ANNUAL REPORT 2005

Nuclear Power Plants of ČEZ, a. s.

Today, the Czech nuclear power plants Dukovany and Temelín count among the most efficient power generation sources of the ČEZ company. Its higher entry costs are balanced by long-term stable operation and by high safety levels. From the viewpoint of long-term sustainable development, nuclear power plants count among the power resources of the 21st century.

INTRODUCTORY MESSAGE

JIŘÍ BOROVEC
MEMBER OF THE ČEZ BOARD,
EXECUTIVE DIRECTOR
OF THE DIVISION GENERATION

Looking Back – the Past Year of 2005

Dear Ladies and Gentlemen,

the past year of 2005 brought along some significant changes in the generation area of the ČEZ company. By merging the divisions of conventional and nuclear power, the Division Generation was established. Due to its formation, a number of organisational measures was adopted, thus increasing performance and making management more efficient.

What Were the Key Changes?

Naturally, the nuclear, coal and hydro power plants remain to be the core facilities of power production of the ČEZ Group. They represent the Division Generation to citizens living nearby those plants and, in the first place, they fulfill the main mission of the company, the production of safe and environmentally clean electricity. The safety of our facilities is confirmed each and every day by our results. These are the best counter-arguments against anti-nuclear opponents. The devotion of the ČEZ company in this field is documented by the newly established Safety Department. Other changes in the organisational structure were carried out, as well. Management and Administration of Assets Department is to provide the necessary care, maintenance and control of our facilities, the new Engineering Department aims to cultivate existing facilities and also to build entirely new ones. The maximum efficiency of financial aspects is supervised by the Economy Department, which informs the whole Division of its results. The necessary support in human resources and budget is provided by new central sections, which now cater for the needs of the whole ČEZ Group.

When the Division Generation was established on the 1st April, 2005, I laid down a few key goals for the period until the end of 2005. The first goal was to ever increase the safety of our power operations. For all of us this means not to let ourselves to be set at ease by the hitherto great results in this important domain. In the autumn of 2004, we received a permition for permanent operation of the Temelín Nuclear Power Plant by the State Office for Nuclear Safety. Its operation had to be stabilised in regular operating conditions, when the periods of refuelling outages alternate the periods of full operation.

In 2005, we faced some other ambitious plans: apart from safe and reliable production of energy we planned to continue the integration of the Division Generation and the project of Continuous Optimisation. Another of the important objectives was the preparation of real budget for 2006. One of my prime personal goals was (and still is) to be surrounded by efficient, business-educated and honest people. This is why be begun to analyse the manager potential of our employees, we are going to outline a plan for further development of their knowledge and skills. The main priority of the Division Generation for the upcoming term is to draft a base project for the renovation of coal power plants (Tušimice 2 and Prunéřov 2) and a project of construction of new coal units at Ledvice and Počerady. We are also considering the option of building a new nuclear unit. Our second priority is the optimisation of maintenance in connection with the new strategy of resources reconstruction, with focus on cutting the duration of refuelling outages.

We stand at the beginning of 2006, so this is the right moment for a short retrospective of the last year. Despite various technical, management and human troubles, I dare to say that it was a good year. For me personally, it stands out because of the great work and great creative effort of over five thousand employees of the Division Generation. For this, they have my respect, applause, and thanks. Without the wonderful effort of these employees, the ČEZ Group would not stand where it does – in the family of eight best power-production companies in Europe. Credit should also be paid to both nuclear power plants, which are the flagships of our generation fleet. Words are just words, but the reality is reflected through facts. The following pages are dedicated to everything that has happened in our nuclear facilities Dukovany and Temelín in the course of the past year.

Jiří Borovec,
member of the ČEZ Board, Executive Director of the Division Generation

ORGANISATION AND MANAGEMENT OF NUCLEAR POWER PLANTS

In 2005, in terms of the Integration Project, both nuclear power plants were included in the Division Generation. The approach to the management of this division is process-based, with a clearly outlined system of reaching the goals of the company, leading to fulfilling the expectations of our customers and other stakeholders of the company.

JIŘÍ BOROVEC
Executive Director
Division Generation

MIROSLAV VILÍM
Director of
Temelín NPP

ZDENĚK LINHART
Director of
Dukovany NPP

JIŘÍ VÁGNER
Director of Assets and
Maintenance

KAREL KŘÍŽEK
Director of
Engineering

JAROSLAV VOLŠICKÝ
Director of
Production

MIROSLAV HOLAN
Director of
Safety

ALEŠ JOHN
Deputy Executive Director
for International Affairs

HELENA HOSTKOVÁ
Director of Economy and
Management System

OTAKAR RÝDL
Director of Generating
Plant Refurbishment

The human resources, procurement of materials and nuclear fuel cycle were centralised for both nuclear power plants in a scope of corporate services of the ČEZ company. These areas are managed by the following departments:

JAN KALINA
Director of Procurement,
Nuclear Power

BOHUMÍR PORT *
Director of Human
Resources, Nuclear Power

LADISLAV ŠTĚPÁNEK
Director of
Nuclear Fuel Cycle

*) until October 2005

The management system of the Division Generation is supported by the unified structure of documentation across the whole company. Sharing of information necessary for management and operation is made possible by a unified information system which makes data from any location accessible. In 2005, projects for improving the smooth running of processes in the Division Generation were launched, based on the information provided by benchmarking of ČEZ's nuclear power units and other nuclear power plants across Europe.

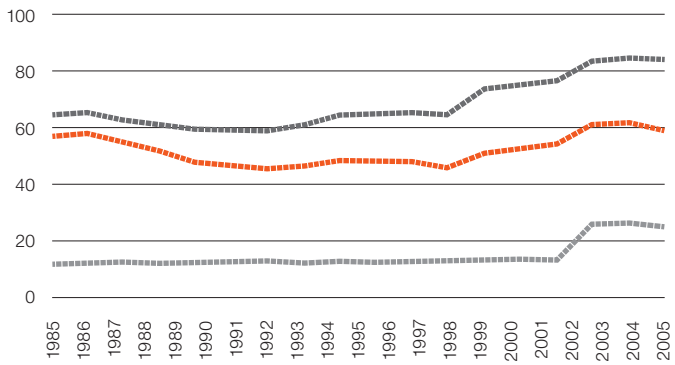
The requirements of quality assurance system in the Division Generation are implemented in phases. On the highest level, we place the activities related to safe operation of nuclear power facilities and the activities which could lead to exposure of individuals to radiation. The compliance with all the requirements of national legislation of the Czech Republic concerning quality management was testified also by the certification of relevant quality assurance programs by the State Office for Nuclear Safety.

NUCLEAR POWER SHARE IN THE CZECH REPUBLIC

In 2005, the total amount of 84 TWH was produced in the Czech Republic. 30% of this amount was produced by the nuclear power plants at Dukovany and Temelín. The total installed output of both nuclear facilities is now 3,760 MW, that being a 22% share of the total installed capacity in the Czech Republic. In 2005, the maximum output capacity of the Dukovany power plant increased by 16 MW to 1,776 MW, thanks to the modernisation of low pressure parts of the turbines at the unit 3 of the plant. In the upcoming years, the same modernisation will be carried out in the three remaining units of the Dukovany power plant. A reconstruction of the high pressure parts of the turbines at this power plant is also planned. At the Temelín NPP, the modernisation of the high pressure parts of the turbo-generators will be also carried out before the end of 2010.

Electricity Generation over Last Twenty Years
(TWH)

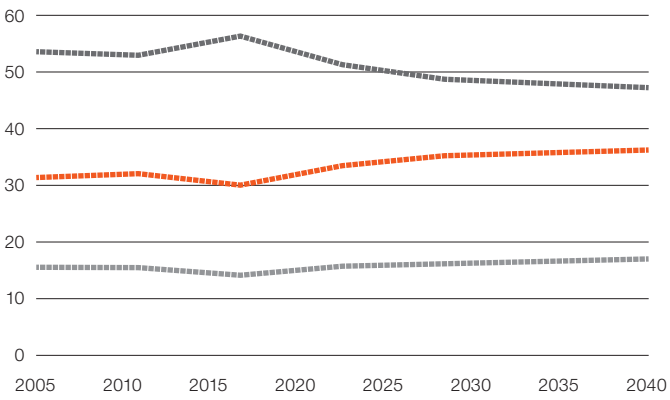
- Czech Republic
- ČEZ company
- NPP's



Based on estimates of investments in modernisation and reconstruction of power resources of ČEZ, the share of nuclear power in the ČEZ portfolio will increase steadily in the course of the following years.

Expected Development of ČEZ's Power Resources between 2005 and 2040
(in percent)

- coal power plants
- nuclear power plants
- hydro power plants and renewable resources

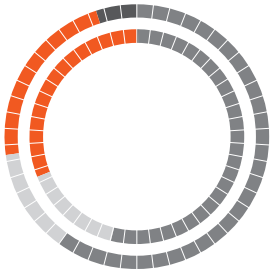


High share of nuclear power resources in the overall electricity production, their reliability and maximum safety point to the indispensability of these resources in the Czech Republic. In practical utilisation, when compared to the conventional coal plants, the operation of nuclear power plants reflects low variable costs and highly stable operation.

Installed Capacity
(in percent)

Czech Republic / ČEZ

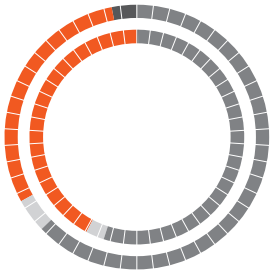
- coal 60 / 54
- hydro and renewable resources 13 / 15
- nuclear 22 / 31
- gas 5 / –



Share of Electricity Generation
(in percent)

Czech Republic / ČEZ

- coal 63 / 55
- hydro and renewable resources 4 / 3
- nuclear 30 / 42
- gas 3 / –



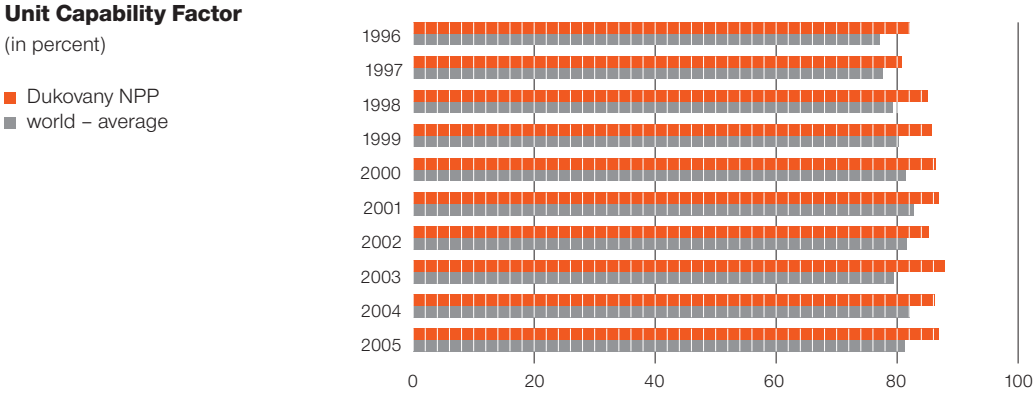
DUKOVANY NUCLEAR POWER PLANT

ZDENĚK LINHART
DIRECTOR OF
DUKOVANY NUCLEAR
POWER PLANT

Operation

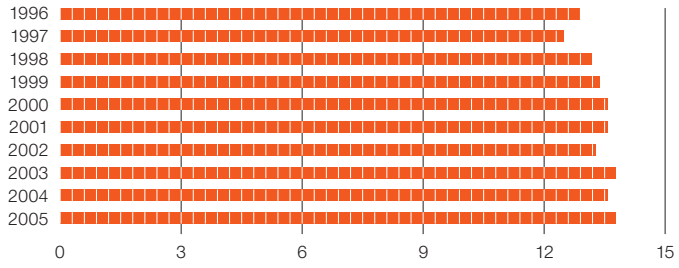
On Tuesday, 3rd May 2005 at 10 o'clock PM, exactly twenty years have passed since the first unit of Dukovany NPP started the first trial period of operation. Since the beginnings in 1985, this unit has produced 66 billion KWH of electricity, and all four units together have produced 252 billion KWH of power so far. Despite the fact that the first unit of the plant is the oldest nuclear power unit in the Czech Republic, it counts among the best operated nuclear units in the world. This is demonstrated for example by the **Unit Capability Factor**, which stands for this unit around 90% (it is the actual production percentage share of the maximum achievable power generation of the plant over a given period of time). Compared to the worldwide average, the performance of unit 1 exceeds it by 7%. Other comparison can be made with the **Unplanned Capability Loss Factor**, which was lower than 1% in the last six years (worldwide average is 4.3%), and in 2005 it was just zero percent. This means that in the course of the whole year, no power losses occurred as a result of a technical fault on the unit 1 equipment.

Unit Capability Factor
(in percent)



During the twentieth year of its operation, Dukovany NPP saw the most extensive investments in technology equipment in its history. At the third unit, low pressure parts of the turbines were replaced and the complex I&C system was thoroughly modernised. The modernisation of the turbine parts increased their efficiency by 3.46%. Maximum output thus rose by 2 × 8 MW, increasing the yearly power generation by approximately 127,000 MWH. Total power generated by the power plant in 2005 was 13.74 TWH, which is the second best result during the 20 years of the plant's operation. This excellent performance was mostly due to the modernisation of the turbines at the third unit, the minimum of unplanned outages and shorter refuelling outages than originally planned.

Power Generation at Dukovany NPP
(TWH)



All the turbo-generators operating at Dukovany are certified to provide ancillary services in the regulation of power in the grid and are permanently connected to the automatic voltage regulation system. Due to low operation costs, the units were rarely used for the regulation of active power. In this regime, they operated for only about 508 hours during 2005.

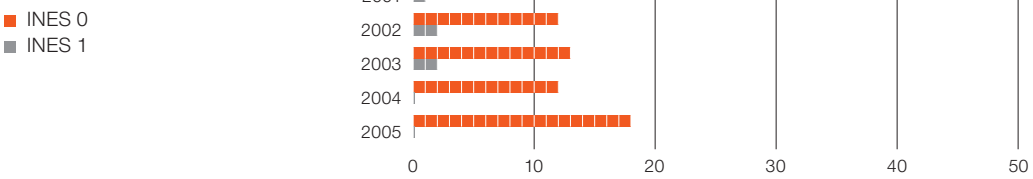
Safety

A high level of nuclear safety is one of the top priorities of ČEZ company.

The high level of nuclear safety at Dukovany NPP is reflected in the values of safety indicators. All units operate in accordance with the requirements of the Limitations and Conditions for Save Operation. Nuclear safety is significantly enhanced by the utilisation of in-house and external operating experience, as well as by development and updating of appropriate procedures for dealing with non-standard situations at a nuclear power plant. Thanks to these defined procedures, the staff is always ready to respond effectively in the event of technical anomalies and failures.

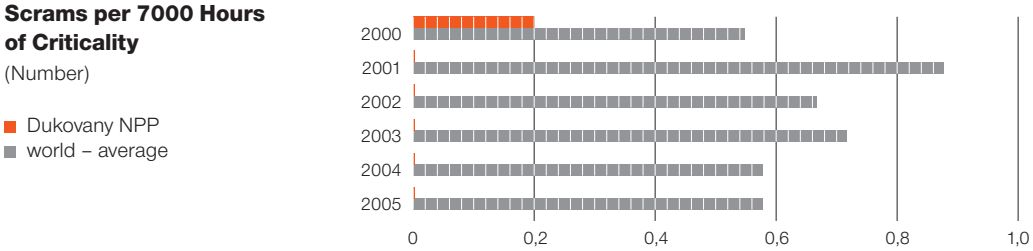
Within the Dukovany NPP, a system of operation experience feedback is consistently applied. One of the important measures for the evaluation of efficiency of operation experience feedback is the tracking of the total number of safety-related events. Worldwide, safety-related events are classified according to the seven-degree **International INES scale** (International Nuclear Event Scale). The first degree (INES 1) covers events of lowest safety relevance, which are nevertheless deviations from normal operation. In the operation of the Dukovany NPP, events occur mostly bellow this international scale, not reaching even this first degree of the scale. In the course of 2004 and 2005, no incident of the INES 1 degree occurred at all.

INES Events
(Number)



Another important indicator of power plant safety is the **number of scrams** (unplanned, forced, immediate reactor shutdowns). Dukovany's performance in this area has been exceptionally good; in the course of the last five years, not a single scram has occurred at any of the four reactor units.

Scrams per 7000 Hours of Criticality
(Number)



Radiation Protection

The plant has consistently shown very good performance in protection against ionising 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). This indicator evaluates the potential harm to the health of the workers who perform activities in the radiation controlled areas (RCA) of nuclear plants.

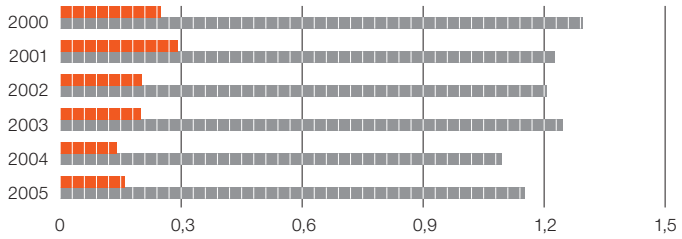
CED represents the cumulative total irradiation of all the workers who perform activities in the RCA. The lower the value of this indicator, the better the level of radiation protection, and thus the more efficient program of protection against ionising radiation.

In 2005, Dukovany NPP presented one of the lowest values of CED in the course of the total operation period of 20 years of the plant, that is 0.16 Sv per unit.

The low CED levels prove that the strategy to produce electricity and heat from nuclear resources safely, reliably and efficiently is being fulfilled effectively.

Collective Effective Dose (CED) per One Unit
(Sievert)

- Dukovany NPP
- world – average



Another criterion of effectivity of the technical and organisational measures of radiation protection is an indicator called **Individual Effective Dose** (IED). It characterises the impact of liquid and gaseous effluents from nuclear power plants. IED is defined for an individual from a critical population group living in the surroundings of the nuclear plant.

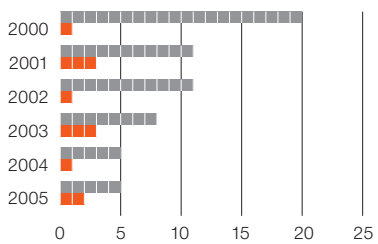
In 2005, the IED level for the Dukovany NPP was 0.16 microSv/year (for gases), which is equivalent to 0.4 % of the permitted yearly value of 40 microSv/year. The value for liquids was 1.8 microSv/year, which means that the NPP used up only 30% of the permitted value of 6 microSv/year. The IED levels were defined by the State Office for Nuclear Safety (SONS) via a conservative method designated for continuous control. The low values of IED as a result of low gaseous and liquid effluents demonstrate the plant’s effort for long-term minimisation of the impact on evironment.

Industrial Safety

Dukovany’s performance in occupational health and safety has been excellent for a long time. The long term progress is outlined in the following chart.

Number of Injuries

- suppliers
- employees



During the first half of 2005, the plant was inspected in an independent enquiry by the State Office of Occupational Health and Safety, and it received its third award denoting it as a “Safe Enterprise” (the succession was in 1999, 2002 and 2005).

Fire Protection

The high level of fire safety is demonstrated by the fact that in the course of the last five years, the power plant did not experience a single fire outbreak.

In the surroundings of the power plant, the Fire Brigade repeatedly exercised a fire intervention in the framework of the Integrated Emergency System of the Czech Republic.

Maintenance

The equipment of the Dukovany NPP is managed and maintained by the Assets and Maintenance Department documenting the required functions of the equipment and its compliance with design documentation. It also supervises the technical, technological, capacity, material and organisational preparation and implementation of all maintenance and repair activities. Apart from that, the department schedules and manages the activities carried out both during outages and during normal operation periods.

In 2005, all units of Dukovany NPP underwent operation outages. During these, all activities planned in the framework of the maintenance, checks and inspection programs were carried out. The total length of the outages was cut by nearly five days, compared to the length originally planned. The outage of the third unit was exceptionally demanding, both technically and organisation-vise. Apart from the regular maintenance, checks and minor modifications, four significant projects of equipment reconstruction were implemented:

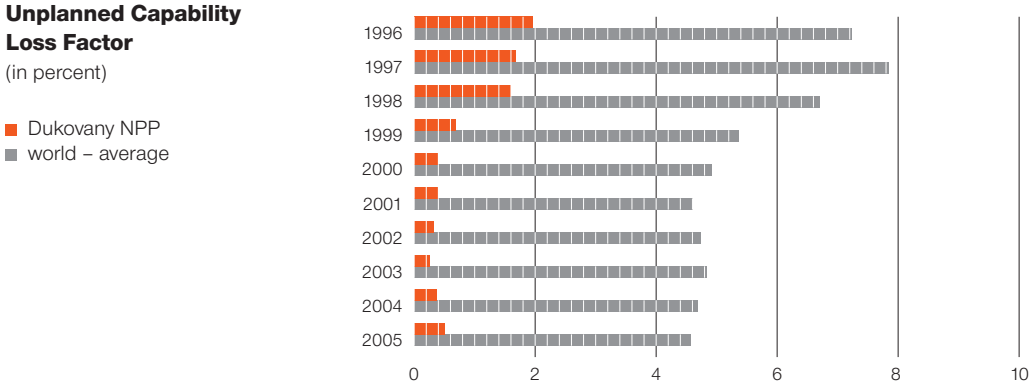
- replacement and launch of full operation of the I&C system in areas of safety systems and information system
- replacement of turbine low pressure parts
- fitting a new type of nuclear fuel
- reconstruction of ancillary electrical switchboards

The fitting of the unique equipment and new construction solutions will significantly contribute to the smooth operation of the power plant.

Other important maintenance activities carried out in 2005 included the replacement of separative elements of the separators and steam re-heaters for the turbine system at unit 4, repair of the cooling tower No. 3, and the replacement of the hot collector of the steam generator. In a ten-year long cycle, diesel generators were also inspected.

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

Unplanned Capability Loss Factor
(in percent)



Engineering and Technological Development

The Dukovany NPP is in the state of implementing several major investment projects, which will contribute to the modernisation of the plant and will increase the efficiency of power generation.

- In spring, we launched the program of replacement of low pressure flow parts of the steam turbines, which were at the end of their lifespan. New rotors with improved blades increased the efficiency of the unit 3 turbines by 3.46%.

- In 2005, a construction of the new spent fuel storage facility was finished. It was thoroughly tested, and at the end of the year, it was ready for the launch of a trial operation and for the final approval. The extended storage facility will accommodate 1,330 tons of spent fuel, thus covering the expected lifespan of the power plant.

- We are half way through the replacement of ancillary electrical switchboards of the 2nd system of the ensured power supply of 0.4 KV. Half of the switchboards necessary for the supplying of important appliances have been already replaced. This replacement follows after the successful reconstruction of the 1st ensured power supply system, carried out in the past years.

- Diesel generators serve as an emergency power supply. To increase their reliability, several modifications and improvements were implemented. These included replacing of pipes, air valves and driers in the startup air system, the fuel system was modified, and the protective system of the diesel generators was enhanced.

- An Information System of Operational Documentation was developed and fully implemented at the Dukovany NPP, thus providing effective measures for the management of operation regulations and for improving the comfort of the operation documentation users.

The code T544/M 1, 2 represents the largest investment project at present – it stands for the complex reconstruction of the I&C system of Dukovany NPP. During the outage of the third unit, the last stage of implementation of the new equipment was carried out, thus crowning the long-term effort of our technicians. The third unit now boasts new, fully replaced automatic equipment for the protection and safety of the unit. All tests were passed with top results, the startup was flawless and the planned output was reached. In 2005, preparatory works commenced in the units which will follow in this reconstruction program. First unit had two divisions of new protective reactor systems installed, together with a part of the new information system monitoring the condition of the unit. Second unit saw preparatory dismantling before the implementation of new equipment planned during the outage in 2006. The modules M 1, 2 will be followed by modules 3, 4, 5, whose objective is to replace the rest of the I&C system, that is, protections of the turbine and reactor, and the controls of primary and secondary circuits.

TEMELÍN NUCLEAR POWER PLANT

MIROSLAV VILÍM
DIRECTOR OF
TEMELÍN NUCLEAR
POWER PLANT

Operation

The Temelín NPP is the largest power generation facility owned by the ČEZ company. 2005 was a second operative year of both units. Apart from its main mission – supply of electricity from both thousand-megawatt-generators to the power grid – it reliably supplied heat to the nearby town of Týn nad Vltavou in the course of the whole year.

In 2005, the plant produced 10.98 TWH of electricity. The plant's production thus accounts for a 19% share of the total production of the ČEZ company. The effort of all the employees concentrated on the stabilisation of operation of both units according to the current requirements of the energy dispatching.

Both units are certified for providing ancillary grid services. Due to the low variable cost of power generation both units were mostly operated in the basic load on the maximal achievable power. By providing the ancillary services of voltage and reactive power regulation, the units helped to maintain the required voltage level in the pilot nodal point of the transmission grid, to which the output of both Temelín units is transmitted.

In 2005 the operation of the Temelín NPP did not avoid some technical problems. In April, the first unit experienced an unplanned outage due to a fault of blades in the high pressure part of the turbine. Subsequently, during an outage of the second unit, its high pressure turbine rotor was modified to reduce mechanical and temperature strain on the rotor blades. After this modification the maximum output of the second unit was temporarily cut down by 16%. The replacement of this important element of the turbine was planned in January 2006, and this would enable the unit to return to its rated output, thus creating a good starting position for the operation in 2006.

In the course of the past year, no automatic rapid reactor scram occurred. This positive trend documents the gradual stabilisation in operation of both units. The number of scrams may be seen in the following chart.

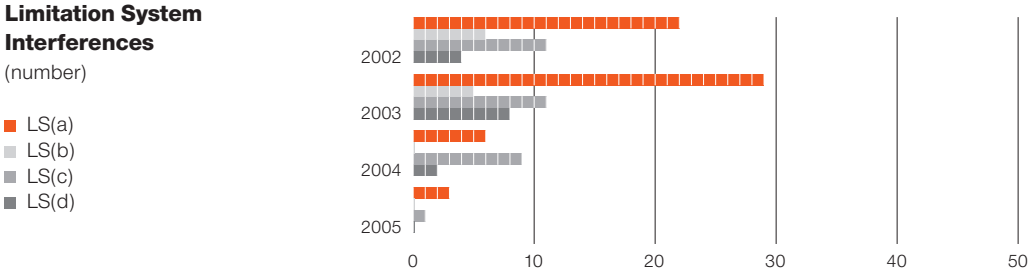
Number of Scrams per Year

Safety

The top priority of the management is to ensure safe operation of the power plant.

The plant is operated in accordance with the Limitations and Conditions of Safe Operation. 2005 was the first year of reliable full capacity operation of the plant after the trial period of operation that ended in 2004. The operation of Temelín NPP was not disturbed by a single occurrence of an automatic scram, and the reliability of its operation was demonstrated in the first place by the sharp drop in unplanned output cuts, compared to the preceding years.

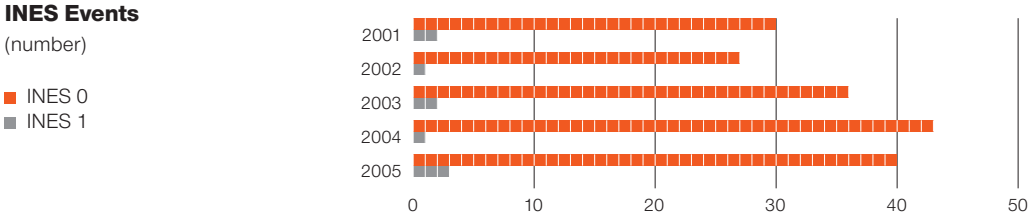
Limitation System Interferences
(number)



Safety, reliability and efficiency of operation are enhanced by the utilisation of probability risk assessment and in-house and external operating experience. A system of operation experience feedback is consistently applied. This system maintains and improves safe and reliable operation of units together with a software application INDI utilised for analysing of all safety indicators.

One of the main priorities of the operation experience feedback is to use the in-house and external experience of past events in preventing the occurrence of safety-related accidents. The efficiency of the operation experience feedback at Temelín NPP is documented by the following overview of INES 0 and 1 events. The safety of the facility is, among other things, testified by the fact that in the whole history of the plant no incident more serious than INES 1 has ever occurred. In the period of trial operation, culminating in 2003 and 2004, the number of INES level events at Temelín NPP were higher than at Dukovany NPP. However, after the termination of the trial period and in years to come, a drop in these events is expected, similarly as it was at Dukovany NPP and elsewhere in the world.

INES Events
(number)

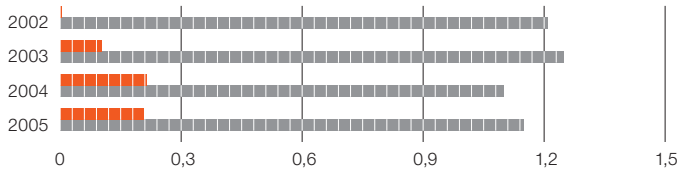


Radiation Protection

During the first year of operation of Temelín NPP, the levels of **Collective Effective Dose** (CED) were consistently low, even during the planned refuelling outages of both units. In 2005, the total level of CED per unit was 0.208 Sv, which documents the plant's outstanding results in maintaining radiation protection of workers who carry out activity in the radiation controlled area (RCA).

Collective Effective Dose (CED) per One Unit
(Sievert)

- Temelín NPP
- world – average



Another criterion of effectivity of the technical and organisational measures of radiation protection is an indicator called **Individual Effective Dose** (IED). It characterises the impact of liquid and gaseous effluents from nuclear power plants. IED is defined for an individual from a critical population group living in the surroundings of the nuclear plant.

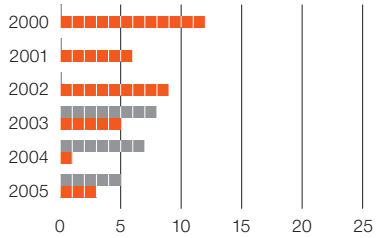
In 2005, the IED level for the Temelín NPP was 0.74 microSv/year (for gases), which is equivalent to 1.8 % of the permitted yearly value of 40 microSv/year. The value for liquids was 1.17 microSv/year, which means that the NPP used up only 39% of its permitted value of 3 microSv/year. The IED levels were defined by the State Office for Nuclear Safety via a conservative method designated for continuous control. The low values of IED as a result of low gaseous and liquid effluents demonstrate the plant's effort for long-term minimisation of the impact on evironment.

Industrial Safety

During the first half of 2005, the plant underwent an independent inquiry "Safe Enterprise", conducted by the State Office of Occupational Health and Safety. The audit confirmed a good trend towards increasing the occupational health and safety levels, and as a result, the plant received a certificate declaring it as "Safe Enterprise".

Number of Injuries

- suppliers
- employees



Fire Protection

The high level of fire safety is demonstrated by the fact that in the course of the last three years the plant did not experience a single fire outbreak.

However, in the surroundings of the plant, the Fire Brigade repeatedly exercised a fire interventions in the framework of the Integrated Emergency System of the Czech Republic.

Emergency Preparedness

In 2005, controls and inspections of external bodies and organisations, especially of the State Office for Nuclear Safety, confirmed a high level of emergency preparedness at the plant.

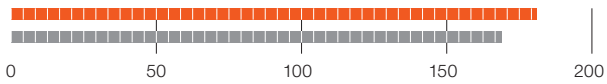
In 2005, five emergency drills were carried out, aimed at the practice of organisation of emergency response and at the training of nuclear fuel transport. In addition, a drill including a full-scale personnel shelter practice was carried out.

Maintenance

In 2005, the main objective of the Assets and Maintenance Department at Temelín was to further stabilise the power plant operation and to manage the outages of both units. Each year, an outage of both units is necessary to replace the spent part of the nuclear fuel, to re-group the fuel in the reactor core, and to carry out all planned repairs, inspections and revisions in accordance with the maintenance, inspection and control programs of quality assurance. During the planned outages, a number of technical equipment modifications were implemented, and the planned maintenance works were carried out. Based on the experience with preparation and management of outages at Dukovany NPP, a project of outage optimisation for both Dukovany and Temelín NPPs is currently under development.

In 2005, the operation and results of both units were significantly influenced by the state of high pressure parts of turbines at both units. Since the last outage, the second unit had operated at reduced capacity. At the same time, technical solutions for the reinstatement of design values of the turbine performance was being developed in cooperation with the manufacturer, Škoda Power.

Total Length of Outages in 2005
(days)



- Temelín NPP
- Dukovany NPP

Engineering and Technological Development

At Temelín, a number of investment projects were carried out aimed at increasing the nuclear safety and reliability of the power generation process.

- A wide-scale replacement of cooling water piping system was carried out, including orifice plates and valves. Instead of the original carbon steel material, stainless steel elements with nearly limitless lifespan were utilised.
- The suspended parts of control rods were adjusted, improving the hydraulics during the movement of the control rods into the reactor. At the same time, the control rod potential energy was increased thus increasing their speed when entering the reactor.
- Utilising the know-how from Dukovany NPP, the primary circuit components were fitted with camprofiles gaskets replacing the original ones made of nickel. This measure increased the reliability of the separating flanges and joints gaskets and reduced the strain on gasket elements and the risk of its deformation.
- An increase of speed of the refuelling machine in vertical direction allows to cut the length of outages. Thanks to adjustments of the machinery algorithm, the regular yearly refuelling period could be cut by 15 hours.
- The preparation of the spent fuel storage facility continued according to the schedule. In August, an international EIA was carried out. Thanks to minimum impact of the facility on the environment, the Ministry of Environment and Euratom provided their consent in November, so the facility preparation process continues.
- Extensive digitalisation of technical documentation continued. Within its framework, the internal network database browser was updated, now permitting individualised access of users to the database content.
- On the premises of the plant a base for the ČEZ Group central data storage was constructed. At the same time, a back-up archive was opened in České Budějovice.

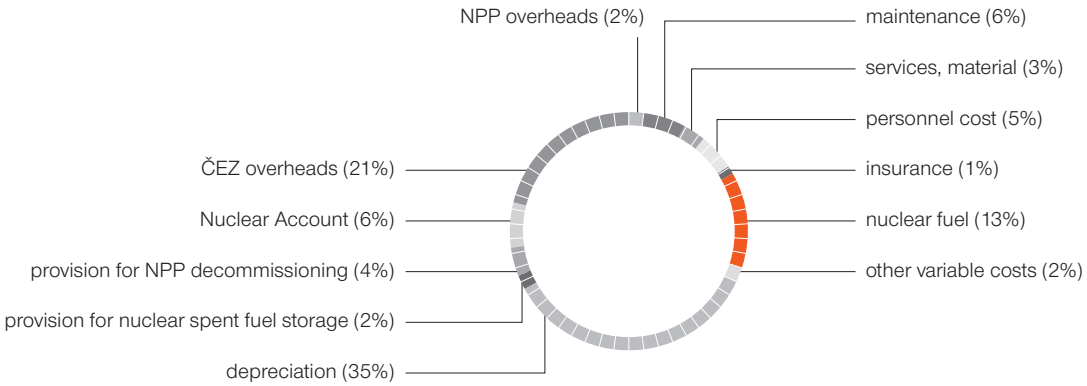
Another important event in the life of Temelín NPP took place in 2005 – the first reactor unit was granted its final building approval. The structural approval process of the plant started in mid-2004. Since then, 166 partial building approvals were granted and 150 approvals were passed to operating complexes. Among the most important buildings approved in 2005 were for example turbine halls, transformers rooms, switchyards, 110 and 400 KV outlets and the auxiliary building.

ECONOMY

In 2005, the production management was strongly influenced by the establishment of the Division Generation. In consequence of this organisational change, the unification process of production and business management of all power generation resources of ČEZ company was launched. The new division and the newly implemented production management system allow more efficient allocation of financial resources to the individual production facilities, which, as a result, brings significant cost savings. This change was quickly reflected in practice, in the course of the year, that it was possible to allocate the temporarily non-designated funds to cover extra costs of repair of the turbo-generator at Temelín NPP.

In the course of 2005, both Czech nuclear power plants underwent a benchmarking process comparing them to similar nuclear power plants abroad. The goal was to compare the cost of operation, maintenance costs and overhead costs. The results proved the good standing of both Czech nuclear power plants. At the same time, the benchmarking pointed out areas of possible further improvement, especially reductions in maintenance costs. Based on the benchmarking recommendations, an action plan of individual projects aimed at cutting the costs in all the mentioned areas was developed.

In 2005, the operation and investment budget was adhered. In year-to-year comparison, the procurement costs dropped significantly. The structure of the nuclear plants' costs may be seen in the chart bellow. It shows that the nuclear power plant expenses cover all external costs such as the cost of future storage of spent fuel, the expenses connected with creating a decommissioning fund, and also payments to the so-called Nuclear Account, designated to cover all the costs of liquidation of radioactive material produced over the operation period of nuclear power plants.



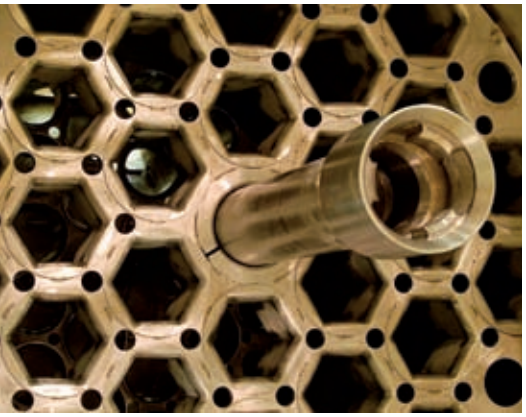
THE FUEL CYCLE OF NUCLEAR POWER PLANTS

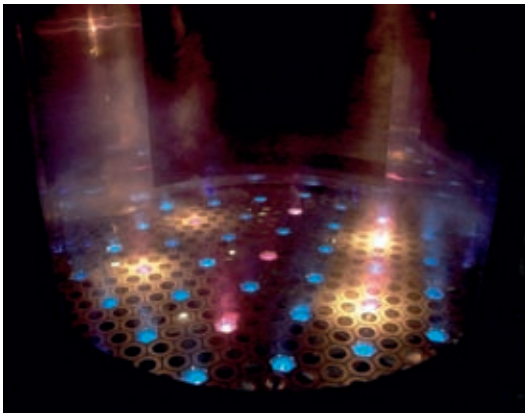
In 2005, the fuel of both Temelín and Dukovany NPP was supplied as scheduled in accordance with long-term contracts. Respecting a worldwide practice both plants keep stocks of fuel which allows higher flexibility for the operation planning of all nuclear power units. Thanks to the high professional manner of all participating parties all transports across the Czech Republic and abroad went without any flaws.

Utilisation and a way of operation of nuclear fuel have strong impact on the economy of nuclear power plant operation. The cost of nuclear fuel for the ČEZ company account for around 13% of total nuclear power generation costs and is among the highest items of the budget.

Great care is being taken during preparation of individual fuel charges into the reactor. The process is carried out utilising the most recent scientific findings and computational methods. This approach leads to higher efficiency of fuel utilisation, especially thanks to the increased length of fuel cycle and increased number of seasons the fuel lasts in the reactor. At present, the Dukovany NPP is finishing the process of transition to a five-year fuel cycle, as opposed to the initial design which expected a three-year long cycle. Thanks to this modification the fuel burn-up increased from the original value of 30 MWd/kgU to the present value of 45 MWd/kgU, and the final planned amount for a five-year cycle is 51 MWd/kgU. At the same time, the length of outages was cut down, thus it was necessary to extend the operating seasons in order to maintain a year-long cycle of refuelling outages. Another important effect of this change was dramatic drop in production of spent fuel. While initially, one reactor produced 114 spent fuel assemblies, in 2005, this number reduced to only 72 spent fuel assemblies. This in turn reduced the necessary amount of spent fuel containers.

A reliable operation of both our nuclear power plants is guaranteed by detailed monitoring of operational parameters of present fuel and, at the same time, by its continuous improvement. During refuelling of the third reactor unit of the Dukovany plant, an advanced fuel Gd-2 was utilised. In connection with this modification, a licensing process was successfully completed. Subsequently, new start-up control software and hardware were installed. In Temelín, the reactor core is also being optimised, a next generation fuel is being prepared and its supplier is being selected. In the area of fuel handling control, a transfer to special software in compliance with Euratom's legal requirements for records of nuclear materials was completed.





HUMAN RESOURCES

Towards the end of 2005, a significant change in human resources area took place. A „Staff Services Centre“, catering for needs of employees in areas such as wages, personal and social life was opened. For managers, a human resources consultancy by their „Human Resources Partners“ is available at both nuclear power plants.

A new department of „Training and Human Resources Development“ guarantees unified organisation and implementation of staff training across the whole ČEZ Group.

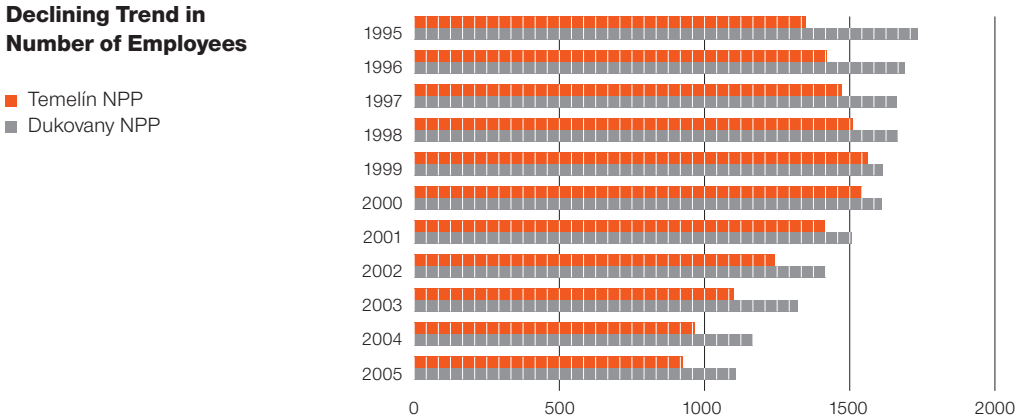
In 2005, the personnel of both nuclear power plants underwent training in accordance with pre-defined rules and time schedule. The aim was to further increase and consolidate skills of both employees and external suppliers. The success of the training and the overall high level of professional competence of employees was confirmed by regular inspections from the State Office for Nuclear Safety. It was concentrating for instance on the preparedness level of the plant personnel or on the flawless trial operation of the unit 3 of Dukovany NPP after the I&C reconstruction. Another prove of high level of competence was that Temelín and Dukovany NPPs have received the Safe Enterprise certificates.

Significant effort was devoted to training of licensed staff for main control rooms, particularly in area of increasing the nuclear safety (analyses of accident situations within training days), and improving their soft skills (practice in social and performance skills, out-door training, etc.).

In addition, a workshop for line management was dedicated to „Operational Decision Making“ and it was a great success. It took place in autumn 2005 and consisted of three sessions at each nuclear power plant. It was based on the WANO methodology and made extensive use of experience gained in a workshop instructed by a professional from the WANO Atlanta Centre. Other important workshop was the international course of „Physical Protection of Nuclear Material“, organised together with IAEA, SONS and DOE in the Training Centre in Brno in the first half of November, 2005.

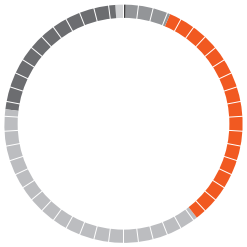
The following charts display some human resources figures from both nuclear power plants operated by ČEZ company.

Declining Trend in Number of Employees



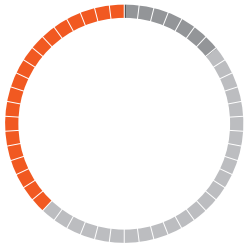
Employee Age Structure

- up to 25 years of age (0%)
- 26–30 years of age (6%)
- 31–40 years of age (33%)
- 41–50 years of age (38%)
- 51–60 years of age (22%)
- over 60 years of age (1%)



Qualification Structure

- primary education (0%)
- secondary vocational (14%)
- higher secondary vocational (48%)
- university degree (38%)



PROTECTION OF ENVIRONMENT

Nuclear power plants count among the most environment-considerate power generation resources. In their operation, no greenhouse gases are produced, nor they consume oxygen or non-recoverable raw materials (oil, coal), which are highly important to be preserved for other use and for future generations. The impact of nuclear power plants' operation on the environment is, compared to other widely used power resources, negligible.

The environmental policy of all power plants operated by ČEZ company is based on the principle of prevention and constant improvement of the environmental protection. It covers fulfilling all legal requirements and standards and it outlines goals the power plants should reach.

Since 2001, Dukovany NPP has introduced and certified Environmental Management System (EMS) as required by the legal standard ČSN EN ISO 14001. In 2002 and 2003, the efficiency of the system was confirmed by a regular audit. In 2004, the EMS system was re-certified by an audit for another three-year-long period. Temelín NPP completed the implementation process of the Environmental Management System by a certification in 2004.

In November 2005, both nuclear power plants again successfully passed a regular EMS audit.

Nuclear power plants pay maximum attention to the protection of environment. The legal standards are strictly implemented and all activities in connection with the protection of environment are closely supervised and evaluated. Yearly evaluation reports are submitted to supervisory bodies and they are also available to broad public. Research centres and universities also participate in independent supervision and evaluation of Temelín NPP's impact on environment. The final evaluation reports are available to public in the Information Centres of both nuclear power plants.


DET NORSKE VERITAS
CERTIFIKÁT
SYSTÉMU ENVIRONMENTÁLNÍHO MANAGEMENTU
ČEZ, a.s.
Elektrárna Dukovany
DET NORSKE VERITAS
CERTIFIKÁT
SYSTÉMU ENVIRONMENTÁLNÍHO MANAGEMENTU
ČEZ, a.s.
Elektrárna Temelín

PROTECTION OF ENVIRONMENT IS ONE OF OUR TOP PRIORITIES

Waste

In both nuclear power plants, all radioactive waste products are treated with the utmost care. Waste is processed in accordance with the legislative standards and the recommendations of international bodies and in a manner considerate to the environment.

All liquid waste is solidified via bitumenisation into 200-litre barrels and together with a portion of the solid waste it is deposited into a Radiactive Waste Storage Facility (URAO) at Dukovany, where it is safely separated from the surrounding environment.

Solid waste products which are free of radioactive contamination are a subject to certified measuring and subsequently, under strict control, they are released into the environment in a controlled way. Through a continuous improvement of technological processes, the production of radioactive waste from nuclear power plants is being gradually reduced.

The Radiactive Waste Storage Facility at Dukovany is in operation 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 power plants, but it allows for the safe depositing of waste which will be produced as a result of the plant's decommissioning. At the end of 2005, 10 out of total number of 112 cells were filled up.

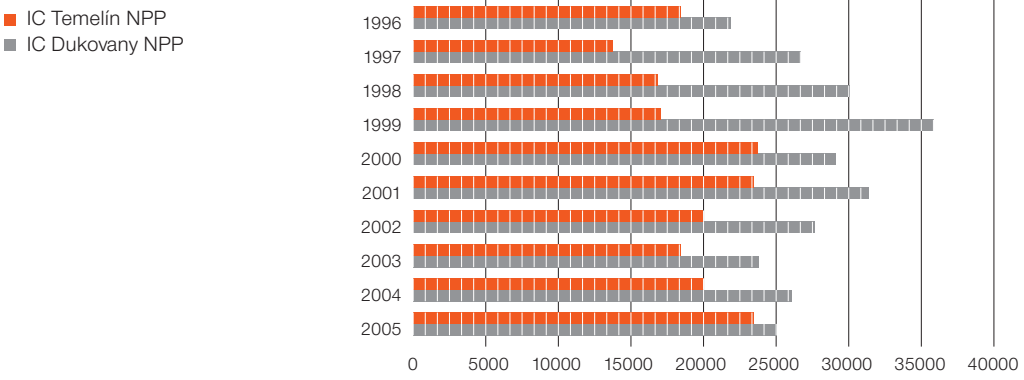
EXTERNAL RELATIONS

Relations with the Surrounding Communities

ČEZ company has set itself a goal to help where it operates its facilities. It maintains good relations with the public, with professionals and ordinary people alike and in the first place, it is a secure and reliable supplier of power. The relations with the surrounding communities improve and broaden continually and each year the company invests significant money into projects which help increase the quality of life on regional level.

In the Czech Republic, the interest of public in nuclear power plants is traditionally high. Both Information Centres (IC) are visited by around 48 thousand of visitors each year, many of them are also foreigners.

Total Number of Visitors of Information Centers



The Information Centres of the nuclear plants have become the centres of learning about nuclear power technology for both schools and institutions. Besides this, they have also become an interesting and popular venue of holidaymakers of south Bohemia and Moravia. The public appreciates the professional approach of IC staff of both plants. Since their opening, the centres have been visited by 600,000 visitors.

Both nuclear power plants are also the focus of attention of our state, regional, and municipal representatives, political parties, Czech and foreign organisations, institutions and non-governmental organisations. After the entry of the Czech Republic into the EU, both power plants were visited by Czech and foreign members of the European Parliament. In the course of the year, both plants have welcomed a number of important guests.

The ČEZ Endowment assists municipalities in the construction of water supply networks, sewage networks, infrastructure, in reconstruction of schools, playgrounds, and other projects.

International Relations

Both nuclear power plants continued the successful practice of maintaining and developing technical contacts and relations with international bodies and the operators of nuclear power plants abroad. These contacts enable ČEZ to make use of foreign experience and know-how and it ensures that the Czech nuclear is not isolated from the rest of the world. This approach of ČEZ is important because it helps the company to keep up with the most current trends and foremost nuclear operators worldwide. Czech nuclear power plants actively cooperate with international organisations such as IAEA, WANO, Foratom, Eurelectric, WNA and others. Our managers and experts are involved in international institutions, they take part in OSART or WANO Peer Review missions, technical support missions, workshops and they give presentations at conferences.

Temelín NPP closely cooperates with Cattenom NPP in France and with Volgodonsk NPP in Russia. Similar cooperations have been developed by Dukovany NPP as well. It maintains relations with the Rosenergoatom in Russia, Paks NPP in Hungary, Obrigheim NPP in Germany, Jaslovské Bohunice and Mochovce NPPs in Slovakia, with Loviisa NPP in Finland and some others.

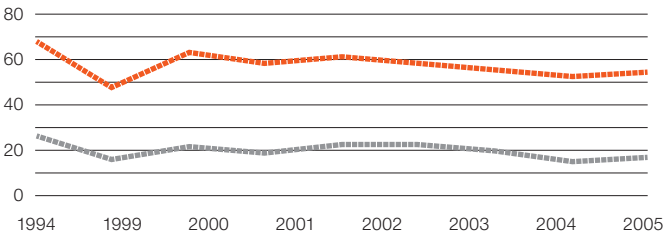
Nuclear Power in the Czech Republic

The acceptance of nuclear power by professional and general public is crucial for its existence and other development. This is why we take special care in maintaining such open and correct dialogue.

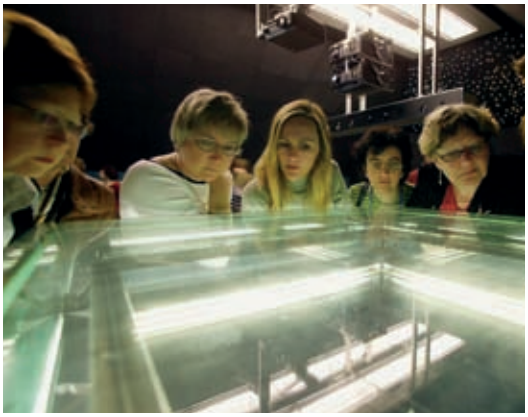
In the course of the past year, the support for nuclear power development in the Czech Republic increased slightly. The figures show stable support of over half of the citizens of the country. The Eurobarometer 2005 survey (performed by EU) has shown even higher figure of 61%.

"Are you personally in favour of the development of nuclear power in the Czech Republic?"
(in percent)

- definitely in favour + positively inclined
- definitely in favour



Source: STEM, Trends 1994/3, 1999/3, 2000/4, 2001/11, 2002/10, 2003/6, 2004/5, 2005/6



NUCLEAR POWER AROUND THE WORLD

Safe and reliable supply of electricity is crucial for every developed economy. To reach this goal, it is necessary to carefully balance political objectives, protection of environment, safety of operation, reliability and availability of suitable resources and costs. The yearly power consumption increase in Europe lies steady around 1.8%.

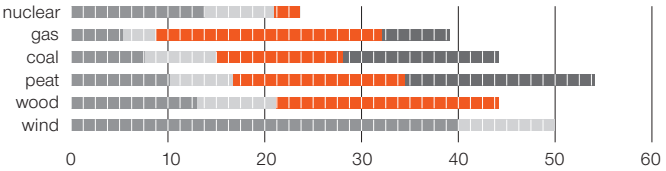
At present, an increasing number of power experts worldwide states publicly and in union that energy produced in nuclear power plants is crucial for sustainable growth and development of modern industrial society. The availability of power resources and the role of carbon dioxide emissions on climate changes are two key problems mankind faces today. Both can be solved by increased use of nuclear power. Nuclear power plants produce virtually no greenhouse gases (especially carbon dioxide), and thus contribute significantly to the reduction of global emissions of these gases into the atmosphere. Nuclear power plants thus cut the yearly emissions of about 2 billion of tons of carbon dioxide. This fact together with other reasons (especially those concerning the orientation towards sustainable development) stand behind today's turn in long-term approach to nuclear and planning of future power resources. Experts worldwide speak about the renaissance of nuclear power.

In 2005, 31 countries of the world had 442 nuclear power reactors with the total installed capacity of 368,611 GW in operation. Worldwide, nuclear power accounts for around 16% of total power generation. Most nuclear power plants operate in the United States (103), France (59), Japan (55), Great Britain (23) and Russia (31). In Asia, a number of new nuclear power plants are being constructed, especially in China, India, South Korea and Japan. In Europe, a Finnish plant Olkiluoto 3 is under construction, utilising a new technology EPR (European Pressurised Water Reactor). Its launch is expected in 2009. A project for a similar nuclear plant is under way in Flamanville, France with the planned output of 1,600 MW. In the United States, new types of reactors are being in the process of certification, some power companies are preparing applications for combined construction and operating licences (COLs) for new nuclear power plants and many present plants' lifespan is being increased.

Nuclear power plays also an important role in the countries of EU – around one third (33%) of all power produced in Europe comes from nuclear.

The advantage of nuclear power among other power resources lies not only in safe and reliable operation of nuclear plants, but also in economy of such power, which reflects low and relatively stable fuel costs. The price of electricity from nuclear is comparable to or even lower than energy produced in conventional coal or gas powered plants. Nuclear resources are of the cheapest worldwide. In addition, their cost includes external expenses, such as waste treatment, decommissioning of plants, and health and environment-related costs (these are one of the lowest quantifiable ones). Thanks to no discharge of carbon dioxide from the power plant, the expenses are not affected by carbon dioxide discharge fees. To these existing advantages, let us to add today's significant improvements in operation performance and the increased efficiency of nuclear fuel usage. In such a way we come to a power resource of lowest production expenses, which supplies power to the consumer market reliably and with a relatively low price. For comparison, see the Finnish analysis of the most common power resources costs in EUR/MWH (see the chart)

Example from Finland: Generation costs without investment subsidies and tax concessions
(EUR/MWH)



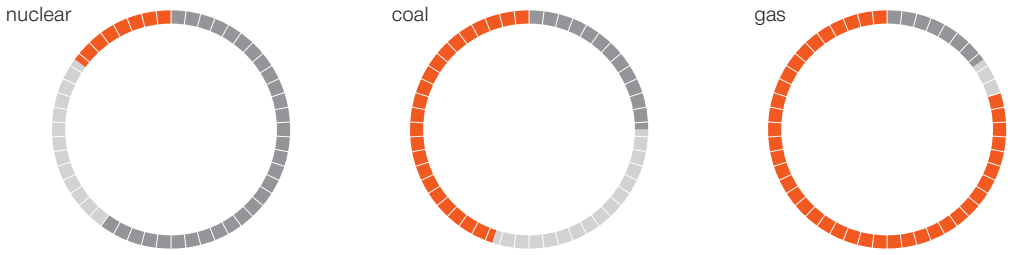
- investments
- operation and maintenance
- fuel
- emission fees (20 EUR/t CO_2)

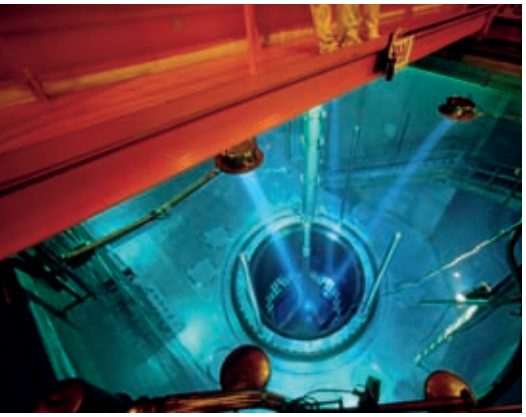
Note: All resources are considered to be in full-year operation, approx. 8,000 h/year, wind around 2,200 h/year.

Similar analysis was conducted in the Czech Republic. Nuclear power plant has relatively high initial investment costs but on the contrary low fuel costs. Low fuel costs are a great advantage especially when the expected price rise of other fuels is considered.

Breakdown of Costs per Unit of Produced Power
(in percent)

- investments
- operation and maintenance
- fuel





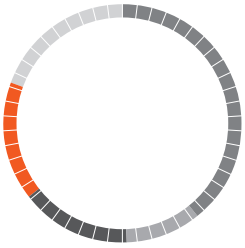
Future of Nuclear Power

Over the last 15 years, the share of power produced in nuclear power plants worldwide increased by 700 million of kilowatt hours per year. Some new power plants were built, some were reconstructed with increase in output and decrease in failure rate. New methods of maintenance, equipment testing, and better work management resulted in cuts of refuelling outages. Today, nuclear power plants are used at an world average of 84% of their total capacity.

According analyses of the European Parliament, World Energy Council and OECD the use of nuclear power in the 21st century , will be necessary and desirable. Key EU institutions such as European Economic and Social Committee (EESC) and Committee on Industry, Research and Energy (ITRE), made a stand in favour of increased use of nuclear energy.

Share of Power Resources Worldwide
(in percent)

- coal (39%)
- oil (10%)
- gas (15%)
- nuclear (16%)
- hydro and renewable resources (20%)



Projects of new generation nuclear power plants are based on perfecting the present types of reactors and on development of new ones.

One project important for the nuclear future in Europe is the European Pressurised Water Reactor. It is a Generation III. reactor with expected output of over 1,500 MW, developed on the basis of experience of German and French nuclear power industry. Notwithstanding, other designs of new reactor types are also available, such as AP 1,000 from the U.S., VVER 1000 V-428 from Russia, SWR-1000 from Germany, ABWR/ESBWR from Japan, and some others.

The research also leads towards the usage of nuclear reactors as sources of high temperature (up to 1000 °C) in various fields of industry. High-temperature reactors may thus become a welcome means of environmentally safe preparation of hydrogen for hydrogen power economy, or as a source of heat for desalination of sea water or other industrial applications.

FURTHER INFORMATION

Detailed information about ČEZ and its nuclear power plants Dukovany and Temelín could be also found on the ČEZ website: **www.cez.cz**. Here, you can find further interesting information, including links to other websites for investors, media, and other parties.

Annual Report 2005
Nuclear Power Plants of ČEZ, a. s.

© 2005, ČEZ, a. s., Division Generation

Editor-in-Chief: Zbyněk Grunda, International Liaisons Manager
Editorial Board: Aleš John, Milan Mušák, Pavel Doležal, Petr Krob, Ivana Ošťádalová, Vojtěch Soudek, Tomáš Turek, Vladimír Horčička, Eliška Šťastová, Naděžda Bílá, Martin Uhlíř, Jiří Sedlák, Eva Vorlová, Pavel Nechvátal, Petr Spilka, Ladislav Kříž, Marie Dufková