

MEMORANDUM OF UNDERSTANDING

on co-operation in the field of energy between the European Union and Ukraine

Preamble

Having regard to the Communication of the Commission to the Council and the European Parliament on the Development of Energy Policy for the Enlarged European Union its neighbours and Partner Countries.

Considering the Memorandum of Understanding between the Governments of the G7 Countries and the Commission of the European Communities and the Government of Ukraine on the Closure of the Chernobyl NPP of 20 December 1995, which included, *inter alia*, the Power Sector Restructuring, an Energy Investment Programme and Nuclear Safety.

Considering the call for an enhanced energy co-operation and increased access for Ukraine to EIB financing envisaged in the joint letter of the Commission and the Council dated 24 January 2005, and confirmed in the Council Conclusions on Ukraine of 21 February 2005.

Recognising that, in the field of energy, the EU and Ukraine share convergent interests and both could benefit from the integration of their respective energy markets, thereby enhancing the energy security of the European continent. In this context, the gradual adoption by Ukraine of the EU energy *acquis* would constitute a significant step towards Ukraine's objective of gradual economic integration and deepening of political co-operation with the EU.

Considering that in the framework of the European Neighbourhood Policy (ENP), the EU and Ukraine have decided to step up their energy co-operation and that the EU-Ukraine Action Plan (AP) ¹ includes seven specific energy-related objectives aimed at the gradual convergence of EU and Ukraine's energy legislation and integration of their respective energy markets.

¹ Endorsed by the EU-Ukraine Co-operation Council on 21 February 2005.

Considering that the EU and Ukraine are determined to advance rapidly in realising these objectives, as was confirmed during high-level meetings.

Recalling that nuclear safety has always been a key issue in the relations between the EU and Ukraine and that the Community has granted a Euratom loan for K2R4 by which Ukraine is committed to perform important actions to improve the situation of the power sector in general and of the nuclear sector in particular ².

Recalling the existing agreement between Euratom and Ukraine in the field of nuclear safety and the new Agreement for Co-operation in the Peaceful Uses of Nuclear Energy between Euratom and the Cabinet of Ministers of Ukraine.

Taking note of the new EU initiative in energy efficiency, detailed in the recent Green Paper.

Taking note that Ukraine has expressed its intention to become an observer as soon as the Energy Community Treaty enters into force and, later on, to work towards becoming a member of the Energy Community ³.

Considering, in connection to the above, that the EIB and the EBRD should be closely involved in the implementation of this Memorandum.

Recalling that the energy sector remains a key element in EU-Ukraine bilateral relations and Ukraine has benefited of substantial Community assistance under the Tacis programme for restructuring of the energy sector and improvements of nuclear safety (under the Tacis Nuclear Safety Programme).

Whereas:

- (1) The Ukrainian energy sector is strategic for the economic and social development of Ukraine and constitutes also a substantial potential external source of revenue. Its gradual convergence with the EU's internal energy market, aiming ultimately at its integration, remains a shared priority for the EU and Ukraine.

² Loan Agreement between Energoatom and Euratom and Guarantee Agreement between Ukraine and Euratom, both signed on 29 July 2004.

³ The Energy Community covers the European Community and the states and territories of South-east Europe.

- (2) The EU and Ukraine face common energy policy challenges. The diversification and security of energy supplies, nuclear safety, energy market reforms, the development and modernisation of energy infrastructures, energy efficiency and the use of renewable energy sources are key concerns for both parties. An enhanced energy co-operation with the EU could boost the necessary reforms and, together with an improved investment climate, facilitate the attraction of the necessary investments both from IFIs' and the private sector in Ukraine's energy sector.
- (3) The nuclear sector is a key element of Ukraine's security of energy supplies, with 13,835 MW of installed capacity, representing 26.1% of total installed generating capacity in Ukraine. During the past 10 years it has accounted for about half of the electricity generated in the country and offers a significant potential for electricity exports. Ukraine, with the support of the Community, has elaborated and committed to implementing safety improvement programmes for all the NPP's. Therefore ensuring the highest levels of safety and security remains a key priority for both parties.
- (4) Ukraine is a key transit country for hydrocarbon's supplies to the EU with 40% of the EU's imports of natural gas transiting through the Ukraine network and for oil, in addition to the transit through the existing Druzhba network, the ongoing extension of the Odessa-Brody oil pipeline to Poland would open a new major transit route for EU oil imports from the Caspian basin and the international market. In this context, ensuring a safe, transparent and reliable transit system is of paramount importance for both the EU and Ukraine.
- (5) The coal sector plays a key role in Ukraine's security of energy supplies, accounting for some 50% of indigenous energy production. Key challenges include the continued necessity to reform and restructure the sector, while mitigating the social and regional consequences, as well as improving mine safety and reducing the environmental impact of coal combustion through joint implementation projects in the field of clean coal technologies.

Both sides recognise that, in order to adopt a comprehensive and balanced approach in terms of respective commitments and incentives and given the linkages between the various energy sectors, they resolve to co-operate in roadmaps covering the following four specific areas:

- I. Nuclear safety,
- II. The integration of electricity and gas markets,
- III. Enhancing the security of energy supplies and the transit of hydrocarbons.
- IV. Structural reform, enhancing safety and environmental standards in the coal sector.

Both sides further recognise the importance of developing a roadmap for increasing co-operation in energy efficiency that will also address the promotion of renewable energies and measures to tackle climate change, including the emissions from fossil fuel power plants and the use of the joint implementation mechanism under the Kyoto Protocol.

1. Road Map for Nuclear Safety of Operating Ukrainian Nuclear Power Plants

- 1.1 Ukraine, having 15 nuclear power plants in operation, two of the type VVER 440 V213 models and 13 VVER 1000, intends to maintain the nuclear option at a significant level. These plants entered into operation between 1980 and 2004. In this context, both parties emphasise the importance of a sustainable improvement of nuclear safety for an efficient and reliable energy sector.
- 1.2 In order to strengthen public confidence and for the EU to reinforce the role of Ukraine as a trading partner in the electricity market, Ukraine must meet internationally recognized nuclear safety and environmental standards. Hence, the safety of nuclear installations is a primary objective for both parties, who will continue to promote in Ukraine an efficient nuclear safety culture in line with the principles of the Convention on Nuclear Safety.

- 1.3 Ukraine will ensure that the nuclear regulator fulfils its mandate as an independent and competent safety authority.
- 1.4 Both parties recognise the importance of suitable radioactive waste and decommissioning programmes. (Ukraine is committed in the framework of the K2R4 agreements to establish the Decommissioning Fund and to keep in line with the Overall Radioactive Waste and Spent Fuel Plan).
- 1.5 Taking into account on-going work, the parties agree to conduct a safety evaluation of Ukrainian NPP's by the end of 2006 in which Ukrainian and European Commission experts will be involved alongside external experts. The Phare/TACIS Nuclear Experts Group will be kept informed on all relevant activities planned to be implemented in 2006. This overall assessment will verify the compliance with international nuclear safety standards and requirements, on the basis of the work carried out so far and scheduled for the future in order to identify the need for any additional actions, including financial aspects. Future EU technical assistance may be considered in the context of the possibilities that will be offered by the new financial instruments in order to support the implementation of the ongoing NPP upgrading programmes. Subsequently, both parties agree to jointly monitor the implementation of the upgrade measures identified.
- 1.6 A joint working group composed of representatives of the European Commission and the relevant Ukrainian authorities and organisations will be established to define the work programme for, and co-ordinate the implementation of this section of the Memorandum of Understanding. Both Parties will ensure that full support is given to this working group to carry out the planned evaluation activities in terms of provision of the necessary documentation, information evaluation, verifications and eventual recommendations.
- 1.7 The working group will submit a report to both parties proposing a concrete work programme not later than March 2006.

2. Road map for the integration of electricity and gas markets

- 2.1 The parties will devote their best endeavours to enable the integration of the Ukrainian electricity and gas markets into the European Union's internal energy market. For this to be realised requires the implementation of key elements of the *acquis communautaire* on energy, environment, competition and renewables⁴. A level playing field in terms of equivalent basic rules with respect to market access, infrastructure and opening, as well as compatible environmental and safety standards will facilitate substantial electricity trade between the EU and Ukraine. With the help of the EU technical assistance, Ukraine will endeavour to align its legislation with the relevant Community rules in line with the timetable envisaged in the annexes to the Energy Community Treaty.
- 2.2 In order to allow a smooth transition from the existing market structure to an open market, Ukraine will also endeavour to cover the following issues:
- a) Reform of electricity tariffs and gas pricing,
 - b) Approaches to ease the impact of reforms on vulnerable customers,
 - c) The reduction of unregulated losses,
 - d) The reduction of network losses, in particular transmission losses,
 - e) An increase in energy efficiency necessary to abate demand,
 - f) Measures to ensure full payments for providing electricity and gas,
 - g) Diversity of supply, including energy substitution by, e.g., renewable energy sources, whilst maintaining a free market framework,
 - h) Optimisation of the energy mix in the electricity generation with a view to increase efficiency, environmental safety, operational reliability, and security of supply.
- 2.3 With a view to facilitating the creation of an open market, Ukraine will endeavour, where necessary, to create or strengthen the role of institutions for the operation of an open electricity and gas market, namely:

⁴ Notably those listed in Title II of the Treaty establishing the Energy Community.

- a) By the end of 2006, an Energy Regulatory Authority independent of the interests of the electricity and gas industry, having, as a minimum, the responsibilities referred to in the Electricity and Gas Directives ⁵.
 - b) By the end of 2006, electricity and gas transmission system operators, having the tasks referred to, and fulfilling the criteria contained in the relevant articles of the Electricity and Gas Directives ⁶ with respect to their independence from other activities not related to transmission.
- 2.4 As only a minor part of the Ukrainian electricity system is physically connected to the EU system, the parties will devote their best endeavours to contribute to the establishment of an interconnection between the UCTE system and the Ukrainian electricity grid system.
- 2.5 Recognising the need for technical standards of networks, generation equipments and network operation in Ukraine which are compatible with UCTE standards, the parties note positively the objective of Ukraine to become synchronously connected to the UCTE network.
- 2.6 The parties welcome the co-operation foreseen under the EU technical assistance programmes to support Ukraine for its progressive integration in the Trans-European Electricity Network.
- 3. Road map for enhancing the security of energy supplies and the transit of hydrocarbons**
- 3.1 The Ukraine's gas transmission system consists of 37,600 km of pipelines, 73 compressor stations, and 13 underground gas storages. It ensures supplies to the Ukrainian gas internal market, and transit to the EU, the Balkan countries and Turkey.

⁵ Article 23 of the Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, published in the Official Journal L176 of 15.7.2003, and Article 25 of the Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, published in the Official Journal L176 of 15.7.2003

⁶ Articles 9 and 10 of the Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC, published in the Official Journal L176 of 15.7.2003, and Articles 8 and 9 of the Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, published in the Official Journal L176 of 15.7.2003

- 3.2 The Ukraine's oil transmission network consists of 4,600 km of pipelines. It also supplies up to six Ukrainian refineries and ensures the transit of Russian oil to central Europe. Currently, Ukraine is developing the extension of the Odessa-Brody oil pipeline to Poland, which would open a major new transit route for EU oil imports from the Caspian basin and the international market.
- 3.3 In view of increasing its security of energy supplies, Ukraine also gives a high priority to implementing the appropriate conditions to permit additional sources of hydrocarbons to reach its market via new routes.
- 3.4 Due to this importance of this network both for the EU and Ukraine, the parties will define and create before the end of 2005 a joint EU-Ukraine Hydrocarbon Technical Support Group to provide expertise and recommendations for EU-Ukraine energy cooperation for:
- a) auditing the existing hydrocarbon transit and supply network with a view to developing a modernisation and infrastructures master plan,
 - b) developing a safety and security monitoring system for the Ukraine hydrocarbon transit and supply network, including through satellite monitoring systems,
 - c) studying the possible reform options for oil and gas transit, taking into account the strategic interests of Ukraine,
 - d) identifying and promoting additional sources and supply routes for gas and oil to Ukraine and onwards to the EU, including the potential for LPG and LNG,
 - e) promoting the harmonisation of technical norms and standards in the Ukrainian hydrocarbons sector with EU industrial practices,
 - f) implementing a modern laboratory for independent certification of oil products quality, in addition to the implementation of a modern gas metrology systems under completion in the Boyarka Metrology centre,
 - g) assisting Ukraine in the implementation of the EU oil and gas regulation (gas directives, oil products specifications and quality)
 - h) assisting Ukraine in the implementation of its oil national security of supply strategy. In particular the parties undertake to start joint work towards designing a framework for the management of Ukraine's strategic oil reserves in line with EU practices.

- 3.5 With the objective of optimising the use of existing structures and resources, the parties will endeavour to build up the EU-Ukraine Hydrocarbon Technical Support Group on the basis of the Eastern European Boyarka Gas Metrology Centre and the EU INOGATE Programme.
- 3.6 Due to the need for specialised expertise, the EU-Ukraine Hydrocarbon Technical Support Group may use EU and Ukrainian experts to work together to implement the above mentioned hydrocarbon road map. In this context, the EU technical assistance may be used as a support.

4. Road map for enhancing effectiveness, safety and environmental standards in the coal sector

- 4.1 The parties recognise the important role played by coal in the security of the European continent energy supplies and the necessity of not only continuing to reform and restructure the Ukrainian coal industry but also enhancing mine safety standards and improving the environmental impact of coal combustion towards EU levels, and raising the effectiveness of the industry.
- 4.2 The parties welcome the reinforced co-operation foreseen within the framework of the Tacis Programme towards achieving the above-mentioned goals, in particular through the Ukraine National Action Programme 2005 "Coal policy support" project.

5. Final considerations

5.1 Energy Community

As a first step, the parties agreed that it would be useful for Ukraine to be given observer status in the Energy Community as soon as the Treaty enters into force. The European Union will support this request. The condition for EU support to the ultimate accession of Ukraine to the Energy Community is the satisfactory assessment of the level of nuclear safety in all Ukrainian operating NPPs.

5.2 Enhancing the security and transit of hydrocarbons

In view of jointly enhancing the hydrocarbons security and transit conditions and operations, the parties agree to create, by December 2005, a joint EU-Ukraine Hydrocarbon Technical Support Group.

5.3 Legal modality

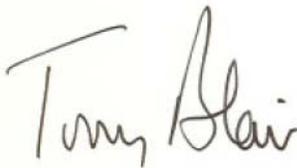
The present document is a document that records political intent alone and provides for no legal commitment.

This Memorandum of Understanding enters into force on the date of its signature by both parties.

Done in Kyiv on 1 December 2005, in Ukrainian and English languages, both texts being equally authentic.

On behalf of the European Union

On behalf of Ukraine



Tony Blair
President of the
European Council



José Manuel Barroso
President of the Commission
of the European Communities



Victor Yushchenko
President of Ukraine