

EIB AND FINANCING OF NUCLEAR ENERGY

EU energy policy developments

Energy has been prominent on the EU policy agenda in recent years. It has become a key item in the work of the Commission and the Council, with continuity ensured between successive Presidencies. The Commission's Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy", endorsed by the Council in March 2006, gives the key objectives in energy. Following this, the Commission released in January 2007 the communication "An energy Policy for Europe". In this context, the Commission also published a new Nuclear Illustrative Programme.

Based on the Commission's communication the European Council of 8-9 March 2007 adopted a comprehensive energy action plan "Energy policy for Europe" for the period 2007-2009. Under this action plan the EU is committed to achieve at least a 20% reduction of greenhouse gas emission by 2020 compared to 1990. The European Council also endorsed a binding target of a 20% share of renewable energies in overall EU energy consumption by 2020, supplemented by a binding minimum target of 10% for the share of biofuels in the petrol and diesel consumption for transport. Furthermore, the European Council stresses the need to increase energy efficiency in the EU so as to achieve the objective of saving 20% of energy consumption compared to projections for 2020.

Recalling that the "Energy policy for Europe" will fully respect Member States' choice of energy mix, the European Council noted the Commission's assessment of the contribution of nuclear energy in meeting the growing concerns about safety of energy supply and CO₂ emissions reductions while ensuring that nuclear safety and security are paramount in the decision-making process. The European Council therefore confirmed that it is for each Member State to decide whether or not to rely on nuclear energy and stressed that this has to be done while further improving nuclear safety and the management of radioactive waste.

The Commission has just established a High Level Group on nuclear safety, management of radioactive waste and spent fuel, and on decommissioning nuclear installations. This group will report to the Council and the Parliament.

EIB involvement in the nuclear sector

The EIB financed nuclear electricity generation for about two decades up to the mid-1980s. Projects related to the nuclear fuel cycle were financed up to the early 1990s and a rehabilitation of an old uranium mine in 2002. Financing of nuclear generation has followed the general trend in nuclear investments in the Member States, which reached a peak by around the second oil crisis and declined substantially by the mid-1980s. The development of nuclear energy was a specific priority

objective of the EU after the oil crisis with the aim to reduce energy dependence. The Bank's action has been in line with the above Community policy.

Most of the projects financed by the Bank were located in France, Germany, Belgium, the UK and Italy. In all, the Bank has lent EUR 6.6 billion for investments in the sector, including nuclear power stations, experimental nuclear power facilities, and facilities related to the nuclear fuel cycle (see annex 1). To date, practically all of these loans have been reimbursed.

Further to the above direct financing the EIB has also acted in a consultancy role for EURATOM, carrying out the economic and financial appraisal of a series of nuclear power projects, incl. in a number of (at that time) non-EU countries. (see annex 2).

The only operation that the Bank is currently considering is the part-financing of URENCO Ltd's investments for uranium enrichment, and the EIB Board of Directors approved a loan of up to EUR 200 million to URENCO on 17 July 2007. Using a centrifuge technology that will cover additional enrichment demand and will replace in part energy inefficient gaseous diffusion capacity, the project will support the EU's technological lead in this field. The required Environmental Impact Assessments have been accomplished, and URENCO's investments are to be completed within the boundaries of existing sites. The nuclear fuel cycle from raw uranium to the nuclear power plant fuel is strictly controlled through the provisions of Euratom and International Atomic Energy Agency safeguards.

A number of nuclear power stations are currently under consideration by Member States. While one nuclear power station has been communicated to the Commission early this year on the basis of the provisions of the Article 41, there is not any request for EIB loan support as yet.

Over the longer term the development of nuclear electricity production is uncertain. The reasons for such uncertainty relate primarily to issues of public acceptance, as well as to issues related to plant commissioning and decommissioning criteria, and waste disposal solutions. Even though nuclear production is expected to increase at world level, it is nevertheless expected to decline significantly in the EU in coming years (over 40% lower in 2030 by comparison to 2004 in the IEA reference scenario). However, while some Member states have decided a gradual nuclear phase out, others have firm plans to develop new nuclear generation projects and/or are reviewing their nuclear policies. This may result in a revision of current forecasts. Continuing work at EU level on Energy in general and Nuclear in particular will play an important role for EIB.

EIB energy strategy and nuclear

The EIB's policy on Energy has been recently reviewed and presented in its "Clean Energy for Europe" paper, endorsed by the Bank's Governors in June 2007. It is recalled that, as a public policy-driven bank, the EIB has been proactive in this field and, working closely with the Commission, has already progressively introduced elements of its reviewed policy since January 2006 (with a Board presentation of the "EIB Energy Review") and decided to integrate the energy objective into the Corporate Operational Plan 2007-2009.

The Bank's action in the energy sector are organised along the following five main priority areas:

- Renewable energy
- Energy efficiency
- Research, development and innovation in energy
- Security and diversification of internal supply (including trans-European energy networks)
- External energy security and economic development in neighbour and partner countries

The package endorsed by the EIB Governors in June 2007 includes a series of measures aiming at reinforcing the Bank's contribution to the EU objectives and clarifying the focus of its action. Such measures concerned renewable energy, energy efficiency and the approach to coal and lignite fuelled power stations. They also incorporated a facility that would help to enhance EIB's lending capacity for investments in energy sustainability and security of supply in Neighbourhood countries, ACP, South Africa and ALA (up to EUR 3 billion from own resources until end 2013).

As far as investments in the nuclear field are concerned, the Bank is following the debate on nuclear policies that has been re-launched in several EU countries and cooperates closely with the Commission. The Bank notes the right of individual Member States to determine their energy mix and to appreciate the potential contribution of nuclear energy to reduce CO2 emissions and to enhance energy security. It also recognises the importance of the sector for Europe's R&D. At the same time, the Bank is fully aware of the important "pending issues", such as those related to decommissioning and nuclear waste.

In view of the above and while EIB financing may be requested for investments in new generation capacity, in the nuclear fuel cycle and in research activities, it should be noted that:

Investment projects related to nuclear energy must be notified to the Commission under Article 41 of the Euratom Treaty. The Commission gives an opinion in particular with regard to the objectives of the energy and environmental policies of the EU. A favourable opinion of the Commission is a prerequisite for the Bank to finance nuclear projects.

The Bank ensures that all the projects that it finances are economically, technically, environmentally and financially viable, and that they comply with EU and national law as well as EU policies. Each project is thoroughly appraised and followed through to completion and possibly operation. Nuclear projects raise complex issues that need to be assessed with extreme care. Among other things, nuclear generation projects imply not only the mobilization of large amount of capital (due to their high initial construction cost) but also significant future costs related to cost of nuclear waste disposal and plant decommissioning. Such issues will constitute an integral part of the Bank's own assessment of the proposed investment. More generally, it is important for the Bank to ensure that its involvement in the financing of nuclear activities will also provide a quality check.

As normal, the Bank will follow closely the works of the recently established High Level Group on nuclear safety, management of radio-active waste and spent fuel, and on decommissioning nuclear installations, in order to be able to properly take into account the issues identified in its own project appraisal.

Prêts signés par la BEI et EURATOM secteur : nucléaire

situation encours au 24.6.07

Pays	Nom projet	Description	BEI				EURATOM			
			Evolution	Année signature	Montant contrat signé M EUR	Encours M EUR	Evolution	Année signature	Montant contrat signé M EUR	Encours M EUR
PRODUCTION D'ELECTRICITE										
ALLEMAGNE	KKW BIBLIS	Centrale nucléaire de Biblis (Hesse)	REMBOURSE	73	41.8	0.0				
ALLEMAGNE	KKW BRUNSBUTTEL	Centrale nucléaire, a Brunsbüttel (Schleswig-Holstein)	REMBOURSE	1972	25.0	0.0				
ALLEMAGNE	KKW EMSLAND	Construction d'une centrale nucléaire a Darne (Lingen, Basse-Saxe)	REMBOURSE	84-85-86	90.3	0.0	REMBOURSE	85-86-87	70.7	0.0
ALLEMAGNE	KKW LINGEN	Construction d'une centrale nucléaire a Darne (Lingen, Basse-Saxe)	REMBOURSE	1967	6.3	0.0				
ALLEMAGNE	KKW GUNDREMMINGEN	Centrale nucléaire de Gundremmingen (Bavière)	REMBOURSE	76-80-83	192.6	0.0				
ALLEMAGNE	KKW MULHEIM-KARLICH	Centrale nucléaire à Mülheim-Kärlich, près de Coblenze (Rhénanie-Palatinat)	REMBOURSE (28.4 M EUR) - ANNUL POSTSIG (282.2 M EUR)	77-81	310.6	0.0	REMBOURSE	77-78-85	151.3	0.0
ALLEMAGNE	KKW NECKAR	Centrale nucléaire de Neckarwestheim/Gemrigheim (Bade-Württemberg)	REMBOURSE	73-84-85-86	155.4	0.0				
ALLEMAGNE	KKW OBRIGHEIM	Construction d'une centrale nucléaire de 300 MW à Obrigheim (Baden-Württemberg)	REMBOURSE	1968	6.3	0.0				
ALLEMAGNE	KKW PHILIPPSBURG	Centrale nucléaire, a Philippsburg (Baden-Württemberg)	REMBOURSE	72-82-83	75.6	0.0				
ALLEMAGNE	THTR 300	Centrale nucléaire à haute température d'Uentrop (Rhénanie du Nord - Westphalie)	REMBOURSE	1973	24.6	0.0				
BELGIQUE	BELGELECTRIC (SEMO INTERCOM TIHANGE et EBES DOEL)	Centrales nucléaires de Doel (Antwerpen) et Tihange (Liège)	REMBOURSE	70-72-74-78-79-80-81-82-84-85	615.1	0.0	REMBOURSE	79-80-81-82-83-84	559.1	0.0
FRANCE	BUGEY	Centrale nucléaire de Bugey à Saint-Vulbas (Rhône-Alpes)	REMBOURSE	73-74-75-77	139.9	0.0				
FRANCE	DAMPIERRE	Centrale nucléaire de Dampierre-en-Burly (Centre)	REMBOURSE	77-80	109.6	0.0	REMBOURSE	1980	51.4	0.0
FRANCE	EDF BELLEVILLE	Construction des deux premières tranches du centrale nucléaire à Belleville (Cher)	REMBOURSE	81-82	239.3	0.0	REMBOURSE	82-83	153.9	0.0
FRANCE	EDF FESSENHEIM	Centrale nucléaire, à Fessenheim (Alsace)	REMBOURSE	1972	30.0	0.0				
FRANCE	EDF FLAMANVILLE	Centrale nucléaire de Flamanville, sur la presqu'île du Cotentin (Basse-Normandie) -	REMBOURSE	83-84-85-87	219.0	0.0	REMBOURSE	83-84-85-86	215.7	0.0
FRANCE	NERSA	Centrale nucléaire Super-Phénix à Creys-Malville (Rhône-Alpes).	REMBOURSE	77-78-79-80-81-82-83-84	385.6	0.0	REMBOURSE	77-79-80-81-82-83-84-86	560.4	0.0
FRANCE	SENA	Amélioration des conditions de fonctionnement de la centrale des Ardennes, près de Chooz (Champagne-Ardenne)	REMBOURSE	1979	4.0	0.0				
ITALIE	ENEL ALTO LAZIO	Centrale nucléaire d'Alto Lazio à Montalto di Castro (Lazio)	REMBOURSE	78-81-83-84-85	475.4	0.0	REMBOURSE	78-79-81-82-83-85-86-87	530.3	0.0
ITALIE	ENEL CAORSO	Centrale nucléaire a Caorso, près de Piacenza (Emilie-Romagne)	REMBOURSE	75	44.6	0.0				
ROYAUME-UNI	CEGB HEYSHAM	Centrale nucléaire à Heysham près de Lancaster (Nord Ouest de l'Angleterre)	REMBOURSE	77-79-85	500.4	0.0				
ROYAUME-UNI	HARTLEPOOL NUCL POWER	Centrale nucléaire à Hartlepool (Nord-est de l'Angleterre)	REMBOURSE	74-75-78-79	164.3	0.0				
ROYAUME-UNI	HUNTERSTON B NUCL POWER	Centrale nucléaire à Hunterston (Ecosse)	REMBOURSE	75	43.7	0.0				
ROYAUME-UNI	SSEB TORNESS	Centrale nucléaire à Tornesspoint (Ecosse)	REMBOURSE	80-82-83-84-85-86-87	885.9	0.0	REMBOURSE	83-86	146.4	0.0
s/total					4785.3	0.0			2439.2	0.0

Prêts signés par la BEI et EURATOM secteur : nucléaire

situation encours au 24.6.07

Pays	Nom projet	Description	BEI				EURATOM			
			Evolution	Année signature	Montant contrat signé M EUR	Encours M EUR	Evolution	Année signature	Montant contrat signé M EUR	Encours M EUR
CYCLE DU COMBUSTIBLE										
BELGIQUE	ONDRAF DESSEL 1 & 2 (EIB/ED)	Traitement et conditionnement de déchets solides nucléaires à Dessel, à proximité d'Anvers	VERSE	92-93	38.3	11.6				
FRANCE	EURODIF	Usine d'enrichissement d'uranium au Tricastin (Rhône-Alpes)	REMBOURSE	77-78-79-81	190.4	0.0	REMBOURSE	82-83	123.4	0.0
FRANCE	EURODIF MOCA	Modernisation de l'usine d'enrichissement d'uranium du Tricastin (Rhône-Alpes)	REMBOURSE	89-90-91	107.0	0.0				
FRANCE	NERSA APEC	Construction d'un atelier pour l'évacuation du combustible (APEC) de la centrale de Creys Malville (Rhône-Alpes)					REMBOURSE	87	72.7	0.0
ROYAUME-UNI	BNFL THORP	Usine de retraitement de combustibles nucléaires à Sellafield (Nord Est de l'Angleterre)	REMBOURSE	85-86-87-88-90-91	752.5	0.0	REMBOURSE	1986	137.9	0.0
ROYAUME-UNI	BNFL VITRIFICATION	Installations de vitrification et de stockage de déchets radioactifs à Sellafield (Nord Est de l'Angleterre)	REMBOURSE	86-87	219.2	0.0				
ROYAUME-UNI	BNFL WINDSCALE	Modernisation et extension d'équipements pour l'entreposage de déchets nucléaires avant retraitement à Windscale (Nord est de l'Angleterre)	REMBOURSE	82-83-84	341.9	0.0				
ROYAUME-UNI	URENCO CAPENHURST	Usine d'enrichissement d'uranium à Capenhurst (Nord Ouest de l'Angleterre)	REMBOURSE	78-80	135.2	0.0				
SLOVENIE	ZIROVSKI VRH	Mise hors service de l'ancienne mine d'uranium de Zirovski Vrh à l'ouest de Ljubljana	VERSE	2002	20.0	19.0				
s/total					1804.5	30.6			334.0	0.0
Total					6589.8	30.6			2773.2	0.0

Annex 2

Projets pour lesquels la BEI a donné une recommandation à la Commission selon la convention signée entre la Banque et la Commission le 19 juillet 1994 et renouvelée le 18 janvier 2000 dans le cadre du mécanisme EURATOM dans certains pays non-membres

Pays	Nom projet	Date CA	Description du projet
BULGARIE	EURATOM - KOZLODUY 5 & 6	07/12/1999	Modernisation et renforcement de la sûreté de deux réacteurs de la centrale nucléaire de Kozloduy, au nord du pays
REPUBLIQUE SLOVAQUE	EURATOM - MOCHOVCE	04/04/1995	Achèvement de deux blocs-réacteur de la centrale nucléaire de Mochovce
ROUMANIE	EURATOM: CERNAVODA 2	28/01/2003	Achèvement de la construction et accroissement de la sûreté d'une unité de la centrale nucléaire de Cernavoda
UKRAINE	EURATOM - ROVNO 4 et KHMELNITZKY 2	26/01/1999	Achèvement de deux unités, ROVNO 4 et KHMELNITSKY-2, au niveau international acceptable de sécurité pour permettre la fermeture de Chernobyl NPP (Ukraine)