

News at SEVEN

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ENERGY EFFICIENCY NEWS FROM THE CZECH REPUBLIC

Reactions to the Government's energy industry restructuring plan – pros and cons

In the wake of its unsuccessful attempt to privatise the Czech electro-energy industry, the Government of the Czech Republic has decided on its restructuring. The Cabinet adopted a plan whereby ČEZ (Czech Energy Utility) would sell to the National Property Fund 60 % of the shares of its subsidiary - the transmission network system ČEPS, a.s. In recompense, the state would sell to ČEZ its significant stakes in distribution companies. Thus, the dominant domestic electricity producer would have a majority in five and a minority in three distribution companies. Such an important decision has given rise to discordant opinions on this measure's suitability.

The **Ministry of Industry and Trade**, the submitter of the unsuccessful privatisation plan, considers the Government decree of 11.3. 2002 on the interconnection of ČEZ and distribution companies a step in the right direction: "Each power plant has its predetermined efficiency, costs and operating economy", said Anna Stárková, the Ministry of Industry and Trade's press spokeswoman, in an interview with News at SEVEN. "This means that only some sources, and only in certain supply zones, can compete together to a limited extent. The situation is the same for consumers. Here, there are incomparable conditions in connection costs, conduction losses and the like. Worldwide, this has led to integrating production and supply capacities into large wholes so that they attain average supply prices and are able to operate in the electricity market."

According to the Ministry of Industry and Trade, the course charted by the Government should create a kind of stifling economic space which will forestall most of the undesirable fluctuations expected when the market is fully opened. This primarily applies to prices for consumers. Stárková concludes: "It

would perhaps be presumptuous to expect significant price reductions, but at least this will secure price stability linked to minimal changes in costs."

An institution that will have to issue its opinion on the implementation of this measure is the **Office for the Protection of Economic Competition**. Back in February 2002, its chairman, Josef Bednář, responding in an interview with the magazine Euro (Issue No.6, 11. 2. 2002) to the originally planned privatisation, hinted that the proposed energy industry structure would probably not be legally approved: "Article 17 of the Act on the protection of economic competition, "Assessment of company mergers", unambiguously stipulates that if a merger results in a significant disruption of competition, the Office will not permit it." Pursuant to this article, the Office assesses the necessity of maintaining and developing effective economic competition, the structure of affected markets, the share of merged competitors in these markets and the needs and interests of consumers.

A fundamental disruption of competition is, in Josef Bednář's words, understood as meaning that "competition's functions are significantly limited in the respective market. Such a disruption of competition would occur in the electricity generation market if, alongside the dominant producer, independent producers were to compete for the consumers' favour. Vertical integration of the dominant producer and the network operator would lead to other producers having more complicated access to customers".

In tandem with the Ministry of Industry and Trade, **ČEZ**, the party primarily affected by this plan, is also satisfied with the Government's intention.

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Green electricity on sale in the Czech Republic

Západočeská energetika (West Bohemian Energy Utility) has begun selling green electricity, i.e. electricity generated from renewable energy sources. Other electricity traders are considering following suit in the future.

On April 1, 2002, Západočeská energetika (ZČE) started selling electric power generated from renewable energy sources, mainly small hydro-electric power stations, to its registered and authorised customers. It is 0.10 CZK/kWh more expensive than standard electricity, fixed monthly payments, however, remain unchanged. ZČE plans to use the income generated in this manner to develop renewable energy sources and also environmental awareness and educational projects. Customers ordering this product will obtain a certificate (entrepreneurs), or a label (households) which they can use to demonstrate their active interest in environmental protection.

In the Czech Republic a system is in place requiring the compulsory purchase of energy

from renewables, whose price has been set by the Energy Regulatory Office by decree. For example, in 2001 Středočeská energetická (Central Bohemian Energy Utility) bought 162 GWh of electricity derived from renewable sources, i.e. 2.4% of the total electric power purchased.

According to their spokespersons, other distribution companies are not yet planning the sale of green electricity, however, they have been closely monitoring the market and will be able to offer a similar product in the future. They perceive the price assessment of the Energy Regulatory Office as an obstacle. Miroslav Kučera, press spokesman of ZČE, remarked in this regard: "Whoever comes up with something new must face a barrage of objections and speculations. There are still possibilities for offering green electricity without getting into conflict with the Energy Regulatory Office. This is connected with the philosophy of the product".

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www.zce.cz

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EEBW: Energy Efficiently 2002

With the international conference and exhibition EEBW: Energy Efficiently 2002 (November 5 - 7, 2002, Prague Congress Centre) drawing near, we bring you more detailed information about the contents of individual sections and the themes that will be discussed there. If you are interested in participating in the conference or exhibition (as a participant or exhibitor), please let us know.

Conference sections:

Market liberalisation - the route to lower electricity costs

How does the liberalised market serve to reduce electricity payments?

Since the beginning of 2002 one third of the Czech electricity market has been open to competition, while from January 2003 there will be approximately 400 more authorised customers. How does the liberalised market function in practice? How is trading in it conducted? What is the experience from the activity of the Mar-

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Reactions to the Government's energy industry restructuring plan – pros and cons

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According to Ladislav Kříž, ČEZ's press spokesman, "interconnection with distributors will bring benefits for customers since ČEZ will be able to transfer the advantages of its Rainbow Energy to consumers too. Association with distribution companies should ensure lower costs for electricity supply because the route to the final customer will no longer be obstructed by several middlemen." According to ČEZ, the independent functioning of ČEZ and regional distributors has so far resulted in a situation under which cheap domestic production has often been driven out of the market by more expensive foreign and domestic producers.

Of a different opinion is **Pražská energetika, a.s.** (Prague Energy Utility), one of the three regional distribution companies in which the state owns a minority block of shares and in which ČEZ would acquire a minority stake. "When entering the distribution companies, through its members in these companies' bodies ČEZ will acquire information about 100 % of the customers in the Czech Republic, about how individual companies purchase

electric power. Thus, ČEZ will gain information about its rivals' electricity purchases. In no respect is this step in harmony with the Government's previous resolution on the creation of a liberalised market and its proclamation on setting out for a free market".

And what, according to independent observers, are the advantages and disadvantages of the planned restructuring? Jan Slabý from the stockbrokers and analysts **Wood & Company** thinks that the selected method of restructuring brings the most benefits for ČEZ and its shareholders. The main advantage for ČEZ lies in the possibility of giving preference to the purchase of electricity from its own sources, at least in the five distribution companies in which it is to acquire a controlling stake: "This is certainly bad news for independent producers". As Slabý says, the interconnection of ČEZ and distribution companies is not entirely good news for minority shareholders in individual distribution firms and, above all, for consumers. "The creation of a subject with such a dominant position on the entire electricity market will considerably limit the expected be-

nefits of this market's liberalisation. That is to say, the sector's competitiveness will be significantly limited as a result of the Government plan's implementation."

In 2000, **SEVEN, The Energy Efficiency Center**, prepared an analysis of energy sector privatisation variants and criteria. "From the viewpoint of the entire economy's interests, it is necessary that the liberalised electricity market functions truly effectively so that there is sufficient competition on the electricity market. Reintegration and the creation of a supermonopoly will undoubtedly result in a significant limitation of market competition, with inevitable impacts on electricity prices. Obviously, the Government is enforcing the interests of a single company to the detriment of economic competition and all customers. Now it's up to the Office for the Protection of Economic Competition whether it changes its original, though preliminary, negative standpoint on such a merger," says Jiří Zeman, the Deputy Director of SEVEN.

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Oil companies prepare for transition to renewables

In the previous issue of News at SEVEN, we published an article on Shell predicting significant future growth in the utilisation of renewable energy sources. The article pointed out that within the next five years the company will invest approximately half a billion dollars in the development of renewables. Is it an isolated case or the beginning of a metamorphosis?

Shell is the second-largest oil company in the world, however, it has more than 20 years' experience with the utilisation of solar power and biomass energy. The planned investment represents roughly 1.5 % of the company's total investments. At the present time, Shell is primarily focusing on solar photovoltaics and wind power. Its goal is to become a global leader in the development of wind power plants - it plans to build about 400 MW of installed wind-power capacity and, at the same time, to gain a 10% share in the global production of solar photovoltaic cells. Shell also owns 135,000 hectares

of forest used as biomass for energy purposes and generates electricity from geothermal energy.

The third-largest oil company is BP (British Petroleum), which has also been researching renewable energy sources, primarily solar power, for over 20 years. At present, it produces approximately 20% of the world's solar photovoltaic panels. The company aims to increase the turnover of its branch BP Solar from USD 150 million in 1999 to USD one billion by 2007. In 2003, BP's solar cells will probably produce up to 60 MW of energy. In 2000 the firm purchased a 18.5% stake in Green Mountain Energy, the largest green electricity supplier in the USA. BP also plans to equip 200 petrol stations in 10 countries, and gradually all new stations, with solar panels, representing an investment of approximately EUR 50 million, i.e. 25% of BP Solar's turnover.

The fourth-largest oil company is TotalFinaElf, currently focusing mainly on natural gas recovery.

However, its long-term plans include the construction of 400-MW wind power plants, half of them along the coast of France and Belgium. Since 1980 the firm has possessed a 35% stake in Total Energie, the leading global supplier of photovoltaic cells. It has produced biofuels too, with a capacity of 225,000 tonnes. TotalFinaElf intends to increase this capacity to 400,000 and thus become the world's number one biofuel producer.

In light of these companies' total investments in fossil fuel use, these remain trifling sums. Nevertheless, we can certainly expect that the former "oil companies" will gradually rebrand themselves "energy companies", and due to the diminution of fossil fuels will prepare for the increased utilisation of renewable energy sources.

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www.shellrenewables.com
www.bpsolar.com
www.totalfinaelf.com

Green electricity - tradeable certificates versus compulsory purchase prices

In its price assessment (27. 11. 2001) the Energy Regulatory Office set minimum purchase prices for energy from renewable sources for 2002. This is a traditional form of support for the use of renewable energy sources, however, with the imminent energy industry liberalisation, the system of tradeable green certificates offers a competing approach. What are the advantages and disadvantages of these two instruments?

Whereas fixed purchase prices can for a short time trigger faster growth in the use of renewable sources, a well-formulated system of green certificates enhances the long-term efficiency of green electricity generation. It should be added that if the system of fixed purchase prices is to function in a liberal environment, increased costs must be distributed evenly among all market players.

If purchases are guaranteed over the long term, producers can count on a certain amount of electri-

city being consumed for a price fixed in advance, thus alleviating part of their entrepreneurial risk. (However, in the Czech Republic there is no guarantee with regard to the future development of purchase prices.) In general, it is true that sufficiently high prices guaranteed over the long term will lead to a relatively rapid growth in production. But in the long-term, this approach does not make economic sense since it also keeps in operation technologically obsolete and expensive means of production. Green certificates, on the other hand, are sold in a competitive market, thus allowing for exclusive support for the most effective operating facilities.

The public interest is for purchase prices to be set in such a manner that renewable energy sources approach the border of competitive strength in comparison with traditional sources. However, it is difficult to estimate with precision how much support individual categories of sources need. The rapid

development of technologies requires the expensive updating of legislatively anchored purchase prices on the basis of new analyses and lengthy negotiations with interest groups. On the other hand, the price of green certificates flexibly responds to technological innovation so that the target share of renewable electricity set in advance is attained. Nevertheless, the proper functioning of the certificate market also entails certain transaction costs.

Another problem is that a firmly fixed purchase price does not react to the electricity market price and hence the decision to produce lags behind the development of demand. This does not apply with the system of green certificates, whereby the producer's income depends directly on the price at which it sells its products on the general electricity market.

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EEBW: Energy Efficiently 2002

pokr. ze str. 1

ket Operator, and how effective is the trading on the Czech exchange? What changes to the current trading system can be expected? These and other questions, relevant information and practical experience for all market participants - customers, traders and both large and small-scale producers - will be discussed in the section devoted to the liberalisation of energy markets. Marketing - a new phenomenon in the competitive market - will also have its place. Subjects of discussions will also be the possibilities of support and experiences with using electric power from renewable sources in a liberalised market - the advantages and disadvantages of individual tools, the future of producers of electricity from renewable sources in the liberalised market. The experience of electric power producers in co-generation sources will also be presented.

Energy Performance Contracting and Energy Contracting - a tailor-made energy service including financing and guarantees

Guaranteed savings of energy costs by means of external energy service providers (ESCOs)

Since 1993 almost 50 projects using the Energy Performance Contracting (EPC) method have been implemented in the Czech Republic, as have dozens of projects using Energy Contracting (EC). Customers have secured substantial cost savings. Why then are there so few ESCOs? What prevents state and municipal institutions from making much more extensive use of the possibilities offered by the EPC method? When is Energy Contracting, and when Energy Performance Contracting, advantageous for customers? From 2003 onwards, significant growth in the supply and demand of services provided by ESCOs is expected - the deadline for drawing up energy audits of important facilities is fast approaching - what should be done next?

Energy auditing and investment decision-making

Energy audit - information for top management. How to make effective use of energy audits during project preparation and investment decision-making?

What role is played by energy audits? Are they useful tools to assist effective decision-making on the management of costs and investments, or do energy audits merely entail expenditure without tangible benefits? What causes this difference and when? Experience with applying

compulsory auditing - a comparison of domestic experience with foreign practice. The use of energy audits in investment decision-making. Is an energy audit a source of information sufficient for an investment decision?

Biomass? Efficiency essential!

When is biomass utilisation profitable and when loss-making? Why? What are the experiences, and the drawbacks, of burning wood or agricultural products in the Czech Republic and abroad? How should biomass utilisation projects be prepared and financed so that they are effective?

Answers to these questions, information about practical experience from the preparation and operation of both domestic and foreign biomass utilisation projects, information about biomass availability and its price will be the contents of lectures and discussions. The poster section will interconnect descriptions of individual projects with the chance to meet and discuss in person with investors, developers and operators of biomass utilisation projects both in the Czech Republic and abroad. The accompanying exhibition and excursions to selected implementations will offer you the chance to verify the information and experience gained at first hand. This section will provide you with all the information you need to know about biomass in one place.

Low-energy houses without increased investments

How to get the most out of your money

Building new residential houses in such a manner that they merely meet current thermal and technical standards is unnecessarily expensive. Today, even in Czech conditions, for the same money it is possible to build an equally comfortable house with half the consumption of energy for heating. How can this be done? Of primary importance - alongside specialist knowledge and experience - is effective cooperation between all the parties involved in project preparation - from the architect, through the designer, the building equipment specialist, to the power engineer. The lecture section, exhibition and accompanying excursion will focus on experience gained from preparing, constructing and operating low-cost low-energy houses in Czech conditions in comparison with abroad.

Energy-efficient lighting

Energy-efficient lighting - even small projects have visible benefits

Although lighting forms just a part of total energy consumption in all sectors, it encompasses sig-



nificant, economically effective energy-saving potential and business opportunities. Modern lighting technologies bring more light for less money, and the implementation of these projects represents an important opportunity for the entrepreneurial sector. In this section, modern approaches and successful implementations pertaining to public lighting in towns and villages will be presented, as will the possibilities of applying efficient solutions and unorthodox methods of financing lighting in commercial and industrial facilities.

Building performance and environment technology simulation 2002

The conference will include a number of accompanying activities and seminars. One of them will be an independent conference entitled Building performance and environment technology simulation 2002, which will be held on November 7. The conference is focused on the application of computer simulations of buildings and environment technology equipment in the following areas: computer simulations of energy balances of buildings and systems; optimising the performance of heating, ventilation and air-conditioning systems; the design of non-standard building elements; computer simulation pertaining to the use of unorthodox energy sources; the modelling of inside environments; computer simulations of flows in rooms and elements of environment technology equipment.

Are you interested in participating in the EEBW: Energy Efficiently 2002 conference and exhibition?

Send us an e-mail to the address: eebw@svn.cz, a fax to the number: -420-2- 2424 7597 or call -420-2- 2425 2115, and we will be glad to send you an application form and preliminary programme.

You can also find detailed information at the internet address

www.eebw.cz

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TECHNIK technik.ihned.cz
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tzbinfo www.tzb-info.cz

EPC & EC - what do they have in common and what differentiates them?

The frequent confusion of the terms Energy Performance Contracting (EPC) and Energy Contracting (EC) has resulted in a number of misunderstandings and, in some cases, has led to the loss of customers' confidence in the provision of energy services by ESCos. Where does the main difference between these two concepts lie and why is it important not to confuse these services? Both energy service methods provide the customer with a guarantee, however, there is a difference in what this guarantee refers to...

The difference between EPC and EC

An ESCo providing energy services to a customer through the EPC method pledges that as a result of specific measures the customer will achieve certain energy savings, i.e. also savings in costs connected with this consumption, throughout the entire duration of the contract concluded with the ESCo implementing the project.

On the other hand, an ESCo implementing a project through the Energy Contracting (EC) method guarantees its customer that it will ensure the supply of the agreed quantity of energy at a fixed price throughout the entire duration of the contract.

When is it suitable to request services through the EPC method and when, conversely, to require EC services? This represents the customer's crucial decision en route to high-quality energy services.

Advantages and disadvantages

The main service common to the implementation of projects both through EPC and EC is that an ESCo takes over from the customer the major part of the technical risk entailed in the future energy establishment or management. By means of providing a contractual guarantee for the project's financial result, the ESCo assumes responsibility for the future economic results connected with the customer's energy operation (consumption), thus also attending to the customer's financial risk.

Another important service connected with both the EPC and EC methods is securing the entire project's financing, which, at the beginning of these projects, is usually the main motivation for a customer to cooperate with ESCos. Both EPC and EC have often been presented as methods of financing energy projects, which has led to misunderstandings, not only between companies and customers. Even energy experts have not reached full consensus on this issue.

Why then is it important to differentiate between EPC and EC? At the outset of the energy service market's development in the Czech Republic, some projects comprising all the features of EC were presented as EPC projects. Initially, this simplification aroused customers' increased interest in these services since at that time the EPC method was a service already known which was, in addition, supported by official institutions. The problem occurred at the moment when the customer found out that the expected guarantee for savings offered by EPC was not ensured by these companies. The firms provided a guarantee for energy supply (mostly heat for heating and hot service water systems), as well as a guarantee for the price of this energy, and required from the customer a long-term contract on energy (heat) consumption. Hence, the customers' expectations and the possibilities of companies providing services through the EC method were at variance.

Financial motivation

Up to now, it has been "overlooked" that an ESCo not only secures the financial sources necessary for a project's implementation, but, unlike, for instance, a bank, also over the long-term monitoring and, primarily, guarantees such energy costs (savings) that can ensure the paying back of all project costs. A number of energy-saving projects implemented through the EPC method, as well as the "traditional" supplier method, have confirmed that without permanent motivation for the attainment of cost savings the initial savings slowly

dwindle and thus, in many cases, technical installations do not fulfil their original purpose - a reduction of the customer's expenditure.

What can be expected from EPC and EC projects and what are their shortcomings?

EC projects are especially suitable for customers who need to resolve the expiring source part of their energy operation (central heat supply system, block boiler plant, industrial source etc) and have a long-term prospect of sufficient energy take-off from this source, who do not want to or cannot use their own financial sources necessary for a refurbishment project and who want to delegate energy operation to an ESCo. In cases where these conditions are not met, success cannot be expected from an EC project. The advantage of EC is the comprehensiveness of the energy-supply solution, whereas its disadvantage is the omission of the customer's consumption solution, which can result in an unnecessary over-expansion of new energy sources built within EC projects.

EPC projects are suitable for customers who want to reduce final energy consumption in their buildings, who have secured the stable long-term operation of these structures and who have a guarantee that throughout the EPC project's duration they will be able to pay back the outlaid expenditure. If future operation is not certain, if the customer is not able to ensure the future cash flows defined in the EPC project, the ESCo cannot guarantee that the customer's energy problems will be resolved using the EPC method.

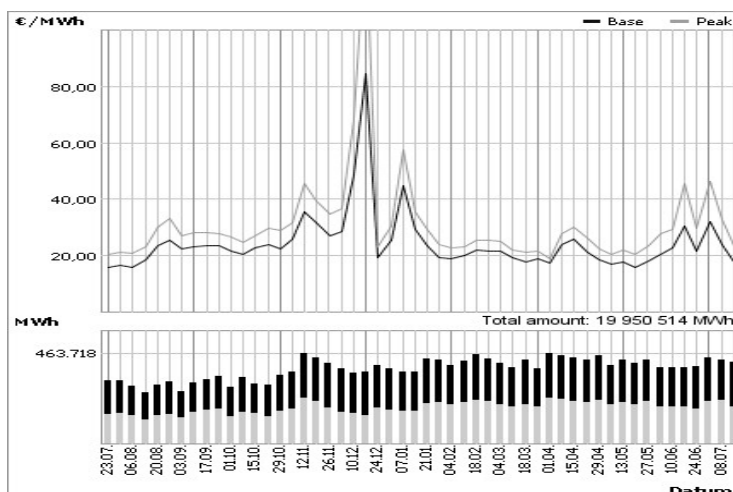
However, the results of the dozens of EC projects and approximately 50 EPC projects that have been implemented over the past 8 years clearly prove the worth of these services, the quality and professionalism of ESCos and the viability of energy-service projects in the Czech market.

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Power exchange sales of electricity growing

A new power exchange, the European Energy Exchange, has emerged at the end of April 2002 by the merger of the Leipzig Energy Exchange and the European Energy Exchange. It has a seat in the German city of Leipzig and is the European's largest electricity exchange. The graph shows prices and volume of the sales of electricity between July 2001 and July 2002. It shows the market price reaction to low production capacity. More info at the internet page www.eex.de.



Salt Lake City supports the Kyoto Protocol

The host of this year's Winter Olympics, Salt Lake City, and its representatives have decided to support global efforts to prevent climate change and to meet the terms of the Protocol signed in Kyoto, Japan, in 1997. Hence, municipal organisations will lower their emissions by 2006 according to the Kyoto agreement. The final goal is a 7% reduction of total CO₂ emissions originating in Salt Lake City by 2012 in comparison with 1990. The project contains a study prepared by the University of Utah assessing the local impacts of climate change and, on a wider scale, support for the construction of low-energy buildings, public transport, waste recycling and energy and water savings.

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Zdroj: <http://www.slcv.gov.com/mayor/pressreleases/kyoto%20protocol.htm>

Degree of energy market opening in the EU

In the Czech Republic and EU countries alike, the extent of the electricity and gas markets' opening to competition has been in a continuous state of flux. The table depicts the current situation in European Union countries. It shows the degree of energy markets' opening, as well as the share of customers who have changed their suppliers. Of importance is the possibility of changing and the price threat that in an open market forces competitors to improve their offers to customers. In the Czech Republic, Slovakia and Rumania the market has been one third opened, in Poland and Slovenia it has been half opened.

Country	Germany	Great Britain	Finland	Sweden	Austria	Denmark	Spain	Italy	Belgium	Netherlands	Ireland	France	Portugal	Greece
Degree of electricity market opening (%)	100	100	100	100	100	90	54	35	35	33	30	30	30	30
Degree of gas market opening (%)	100	100	90	90	49	30	72	96	59	45	75	20	0	0
Customers changing suppliers Electricity (%)														
- Large	10-20	80	30	100	5-10		<5	10-20	5-10	10-20	30	5-10	<5	0
- Small	<5	>30	10/20	10-20										
Gas (%)														
- Large	<5	90		<5	<5	0	5-10	10-20	<5	<30	20-30	10-20		

Source:

Commission staff working paper, First report on the implementation of the internal electricity and gas market, Commission of the EC, Brussels, 3.12.2001
 Energy market liberalisation in Europe—The case for full liberalisation, Caminus, London, February 2002

Wind power: another record year

In 2001 the global installed capacity of wind power plants rose to 23,300 MW, up 31% in comparison with 2000. Since 1995 installed capacity has grown by a staggering 487%. In the same period, the use of coal, the main fuel for electricity generation, has fallen by 9%.

Of the above-mentioned 23,300 MW, 17,000 MW has been installed in European Union countries. These newly built wind power plants annually generate approximately 40 terawatt hours of electric energy, equalling the consumption of roughly 10 million European households. At the same time, they will replace 16 million tonnes of coal (or 640,000 lorryloads), or save 24 million tonnes of CO₂.

At the present time, 16 countries worldwide have installed wind-power capacity exceeding 100 MW. The European Wind Energy Association (EWEA) has set the goal of increasing wind power utilisation to 60,000 megawatts by 2010.

However, nothing similar is happening in the Czech Republic, indeed the trend is exactly the opposite. Of the original 24 wind power plants, with a total output of 6.7 MW, a mere 8, producing less than 2.4 MW, are still in operation. All wind power plants in the Czech Republic originated in the first half of the 1990s, a time of high hopes and limited knowledge. The installations, both domestically produced and imported, encountered technical problems. The wind power plants generated only a half or a third of the energy originally planned. Hence, the period in which banks providing high-risk loans were collapsing at an alarming rate sealed the fate of many Czech wind power plants. Nevertheless, the current phase of taking stock pause can paradoxically benefit large wind-power projects.

Will the increased purchase price of wind power (3 CZK/kWh) result in a successful reversal of the declining trend? Analysis of implementations hitherto has revealed that even with a purchase price of 2.50 CZK/kWh a wind power plant would have to be supported by a subsidy amounting to approximately 50% of the investment cost so that operation during its service life does not culminate in a final loss for the investor. Thus, even after the increase in purchase prices, the wind-power energy industry will probably not survive without (state) subsidies.

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Zdroj:

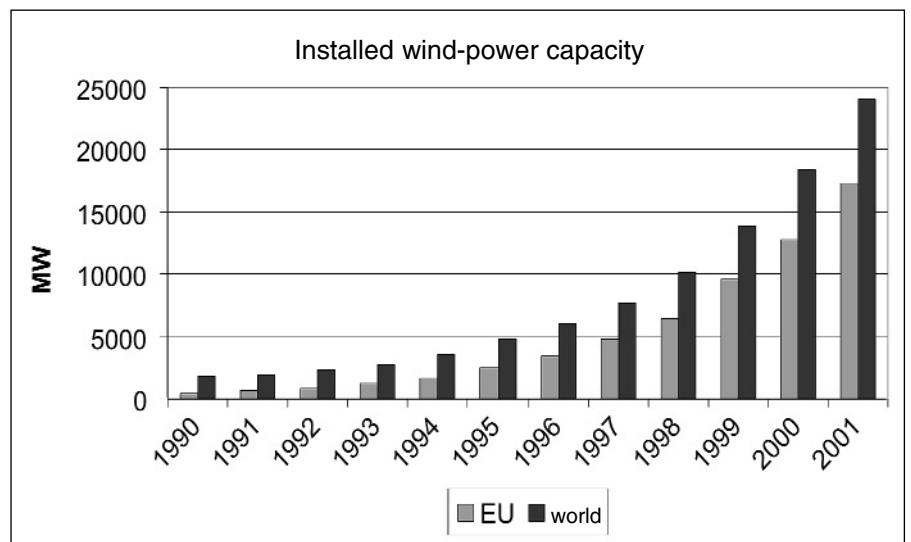
www.earth-policy.org/Updates/Update5.htm
www.ewea.org

www.uspornespotebice.cz

As the website title (energy-saving appliances) suggests, the internet possesses a new page mainly containing information on how to save energy in households by means of energy-efficient electrical appliances. The equipping of households with these appliances has been continuously growing, so it will certainly be interesting to select from the extensive database of products - washing machines, refrigerators, freezers and dishwashers - those having the most efficient operation in terms of energy consumption. The database also contains their sale price, dimensions and other data, as well as giving advice and tips on energy saving in households.

We highly recommend visiting:

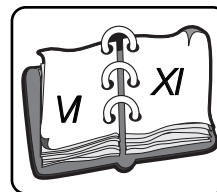
www.uspornespotebice.cz



MW/year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU	439	629	844	1211	1683	2515	3469	4772	6458	9645	12822	17319
world	1743	1983	2321	2801	3531	4821	6104	7636	10153	13932	18449	24000

ENERGY EFFICIENCY EVENTS IN AND ABOUT CENTRAL AND EASTERN EUROPE

July - November



2nd European Conference on Green Power Marketing

5.9.–6.9., St. Moritz, Switzerland
 Contact: Green Power Marketing GmbH
 Email: info@greenpowermarketing.org
<http://www.greenpowermarketing.org>

MSV

International engineering trade fair
 16.9. – 20.9., Brno – Výstaviště (Exhibition Grounds)
 Contact: Veletrhy Brno a.s.
 e-mail: msv@bv.cz
<http://www.bv.cz/msv>

Energy Efficiency Expo 2002 Sustainable Energy Expo 2002

22.10.–24.10., London, Great Britain
 Contact: International Business Events
 e-mail: cenglish@iirx.co.uk
<http://www.energy-expo.org/>
<http://www.sustainable-expo.org/>

TZB

International exhibition of building equipment
 23.10 – 27.10., Bratislava – Incheba
 Contact:
 Incheba Bratislava, a.s.
 e-mail: inagyova@incheba.sk
 Internet: <http://www.incheba.sk>

Ekoenergie (Ecoenergy)

Exhibition focused on renewable energy sources
 24.10. – 26.10., Olomouc – Výstaviště Flora
 Contact:
 Omnis Olomouc, a.s.
 e-mail: jaroava@omnis.cz
 Internet: <http://www.omnis.cz>

Energy Efficiency Business Week 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
 Internet: <http://www.eebw.cz>

Aqua-Therm Praha

International trade fair of heating, ventilation, air-conditioning, measuring, control, sanitary and environmental technologies
 26.11.–30.11., Prague – Výstaviště (Exhibition Grounds)
 Kontakt:
 Progres Partners Advertising, s.r.o.
 e-mail: aqua@ppa.cz
 Internet: <http://www.tzb-info.cz>

Addresses of periodicals distributed free of charge over the internet:

WWW

www.biom.cz

a daily updated server focused on biomass utilisation for energy purposes

www.cleanenergy.de

news - online newsletters: list of internet presentations of magazines concerning energy saving and renewable energy sources around the world

directory.google.com/Top/Business/Industries/Energy/Newsletters/

internet links to magazines about the energy sector, from Financial Times Energy to Global Energy Business

www.eceee.org/latest_news/index.lasso

news on energy saving and energy policies, not only of European countries, from the European Committee for an Energy-efficient Economy

www.etm.cz

electro-engineering magazine

www.financnioviny.cz/obory/energetika/

daily news from ČTK (Czech Press Agency) on energy issues in both the Czech Republic and the rest of the world

www.eren.doe.gov/newsletter/archive.html

a weekly summary of events relating to energy saving and renewable energy sources from the US Energy Department

www.greenprices.com/eu/registration.asp

news from the world of green electricity, summary of the possibilities of purchasing electricity from renewable sources in Europe

www.tzb-info.cz

magazines, list of Czech specialist magazines focused on the energy and electro-energy sectors, electrical engineering, renewable energy sources and energy saving

www.svn.cz/cesky/news/zpravodaj.htm

website of the magazine News at SEVEN

www.ekoinfo.cz

a working and internet server aimed at supporting small and medium-sized enterprise

www.ekolink.cz

news and information - magazines: an exhaustive list of periodicals focused on the environment in the Czech Republic

News at SEVEN is produced in English and Czech quarterly by SEVEN, The Energy Efficiency Center.

Circulation: English version – 2000 copies, Czech version – 2400 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.

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