

Czech Republic

1. Location and capability of nuclear facilities

Electricity generated from the Czech Republic's six nuclear power plants currently represents about 30% of total electricity production. This number is up 10% since 2005 due to investments in nuclear energy infrastructure. Coal remains the main source of energy and is estimated to cover about 40% of energy consumption as of 2006. A shift to nuclear power in the 1950s was determined by scarce oil resources and the influence of former Soviet Union. Soviet designs were used in construction of both Dukovany, which began operating in 1985 and Temelin (2000) nuclear power plants. Work is underway to construct a spent fuel storage facility. In its long-term energy policy, the Czech government pledged to construct two 600MW reactors before 2030 as well as to increase the use of renewable sources of energy.

<http://www-pub.iaea.org/MTCDD/publications/PDF/cnpp2002/index.htm>; <http://www.niauk.org>

<http://www.world-nuclear.org/info/reactors.htm>; <http://www.uic.com.au/nip90.htm>

Power Reactors

Operational: 6

<http://www.iaea.org/programmes/a2/index.html>

<http://www.world-nuclear.org/info/reactors.htm>

Research Reactors

Operational: 3

Shut Down: 0

Decommissioned: 2

Under Construction: 0

Planned: 0

<http://www.iaea.or.at/worldatom/rrdb/>

Uranium Mines

Active and Proposed

Rozná mine/Dolní Rozí mill

Brzkov deposit

Decommissioned

Prábram, Rozná, Hamr, Jáchymov, Vítkov, Zadní Chodov, Olsí, Horní Slavkov, Okrouhlá

Radoun, Krizany, Dylen, Brevniste, Licomerice-Brezinka, Vnitrosudetská pánev, Jasenice, Predborice, Javorník-Zálesí, Pucov, Hájek, Slavkovice-Petrovice, Chotebor, Svatá Anna, Brzkov, Strá pod Ralskem (ISL)

Closed

Hamr mine/Strá pod Ralskem mill

<http://www.antenna.nl/wise/uranium/uddcz.html>; <http://www.antenna.nl/wise/uranium/uoeur.html>

2. Fissile Material Holdings

Separated Civil Plutonium: 6.2 tons (end of 2003)

http://www.isis-online.org/global_stocks/end2003/plutonium_watch2005.pdf

Highly Enriched Uranium: 0.08- 0.14 tons (end of 2003)

Supplier- Russia

http://www.isis-online.org/global_stocks/end2003/civil_heu_watch2005.pdf

Radioactive waste disposal

Low-level waste: In 1993, the former Czechoslovak Bohunice plant (currently Slovakia) ceased to accept spent fuel from the Dukovany plant. The same year, Russia decided it would only accept Czech's spent fuel for reprocessing and not disposal. A new interim storage facility will be constructed at the Dukovany site. The existing facility has a capacity of 600 tons, and the overall capacity should be sufficient to store all the spent fuel produced during the lifetime of the plant.

http://ceg.fsv.cvut.cz/EN/ceg-uvod/02_ukladani.htm; <http://www.foratom.org/Content/Default.asp?PageID=705>

Intermediate-level waste: Dukovany operates an intermediate-level waste repository.

<http://www.uic.com.au/nip90.htm>

High-level waste: Nuclear Research Institute is overseeing planning for a deep geological repository project to be operational in 2035. Several localities have been suggested to house both an underground repository and an underground laboratory; none of them has been selected yet.

http://ceg.fsv.cvut.cz/EN/ceg-uvod/02_ukladani.htm

3. Nuclear Activities and Cooperation

Nuclear Research Centers

National Radiation Protection Institute

Nuclear Research Institute Rez

National Institute for Nuclear, Biological and Chemical Protection

Research Institute of Fuel and Energy Complex

Energoprojekt Praha, a.s.

Skoda - UJP Praha, a.s.

Nuclear Physics Institute (Academy of Sciences)

Institute of Plasma Physics

<http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2002/index.htm>

Nuclear Cooperation

US: Westinghouse company contracted to upgrade and complete two VVER-1000 units at Temelin, as well as supply a plant information system to integrate maintenance, materials, documentation, management and operations support for 13 Czech nuclear and fossil-fueled power plants. The company also provides fuel for the Temelin plant; fuel is manufactured in the United States, with Czech Skoda Plezn participating in fuel testing and development.

Russia: Russian company Mashinostroyitelny Zavod Electrosta supplies fuel for Dukovany plant. The Czech-Russian agreement (1994) allows Russia to compete for contracts to supply enriched uranium and fabricated fuel for Czech nuclear power plants. Russia also initially supplied uranium for the Temelin plant.

UK: Enrichment and conversion services were provided by the United Kingdom.

<http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2003/index.htm>

Germany: Shut down VVER plant; supplied fresh fuel for the Dukovany plant.

Canada: Starting in 1998, Cameco Corp. supplies uranium hexafluoride, produced at Cameco's facilities in Ontario to Czech Republic.

USAID and US Energy Association Partnership Program: Czech utility CEZ is paired with Houston Lighting & Power Co to exchange technical and economic information.

European Union: The Czech Republic is part of the EU's PHARE nuclear safety program, providing funding to update nuclear regulations and improve safety, as well as improve fuel cycle and waste management activities, and off-site emergency preparedness.

In December 2006, the EU agriculture ministers extended the energy crop premium introduced by the 2003 Common Agricultural Policy reform, to the new Member States which currently do not benefit from it. The decision will give farmers in the Czech Republic, one of six countries, the chance to receive €45 per hectare for growing energy crops. http://www.insc.anl.gov/neisb/neisb4/NEISB_4.2.html

<http://www.evropska-unie.cz/eng/article.asp?id=4446&page=3>

4. International Nonproliferation Efforts

Treaties Signed and Ratified, Date of Deposit:

Antarctic Treaty, 1 January 1993
APM Convention, 26 October 1999
Biological and Toxin Weapons Convention, 5 April 1993
Certain Conventional Weapons Convention, 22 February 1993
Chemical Weapons Convention, 6 March 1996
Comprehensive Nuclear Test Ban Treaty, 11 September 1997
Convention on the Physical Protection of Nuclear Material, 24 March 1993
Nuclear Non-Proliferation Treaty, 9 April 1993
Outer Space Treaty, 29 September 1993
Seabed Treaty, 9 April 1993
Vienna Convention on Civil Liability for Nuclear Damage, 24 June 1994
http://www.iaea.org/Publications/Documents/Conventions/liability_status.pdf

Czech Republic ratified the IAEA Additional Protocol on 8 Sept 2000.

Multilateral Groups

Australia Group
Hague Code of Conduct
Missile Technology Control Regime
Nuclear Suppliers Group
Proliferation Security Initiative, PSI
Wassenaar Arrangement
Zanger Committee

5. Positions Taken in International Fora on Various Issues of Nuclear Disarmament

Disarmament and Non-Proliferation: "It was very unfortunate that the UN Summit last year was not able to find a common language on disarmament and non-proliferation. The uncontrolled spread, illicit trafficking and the use of conventional arms against civil population, the deadly occurrence of landmines - this all continues to fuel conflicts, human suffering and insecurity around the globe. My country supports all efforts, as well as several programs, to bring the arms trade and use of arms under a stronger control. But there is an even greater threat - a possible proliferation of weapons of mass destruction. We welcome the fact that the Security Council is increasingly engaged in these matters, the resolution 1540 being a major step forward, followed most recently by strong signals addressed to the DPRK and Iran. Both these countries should fully comply with the nuclear non-proliferation regimes and to abandon any ambitions going beyond the peaceful use of nuclear power." - **Statement by H.E. Mr. Alexandr VONDRA at the 61st Session of the General Assembly, September 27, 2006.**

<http://www.reachingcriticalwill.org/political/1com/1com06/disarminde06.html#czech>