

INTRODUCTION

Dear friends,

The year of 2008 was, again, a year of safe, reliable operation of all reactors in both our nuclear plants. The plants in Temelín and Dukovany produced a total of nearly 26 551 000 MWh of electricity, which constitutes a 31% share of the total domestic power generation. Electricity produced in a nuclear power plant first circulated in the Czech distribution network in 1985. At that time, we stood at the very beginning of nuclear power generation in the Czech Republic. Since then, we have experienced nearly 100 reactor-years of safe and reliable operation, during which the six reactors at Dukovany and Temelín produced about 372 932 000 MWh of electricity. These numbers are testament to the extensive know-how and nuclear operation experience of our company and others in the Czech Republic. Other companies in the Czech Republic possess an important, extensive know-how and operational experience with nuclear power. Thus, we have the necessary background for further development of Czech nuclear power.

In 2008, we continued to carry out changes which led to better exploitation of both our nuclear power sources. In Temelín NPP, we took significant steps to prepare for the planned change of fuel supplier and further cutting of outages. We also continued gradually to improve safety indicators, despite problems with the first Unit turbine we faced towards the end of the year. The operation of our second nuclear plant at Dukovany was extremely successful with all four generation Units reaching goals set in the long-term schedule. The replacement of low-pressure flow elements of steam turbines will contribute to reaching the goal of producing up to 16 TWh per year which is forecast for 2013.

We are aware that well-maintained, safely operated nuclear power plants are an important stabilising element of today's power supply scene, as the demand for primary power resources grows globally. The dwindling reserves of coal and dependence on foreign supplies of oil and natural gas make it necessary to search for alternative power resources. The issue is further complicated by the effort to cut CO₂ emissions and other greenhouse gases in order to minimise global climate changes. Although renewable resources, along with power savings, do contribute to the solution of this problem, in our climate and environment, they do not constitute a major element of the solution. This leads us to consider both the output reserves of existing nuclear power plants, and the possibility to increase power generation from these resources.

Long-term analyses have shown that the optimum solution would be to build two further generation Units at Temelín NPP, originally prepared for four Units. Further construction is also possible on the premises of Dukovany NPP. Obviously, the new Units would have to fulfill all safety and reliability requirements as well as other parameters, ensuring that they would be able to compete successfully with other players of the European power supply market after 2020.

To prepare the documentation for the construction, to carry it out and to launch the operation of such a complex construction requires a minimum period of ten years, and this is very demanding concerning industrial as well as human resources. After many years of stagnation of this particular segment of industry, these resources are limited in most countries. The number of countries which consider the construction of new nuclear power plants grows steadily, making it yet more difficult to find such resources. This is a reason why CEZ pays maximum attention to the recruitment of young talent eager to follow careers in the power industry. We have many plans and our goal is to provide enough power for all the citizens of the Czech Republic. To achieve these goals successfully, we need both public support and the participation of experts in the undergoing discussion about the power supply future of our country.



VLADIMÍR HLAVINKA
EXECUTIVE DIRECTOR OF
DIVISION GENERATION

Vladimír Hlavinka

Executive Director of Division Generation



SAFETY IS OUR PRIORITY

„No task is urgent enough not to be carried out safely.“

Improving the safety of its power plants is and always was the topmost priority of CEZ. To achieve that goal, we regularly evaluate the safety of our plants and our in-house operational regulations which are designed to protect individuals, the society and the environment.

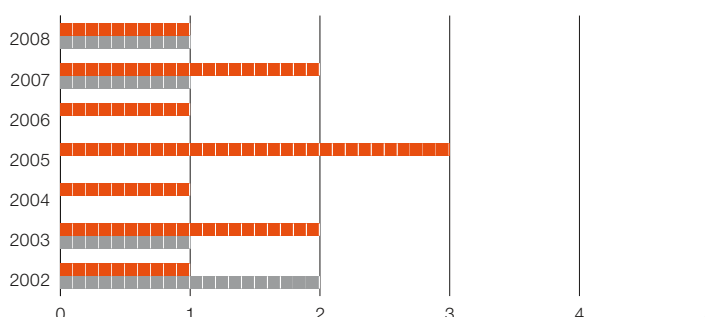
Safety of nuclear power plant operation is significantly improved by the active utilisation of probability risk assessment evaluation methods, by practical application of new technologies and scientific research output, and by the utilisation of other nuclear operators' operational experience.

Within the nuclear power plants, a system of operating experience feedback is consistently applied. All domestic and foreign safety-related events are analysed and used to further improve the safety and reliability of operation. Extended system of operational safety and performance indicators INDI is applied to evaluate the safety of all possible fields of the plant.

Worldwide, safety-related events are classified according to the seven-degree international INES scale (International Nuclear Event Scale). The first degree (INES 1) covers events of the lowest safety significance. Since the beginning of operation of Temelín NPP in 2000, only incidents of the INES 0 and 1 occurred.

**Number of Events
Classified as INES 1**

■ Temelín NPP
■ Dukovany NPP



Radiation Protection

Both nuclear power plants have consistently shown very good performance in protection against ionizing radiation. The term „radiation protection“ is defined as a system of technical and organisational measures designed to limit potential irradiation of individuals, and to protect the environment.

The elementary measure of efficiency of these technical and organisational measures is an indicator called Collective Effective Dose (CED). CED represents the cumulative total irradiation of all the workers who perform any activities in the radiation controlled area. The lower the value of this indicator, the better the level of radiation protection, and thus the more efficient the program of protection against ionizing radiation.

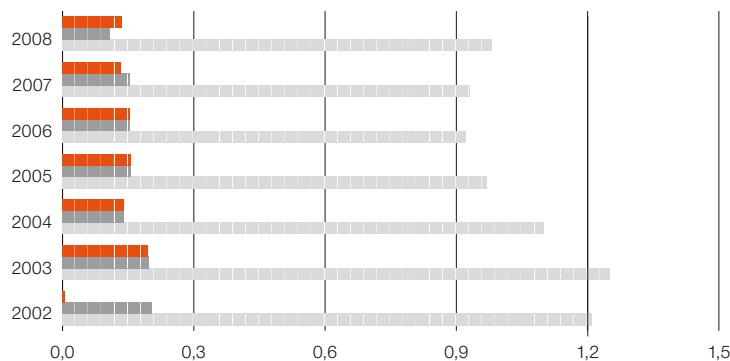
With respect to the low values of CED, both nuclear power plants operated by CEZ rank among the world elite.

In 2008, the values of CED at Dukovany NPP were 0.107 Sv per Unit (a record performance) and 0.135 Sv per Unit at Temelín NPP.

Collective Effective Dose (CED)

(Sievert per Unit)

- Temelín NPP
- Dukovany NPP
- world – average



The low values of CED confirm that the strategy of CEZ to produce electricity and heat from nuclear resources safely is successful.

Considering effluents from nuclear power plants into the surrounding environment, both Temelín and Dukovany plants confirmed their minimum impact on the environment. For example, the gaseous effluents reach only tenths of percent of the authorised limit, and this trend continued in 2008. Low values of this indicator in both locations confirm the minimum impact of nuclear power plants' operation on the surrounding environment and on the population.

Emergency Preparedness

In 2008, high level of emergency preparedness was confirmed at both of our nuclear power plants, testified in the control and drill exercise results and supervised by external bodies, particularly the State Office for Nuclear Safety.

In the course of 2008, the total of 9 emergency drills aimed at practising the organisation of emergency response at reactor Units and fuel transport facilities took place. All goals of the drills were fulfilled. At the end of November, a complex drill entitled "The Zone 2008" took place, in which all emergency and crisis centres of the Czech Republic participated. The drill had the form of a bogus emergency event at Dukovany NPP, and it confirmed the high emergency preparedness of all the above mentioned authorities as well as the staff of the power plant.

In 2008, the regular five-year replacement of iodine prophylaxis in the areas around nuclear power plants was carried out.



Fire Protection

The high level of fire safety is demonstrated by the fact that no fire occurred in Czech nuclear power plants in 2008. Our fire brigades participated in a number of emergency events outside of our plants in the framework of the integrated emergency system of the Czech Republic.

Industrial Safety

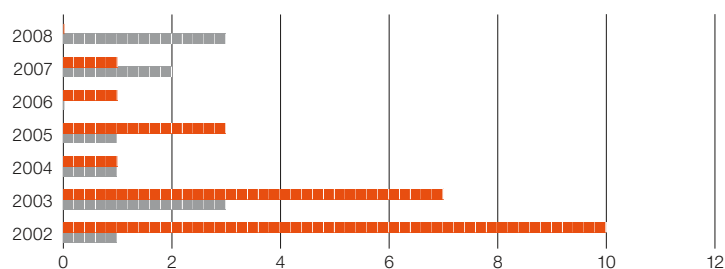
In the third quarter of 2008, both plants had undergone independent review by the State Office of Occupational Health and Safety, denoting them as a „Safe Enterprise“. The reviews confirmed good conditions at both nuclear power plants, leading to consistent improvement of occupational health and safety.

The suppliers' and full-time employees' results in this respect are good, with a long-term improving trend.

Industrial Safety Accidents – Employees

(number)

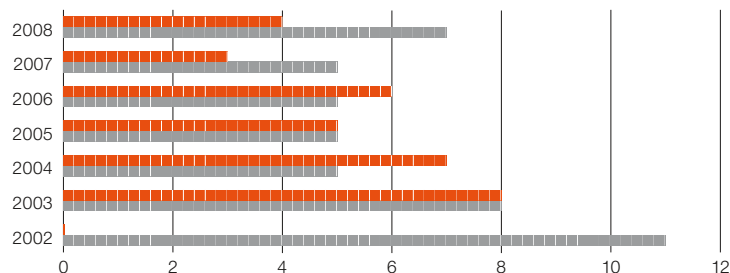
- Temelín NPP
- Dukovany NPP



Industrial Safety Accidents – Suppliers

(number)

- Temelín NPP
- Dukovany NPP



EDU



ETE

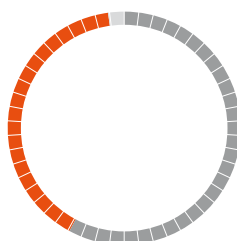
POWER GENERATION IN THE CZECH REPUBLIC

On the whole, the power generation industry around the world manifests one important trend – an increase of power production from emission-free resources. These resources do not emit harmful substances into the environment, namely carbon, sulphur and nitrogen dioxides. These include both renewable resources (such as hydro power plants, wind or solar-powered plants) as well as nuclear power plants. From the total amount of 60.9 million MWh produced by CEZ in 2008, emission-free resources account for 27.9 million MWh, that is 46%. The most important emission-free resources operated by the CEZ Group are nuclear power plants, sharing 44% of the total. Apart from these, hydro power plants, wind and solar power plants come next with the share of 2% from the total of CEZ generation.

Share of Emission-free Resources in the Total Power Generation of CEZ

(in percent)

- emission-emitting
- emission-free, nuclear
- emission-free, hydro + other

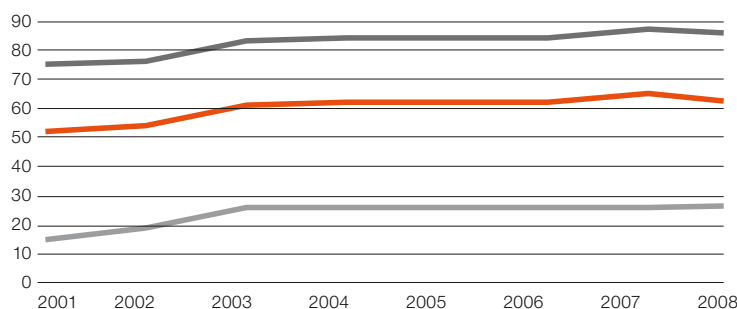


In 2008, the total amount of 86.4 million MWh of electricity was generated in the Czech Republic, 31% of this amount was generated by the nuclear power plants in Dukovany and Temelín. Their total installed capacity is 3760 MW, constituting a 21% share of the total installed capacity in the Czech Republic. The high share of these resources in the total production results from the fact that they are the most exploited ones, given their lower variable costs when compared to other power resources.

Trend of Electricity Generation in the Czech Republic

(million MWh)

- CR
- CEZ
- NPPs

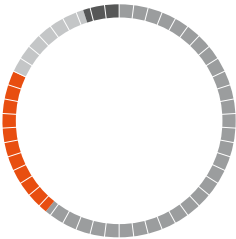


Based on estimates of investments in modernisation and reconstruction of power resources of CEZ, the share of nuclear power in the portfolio of CEZ will increase steadily in the course of 2008–2012. At Dukovany power plant, over 13.5 % increase of output is forecasted, thanks to the modernisation of technology. The output of Temelín NPP is also set to grow thanks to the optimisation of outages and stabilisation of its operation.

Share of Installed Capacity and Power Generation in the Czech Republic in 2008

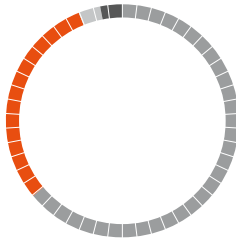
Installed Capacity in the Czech Republic
17,686 MW
(in percent)

- coal (61%)
- nuclear (21%)
- hydro and renewable (13%)
- gas (5%)



Power Generation in the Czech Republic 86.4 mil. MWh
(in percent)

- coal (62%)
- nuclear (31%)
- hydro and renewable (3%)
- gas (4%)



Efficiency

Compared to other power resources, the Czech nuclear power plants are extremely efficient sources of energy. The efficiency is expressed in specific power generation costs in CZK per MWh.

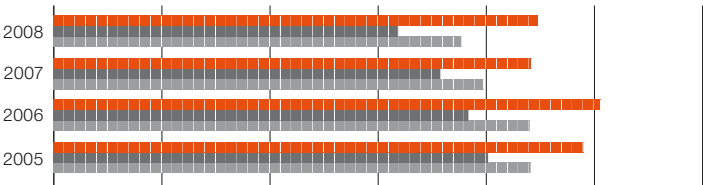
The production costs include:	average in the given period
fuel costs	52 %
wage costs	12 %
social costs	5 %
maintenance and repair costs	24 %
other costs (services, insurance)	7 %

The evolution of the Czech nuclear power generation costs between 2005–2008 is shown in the chart below.

The chart shows that the efficiency at both nuclear power plants keeps increasing, despite the current economy trend. The decreasing trend of power generation costs of Dukovany NPP is influenced especially by decreasing fuel costs as well as the increasing output of electricity. The positive trend in this power plant improves the overall performance of both nuclear power plants.

Specific Power Generation Costs
(CZK per MWh)

- NPPs average
- Dukovany NPP
- Temelín NPP





DUKOVANY NUCLEAR POWER PLANT (EDU)

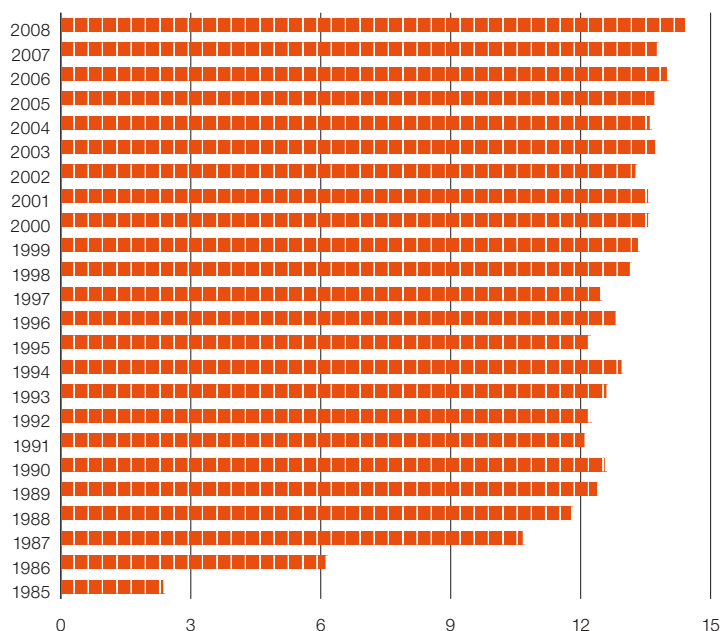
Operation

In 2008, the yearly production of Dukovany NPP significantly passed the benchmark of 14 million MWh of electricity. Its four reactor Units with the total average achievable capacity of 1824 MW generated 14 447 548 MWh of electricity. The most important aspect in achieving this result was the reliable operation of the NPP and the increase of the output by 4×16 MW of all four reactor Units which were modernised between 2005 and 2008. Another contributing factor was the cutting of the length of refueling and maintenance outages. In the upcoming years, the output will increase steadily thanks to the planned modernisation works, and the plant is expected to reach 2000 MW capacity in 2012.



ZDENĚK LINHART
DIRECTOR OF DUKOVANY
NUCLEAR POWER PLANT

**Power Generation at
Dukovany NPP**
(million MWh)



In twenty four years of its safe and reliable operation, Dukovany nuclear power plant generated the total of 294 151 848 MWh of electricity, most of all the power plants operated by CEZ. The operation of Dukovany NPP was safe and reliable.

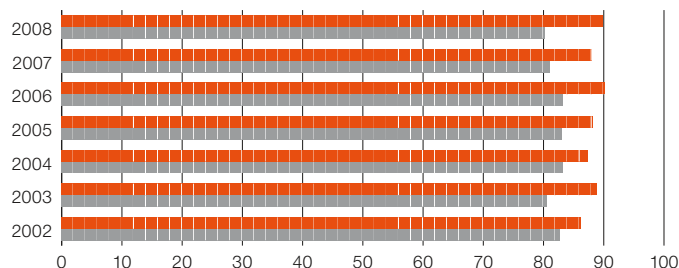
The measure of operation reliability is expressed by the Unplanned Capability Loss Factor indicator, which Dukovany NPP keeps at one of the lowest levels in the world. The value of zero percent, meaning that in the course of the whole year no losses occurred as a result of a technical fault on the Unit equipment, was achieved at Unit 3 in 2002 and at Unit 1 in 2005. The total value of the Unplanned Capability Loss Factor in 2008 was 0.72% from the achievable output.

Internationally, the operation capability of a plant is evaluated by the Unit Capability Factor. It is the share of real available generation to the maximum achievable power generation of the plant over a given period of time in percentage. In 2008, this value reached 89.56%, which is better than the worldwide average by 9%. This result is mainly attributed to the shortening of planned outages.

Unit Capability Factor

(in percent)

■ Dukovany NPP
■ world – average



All four Units operating at Dukovany are certified to provide ancillary services in the regulation of power in the grid and are permanently connected to the automatic power regulation system. For the maximum efficiency of CEZ's resources usage, the Units of Dukovany are the last to be used for the regulation of real power, thanks to their low operation costs. In 2008, they operated in this mode for 90 hours.

Safe and reliable operation of Dukovany nuclear power plant has become a standard over the years. This may be attributed to the experienced and highly professional staff, taking care of all the aspects of safe and reliable operation.

Maintenance

The maintenance of Dukovany NPP's equipment covers the technical and technological preparation and implementation of all maintenance and repairs activities, necessary for safe and reliable operation of the plant. At the same time, state supervisory bodies receive from the NPP all necessary documentation related to the operation of equipment and evidence of compliance with design documentation.

In the past year, much effort was invested into the preparation of new maintenance and repair supply system, the plant's facilities were divided into new logical and technological parts. Maintenance programs were reviewed with respect to the results of risk assessment, and the technical and economic conditions for the launch of the new maintenance system were specified. The new supply system was implemented in the electricity and I&C logical parts by 1st June, 2008, and in the primary and secondary circuit logical parts by 1st July, 2008.

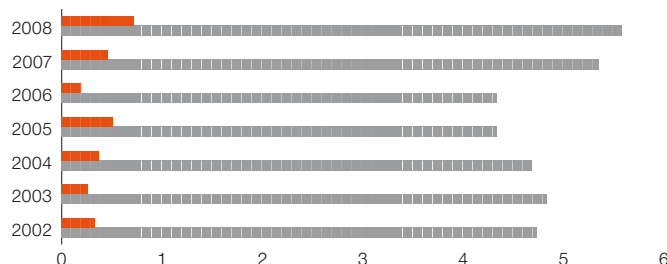
In 2008, all four reactor Units of Dukovany NPP underwent operation outages. The standard planned outage of Unit 3 launched the implementation of the CIK_CAK project designed to make an efficient use of operation outages, connected also with the project of increasing the overall output of Dukovany NPP entitled SAFELY 16 TERA. This was the shortest outage in the history of the plant and it took only 21.3 days. At all units, all activities planned in the framework of the maintenance, testing and inspection programs were carried out. The total length of the outages was cut by 3.4 days, compared to the length originally planned on all four Units.

One of the basic indicators of maintenance efficiency is the Unplanned Capacity Loss Factor. It reflects the efficiency of the programs aimed at maintaining the system condition and reliability of the technology systems and equipment at the desired level. The following chart demonstrates very good long-term results of the plant in this area.

Unplanned Capacity Loss Factor

(in percent)

■ Dukovany NPP
■ world – average



Engineering and Technological Development

Similarly to the preceding years, in 2008, Dukovany NPP continued the process of implementing several major investment projects which will contribute to the modernisation of the plant and increase the efficiency of power generation.

- **Reconstruction of the I&C system (Module 1, 2)** – reconstruction of the M1 and M2 modules represents the largest investment project at Dukovany NPP at present and it must be carried out in order to fulfill the conditions necessary to receive the operating license from the State Office for Nuclear Safety. In 2008, the implementation including the launch of operation and monitoring was finished at Unit 2 of the plant, that is, on the third Unit out of four. At Unit 4, the reconstruction of the M1 and M2 modules should be finished in 2009.
- **Reconstruction of the I&C system (Module 3–5)** – the M3–M5 program forms an individual part of the complete renewal of the I&C system. It covers the reconstruction of automatics and control circuits of the primary and secondary circuits, including the replacement of oil-based regulation of the turbine. In mid-2008, the State Office for Nuclear Safety issued a permission for the implementation of the first stage of the project. The actual implementation is planned to begin next year during the planned outage of Unit 3 and it should commence on the remaining Units during their planned outages until 2015.
- **Using of design reserves of the reactor Units** – At Unit 2, the Unit transformers were modernised, including their monitoring system. The transport system and heavy freight unloading area on the premises of the plant were also finished in preparation for the transport of the generator stator planned in 2009.
- **Reconstruction of the low-pressure flow parts of the steam turbines** was finished at Unit 2, being one of the largest investments of this operation outage. New TG rotors with improved blades will cut the heat specific consumption of the turbine system by at least 3.5%. The real increased output is now 456 MWe/Unit.
- **Continuing of several safety-related projects** – first of all, improved seismic resistance of technologies and improved resistance against the bursting of the pipeline in the primary circuit. The gradual renewal of essential service water pipes for important equipment was launched at both primary and secondary circuit of the plant.





TEMELÍN NUCLEAR POWER PLANT (ETE)

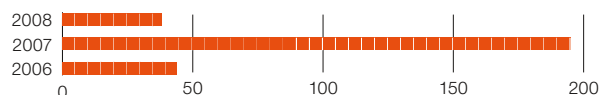
Operation

At Temelín NPP, 2008 was the year of improving human performance capabilities. Thanks to the program ACHIEVING EXCELLENCE IN HUMAN PERFORMANCE, events caused by human factor were cut by 80% compared to 2007. The operating results were also improved thanks to the modernisation of the high-pressure parts of turbines carried out in 2007, which improved the efficiency of electricity production. Updated fuel also led to the lengthening of the interval between reactor control clusters checks up to the period of 6 months. The planned refueling outage on the second Unit was reduced by 3 days.



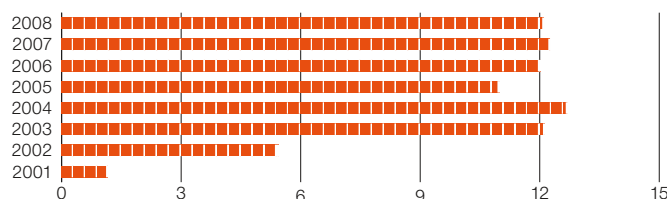
MILOŠ ŠTĚPANOVSÝ
DIRECTOR OF TEMELÍN
NUCLEAR POWER PLANT

**Human factor related
power generation losses**
(in thousand MWh)



The planned output of 13.6 million MWh of electricity was not achieved owing to the unplanned outage of the first Unit which was needed in order to carry out the repair of the pressuriser gasket and following prolonged refueling outage caused by a failure of a low-pressure part of the turbine.

**Power generation at
Temelín NPP**
(million MWh)



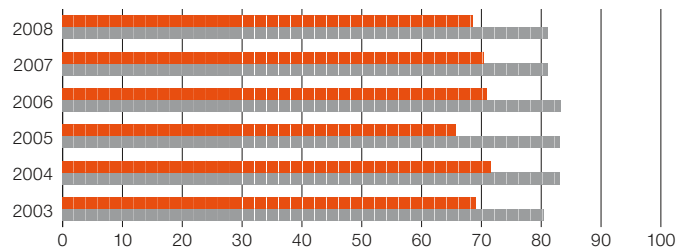
In 2008, the two reactor Units of the Temelín NPP generated 12 103 403 MWh of electricity, accounting for nearly 20% share of the total generation of the CEZ Group. Since the launch of operation of the plant in 2000, its reactor Units have generated the total of 78 779 876 MWh of electricity. At the same time, the plant supplied heat to the nearby town of Týn nad Vltavou and to the facilities in the plant's premises. In the course of 2008, it supplied 190 000 GJ of heat to its customers.

Although Temelín NPP shares a significant portion of the CEZ Group electricity generation its capacity could be used more efficiently. Internationally, the operation capability of a plant is measured by the Unit Capability Factor. It is the share of real available capacity compared to the maximum achievable power generation of the plant over a given period of time in percentage. In 2008, this value reached 68.56% (average of both power plant Units), and this indicator could be improved by reaching the desired reliability of equipment and by cutting length of planned refueling outages of the plant.

Unit Capability Factor

(in percent)

- Temelín NPP
- world average



Maintenance

In 2008, the main objectives in maintenance area were as follows:

- to implement a culture focussed on the human performance improvement
- to prepare the launch of the new supplier system
- to work-out a Report on the status of the NPP
- to carry out planned outages at both Units safely
- to implement tasks of the SAFELY 15 TERA project

The human performance improvement project concerned both employees of the plant and selected employees of suppliers. Better results in the human performance area were restricted for the time being by unfinished organisation changes connected with the new supplier system. The new system is implemented from 1st January, 2009.

All maintenance, control and review activities were carried out according to schedule during refueling outages. The outage of the second Unit was cut by 3 days. During the launch of operation after the planned outage of the first Unit, one of blades of the turbine low-pressure rotor broke; this technical problem led to a prolonged outage.

In the framework of the SAFELY 15 TERA project, areas of possible improvement were mapped and they are addressed one by one. In the maintenance area, one of the biggest steps taken in 2008 was the signing of the contract with a new supplier of containment stressing tendon system. The new supplier offers a technical improvement program which shall lead to the fulfilling of design requirements for dozens of years to come. At Temelín nuclear power plant, the highest attention is paid to all safety aspects.



Engineering and Technological Development

In 2008, a number of investment projects were carried out at Temelín NPP with the aim to further improve the performance in the upcoming years to increase the nuclear safety levels and the reliability of the power generation process.

Most important activities in 2008 included:

- **Modernisation of refueling machines at both reactor Units** – adjustment of existing rods, replacement of telescopic rod, cables and driving unit. At the first Unit, the replacement of existing control system took place in order to unify the hardware and software of both reactor Units. Works on the first Unit were launched this year, preparatory process begun on the second Unit. The process should finish in 2009.
- **Reconstruction of the portal jib crane SKET 320 t** – replacement of the control system of the crane which shall permit the synchronisation of parallel running of both drivers, 160 t and 2 × 70 t, used in the transport of cassettes for spent fuel. This year, works on the first Unit were launched and the preparatory process begun on the second Unit. The reconstruction is scheduled to finish in 2009.
- **Replacement of arc-flash protection system at the 6 kV switch rooms** – replacement of a set of short-circuit flash protection elements in 6 kV switch rooms consisting of optical cable loops sensitive to the light flash along full length of the cable. The replacement was mostly carried out in 2008 and it is scheduled to finish in 2009.

Other important activities included:

- **Modernisation of the full-scope main control room simulator** – the update of software and hardware of the simulator serving for the training of staff was finished this year.
- **Installation of radiation control sensors at the exit from the containment** – efficient measuring system of radiation contamination was installed, including the identification of individuals and individual radioactive doses. The full project was carried out in 2008.
- **Replacement and optimisation of physical protection technological system (TSFO)** – the project is aimed at modernisation of the technically obsolete TSFO system, including adjustments based on operational experience. In 2008, the project was finished and the operation of the system was launched.
- **Construction of a backup entrance onto the premises of the plant** – A backup entrance into the secure area of the plant for vehicles was constructed, to be used in emergencies and for large investment opportunities. In 2008, the full project was carried out.
- **Spent fuel storage facility** – in 2008, the preparation of the spent fuel storage facility continued according to the plan which takes into account the technical solution of the planned replacement of nuclear fuel in 2010. A building approval application was submitted; the construction is expected to begin in 2009.

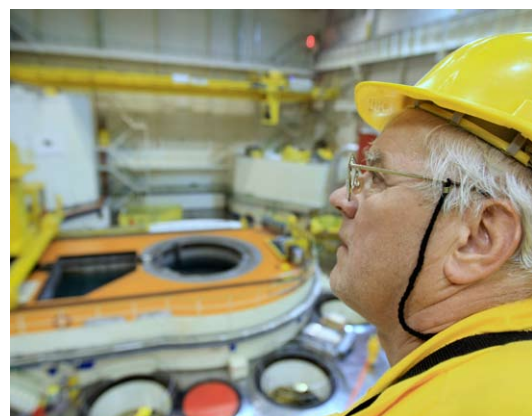


NUCLEAR FUEL

The nuclear fuel of both Temelín and Dukovany NPP was supplied as scheduled, in accordance with long-term contracts and a stock building plan. Fuel transports from a U.S. supplier to Temelín NPP (Westinghouse) and from a Russian supplier to Dukovany NPP (TVEL) took place. All transports were managed without any flaws, supervised by the State Office for Nuclear Safety.

The costs of nuclear fuel account for a significant portion of the total power generation costs and their further growth may be expected as a result of increasing prices of uranium and other services in the world markets. As a result, a process of optimisation has been going on since the very launch of Dukovany NPP operation, both concerning the reactor operators and the suppliers of new advanced fuel assemblies. The transformation to the new fuel shall peak in 2009–2012. In this period, all Units are to increase the output step by step from 440 to 500 MWe after replacement of the I&C control system and the reconstruction of the secondary circuit technologies of the plant take place. To achieve this goal, the construction of fuel assemblies had to be updated. The original fuel was enriched to 3.6% U^{235} , it was replaced in three-year cycles, and its burn out value was only 30 MWd/kgU. The improved fuel will be replaced in a five-year cycle, the Uranium enrichment increased to 4.38% U^{235} , and in relation to this, a burn-out absorber and the radial profiling of the fuel assembly need to be installed. The weight of the Uranium in the fuel assembly increased, new construction materials were introduced, and the production efficiency is to increase to up to 51 MWd/kgU. Another important effect of this change is the dramatic drop in the generation of spent fuel from the initial 114 fuel assemblies to only 72 assemblies per reactor Unit per year, which leads to significant storage cost savings.

At Temelín NPP, the contract with the American supplier Westinghouse is about to end. Based on a tender procedure, a new supplier TVEL from Russia was selected. At present, the licensing process is under way and thermo-hydraulic evaluations are carried out on a model of the new fuel assemblies. The plant will be refueled with the new fuel in 2010.



ENVIRONMENT PROTECTION

Nuclear power plants count among the most environment-considerate power generation resources. In their operation, no greenhouse gases are produced, and they do not consume non-recoverable raw materials (oil, coal).

CEZ company pays maximum attention to the protection of environment. In accordance with the rules set in the ČSN EN ISO 14 001 standard, it launched its own Environmental Management System (EMS). At Dukovany NPP, the Environmental Management System was certified in 2001, at Temelín NPP in 2004. The program is based on the principle of prevention and constant improvement of the environment protection, and it is the basis for the environmental policies of both nuclear power plants, which regularly set out goals they plan to reach.

In 2007, the system was re-certified by an audit carried out at both nuclear power plants by an independent, international audit firm. On this occasion, it was confirmed that both plants boast a high level of environmental safety, an open view of the field, and a great strive towards the best, most modern approach to environmental protection. In 2008, regular EMS audits were carried out successfully at both power plants.

The legal standards are strictly implemented, and activities in connection with the protection of environment are closely supervised and regularly evaluated. Research centers and universities also participate in independent supervision and evaluation of the impact on environment. Yearly evaluation reports are submitted to supervisory bodies, and are also available to broad public in the Information Centers of both nuclear power plants.

Waste Management

At both nuclear power plants Dukovany and Temelín, all radioactive waste products are treated with the utmost care. Waste from the operation is processed abiding to the legislative standards and it is deposited into the Radioactive Waste Storage Facility (URAO) at Dukovany where it is safely separated from the surrounding environment.

Those materials and waste which are virtually free of radionuclides, as testified by certified measuring, are subsequently released into the environment under strict control and recycled to the maximum. Through a continuous improvement of technological processes and the introduction of new technologies, the Czech NPPs rank among the best power plants worldwide, considering the production of low volume of radioactive waste.

The Radioactive Waste Storage Facility at Dukovany operates since 2002. Its capacity of 55,000 cubic meters is sufficient not only for the disposal of all the radioactive waste produced during the operation of the NPPs, it also allows the safe deposition of waste which will be produced as a result of their decommissioning. By the end of 2008, 13 out of total number of 112 cells were filled up.



ENVIRONMENTAL MANAGEMENT
CERTIFICATES

PERSONNEL

Concerning human resources, the nuclear power resort counts among the most perspective areas. This quickly evolving resort needs young talent whom it attracts with interesting jobs in many fields, ranging across a variety of professions – from electrical engineering through industrial and construction engineers, maintenance, general engineering and management jobs. As construction of new nuclear power Units is expected, the need for such staff is likely to increase even further.

In human resources management, both nuclear power plants succeeded in merging the priorities of both human resources and production departments. Launched projects SAFELY 15 TERA (ETE) and SAFELY 16 TERA (EDU) include a key human resources parts. In relation to other launched projects entitled IMPROVING HUMAN FACTOR, HUMAN RESOURCES GENERATION RESUMPTION AND KNOWLEDGE MANAGEMENT and USE OF DESIGN RESERVES, the year 2008 at Temelín NPP was designated as the year of human performance improvement. To optimise the organisation structure, the final stages of the Asset Management transformation were carried out.

At Temelín NPP, all recruitment goals were fulfilled and ties with secondary schools and universities in the region were strengthened. Conditions for successful recruitment in further years were established.

At Dukovany NPP, in addition, 2008 was a year of employee generation resumption. New projects which are to influence the recruitment process were launched, concerning specifically the recruitment of young people who are about to choose their career or who are considering improving their qualification, necessary for the long-term running of the plant.

For university students, we launched the BACHELOR project. The project offers financial and professional support to talented students studying at Technical University in Brno, the department of Electrical Engineering and Electricity, and at Czech Technical University in Prague, the department of Nuclear Power. Before receiving their scholarships, the students must pass a selection process which includes a psychological test. This strenuous selection procedure permits us to support students from the very beginning of their university studies.

To influence our possible future employees as early on as possible, together with the Secondary School for Industry in Třebíč, we designed a new secondary school programme called POWER ENERGY, designated to open in the academic year of 2009/2010. The patrons of the programme are the regional authorities of the Vysočina region and the CEZ Group. The program will include extensive real-life practice for the students. The classes are prepared in collaboration with teachers and professionals working in the field, the students will have modern labs at their disposal and the study will also take place on the premises of the power plants. Graduates will be prepared to work at Dukovany NPP, or they may choose to continue their studies at technical universities. Both projects were met with great enthusiasm from both students and their parents.



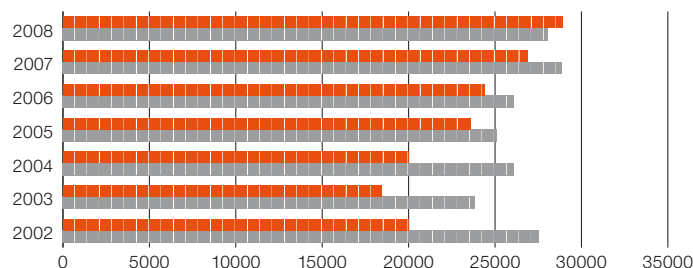
PUBLIC RELATIONS

In 2008, the relations with surrounding communities of both our nuclear power plants continued to evolve successfully, and active collaboration with the communities in the vicinity of both plants continued. The power plants support numerous valuable projects related to culture, travel, sport and community life and thus earn the trust of the people living nearby. Many projects launched in 2007 continued successfully in 2008. After the autumn seminars of "Civic Safety Committee" taking place in the surroundings of Dukovany NPP, the question of further operation of the plant and human resources arose, and the communities nearby consider it the topmost priority of communal and regional policies. CEZ Group strives to support technical fields of study at secondary schools and universities in the region.

At Temelín NPP, collaboration with 32 villages from the vicinity of the plant continued, and collaboration with regional authorities of South Bohemia district was extended. A number of projects launched in the preceding years continued and new ones were launched, focusing on district towns and the regional capital of České Budějovice. New ties were established with important partners and the possibility of extension of the power plant was discussed with them, for example with the Economy Board of South Bohemia. In the closest proximity of the plant, the successful project The Orange Year continued for the third time, dedicated to the development of an active cultural and social life and sports in the communities. Same as in the last years, it covered over 500 individual events.

Number of Visitors in Information Centers and Power Plant Premises

■ Temelín NPP
■ Dukovany NPP

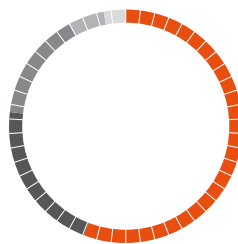


The number of visitors at information centers of both nuclear power plants increased again, namely thanks to Temelín NPP, where for the first time in history, the staff welcomed over 28 914 visitors. More than 6 300 visitors had also the opportunity to visit the interior facilities of the plant. In 2008, four weddings also took place in the immediate proximity of the plant, in the beautiful park nearby.

The info center of Dukovany NPP was visited by the total of 28 025 visitors and further 12 980 people look down on the nearby pumping hydro power plant Dalesice, which supplies Dukovany NPP with cooling water. The increased number of visitors may be attributed to the support of tourism activities provided by CEZ in the region, including tourist boat trips on the Dalesice reservoir; the Vysočina steam boat sailing under the flag of the CEZ Group carried over 30,000 passengers.

“What is your view on the existence of Dukovany NPP in your region?”

- rather positive 56%
- definitely positive 21%
- rather negative 15%
- definitely negative 3%
- unsure 5%



Source: STEM, 07/2008, 581 people over 18 yrs of age responded in the poll

The public opinion about the further development of nuclear power in the Czech Republic continues to improve, which was testified in a local opinion polls as well as in the whole country. 64% of people living near Temelín NPP said they are in favour of nuclear power, about the same percentage (65%) stated they agree with further extending of the plant. Compared to earlier years, the numbers of strict opponents of nuclear power and the extension of the plant fell sharply.

The attitude of citizens towards Dukovany NPP has been very positive for many years; in public opinion polls, 80–90% of those asked say that they support the operation of the power plant.



INTERNATIONAL RELATIONS

For the operation of nuclear power plants, it is crucial to maintain good international relations. The strong international character of this specific field is supported on broader than just European scale: in harmonisation of nuclear legislation, exchange of experience, open communication and mutual peer reviews, and also through international organisations such as UN, IAEA, OECD NEA, WNA, and other bodies which run a variety of international programs. The goal of these activities is to reach the maximum possible level of nuclear and radiation safety in civilian nuclear power facilities. For CEZ, international relations offer the opportunity to form necessary contacts, gather necessary technical information and know-how and exchange operating experience and feedback with foreign partners, with the aim to fulfill the strategy of improving safety, reliability and efficiency of Czech nuclear power plants' operation.

Our goal is not only to follow the worldwide trend, but also to compare with similar businesses and carry out benchmarking of our activities so as to reach the best results in three strategic areas A, B, C (Acceptance, Best safety and Competitiveness). The WANO association counts Dukovany NPP among 13% of best-operated nuclear power plants worldwide.

The employees of CEZ are active members of a number of international organisations, namely WANO and IAEA, related to safe operation of nuclear power plants, and such as FORATOM, WNA, ISOE, ENC, Eurelectric, etc. Apart from this, both Czech nuclear power plants maintain close relations with foreign partner nuclear power plants: Bohunice, Mochovce, Pakš, Loviisa, Cattenom, Volgodonsk, and also with corporations such as SE-ENEL, EdF, TVO, Fortum, Energoatom in Russia and Ukraine, etc.

Most important international-relations events in 2008 were two WANO technical missions at both nuclear power plants, entitled Excellence in Human Performance. Both missions covered practical examples and experience feedback from Exelon power company (U. S.) and from Ontario Power Generation (Canada). Based on the results, we apply very particular measures at both our NPPs, aimed at improving human performance and reducing the risk from possible faults on the safe and reliable operation of the plants.

Besides, in 2008 Dukovany NPP kept preparing for the WANO Peer Review Follow-up, which was to take place in January, 2009. Experts from five countries examined the results from the Peer Review that took place in June 2007. For this purpose, the plant carried out an Action Plan that contained corrective measures in 12 areas, namely in fields such as management and control, operation, maintenance, engineering support, operational experience and feedback, radiation protection, chemistry, and training.

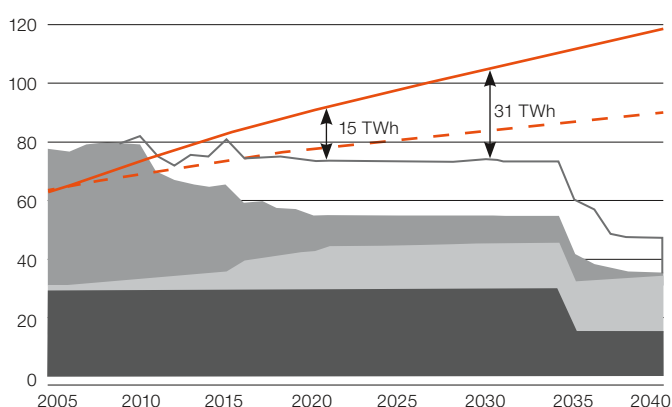


NEW NUCLEAR RESOURCES

Every engineering work, and this applies to power plants too, has a limited lifespan. Although today, the output of Czech power plants covers our needs, it is necessary to know and plan now what sources shall be used for electricity production in 10, 20, 30 years. Every country must reflect its real possibilities and it has to consider the future availability of primary power resources.

Expected output of Czech power resources compared to expected consumption
(situation at the end of 2007)
(TWh)

- reconstruction of CEZ coal resources
- existing coal-fueled power plants
- natural gas and renewable resources
- nuclear power plants
- hydro power plants
- domestic consumption with 50% savings or higher GDP growth
- - - domestic consumption when maximum possible savings are considered

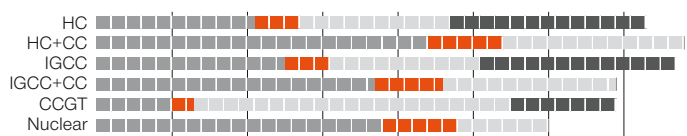


(source: CEZ)

On one hand, the standard of living grows steadily, economy grows and thus grows the demand for electricity. On the other hand, existing power plants are aging and supplies of fossil fuels keep shrinking. A partial solution is to save as much power as possible and to invest in renewable resources. Apart from that, however, CEZ launched the modernisation of Tušimice coal power plant and launched construction of a new brown coal-fueled Unit at Ledvice power plant. To ensure security of power supply and to maintain power safety and reliability in the country in the future, it is necessary to consider the option of further development of nuclear power.

Comparison of available large-scale power resources
(EUR/MWh)

- investment
- fixed costs
- fuel costs
- CO₂ emissions

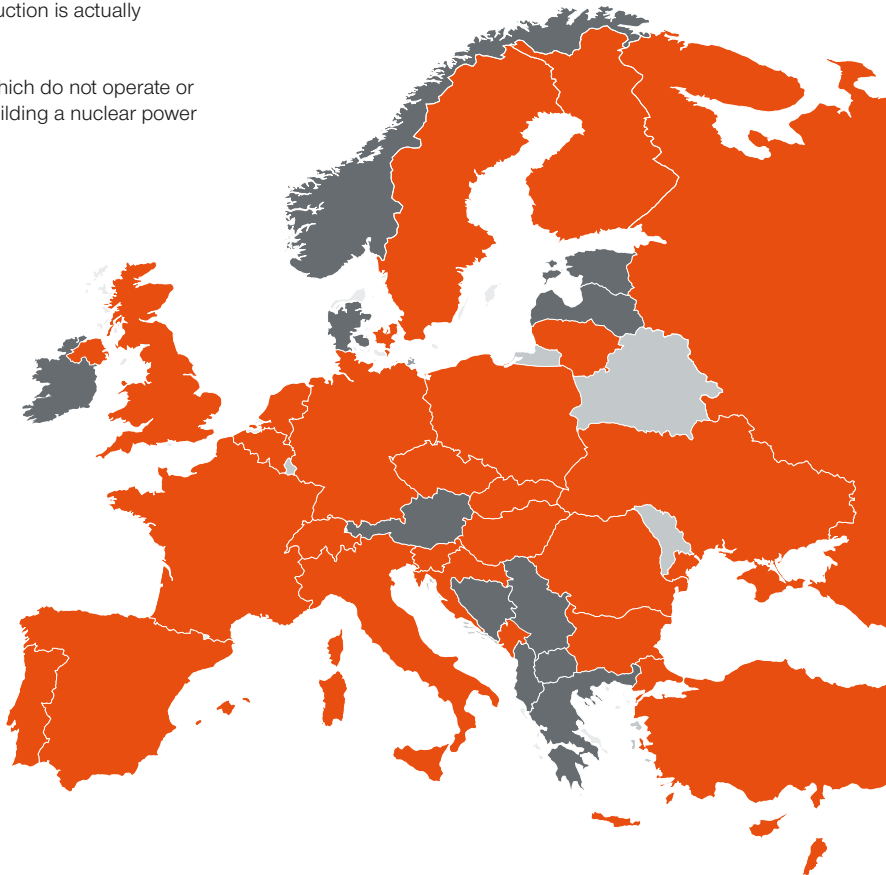


HC – hard coal, supercritical
CC – carbon capture
IGCC – integrated gasification combined cycle
CCGT – combined cycle gas turbine
Nuclear

Another argument speaking for further development of nuclear power is economy. The production costs of nuclear power are by far the lowest and long-term outlook confirms that it shall remain so in the future. Long-term, stable low cost is to be attributed to relatively small share of fuel costs in the overall nuclear power costs. This means that possible growth in Uranium prices will be less reflected in the final price of electricity than in case of other resources. The price of electricity for final consumers is defined by supply and demand, just as in other commodities. However, it may be said that existence of nuclear power plants contribute to reduction of electricity costs.

Situation in Europe

- countries where nuclear power plants are either operated or their construction is actually considered
- countries which do not operate or consider building a nuclear power plant



Similarly to most European countries, the Czech Republic relies on nuclear power. Analyses and studies have shown that Temelín is by far the most suitable location for the building of new power generation Units. Temelín NPP currently operates two 1000 MW Units, yet it was originally designed to contain four reactor Units. The possible completion would make use of existing facilities of the plant, including supporting facilities, drinking and utility water systems, sewage system, railway and road network, Hněvkovice and Kofensko reservoirs.

Temelín NPP area underwent a strenuous selection process based on both domestic and international standards, where geography, demography, hydrology and geology of the area was taken into account, as well as the seismic characteristics, sufficient water supplies, road and railway network and connection to the power grid. The possible construction of new Units does not require extension of existing emergency preparedness area in the vicinity of the plant.

The most advanced construction designs are being considered for new Units, all reflect the latest development in the area with improved safety systems, high level of passive safety, extremely low failure rate and high fault resistance.

In order to collect the necessary data needed to make the decision about possible future nuclear power development in the Czech Republic, CEZ filled an official application at the Ministry of Environment asking for an evaluation of possible impact of the objective: "New Nuclear Power Resource at Temelín Area including Output Connection to the Kočín Switchyard Station". On 11th August, 2008 the ministry launched an official evaluation process; it distributed the objective announcement (including an EIA process participation offer for neighbouring Germany and Austria) and published this information on its Web pages. Thus, the EIA process (Environmental Impact Assessment) actually started. In the Czech Republic the EIA is falling under law No. 100/2001 Coll. of Czech legislation that is in line with European Law.

The Ministry shall collect all comments and suggestions concerning the possible further completion of Temelín NPP in an Evaluation Process Report. The results will be one of key materials for EIA documentation development which is to be further subjected to a detailed scrutiny concerning the possible impact on environment. The EIA process is open to public and more details can be found on the official website of the Ministry (<http://eia.cenia.cz/eia>) or on CEZ website (www.cez.cz).

The EIA is expected to be finished by the end of 2010 and the results will form the basis for further decision and permission process. In case of a positive decision, the construction of the plant may begin at earliest in 2013, with possible operation of new Units in 2020.

MODEL OF COMPLETED TEMELÍN NPP

