

# Romania

## 1. Location and capability of nuclear facilities

Romania had initially planned to build five nuclear power reactors at the Cernavoda site, but in the early 1990s decided to proceed only with the works on Unit 1 due to financial constraints. This reactor began operating in 1996, and provides 10% of Romania's electricity. In 2000, the government decided that completion of Cernavoda-2 was a high priority and supplied part of the financing for it. Further finance was raised in 2002-03, including EUR 218 million from Canada. In 2004, a EUR 223.5 million Euratom loan was approved by the European Commission for completion of Unit 2, expected to come into commercial operation in late 2007.

In 2002, efforts got under way to resume work on Cernavoda Unit 3, and in August 2004, the government advertised for companies interested in completing the unit. In March 2006, the government and Societatea Nationala Nuclearelectrica (SNN) joined to finance the remaining units. Unit 3 is expected to come online in 2013, Unit 4 in 2014, and Unit 5 by 2020.

<http://www.world-nuclear.org/info/inf93.html>; <http://www.aecl.ca/Projects/CANDU-P/Cernavoda-P.htm>

### Power Reactors

Operational: 1  
Shut down: 0  
Decommissioned: 0  
Under construction: 1  
Planned: 3  
<http://www.iaea.or.at/programmes/a2/>

### Research Reactors

Operational: 2  
Shut down: 1  
Decommissioned: 1  
Under construction: 0  
Planned: 0  
<http://www.iaea.or.at/worldatom/rrdb/>

### Uranium Mines

Crucea - operating  
Avram Iancu - operating (to be shut down)  
Dobrei South - operating (to be shut down) <http://www.wise-uranium.org/uoeur.html#RO>

Natural uranium oxide fuel is fabricated by the SNN subsidiary Pitesti Fuel Plant. At the end of 2003 Romania started making slightly enriched uranium fuel, and in preparation for unit 2 commissioning, its capacity is being doubled. Heavy water is produced in the southwest of the country, near Drobeta-Turnu Severin. <http://www.world-nuclear.org/info/inf93.html>

## 2. Fissile Material Holdings

**Unseparated Civil Plutonium** end of 2003: 2.4 tons  
[http://www.isis-online.org/global\\_stocks/end2003/plutonium\\_watch2005.pdf](http://www.isis-online.org/global_stocks/end2003/plutonium_watch2005.pdf)

**Highly Enriched Uranium end of 2003: 0.033-0.044 tons**  
Supplied by: Russia, US  
[http://www.isis-online.org/global\\_stocks/end2003/civil\\_heu\\_watch2005.pdf](http://www.isis-online.org/global_stocks/end2003/civil_heu_watch2005.pdf)

### Radioactive waste disposal

The Romanian National Agency for Radioactive Waste Management was set up in 2004.

*Low- and intermediate-level waste:* Existing facilities for waste disposal at the Cernavoda site are designed for 15 years of interim storage of low- and intermediate-level solid radioactive waste and ten years of spent fuel storage. Final disposal of the waste is envisaged to be sited at the Cernavoda area.

*High-level waste:* A dry storage facility for spent fuel is being built, based on the Macstor system designed by AECL. The first module was commissioned in 2003. A radioactive waste treatment facility

operates at Pitesti and preliminary investigations are under way regarding a deep geological repository.  
[http://www.foratom.org/index.php?option=com\\_docman&task=doc\\_download&gid=1605&Itemid=123](http://www.foratom.org/index.php?option=com_docman&task=doc_download&gid=1605&Itemid=123)  
<http://www.world-nuclear.org/info/inf93.html>

### 3. Nuclear Activities

#### Research Centers

ICEMENERG - National Institute for Energy Research & Development  
Institutul de Cercetari si Modernizari Energetice S.A.  
NIPNE - National Institute for Physics & Nuclear Engineering  
SCN / INR - Sucursala Cercetari Nucleare Pitesti / Institute for Nuclear Research  
<http://www.radwaste.org/research.htm>

#### Nuclear Cooperation

*Canada, Italy, US:* The Cernavoda Project is based on technology transfer process from Canada, Italy and the United States. The traditional Canadian and Italian partners are now focused on securing financing to complete the Cernavoda-2 project by 2007.

<http://www.bankwatch.org/project.shtml?w=147583&s=153981>  
<http://www.sierraclub.ca/national/programs/atmosphere-energy/nuclear-free/reactors/cernavoda-2-background.html>

*US:* An agreement was signed in 1998 on peaceful nuclear cooperation between the US and Romania. Romania is also party to a number of US nuclear non-proliferation programs.

<http://www.nrc.gov/reading-rm/doc-collections/commission/secys/1998/secy1998-272/1998-272scy.html>  
[http://www.nnsa.doe.gov/na-20/loc\\_etry\\_Romania.shtml](http://www.nnsa.doe.gov/na-20/loc_etry_Romania.shtml)

*European Commission:* In 1993, the European Commission agreed to cooperate with Romania to ensure safe use of nuclear energy. The agreement included measures such as personnel training, radioactive waste management, and technology upgrades.

<http://www.seerecon.org/infrastructure/sectors/energy/documents/ea-romania-energy.htm>

*China:* A nuclear cooperation agreement was signed between China and Romania in 1984.

<http://www.nti.org/db/china/nca.htm>

### 4. International Nonproliferation Efforts

#### Treaties Signed and Ratified, date of deposit

Antarctic Treaty, 15 November 1971  
APM Convention, 30 November 2000  
Biological Weapons Convention, 25 July 1979  
Certain Conventional Weapons Convention, 26 July 1995  
Chemical Weapons Convention, 15 February 1995  
Comprehensive Nuclear Test-Ban Treaty, 5 October 1999  
Convention on the Physical Protection of Nuclear Material, 15 January 1981  
Nuclear Non-Proliferation Treaty, 4 February 1970  
Outer Space Treaty, 9 April 1968  
Seabed Treaty, 10 July 1972  
Vienna Convention on Civil Liability for Nuclear Damage, 29 December 1992

Romania ratified the IAEA Additional Protocol on 7 July 2000.

#### Multilateral Groups

Australia Group  
Conference on Disarmament  
Hague Code of Conduct against Ballistic Missile Proliferation  
Nuclear Suppliers Group

Wassenaar Arrangement  
Zangger Committee

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

*Non-proliferation:* "Proliferation of weapons of mass destruction has emerged as a major threat to global security and international stability. We should never underestimate any possible prospects that those weapons are used in terrorist activities. We stand for new international efforts aimed at strengthening the existing international regimes, ensuring full and unconditional implementation of obligations undertaken by the States Parties and promoting the universalisation of multilateral treaties and agreements in the field of disarmament and non-proliferation." - **Statement by H.E. Mr. Mihai Razvan Ungureanu, Minister for Foreign Affairs, to the 61st Session of the General Assembly, 22 September 2006.** <http://www.reachingcriticalwill.org/political/1com/1com06/disarminde06.html#romania>

*Fissile Material Cut-off Treaty:* "Romania has always contemplated the nuclear disarmament from a pragmatic perspective, due to the gradual nature of the process, as well as to its numerous strategic and political implications, particularly at a global level. This is why, from among several steps to still be taken in order to complete the non-proliferation and disarmament agenda . . . Romania considers a matter of urgency the immediate commencement in the Conference on Disarmament of the negotiations for a Treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices (FMCT). In the meantime, we urge all states - no matter their status - to apply a moratorium on the production of fissile material for nuclear weapons or other nuclear explosive devices." - **Statement by Ambassador Doro-Romulus Costea to the 60th Session of the General Assembly First Committee on Disarmament and International Security, 10 October 2005.** <http://www.reachingcriticalwill.org/political/1com/1com05/statements/romania10oct.pdf>

*Export controls:* "In our view it is essential that all exporting states assume their responsibility and take appropriate measures to ensure that exports of sensitive materials, equipment and technologies are subject to strict control. Export controls must ensure that transfers are made only for peaceful purposes as required by the relevant conventions and treaties facilitating also international cooperation and technological development." - **Statement by Ambassador Mihnea Motoc to the 58th Session of the General Assembly First Committee on Disarmament and International Security, 7 October 2003.** <http://www.reachingcriticalwill.org/political/1com/1com03/genstate03/romania.pdf>