



Memorandum of Understanding on a Strategic Energy Partnership

Between the European Union together with the European Atomic Energy Community and Ukraine

1. INTRODUCTION

The Memorandum of Understanding on cooperation in the field of energy between the European Union (EU) and Ukraine, signed on 1st December 2005, has provided a solid basis for guiding the cooperation between both sides over the past ten years. Good progress has been achieved over this period in implementing the five roadmaps described therein, namely on (i.) nuclear safety, (ii.) integration of electricity and gas markets, (iii.) security of energy supply and transit, (iv.) the coal sector and (v.) energy efficiency and renewables. This has already led to a closer integration of the energy markets of the EU and Ukraine.

The goal remains the full integration of energy markets of the EU and Ukraine for the benefit of consumers and with a view to strengthening mutual energy security and environmental sustainability. It is therefore in the interest of the EU and Ukraine (hereinafter "the Sides") to intensify cooperation in the energy field and to reform energy sectors, in particular in the areas outlined below.

A number of significant developments have taken place in the last few years that have been taken into account in drawing up this new Strategic Energy Partnership, namely:

- the Association Agreement between the EU and Ukraine, which was signed in March and June 2014, includes provisions specifically dedicated to energy, energy-related trade and harmonization of the Ukrainian legislative framework with that of the EU in the energy sector. Its application provides the basis for enhanced cooperation in the field of energy between the Sides;
- Ukraine became a contracting party of the Energy Community as of 1st February 2011 and has already undertaken first steps to comply with a number of its international obligations therein, namely in the area of natural gas and is committed to implement fully the Third Energy Package.;
- in June 2016, one year following the accession to Horizon 2020, the agreement associating Ukraine to the Euratom research and training programme (2014-18) (the Euratom Programme) was signed, which was ratified by the Verkhovna Rada of Ukraine on 22 September 2016. This association, in view of Ukraine's recognised competence and know-how in nuclear science will further widen mutually beneficial co-operation between the EU and Ukraine;

- Ukraine shares the goals and principles of the Energy Union set out in the European Commission's Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy¹ to provide consumers – both households and businesses – with safe, secure, sustainable, competitive and affordable energy. For that purpose, the Sides agree to cooperate closely in implementing the principles set out in the Energy Union strategy.

The Sides also recall the importance of the recent declarations, initiatives and agreements in implementing their cooperation in the field of energy, in particular:

- the Joint Declaration on the Modernisation of Ukraine's Gas Transit System of 23rd March 2009;
- the agreements between Euratom and the Cabinet of Ministers of Ukraine in the sphere of nuclear safety and on the peaceful uses of nuclear energy²;
- in the field of nuclear safety, the cooperation activities carried out for the benefit of Ukraine within the framework of the Instrument for Nuclear Safety Cooperation (INSC).
- the Commission Decision C(2013) 3496 of 24 June 2013 on granting a Euratom loan in support of the Ukraine safety upgrade program of nuclear power units;
- the Agreement on cooperation in science and technology between the European Community and Ukraine signed in 2002 and last renewed in 2014, hereinafter the Science and Technology Agreement; and
- the agreement adopted by the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris in December 2015, hereinafter the Paris Agreement on Climate Change, and ratified by the Parliament of Ukraine on 14 July 2016, in the context of which EU and Ukraine together with other Parties to the UNFCCC agreed *inter alia* on the need for global emissions to peak as soon as possible, to undertake rapid reductions thereafter in accordance with the best available science, to come together every 5 years to set more ambitious targets as required by science and to report to each other and the public on how well they are doing in implementing their targets.

Acknowledging the importance of developing Ukraine's energy infrastructure and implementing projects aimed at deepening its integration into the EU's infrastructure, the Sides agree to cooperate in mobilising investments and financing.

In view of the above, the Sides aim to collaborate in view of aligning their respective energy strategies and expanding the instruments of cooperation between them in the areas below.

¹ A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank of 25 February 2015.

² Namely, the Agreement for Co-operation in the field of nuclear safety and the Agreement for Co-operation in the field of controlled nuclear fusion, both in force as of November 2002, as well as the Agreement for Co-operation in the Peaceful Uses of Nuclear Energy, in force since September 2006.

2. ENERGY SECURITY, SOLIDARITY AND TRUST

The Sides seek to strengthen their mutual energy security in a spirit of solidarity and trust. With a view to achieving this, the Sides aim at:

- regularly exchanging information with regard to new policy initiatives, scenarios and forecasts of energy consumption and supply, including aiming at harmonising their modelling methodologies;
- cooperating on joint initiatives and on ways to diversify and enhance their security of energy supply, including protection of energy critical infrastructures and against cyber security threats;
- improving the interconnectivity between EU Member States and Ukraine as well as with and between Energy Community Contracting Parties and removing any barriers, including regulatory, with a view to facilitating cross-border gas flows and non-discriminatory access to facilities and natural gas sources;
- collaborating in the process of identification and implementation of Projects of Common Interest (PCIs) (where appropriate) and Projects of Energy Community Interest (PECIs) or Projects of Mutual Interest (PMIs), in strengthening the compatibility and coordination between PCI and PECE/PMI and in seeking to achieve full application of energy market rules on all interconnections based on EU legislation;
- building on the successful cooperation following the EU stress tests³ of 2014 by continuing cooperation on the security of natural gas supply within existing projects and initiatives as well as through enhanced regional efforts and by launching similar cooperation with regard to electricity;
- supporting the environmentally sound production of indigenous energy, including renewables, in a sustainable manner.

Recognizing Ukraine's strategic role as a gas transit country, the Sides should continue to cooperate on ensuring the safe, reliable and transparent transit of gas through Ukraine, *inter alia* through the full implementation of the 2009 Joint Declaration on the Modernisation of Ukraine's Gas Transit System. Bearing this in mind, the EU supports the efforts of Ukraine to remain an important gas transit country.

In view of the substantial capacity of underground storage facilities for gas available in Ukraine and of their strategic importance for the security of gas supply in Europe and Ukraine, the Sides envisage exploring the potential to strengthen the integration of these facilities into the EU gas market *inter alia* by increasing the transparency and effectiveness of their operation, and the possibility of a gas hub in Ukraine following necessary unbundling in conformity with the 3rd package.

Ukraine is determined to implement swiftly the unbundling decision in respect of NJSC Naftogaz of Ukraine for the benefit of the internal market and in the best interests of the people of Ukraine.

³ Communication of the Commission to the European Parliament and the Council on the short term resilience of the European gas system, COM(2014) 654 final

The Sides intend to continue their cooperation in the oil sector, including on ensuring the secure and reliable transit of crude oil via Ukraine and on diversification projects, as well as on the implementation by Ukraine of a system of minimum stocks of crude oil and petroleum products.

Building on their extensive collaboration during the comprehensive and transparent risk and safety assessments (stress tests) of their nuclear power reactors which took place following the Fukushima accident, the Sides should continue to cooperate closely in the field of nuclear safety as well as radioactive waste and spent fuel management with a view to ensuring that Ukraine will incorporate into its legislation the most recent legal framework implemented in the EU in that field. Ensuring the highest level of nuclear safety remains a key priority for both sides. Specifically, the Sides should cooperate on:

- strengthening the capacity and competences as well as assuring full independence of national regulatory authorities⁴;
- implementing high level Safety Objectives in line with the Vienna Declaration on Nuclear Safety of 9 February 2015 on principles for the implementation of the objective of the Convention on Nuclear Safety to prevent accidents and mitigate radiological consequences;
- implementing, in a timely manner, the safety upgrades identified in the updated Ukrainian National Action Plan prepared in response to the "stress tests" results, and reporting to the relevant EU and international fora;
- promoting an effective nuclear safety culture among all concerned stakeholders;
- drawing up a national programme for the long-term management of all types of spent fuel and implementing a national programme for the management of radioactive waste in Ukraine;
- implementing a system of regular "Peer Reviews" in line with the ones in place in the EU within the framework of the nuclear safety and the radioactive waste and spent fuel management Directives;
- improving information exchanges and cross-border arrangements in the field of Emergency Preparedness and Response;
- increasing transparency on nuclear safety and on radioactive waste and spent fuel management matters, informing and involving the public.

The Sides should also cooperate in the diversification of nuclear fuel supplies for VVER nuclear reactors, including those based on indigenous reserves, with special attention to the issue of licensing of the fuel from different providers.

The Sides envisage co-operating closely to ensure that Ukraine is addressing environmental concerns in the energy sector with a view to meeting the Sustainable Development Goals, including those having a cross-border or global character, and on the implementation of relevant multilateral environmental agreements. Environmental impact assessments, applied in line with EU legislation

⁴ COUNCIL DIRECTIVE 2014/87/EURATOM of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations

and relevant international obligations will be used as an important tool to meet environmental standards.

With a view to strengthening energy security and independence of Ukraine, the Sides envisage cooperating on maintaining the integrity and increasing the stability of the national electricity system and its ability to meet the long-term demand for electricity.

Building on the progress made so far, the Sides intend to expand cooperation to reform and restructure the Ukrainian coal sector, with due regard to environmental and social aspects, including by way of legislative changes to develop the coal market and assist with the deep and comprehensive restructuring of the sector.

3. INTEGRATION OF ENERGY MARKETS

In view of achieving the full integration of the energy markets of the EU and Ukraine and the full implementation of the 3rd Energy Package, the Sides should cooperate closely:

- in building the capacities and effectiveness of all relevant institutions and stakeholders to implement the reforms in energy sector, in particular of the national regulator, and in relation to competition and state aid policies by, inter alia, increasing exchanges between the EU and Ukrainian national energy regulators and competition authorities;
- on the implementation of Ukraine's commitments under the Energy Community Treaty and relevant provisions of the Association Agreement, including Chapter 6 (Title V) thereof concerning the environment, also through technical assistance where necessary;
- in increasing the transparency and efficiency of Ukraine's energy markets and in fighting corruption; and
- on developing a secure investment climate to improve the attractiveness of Ukraine's energy sector for investors.

The Sides should cooperate, as a matter of priority, to accelerate the adaptation of Ukrainian legislation to requirements and rules stemming from applicable EU law and standards on development, planning and operation of electricity and gas networks within the framework of the Energy Community Treaty.

Recognizing the decision of the Government of Ukraine to fully integrate the Ukrainian electricity system with the European energy market, the Sides envisage working towards achieving the synchronous operation of Ukraine's unified energy system with the Central European Energy grid in the long run and improving asynchronous operations in the short run where appropriate.

A level playing field in terms of equivalent basic rules with respect to market access, infrastructure and market opening, as well as environmental and safety standards aligned with European legislation will facilitate electricity trade between the Sides.

The Sides underline that fully independent and competent regulatory authorities are essential for the functioning of the internal energy market. The Sides commit to strengthening the capacity and efficiency of the relevant authorities.

The Sides will aim at facilitating the development of existing, or where necessary new, oil infrastructure, resulting in a better integration of the European oil pipeline network.

In view of creating a competitive and liquid natural gas market, the Sides intend to continue constructive cooperation and take the necessary efforts to ensure that Ukraine's Gas Transmission System Operator should sign interconnection agreements in line with the EU acquis with adjacent operators in EU Member States.

The Sides intend to cooperate on the protection of rights of consumers of electricity and natural gas and expanding opportunities for consumers, including fighting unfair commercial practices. In particular, the Sides see the opportunity for cooperation between the EU and Ukraine in seeking:

- free choice of supplier of electricity and natural gas to all consumers;
- full electricity, natural gas and heat metering in a cost efficient manner;
- highest standards for consumer information, handling of complaints and settlement of disputes which arise on the electricity and natural gas markets;
- high quality and security of supply of electricity and natural gas; and
- protection of vulnerable consumers.

4. ENHANCING ENERGY EFFICIENCY

The Sides envisage mutually supporting the development of policies in energy efficiency with the objective of promoting energy efficiency in all spheres of energy consumption, transformation, transmission and distribution, with the aim of reducing Ukraine's energy intensity.

In this regard, the Sides envisage exchanging good practices on implementing energy efficiency measures in energy generation, transmission and distribution, as well as in final consumption, including comprehensive metering and transparent billing for all residential, public buildings and industry.

The Sides note that effective implementation of energy audits, energy management or environmental management systems according to international standards (EN/ISO) is an important factor in enhancing energy efficiency, and agree to cooperate for the purpose of implementing these systems in Ukraine's private and public sectors.

The Sides should strive to establish a fund to support energy efficiency measures in buildings in Ukraine. The Sides also envisage cooperation in the following areas:

- enhancing consumer's energy efficiency by encouraging the use of energy-efficient products (full implementation of energy labelling and eco-design requirements);
- improving the efficiency of transmission and distribution of natural gas, electricity and heat;
- developing full utilisation of the possibilities to support energy efficiency investments provided for by EU-supported programmes such as the E5P Fund and other NIF-funded projects.

The Sides should support efforts to facilitate the enhancement of energy efficiency capacities among central and local administrations in Ukraine and develop local expertise and human resources in the energy efficiency sphere.

5. DECARBONISATION OF THE ECONOMY

Recognizing that Ukraine is one of the most carbon-intensive economies in the world and that the common objective is the low-carbon development of all sectors of economy, the Sides support the development of and exchange on their respective low greenhouse gas emission strategies.

In view of the above, the Sides should:

- promote the use and further development of renewable energy sources by exploring appropriate regulatory and favourable economic conditions;
- exchange best practices on switching to low-emission fuel and low-emission alternative fuels based on best available technologies;
- stimulate the recovery and use of methane from producing and closed coal mines;
- share expertise on introducing robust emissions monitoring, reporting and verification frameworks, carbon pricing and emissions trading; and
- cooperate for enabling the deployment of carbon capture and storage or utilization technologies, provided these are deployed safely and risks are properly managed.

The Sides intend to cooperate closely to assist Ukraine in meeting the targets for reducing emissions from thermal power plants in line with its commitments under the Energy Community Treaty.

Energy efficient and clean vehicles have an important role to play in reducing energy consumption, CO₂ emissions, and pollutant emissions. The Sides agree to promote the use of environmentally-friendly vehicles and facilitate that environmental impacts from the operation of vehicles over their whole lifetime are taken into account in all purchases of road transport vehicles. The Sides agree to cooperate in exchanging best practices for promoting clean vehicles and streamlining their infrastructure including facilitating the development of the legal framework.

The Sides intend to cooperate closely to assist Ukraine on the promotion of the use of energy from renewable sources in line with its commitments under the Energy Community Treaty.

In view of the full implementation of the Paris Agreement on Climate Change, the Sides intend to cooperate in all fora provided for by this agreement. The Sides agree that, within the framework of this cooperation, special consideration should be given to the financing of climate change adaptation and greenhouse gas emission reduction programmes.

6. RESEARCH AND INNOVATION

The Sides should cooperate to promote Ukraine's full participation in the activities of Horizon 2020, of the Euratom Research and Training Programme (2014-18) complementing Horizon 2020, of the Research Programme of the Research Fund for Coal and Steel (RFCS) and of other programmes relating to energy research and science-based approach to energy regulation. The Sides seek to improve their cooperation in non-nuclear energy research notably through the association of Ukraine to the Horizon 2020 programme. Specifically, the Sides should seek to cooperate on improving innovations in the energy sector, in energy efficiency technologies, and in nuclear safety as well as on developing new renewable energy technologies. Cooperation on climate change mitigation should also be favoured.

Regarding nuclear research in particular, the association of Ukraine to the Euratom Research and Training Programme would enable the Sides to reinforce their already good cooperation, enabling closer integration of research programmes and a more effective sharing of resources and infrastructures. In the fission area this would extend - insofar as covered by the Sides' respective Programmes - to issues such as radiation protection, decommissioning, waste management, VVER safety research, and alignment of Ukraine with European best practices, while in the fusion area it would allow closer alignment of Ukraine with the European fusion roadmap.

The Sides intend to develop and enhance cooperation in the research and development sphere and conduct regular dialogues (including on the technical level) in order to promote both the development of science and the enhancement of scientific potential for the purpose of solving regional and global problems in the energy sphere. Joint activities carried out in areas covered by Article 4 of the Science and Technology Agreement should be operated in accordance with this Agreement. The activities will notably be coordinated with and reported to the Joint Committee established under the Science and Technology Agreement.

7. IMPLEMENTATION AND REPORTING

The Sides envisage regular meetings (at least once per year) at the ministerial level (and other levels where appropriate) to review progress in the implementation of this Memorandum and to define priorities through annual work plans.

In order to ensure the smooth operation of the Memorandum, the Sides should appoint authorized representatives at the expert level. These representatives should specifically have the task of ensuring a smooth exchange of information, organizing meetings, drafting annual work plans and arranging for reporting on the implementation of this Memorandum.

The Sides can jointly establish working groups on specific annual priorities, as deemed necessary.

The Sides should regularly inform the relevant Subcommittee under the Association Agreement on the progress made under this Memorandum. Due consideration should be given to the publicity of joint activities, including informing stakeholders on results achieved and priorities under the annual work plans.

In the operation of this Memorandum, the Sides should cooperate closely with the Energy Community bodies on all issues related to the Energy Community mandate and, where appropriate, ensure that their activities are closely coordinated with other donors and partners in Ukraine.

The Sides envisage facilitating close cooperation between energy regulators, network operators and their associations in the EU and Ukraine, including but not limited to ACER, CEER, ENTSO-E and ENTSO-G, and between national bodies on a bilateral basis. Specifically, the Sides envisage undertaking joint efforts to promote the status of Ukraine's national energy regulator as an observer in ACER as well as the observer status and subsequent full membership of the Ukrainian system operator for electricity in ENTSO-E and for gas in ENTSO-G.

The Sides encourage the related cooperation of market participants, professional associations and civil society actors in the energy sector.

Recognizing the importance of civil society in developing structural reforms in the energy sector, the Sides envisage providing institutional support for Ukrainian NGOs in order to enhance their role in the implementation of energy reforms in Ukraine.

8. APPLICATION, DURATION, REVISION

This Memorandum replaces and supersedes the Memorandum of Understanding between the European Union and Ukraine signed on 1 December 2005.

It does not, nor is it intended to, create any legal obligations on either Side under domestic or international law. In particular, nothing in this Memorandum shall represent a commitment of financing on the part of either Side.

Furthermore, this Memorandum does not intend to represent any commitment from either Side to give preferred treatment to the other Side in any matter contemplated herein or otherwise.

The Sides should endeavour that any exchange of information contemplated in this Memorandum and all activities undertaken pursuant to this Memorandum are consistent with their respective policies and procedures on disclosure of information. In addition, both Sides may make this Memorandum publicly available.

This Memorandum is made for an initial period of 10 years. At the end of the fifth year of the Memorandum's term, the Sides should confer at the appropriate level to decide on whether this Memorandum requires any revision, amendment and/or supplementation, and if so, they should revise and/or make the required amendments and/or supplements to this Memorandum.

The Sides can revise or prolong this Memorandum or any of the Sides can terminate the Memorandum at any time. In case of termination, the respective Side should give at least 90 days prior written notice, with effect on the date of receipt of the notification.

This Memorandum should come into effect on the day after it has been signed by both Sides.

Done at Brussels on 24 November 2016 in two copies in the English language and two in the Ukrainian language.

For the European Union and the
European Atomic Energy Community

For Ukraine

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