

ENERGY IN THE EU

▮ **European Union Energy Policy**

DECEMBER PACKAGE POSTPONED

▮ **News within the ČEZ Group**

CONFERENCE ON ENERGY SAFETY

▮ **Topics of Discussion**

WILL NUCLEAR ENERGY BE A RENEWABLE SOURCE IN FUTURE?



Monthly CEZ Bulletin

10/2007



DEAR READERS,

In the first half of November European energy was still particularly engaged in the third liberalisation package, the environmental December package which was transformed into the January package, the summit between Russia and the European Union as well as further investigations into competition law and last but not least also nuclear energy and energy safety. A two-day conference was held in Prague on this last topic which you will learn more about in this issue. As far as nuclear energy is concerned, not only did Czech Prime Minister Mirek Topolánek voice his support at the conference, but so did the European Parliament, which at the end of October adopted German MEP H. Reul's report by an absolute majority supporting the use of nuclear energy. Discussions on nuclear energy will certainly continue as part of the first session of the European Nuclear Forum in Bratislava at the end of November. The European Union Council for the Environment also met at the end of October and we also bring you its conclusions. Commissio-

ner Piebalgs is also engaged in preparations for the December session of the EU Council of Ministers for Energy. As regards European events in general, the heads of the member countries agreed in Lisbon on the final version of the new European reform treaty replacing the constitutional treaty. This reform treaty should be signed in early December and ratified next year by all the member countries. The treaty explicitly mentions energy safety and solidarity among the member countries as its priority. The European Commission also issued its report on the enlargement of the European Union in future – you can learn more about whether the Union will enlarge soon from a brief extract from the report in this issue of the bulletin. Wishing you pleasant reading about the first November events in the European and world energy sector

Yours EAS

CONTENTS

- ▮ **European Union Energy Policy**
DECEMBER PACKAGE POSTPONED | ADVISORY GROUP ON ENERGY | PREPARATION FOR THE COUNCIL FOR ENERGY | REUL'S REPORT | GROUP ON NUCLEAR SAFETY | RENEWABLE SOURCES IN GERMANY
- ▮ **Energy Industry in Europe and the World**
EU-RUSSIA SUMMIT | MADRID FORUM
- ▮ **News within the ČEZ Group**
CONFERENCE ON ENERGY SAFETY
- ▮ **European Union legal regulations, decisions, case-law and other documents of the European Union institutions**
LEGAL PROCEEDURES BY THE EUROPEAN COMMISSION | VERDICT OF THE COURT ON THE GERMAN NAP
- ▮ **European items of interest and news**
EU COUNCIL FOR THE ENVIRONMENT | NEWS FROM THE EUROPEAN PARLIAMENT | WILL THE EU CONTINUE TO ENLARGE? | EXTENSION OF SCHENGEN | EUROPEAN COMMISSION AND EGYPT
- ▮ **Calendar of Events in the Energy Sector**
- ▮ **Topics of Discussion**
WILL NUCLEAR ENERGY BE A RENEWABLE SOURCE IN FUTURE?

ČEZ, a.s.

Section of European Affairs, Duhová 2/1444, Praha, 140 53 eu@cez.cz

Vladivoj Řezník | Director of European Agenda | +420 211042 228 | vladivoj.reznik@cez.cz

Zuzana Krejčíříková | +420 211 042 509 | zuzana.krejcirikova@cez.cz

DECEMBER PACKAGE POSTPONED

In December the European Commission was to have published the “environmental package of draft legal regulations”.

This concerns the draft directive on renewable energy sources, or the division of the 20% binding share of renewable sources on the consumption of the EU, a new regulation on CCS technology (.....) and also an amendment to the directive on trading in emission allowances (EU ETS). In view of the complexity of these problems, the Commission announced at the end of October that the publication is being postponed and the new date was set at 23 January next year. Among the main problems of the package is considered to be the division of the “20% Burden” of renewables, the support system in case of the CCS and the method of trading in allowances after 2012. Once the package is approved in January by the European Commission, it will have to pass through a legislative process in the Council of the European Union and European Parliament. It is expected that it will be adopted in 2009. **More information is available at [↗](#)**



ADVISORY GROUP ON ENERGY

The chairman of the European Commission, J. M. Barroso held discussions with his High Level Advisory Group for Energy and Climate Change.

The topic of discussion should be the forthcoming challenges of climatic change in connection with the UN Ministerial Conference to be held on 3 December in Bali.

President Barroso declared that the European Union remains firmly committed to, and will meet, its Kyoto targets. However he also stated the need to look beyond 2012. The European Union is committed to reduce its greenhouse gas emission to at least 20% below 1990 levels and if there is a fair and effective global agreement for the post 2012 period, it is ready to go further, to a 30% reduction. The High Level Group met at the Conference entitled “The Global Challenge of Energy and Climate Change: The EU Vision for a Sustainable Future after 2012” at the Calouste Gulbenkian Foundation in Lisbon. President Barroso created the Advisory Group for Energy and Climate Change to provide him with independent advice in March 2007. The Group has met twice in March in Brussels and in June in Berlin.

Further information is available at [↗](#)

PREPARATION FOR THE COUNCIL FOR ENERGY

Energy Commissioner Andris Piebalgs and Portuguese Minister Manuel Pinho discussed the agenda of the EU Council of Ministers for Energy.

The meeting of the Council itself will be held on 3 December. The subject of discussion was the third liberalisation package, strategic energy technology plan which is to be announced at the end of November and also the package of measures for renewable sources and climate change (the adoption of which is planned for January 2008 – viz above). Minister Pinho presented the commissioner with a document containing the Portuguese “vision” for technology required to reduce CO₂ emissions; the commissioner promised to include them in the forthcoming Strategy.

More information is available at [↗](#)

REUL'S REPORT

At the end of October the European Parliament adopted the report entitled “Conventional Energy Sources and Energy Technology”.

The author of the report is Herbert Reul (EPP-ED). The report contains a section devoted to nuclear energy which is based on the January nuclear energy programme published by the European Commission. This is the first time that the European Parliament openly voiced support for the use of nuclear energy when it declared it to be “the largest carbon-free source of energy in Europe” and “the key component of the European energy mix in future”. In his report MEP Reul summarised how, thanks to its central role in ensuring energy security and the struggle against climate change, the use of nuclear energy is appearing in the forefront of EU interests. In his opinion nothing in this debate should be taboo because any taboo usually has negative effects. The European Nuclear Forum established under the auspices of the European Commission should enable objective discussion on nuclear energy.

The report is available at [↗](#)



GROUP ON NUCLEAR SAFETY

The first session of the High Level Group on Nuclear Safety and Waste Management was held in October.

The Group consisting of representatives of national regulatory offices and nuclear safety offices of all 27 EU member countries is an advisory body of the European Commission particularly for nuclear safety systems and their harmonisation

right across the entire EU. The first session was presided over by Dana Drábová, chairwoman of the Czech State Office for Nuclear Safety and also the Western European Nuclear Regulators' Association (WENRA). The Group should operate on the same principle as the European Regulators' Group for Electricity and Gas (EREG). The first session of the group focused on defining its subject of activity and the objectives the group is to achieve. Next year the group should create several work sub-groups engaged in more detail in nuclear issues. The session was opened by Energy Commissioner Andris Piebalgs who declared that “It is up to each Member State to decide whether to have nuclear power or not. But the question of nuclear safety and waste management concerns everybody. However nuclear energy is becoming more attractive in the fight against climate change and EU energy safety”.

For more information go to [↗](#)

RENEWABLE SOURCES IN GERMANY

Energy Commissioner Andris Piebalgs visited the German state of Mecklenburg – Vorpommern at the end of October.

The purpose of his visit was to tour the three installations at which renewable sources are produced: the Biodiesel Factory in Lubmin, the BP-Solar photovoltaics power plant also in Lubmin and the Max Planck Institute for plasma physics in Greifswald. Piebalgs described the operation of this energy cluster as an example of renewable energy source contributions to the fulfilment of EU objectives in this area – he reiterated not only the fight against climate change, but it also reduces EU energy dependence on costly oil and gas imports and it creates jobs.

For more information go to [↗](#)



EU-RUSSIA SUMMIT

Another summit between Russia and the European Union was held at the end of October.

EU representatives headed by European Commission President J. M. Barroso also discussed energy with Russian representatives headed by President V. Putin in Mafra, Portugal. Both sides agreed on establishing an early warning mechanism and better exchange of information in case of a threat to disruption of electricity supplies. As far as the reciprocal clause contained in the third liberalisation package is concerned applying to the duty of ownership unbundling, this area remained unresolved. Some of the other discussed

topics were Russia's accession to the World Trade Organisation, visas, mutual investment between Russia and the EU and the issue of climate change and human rights. However negotiations on the new Strategic Partnership and Cooperation Agreement between the EU and Russia have not made progress. The current Agreement was signed in 1997 and will expire this December.

For more information go to [↗](#)

MADRID FORUM

The last forum we did not inform you about in the previous issue is the Madrid Forum on Gas.

The thirteenth session of the Madrid Forum was devoted especially to the development of the gas market in connection with the third liberalisation package, above all transparency and new investments. A clear and positive signal for the further development of the European gas market according to the Forum is the announcement by the European Gas System Operators' Association (GTE) that the prepara-



tion was already launched to establish the European Network of Transmission System Operators (TSOs) as proposed in the third package. The Forum praised this initiative. Nevertheless it stressed that cooperation between the transmission system operators is merely one pillar of legislative measures together with improved cooperation between regulators and ownership unbundling of transmission from

other activities. The Forum also welcomed the announcement of Europex, the European Energy Exchange Association, to consider the possibility of establishing the European Gas Exchange Association. The Forum also supported the ERGEG in regional initiatives which should lead especially to the increase in interconnecting capacities between the member countries.

For more information go to [↗](#)

CONFERENCE ON ENERGY SAFETY

On 5 and 6 November a conference entitled the Second Energy Forum was held in Prague in the presence of Czech Prime Minister Mirek Topolánek, Deputy Prime Minister for European Affairs Alexandr Vondra, representatives of the European Commission, French and Swedish government representatives and many other political and professional participants from the European Union, neighbouring countries, Russia and the USA.



Participants discussed issues of EU energy security, their energy dependence on external energy sources and the related issue of the structure of the EU energy mix during these two days. Among the discussed issues was also the issue of the constantly inadequate interconnection between the EU member countries, liberalisation of the energy markets and last but not least the issue of the utilisation of nuclear energy. Energy was also

discussed among the French, Czech and Swedish representatives (so-called trio) as one of the priorities of their upcoming presidency in the EU. At the end of the conference the participants reach agreement on the EU's main energy priorities which were sent to the European Commission and its President J. M. Barosso welcomed the conference participants by his letter sent from Brussels. Among the main conclusions reached at the conference which contain the priority areas which European energy should be engaged in are especially these recommendations: a) EU energy policy should consider environmental issues. Environmental and energy problems are closely interlinked and are indivisible; b) of primary importance for the creation of a single European energy market is the interconnection of member countries, therefore

the EU should focus on investment into interconnecting capacities and transmission systems. The power grids should be used in the interest of the entire EU and not to the benefit of individual member countries; c) the energy mix of the member countries should be balanced and the EU should *a priori* not reject the utilisation of any energy source. The member countries should decide about the structure of the energy mix – nevertheless the EU's energy dependence on politically unstable regions should not be intensified. The member countries should make use of their real energy potential; d) the EU needs a clear perspective and open discussions without any prejudices with regard to the utilisation of nuclear energy in the EU. The European Nuclear Forum (Prague – Bratislava) will hold a main role in this area; e) the EU should

create stable conditions for the construction of new energy sources and ensure their long-term constancy (regulation, trading in allowances, etc.). Unreasonable requirements and obstacles to construction of new power plants should be removed and f) the EU should focus more on research and development of new energy technologies and see that they are quickly put into operation. As to the more concrete terms of EU energy security, the participants agreed that adequate interconnection and a surplus in the supply of electricity over its demand is the main road to greater European energy security. However, both require large and immediate investments not only by energy companies, but also by the EU.

For more information go to [▶](#)

LEGAL PROCEEDURES BY THE EUROPEAN COMMISSION

The European Commission Council decided the fate of a further 550 legal procedures EU member countries failing to fulfil their commitments.



Some of the decisions also apply to energy. The European Commission launched infringement procedures against Belgium, Estonia, France, Greece, Hungary, Lithuania, Malta, Portugal, Slovakia, Slovenia and Sweden for failure to submit their national Energy Efficiency Action Plan. The plans were to have been submitted to the Commission by the end of this June. The duty to submit the Action Plan arises from the Directive of the European Parliament and Council 2006/32/EC of 5 April 2006 on energy efficiency at the end user and on energy services. The actions plans of the individual member countries should determine in what way the countries will contribute to the planned 9% savings in consumption by 2016. The

European Commission also sent its justified standpoint – the final phase of the procedures for the non-fulfilment of the duty by a member country before filing a legal action of the European Court of Justice – France and Lithuania due to failing to notify the measures of executing the Directive on energy demands of buildings. The Commission also launched infringement procedures against France for not executing the verdict of the European Court of Justice on the incorrect performance of the Directive on energy taxation. In the event that France does not execute this verdict, the European Court of Justice may impose a heavy fine. The next session of the European Commission concerning further infringement procedures against member countries should be held in early December. It can be expected that the European Commission will decide the fate of the procedure against the Czech Republic launched in 2006 for the alleged

incorrect transposition of Directive 2003/54 on the joint rules for the internal electricity market.

For more information go to [↗](#)



VERDICT OF THE COURT ON THE GERMAN NAP

The EC court of first instance annulled the decision of the European Commission on 7 November 2007 on the incompatibility of “additional modifications” to the greenhouse gas emission allowances in Germany.

The European Commission did not manage to prove that additional downward modifications which allow the German National Allocation Plan (NAP), breach criteria laid down by Directive 2003/87/EC on the creation of a system for trading in greenhouse gas emission allowances in the Community. On 31 March 2004 the German Commission announced its NAP for the period of 2005–2007. This NAP modified, among other possibilities, the reduction in certain cases the amount of allowances allocated to individual facilities during the allocation period. These additional downward modifications were possible especially in the following cases: the annual emission of facilities represented less than 60% of emissions registered in the reference period, the operator launched the operation of new facilities replacing old facilities, the production capacity of which was higher while the actual volume of a facility's production,

which was put into operation as of 1 January 2005, was lower than was originally announced. The German NAP also set forth that emission allowances not issued or are taken away will be transferred to reserves. These allowances are available to new entities whose facilities are located in Germany. On 7 July 2004 the Commission issued a decision that measures enabling these additional modifications are incompatible with the abovementioned Directive. At the court of first instance Germany demanded the annulment of this decision. The court in its verdict annulled the Commission's decision when it determined that the Commission mistakenly qualified the disputed additional modifications as measures contradicting the total structure of said directive. The Court above all stated that the main objective of the Directive is to substantially reduce greenhouse gas emissions. Nevertheless, the allocation of allow-

ances must respect certain “partial objectives” when meeting this objective such as maintaining the integrity of the internal market and preventing the disruption of competition. The fact that the disputed additional modifications may discourage operators from reducing their volume of production and therefore also the quantity of their emissions, is not enough according to the Court to contest its legality with regard to the directive's set of objectives such as the objective to maintain the cost-effective and economically efficient conditions, the objective to reduce the emissions through technical innovations and the objective to maintain the integrity of the internal market and competitive environment. Hence the Commission did not establish that the requirement of the Directive, according to which the NAP must contain the amount of allowances which are to be allocated to each facility, restricts room for

manoeuvre of the member state as far as the forms and means for incorporating the Directive into national law is concerned in this respect by prohibiting additional modifications to be carried out in Germany. The Court also ruled that the Commission did not establish that additional modifications which may be carried out for new market participants are contrary to the ban on discrimination. The Commission's argument, according to which it is convenient for new market participants to have the possibility of later modifications of the number of allocated allowances, for it enables them to over evaluate the volume of production when filing an application for the allocation of allowances and this results in more lax checks made by German authorities, is, according to the Court, evidently inconsistent and incorrect. The Court therefore annuls the relevant decision.

The verdict is accessible at [↗](#)

EU COUNCIL FOR THE ENVIRONMENT

On 30 October 2007 a session was held of the Council for the Environment, the first of the EU's Portuguese presidency.

One of the items of the agenda was the conclusions of the Council/opinion of the EU's position for the forthcoming 13th conference of the signatory parties to the UN Framework Convention on Climate Change and the Kyoto Protocol which was held on 3–14 December 2007 in Bali. The conclusions confirm the existing EU policy on climate change and the measures necessary to achieve the objectives adopted at the EU spring summit based on the results of the work groups of the Intergovernmental Panel on Climate Change (IPCC). In concrete terms, the conclusions are about the need for greater interconnection between the so-called Kyoto mechanisms and future form of the trading chart; in this context especially the revision of CDM mechanisms with regard to potential investments. In connection with the need for the interconnection of regional carbon

markets, there is a positive mention of the Lisbon Declaration of the International Carbon Action Partnership adopted in October 2007. There was a clear call to achieve consensus of resolving emissions from international air and sea transport and the adoption of a comprehensive international framework for the period after 2012 to 2009.

The conclusions can be found at [▶](#)

NEWS FROM THE EUROPEAN PARLIAMENT

The European Parliament adopted the resolution on relations between the EU and Turkey which was drawn up by the Committee for Foreign Affairs.

The MEPs welcomed the recent elections in Turkey, especially the new government's renewed commitment to reforms in a resolution it has adopted. Nevertheless they also indicated the areas in which further progress was still necessary, especially concerning the content of upcoming constitutional reforms. MEPs



also agreed that CO₂ emissions from passenger cars and light-commercial vehicles should be reduced as of 2015 at 125g/km. The Parliament pointed out that about 19% of EU CO₂ emissions are produced by these vehicles and the commitments adopted by the automotive industry to reduce emissions have proven inadequate. Although “the technology is there to make a significant difference in a short period of time, industry has stalled in reducing CO₂ emis-

sions”, noted reporter Chris DAVIES (ALDE, UK) shortly before voting on the committee. Hence the Parliament welcomed the proposals of the European Commission to introduce binding legislation in this area which they see as necessary to help the EU meet its target of reducing CO₂ emissions by at least 20% compared to 1990s levels. MEPs proposed that binding annual emission targets be put into effect from 2011.

For more information go to [▶](#) and [▶](#)

WILL THE EU CONTINUE TO ENLARGE?

On 6 November the European Commission adopted its annual strategic document on the European Union's enlargement policy. In the document is explained how the renewed agreement over enlargement works in practice as defined by the EU's leading representatives at their session in December 2006.



The carefully managed process of enlargement continued in 2007. The European Commission assessed the progress made of each candidate country and other countries which could possibly be able to join the EU. The Commission concluded that constant but unequal progress and certain fundamental problems had not been resolved as yet in the Western Balkans. The process of

the accession of Turkey continues, but the speed of reforms must be revitalised. The existing enlargement agenda applies to the countries of the Western Balkans and Turkey. Commissioner for Enlargement Olli Rehn presented the document with the following words: "In 2007 there has been steady but uneven progress in the Western Balkans. We still need to face major chal-

lenges such as the Kosovo status process, Serbia's democratic conditions and state building in Bosnia and Herzegovina. It is expected that in 2008 conditions will be fulfilled and thus we will be able to complete the Stabilisation and Association Agreement with all countries in the region." "In Turkey democracy prevailed over the political crisis. The new momentum should now be used to re-launch the reforms to improve fundamental freedoms, particularly the freedom of expression and religious freedom, so that they prevail in all corners of the country and in all walks of life," added Commissioner Rehn. According to Commissioner Rehn accession negotiations with Croatia are advancing well and entering a decisive phase. This demonstrates to the region as a whole that the European Union perspective is concrete and tangible. The European Commission expects substantial progress in accession negotiations

with Croatia in the course of the year ahead, provided that the country maintains the necessary reform momentum and meets the conditions. According to the European Commission, clarity needs to be reached as rapidly as possible on the status of Kosovo. There is a need for a sustainable solution that will ensure a democratic and multi-ethnic Kosovo and contribute to regional stability. Better public governance in the former Yugoslav Republic of Macedonia, Albania and Montenegro, state building with strengthening of self-government in Bosnia and Herzegovina, and Serbia's European course are the major challenges in the coming year. Early in 2008 the Commission will take stock of developments and point the way forward in the following up the EU's agenda for the Western Balkans region.

For more information go to [▶](#)

EXTENSION OF SCHENGEN

On 8 November the interior ministers of the member countries agreed on the extension of the Schengen area.

The land and water borders at which border controls were abolished will “open” on 21 December for a further nine European Union member countries. This will apply to air transport a little later in March 2008. The Czech Republic is among the nine countries together with Hungary, Estonia, Latvia, Malta, Poland, Slovakia and Slovenia. The Schengen Agreement on the abolition of controls at internal borders of the European Union was signed in Schengen, Luxembourg in 1985. Great Britain, Ireland and Cyprus refused to participate. The conditions for abolition of controls have so far not been met by Bulgaria and Romania. Norway and Iceland have also signed the agreement.

For more information go to [↗](#)



EUROPEAN COMMISSION AND EGYPT

The meeting that was held on 1 November at the Sharm el-Sheikh resort brought the first joint discussions concerning transregional cooperation in the energy sector.

Egypt's Foreign Minister stated that his country may become a bridge between African suppliers of electricity acquired from renewable sources and the European markets thanks to its convenient location on the border of three continents. European Commissioner for External Relations Ferrero – Waldner stressed that the conference brings a unique opportunity for dialogue on the topics of energy. The conference could disperse any accusation that the EU is interested in this region only because it is interested in the local energy wealth. Over 1.5 billion electricity consumers live in Europe, Africa and the Middle East and half of the world's oil supplies as well as a large potential for the utilisation of renewable sources are found on the same territory.



Ferrero – Waldner also offered assistance for its development, particularly hydro-electric and wind power. The EU is prepared to sign an agreement with Egypt in this sphere. The Commissioner also discussed Egypt's plan to build a nuclear power plant. The European Union is also interested in interconnecting the Arabian and European gas line, just as the Algerian and Italian. The European Union is also getting ready to open a centre for renewable sources of energy at the end of 2007 in Egypt. For more information got to [↗](#)

12 OCTOBER is the date of the closing report of the Consentec agency's study on joint coordinated regional methods of defence against congestion ordered by the European Commission.

The report is available at [↗](#)

ON 18 OCTOBER a memorandum of understanding was signed in Vienna concerning the social dimension within the so-called Energy Community (this is a process through which the EU strives to extend the single market in a south-eastern direction).

For more information viz [↗](#)

ON 19 OCTOBER representatives of the member countries, producers and consumer organisations held discussions on the EcoDesign platform about the ways in which it would be possible to limit energy consumption of household and office appliances in so-called "standby" mode.

For more viz: [↗](#)

ON 22 OCTOBER the Commission approved Portugal's National Allocation Plan. The volume of allowances was reduced against Portugal's requirement by 3.1%.

ON 26 OCTOBER Energy Commissioner Andris Piebalgs approved Mario Monti's work plan for the construction of the high-voltage electricity interconnection between France and Spain. Monti proposes, among other things, to integrate not only "national" but also regional and local interests of the territories concerned into the process of construction.

ON 6 NOVEMBER the Dutch operator of the Gasunie oil pipelines announced its plan to invest up to 750 million EUR into its share of constructing the Nord Stream pipeline. Gasunie should account for 9% of the share of the total investment.

ON 8 NOVEMBER the plan was published of the Swiss energy company Reninvest to build the highest located "wind farm" in Europe. The company will build eight turbines in the St. Gotthard Pass, i.e. at a height of up to 2,100 metres above sea level.



ON 22 NOVEMBER the best "energy services" in the EU in 2007 will receive awards in Brussels as part of the EUROCONTRACT conference "Energy Services 2007 – Moving Ahead!"

You can find further details at the website of the Intelligent Energy for Europe programme [↗](#)

ON 23 NOVEMBER is the date by which public administration bodies at regional and municipal level in all EU member countries can express their opinions to the proposals contained in the Third Energy Package through the mechanism called "Subsidiarity Monitoring Network", which operates within the prominent EU advisory body, the Committee of Regions.

For more viz [↗](#)

WILL NUCLEAR ENERGY BE A RENEWABLE SOURCE IN FUTURE?

Will nuclear energy become a renewable source of energy or will production from nuclear energy be at least included in the share of renewable sources in individual EU member countries?

These are the sort of questions which the reader can come across with more and more often and the answers to them vary. In connection with the forthcoming directive on renewable energy sources and division of the 20% share of renewable sources between the member countries, some member countries on whose territory all potential for renewable sources has virtually been exhausted, are trying to include electricity produced from nuclear energy in their share of electricity produced from renewable sources. We will find out how this endeavour will turn out in January when the Commission publishes the draft of the relevant directive. However what is already clear is that nuclear energy is an emission-free source of energy and in the event of research and development of a new generation of nuclear reactors when nuclear waste can be further utilised as a form of fuel, we

will be able to state in future in about a 100 years time that it is also a renewable source of energy. Nevertheless development is not so far away and therefore in this article we would like to provide you with some information about the history of nuclear energy and will answer questions as to when and where the first nuclear power plant was put into operation and how development progressed. The session of the European Nuclear Forum at the end of this November will provide some indication of future development. Nuclear sources now hold about 16% of the share of world electricity production and about 7% of the share in total energy consumption. The first successful attempt at nuclear fission was carried out in 1938 in Berlin by Otto Hahn, Lise Meitner and Fritz Strassman. During the Second World War nuclear programme was launched in a number of countries.

The first chain fission reaction took place on 2 December 1942 in reactor CP-1, constructed by Enrico Fermi in the basement of the Chicago University stadium. A nuclear reactor was first used to produce electricity on 20 December 1951 at the EBR-I research station near Arco (Idaho). Initially the equipment supplied an output of about 100 kW. The first nuclear power plant was constructed in the Soviet Union in the city of Obninsk. It was officially connected to the power grid on 27 June 1954. Graphite was used as a moderator and water as a cooling medium for the 5MW reactor. Then the utilisation of nuclear energy quickly developed. In 1960 installed output was less than 1 gigawatt (GW), at the end of the 1970s it was already 100 GW and 300 GW in the 1980s. Since the end of the 1980s growth has been far slower. Currently there has been a resurgence of nuclear energy. The

new nuclear unit has been put into operation at the Cernavodă nuclear power plant in Romania, France has decided to construct new nuclear units which should replace the older units, Bulgaria, Lithuania and Slovakia have also decided to build new units to replace the decommissioned ones at the insistence of the European Union. A new nuclear unit is also being built in Finland (Olkiluoto). China, India and Japan have a major interest in developing nuclear energy. The discussion platform of the European Nuclear Forum, the first session of which will be held on 26 and 27 November in Bratislava will certainly contribute to discussions about the utilisation of nuclear energy in the European Union and you can find out about its results in the next issue of our Bulletin.

You can find more information about this forum at [▶](#)