusion of terms. In general, first of all

the client usually decides that it will refurbish the energy system. Then it ascertains which possibilities come into play and decides in which manner and to what extent it wants to renew the system. Thus, the client either decides that it will have project documentation drawn up for a specific solution or will have the offer for the project design prepared through the EPC method. Finally, the client decides how the project will be financed. Thirdparty financing when designing a project through the EPC method may, but need not, be part of the solution. It is merely one of its parts. Let's take a general example: a contractor prepares a project designed by means of the EPC method, while the client secures the necessary financial means, pays the investment costs and "only" receives the guarantee that the presumed savings will genuinely be attained!!!

> Vladimír Sochor, Landis & Staefa ESCO (CZ), s.r.o., SochorV@cz.sibt.com

Construction of new buildings and energy auditing

The Energy Economy Act of 2000 not only significantly affected operation of buildings but also preparation of their construction. Energy auditing is one of the main levers of this Act, it has been regularly used for existing buildings and complexes. However, energy audits are yet to be commonly applied in the case of designed constructions.

An energy audit applied for project documentation notably differs from the work on the actual construction. It is not possible to use standard diagnostic methods arising from comparison of the invoiced energy consumption, meteorological data and other variables for a completed building.

Data stated in project documentation is usually applicable merely conditionally. Energy consumptions enumerated are often substantially lower than in reality. Hence, the fundamental tool is mathematic modelling. An auditor sets up a model of a facility's energy demands, usually comprising the building's behaviour – thermal losses and gains, reaction of heat and cold sources, the manner of waste heat utilisation and heat or cold accumulation. The output is annual consumption of individual energy sources and, possibly, water.

When is it best to use the auditor's services – when receiving the planning permission, building certificate or evolving the construction documentation? Conducting the audit as a part of the construction documentation has a fully formal results. Auditor comes at a time when the designer has finished the job, the construction has usually already started and additional suggestions for energy saving measures are not desired.

With the building certificate the situation is not so tense. But even here there is a threat of delayed construction, if the building permission office requires any additional change. And the planing permission with a detailed energy concept of the given building is not very common. Therefore the auditor's cooperation in between the planning permission and the building certificate seems to be most appropriate.

-jk-

The full version of this article about the importance and use of energy auditing for newly constructed building was published in the August issue of the magazine Stavitel (Builder) (internet address: http://stavitel.ihned.cz/tema). You can familiarise yourself with more details on energy audits by visiting the section "Energy audits – lasting benefits for customers and auditors" at the Energy Efficiency Business Week 2002 conference. http://www.svn.cz/eebw//html/audity-e.htm

Lighting manual for electricians

Lowering costs for lighting while maintaining its quality is often desired when reconstructing or implementing new interior lighting systems. New publication "Lighting of Interiors" with the subtitle "Practical Advice Not Only for Electricians" is intended for all those participating in the preparation of designs and implementations of small-scale lighting systems, i.e. primarily for electricians and wire-installing companies providing fundamental services in indoor lighting, and also for all other persons interested in this area.

The authors aim was to explain the basic regularities of interior lighting with the emphasis on respecting customers' needs, as well as the energy and economic intensity of lighting systems' operation. The publication also seeks to highlight the most frequent mistakes occurring in lighting practice.

The manual, prepared by SEVEn within the framework of the Efficient Lighting Initiative (ELI) programme, was published in September 2002 and is distributed free of charge (one copy per company or person). It can be ordered either by telephone on the number 224 252 115 or by means of online order at the address www.svn.cz.

List of municipalities with centralised biomass heating in the Czech Republic

The size of heating costs by various fuels is a subject of many debates among energy specialists as well as households residents. Renewable energy sources are known for having lower running fuel costs but, on the other hand, relatively higher investment costs. In the Czech Republic, biomass is considered one of the most promising renewable energy sources. The table lists the communities in which it has already been used for heating, however, others are gradually being added.

Locality	Rated capacity	Year of starting
Rybniště (district of Děčín)	1 (0.6+0.4) MW	Under construction
Zruč nad Sázavou *	4.4 MW	Under construction
Nový Bor (district of Česká Lípa)	2.2 MW	Under construction
Žlutice (district of Karlovy Vary)	7.9 MW	2002
Roštín (district of Kroměříž)	8 (2x4) MW	2002
Třebívlice (district of Litoměčice)*	0.38 (0.3+0.08)	2001/2002
Jindřichovice pod Smrkem (district of Liberec)**	0.35 (0.20+0.15) MW	2001/2002
Zlaté hory (district of Jeseník)	2.5 MW	2001/2001
Moravany u Kyjova (district of Hodonín)	0.35 MW	2001
Třebíč	3 MW	2001
Bystřice nad Pernštejnem (district of Žďár n. Sázavou)	9 (2x4,5) MW	2001
Velký Karlov (district of Znojmo)	1 MW	2001
Hoštětín (district of Uherské Hradiště)	0.7 MW	2000
Rokytnice v Orl. horách (district of Rychnov n. Kněžno	u) 5 (2x2.5) MW	1999
Sv. Jan n. Malší (district of Kaplice)**	0.19 MW	1999
Trhové Sviny (district of České Budějovice)	2.5 MW	1999
Dešná (district of Jindřichův Hradec)	2.7 (1.8+0.9) MW	1997/1998
Staré Město pod Landštejnem (district of J. Hradec)	2.8 (1.8+1) MW	1997
Nová Pec (district of Prachatice)	3.3 (2.2+1.1) MW	1996
Pelhřimov	5 MW	1995
Hartmanice (district of Klatovy)	4.4 (2x1.75+0.88) MW	1995 (2000)
Kardašova Řečice (district of J. Hradec)	5 (2x2.5) MW	1994
Neznašov (district of Č. Budějovice)**	0.24 (0.17+0.07) MW	1994
Bouzov (district of Olomouc)	1.8 + 0.6 MW	

Do you want to find out when biomass use is profitable and when loss-making? What is the experience and what are the drawbacks of combusting wood and agricultural products in the Czech Republic and abroad? How to prepare and finance projects utilising biomass to make them effective? Visit the Energy Efficiency Business Week 2002 conference and its specialised section "Biomass? Efficiency essential!".

*) Combustion of biomass with coal (the presumed average annual biomass share is 30 - 50%)

**) Heating almost exclusively of municipal buildings (district offices, schools etc)



SEVEn first contact place of EU GreenLight programme

In the EU non-residential buildings, lighting accounts for up to 40% of electric power consumption, while 30 to 50% of this amount can be saved using energy-efficient lighting systems. These are not only economically advantageous, but also improve illumination quality. The European Union has therefore initiated the GreenLight programme, which has a goal to contribute to greenhouse gas emission abatement and meeting the requirements of the Kyoto Protocol. On a voluntary basis, the programme may be joined by private and public organisations that pledge to reduce their energy consumption for lighting, thus contributing to environmental protection. Partners that have already joined this programme include Tesco department stores, McDonald's outlets, SAS airlines, the city of Frankfurt-am-Main, Johnson & Johnson, the UniCredito Italiano bank and others. SEVEn has become the first Central European contact place of the EU GreenLight programme. More information about the programme, as well as the possibilities of energy saving in lighting, is available at the address:

http://www.eu-greenlight.org/

-mda-Comprehensive information about the possibilities of saving energy by means of high-quality lighting will be provided in the section "Energy-efficient lighting – even small projects have visible benefits" at the Energy Efficiency Business Week 2002 conference and exhibition:

http://www.svn.cz/eebw/html/eli-e.htm

Global electricity generation from renewables rising

Production and consumption of energy from renewables increased by 74 % over the previous decade, by 6.3 % annually. For comparison, world consumption of other primary energy sources grew by an average of 1.4 % a year. Renewables therefore grow on a more rapid way, their share on total energy consumption is nevertheless still verv small.

Net generation from geothermal, solar and wind power, biomass and waste combustion rose from 138 billion kWh in 1991 to 240 billion Wh in 2000. Of this volume, up to 83% was produced in 30 OECD member countries. For comparison, in the mentioned period nuclear power plants generated 2,434 billion kWh and hydroelectric power stations 2,674 billion kWh of electric energy, representing an increase in the 1990s of 20 and 22 %, respectively. Nevertheless, the largest global energy sources are still crude oil, natural gas and coal.

The largest world producer of energy from renewables is the USA. In Western Europe, generation rose from 19.7 billion kWh in 1991 to 75.6 billion kWh in 2000. Over the last decade, Central and Eastern European countries and the former Soviet Union recorded a ten-fold increase, from 0.4 to 4.3 billion kWh, of which Russia alone generated 2.7 billion kWh.

Further information: www.eia.doe.gov/iea/ www.re-focus.net Tomáš Voříšek tomas.vorisek@svn.cz http://www.svn.cz/eebw/html/biomasa-e.htm



Power engineering is a branch undergoing permanent change. On the information super-highway you can read on a daily basis about inventions, novelties, trends and technologies that may change both our world and lives. It is not easy to maintain an overview of the fundamental shifts occurring in this branch. Technický týdeník is one of the magazines to have regularly focused on this sector and brought information about technological breakthroughs in the energy industry, their practical use, or the economic and environment connections between production and energy consumption. Of course, other persons interested in science, research and various technical branches can have a good read too. Technický týdeník is one of the media partners of the Energy Efficiency Business Week 2002 conference; it presents information about the energy efficiency events and trends, renewable energy sources and energy market liberalisation.

Technický týdeník

(Technical Weekly) Publishing House BertelsmannSpringer, s.r.o. Nádražní 32, 150 00 Praha 5 tel.: +420-296 351 451, fax: +420-296 351 456 e-mail:techtyd@bertelsmann.cz www.techtydenik.cz

ENERGY EFFICIENCY AND RENEWABLE ENERGY EVENTS October – December



EEBW: Energy Efficiently 2002

8th international conference and exhibition on energy saving and renewable energy sources 5.11. - 7.11. Prague – Congress Centre Contact: SEVEn, The Energy Efficiency Center e-mail: eebw@svn.cz www.eebw.cz

ELO SYS 2002

8th international trade fair of electrical technology, electronics and power engineering 15.10.-18.10., Trenčín - TMM Exhibition Grounds, Slovakia Contact: Výstavisko TMM, a.s. e-mail: os53@tmm.sk www.elosys.sk

TZB

10th international exhibition of buildina equipment 23.10. - 27.10.Bratislava – Incheba, Slovakia Contact: Incheba Bratislava, a.s. e-mail: Inagvova@incheba.sk www.incheba.sk

EKOENERGIE

Independent exhibition connected with specialist symposia focused on renewable energy sources 24.10. - 26.10., Olomouc - Flora Exhibition Grounds, Czech Republic Contact: Omnis Olomouc, a.s. e-mail: jarova@omnis.cz

Strategic Alliances in Wind Power

Wind power - competitive advantage motivated by environmental protection, legislation and consumers 30.10. - 1.11.London – The Berners Hotel Contact: IQPC Ltd. e-mail: enquiry@igpc.co.uk www.igpc.co.uk/1881a

New energy husum **Conference and exhibition**

30.10.-2.11., Husum - Messe Husum, Germany Contact: Bundesverband Erneubare Energie e.V. e-mail: bzee-husum@foni.net www.new-energy-husum.de

Directory of documents and studies on energy issues published on the internet

WWW

Are you interested in financing an energy-efficient project? The US organisation Alliance to Save Energy has prepared a list of more than 65 funds from all over the world supporting these projects, as well as outlining their financial terms:

http://www.ase.org/programs/international/intl_eefunds_march5.pdf

The opening up of electricity markets to free competition is usually connected with the possibility of selecting electric power generated from renewable energy sources. Read what specific terms and possibilities of selling green electricity exist in European Union countries and other parts of the world: http://www.nrel.gov/docs/fy02osti/32155.pdf

Utilisation of renewable energy sources has been growing, however, they need further support. The International Energy Agency, an organisation of OECD countries, states the reasons why and how to enhance renewables:

http://www.iea.org/pubs/studies/files/evoree99/binnenwe.pdf

The European Environmental Agency has issued the report "Energy and the Environment in the EU", describing in detail the impacts of energy consumption on the status of the environment. What are its conclusions? While improvement has been attained in most areas, overall progress is not sufficient: http://reports.eea.eu.int/environmental_issue_report_2002_31/en/eni-env.pdf

The dependence of EU countries on fuel and energy imports has been increasing, rising energy consumption results in worsening of adverse environmental impacts. An official EU document states how these negative trends can be alleviated or staved off. The measures considered include more efficient energy use:

http://europa.eu.int/comm/energy_transport/doc-principal/pubfinal_en.pdf

The fact that fossil fuels are exhaustible and detrimental to the environment has been known for a long time. The study of World Resources Institute proves that overlooking this may already at the present time decrease the share prices of individual oil companies:

http://capmarkets.wri.org/publication_pdf.cfm?PubID=3719

News at SEVEn is produced in English and Czech quarterly by SEVEn, The Energy Efficiency Center. Circulation: English version – 2000 copies, Czech version – 2500 copies. SEVEn strives to promote energy efficiency in order to support economic development and protect the environment. The newsletter informs members of the energy community about current energy efficiency events and developments in the Czech Republic and welcomes outside submissions. SEVEn is located at Slezska 7, Praha 2. Address: SEVEn, 120 56 Prague 2, Czech Republic. Editor: Juraj Krivošík (juraj krivošík@svn.cz) Phone: +420 224 252 115, +420 224 247 552, fax: +420 224 247 597, E-mail: seven@svn.cz, Internet: http://www.svn.cz. Podávání novinových zásilek povoleno Českou poštou, s. p., odštěpný závod Přeprava, čj. 1009/96, dne 13. 3. 1996 • ISSN 1213 - 5844