1. **IDENTIFICATION**

<table>
<thead>
<tr>
<th>Title</th>
<th>Support to the implementation of Ukraine’s strategy in the area of energy efficiency and renewable sources of energy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total cost</strong></td>
<td><strong>EC contribution: EUR 70 million (including EUR 6 million allocated from the Governance Facility)</strong></td>
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<tr>
<td></td>
<td><em>Other contributions still under discussion with IFIs. EBRD’s expected contribution: US$ 100 million</em></td>
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<tr>
<td><strong>Aid method / management mode</strong></td>
<td>Sector Policy Support Programme:</td>
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<tr>
<td></td>
<td>- Budget support (centralised management): EUR 63 million</td>
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<td></td>
<td>- Project mode for related technical assistance (centralised management): EUR 7 million <strong>CRIS n. 19595</strong></td>
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<tr>
<td><strong>DAC-code</strong></td>
<td>23010 23030</td>
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<tr>
<td><strong>Sector</strong></td>
<td>Energy Policy and Administrative Management</td>
</tr>
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<td></td>
<td>Power generation / renewable sources</td>
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</tbody>
</table>

2. **RATIONALE AND COUNTRY CONTEXT**

2.1. **Economic and social situation**

*Basic existing preconditions*

The three basic pre-conditions for implementing a sectoral energy support programme are currently met:

- there is a Government strategy for the energy sector whose objectives and principles are converging with those of the EU, and which is to be supported by a sector budget support programme under the AAP 2007 for Ukraine
- there is an active policy dialogue between the Government and the EC on energy related issues, that the above-mentioned programme has already contributed to accelerate
- a monitoring mechanism of the co-operation outcomes has been put in place, including an ad-hoc monitoring group to follow achievement of the sector reform targets set forth under the above-mentioned programme¹.

*Macro-economic policy and Public finance management*

The September 2006 PEFA report assessing Ukraine’s PFM system concluded that “Ukraine has in place the fundamental PFM systems for managing macro-fiscal developments and some elements for enabling strategic allocation of resources”. A sector readiness assessment study, meant to assess the readiness of the energy sector for the budget support modality, confirmed that Ukraine has an effective PFM structure in spite of improvements needed in reporting and controls. To tackle these issues, the Government adopted on 19 October 2007 a PFM Reform strategy that explicitly aims at setting up modernised systems “in compliance with recommendations on governance issued by the European Commission.” The World Bank is committed to financing its implementation as from 2008 through a loan estimated at US$ 65 million.

¹ Additionality of the proposed measure with the AAP 2007 programme is discussed below in section 2.4.
2.2. Cooperation policy of beneficiary country

Ukraine-EC energy cooperation in the field of energy efficiency and renewable energy (EE/RES) is based on the Partnership and Cooperation Agreement, the Energy chapter of the EU-Ukraine Action Plan and the Energy MoU\(^2\). It has gained considerable momentum in 2006 and 2007, thanks to a structure of sub-sectoral roadmaps and monitoring groups, including one specialised on EE/RES.

The existing EU-Ukraine cooperation framework embraces the entire range of issues of interest to enhance EE/RES policies in Ukraine in the current context of high energy intensity (about three times more than the EU average), the need for diversification of energy resources and increased reliance on domestic sources of energy, and strong forecast GDP growth (estimated at 6% annually in the medium run). This framework includes objectives, deadlines and priorities, more precisely defined in implementing roadmaps signed between the Commission and the Government. In the framework of the Energy MoU\(^3\), a constant dialogue and monitoring of Energy MoU progress in the EE/RES sector is taken on board by a joint EC/NAER/MFE\(^4\) working group which contributes to annual joint progress reports presented to the EU-Ukraine Summits.

2.3. Government Sector Programme

The current government programme refers to the Energy MoU and the Ukrainian Energy strategy 2005-2030 as the two key strategic documents it will endeavour to implement. Convergence of the objectives and timetables of these two documents guarantee a good ownership of the measure by the Ukrainian stakeholders, as shown during the formulation phase of the measure. In addition, Ukraine’s political commitment to full membership in the Energy Community Treaty (ECT), approved by the ECT ministerial conference in June 2007, should set the pace in the coming years for adoption of the whole EU electricity and gas acquis, including acquis on renewable energy as well as rules related to environment and competition. A recent (26-29 Feb. 2008) Commission mission on Ukraine’s preparedness for ECT Accession confirmed the importance that the Ukrainian government attaches to ECT Accession, which constitutes a major sector objective of the Ukrainian Energy strategy.

2.4. Lessons learnt

The political priority placed in Ukraine on the EE/RES sector, particularly since the governmental conference on the subject held on 30 November 2007, and the holistic nature of this underdeveloped sector’s reform, emphasise the need for a sector-wide approach. It will have to be reflected in the proper choice of the budget support indicators to be identified.

Lessons can be drawn from the experience of past Tacis projects involved in setting up Energy Service Companies (ESCOs). Ukraine presents a series of barriers which negatively affect EE/RES development:

- General barriers to investments in Ukraine’s economy, including energy efficiency investments: political instability, weak regulatory framework for doing business, slow progress in institutional reforms (the judiciary and state bureaucracy reforms are still on

\(^2\) Memorandum of Understanding between Ukraine and the European Union on enhanced co-operation in the field of energy of 1 December 2005.

\(^3\) The Ministry of Fuel and Energy is the counterpart mandated by the Ukrainian Government to coordinate the Energy MoU, including its Roadmap on energy efficiency and renewable sources of energy. As such, it will co-chair the monitoring group to be established to follow up implementation of this measure.

\(^4\) NAER is the National Agency of Ukraine for Effective Use of Energy Resources, the main Ukrainian institution responsible for the Ukrainian policies dealt with in this measure. As such, it will co-chair the monitoring group to be established to follow up implementation of this measure.
the agenda)

- **EE/RES-specific barriers:** absence of consolidated legislative/executive approach to energy conservation (resulting in repeated Presidential vetoes on EE/RES related laws); slow progress in tariff reform and market liberalisation; failure of existing legislation to stimulate investments in the sector, by lack of implementing regulations or sustainable incentives; lack of business focus on the EE/RES issue (the key challenge is often to convince the client that energy efficiency can generate additional revenues); lack of knowledge on financing energy efficiency and renewable energy, resulting in Ukrainian banks / investors being unwilling to take project risk; lack of skilled energy managers and energy auditors; lack of information about technologies, opportunities, costs, and benefits.

In consideration of the above and the experience matured on previous projects, Ukraine needs a pragmatic, sector-wide approach, where the focus is mainly placed on legislation, regulatory framework development and institutional reforms. This is the main objective of the Sector Budget Support Programme "Support to the implementation of Ukraine's Energy strategy" financed under the Annual Action Programme 2007 for an amount of 65M€, topped up by the amount of 22M€ allocated under the Governance Facility, and currently at the beginning of its implementation.

### 2.5. Complementary actions

Ukraine has started from 2007 an intensive energy sector rehabilitation and modernisation programme that it intends to finance mainly via borrowings on the domestic or the international market, under the coordination and supervision of the Deputy Prime Minister for Infrastructure. This programme in support of the energy strategy of the Ukraine is complemented by planned EIB/EBRD loan packages (under EC co-ordination) to be followed by further lending operations to modernise the energy sector in relation with the objectives of the Energy MoU. The EBRD is otherwise running a US$ 100 million fund to finance energy conservation measures in the residential sector.

The proposed measure will add substantial value to the AAP 2007 energy sector budget support programme, which focuses on fundamental energy market restructuring and includes energy savings measures supported under the Governance Facility. These measures put the emphasis on reducing the energy consumption of the energy sector itself, and particularly of the gas transit system. The proposed measures bring essential complementarities to this target by aiming at implementing an energy efficiency and renewable energy sources strategy in line with the overarching objectives of economic and environmental sustainability, security and diversification of energy supplies.

Complementary Tacis projects include a recently started support to prepare Ukraine to integrating the electricity trans-European networks, a forthcoming project in support of coal sector reform and two twinning projects, one ongoing and one presently at design stage, to strengthen NAER’s capacity in policy development and maintenance. The World Bank is also preparing a part on energy sector reform in its forthcoming Second Development Policy Loan to Ukraine.

### 2.6. Donor coordination

The Government has recently established a Government-led coordination mechanism, which includes an EE/RES sector thematic group. This group first convened on 23 November 2006 (under EBRD co-leadership) and again on 27 February 2007 (under EC co-leadership). In addition, frequent working contacts of the EC Delegation with the World Bank, the EBRD and smaller donors involved in the energy efficiency segment (Denmark, Sweden, the Nordic

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5 From this standpoint, this operation comes rightly after the AAP 2007 energy sector reform measure meant in particular to liberalise the energy market.
Environment Finance Corporation) provide guarantees of cohesion and coordination of efforts.

Donor coordination has made less progress in the field of PFM. The PEFA assessment of the PFM system was carried out by the World Bank. The PFM reform strategy and Action Plan are being prepared by the Government with technical assistance of the World Bank, other donors providing assistance to the Ministry of Finance and related institutions not being involved. However, the Commission is defining the PFM related conditions essential for introduction of budgetary support based on the PEFA assessment. This work is carried out in close coordination with the World Bank to ensure that unified criteria are applied.

3. **DESCRIPTION**

3.1. **Objectives**

- To contribute to implementing the measures agreed in the Ukraine ENP Action Plan in the areas of Energy efficiency (EE) and Renewable energy sources (RES)\(^6\).
- To support implementation of the priority measures agreed under the Energy MoU in the areas of energy efficiency and renewable energy.
- To set up an institutional framework appropriate to sustain implementation of such measures in the long run.

3.2. **Expected results and main activities**

- Ukrainian energy efficiency and RES policies brought in line with best European practice, and substantially improved to aim at an adequate and sustainable energy mix favouring Ukraine’s locally available resources (wind, solar, geothermal, hydro); priority measures are jointly approved and implemented; relevant technical norms and standards are harmonised with EU industrial norms and practices
- Increased efficiency of the transit and transportation of energy, including through the reduction of losses and an optimisation of the networks
- Significantly enhanced EU-Ukraine co-operation regarding energy conservation and RES projects, with particular emphasis on research, technology deployment and the promotion of best practice
- Use of renewable energy significantly enhanced, via development and effective implementation of ad-hoc policies, and the active participation of Ukraine in European research projects
- Effective methane recuperation programmes implemented in Ukrainian coal mines, with the related improvement of the safety and efficiency of the coal sector
- Institutions responsible for designing and promoting such policies, including NAER, strengthened adequately to make implementation of the above policies sustainable over time
- Competency of personnel of relevant institutions significantly increased (especially related to programmes drafting) – more specialists should be involved
- Independence of the institutions responsible for setting the tariffs for competing energy sources has been significantly strengthened
- IFIs investments in the areas of energy efficiency and renewable energy are fostered (priority investment projects to be selected being prepared within the framework of

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\(^6\) Sections 51 and 56 of the EU-Ukraine Action Plan of 21 February 2005.
the proposed measure

As underlined in section 2.5, these results focus on supporting Ukraine in taking last-chance, decisive steps towards energy efficiency and the use of renewable energy sources; by contrast, the previous sector budget support programme focused on supply side improvements and structural reforms to allow for a more transparent and economically sustainable functioning of the energy market.

Activities to implement the measure will consist in setting up and running an appropriate system to monitor progress on the above-listed objectives and more specifically attainment of the agreed disbursement targets. This may imply the use of support technical assistance or specific equipment, budgeted for this purpose (section 4.3).

3.3. Stakeholders

The main partners for implementation will be the Ministry of Fuels and Energy, the National Agency for the Efficient Use of Energy Resources, and the various organisations involved in implementing Ukraine’s energy efficiency and renewable energy strategies.

The high degree of congruence of the proposed measure with domestic and donor-sponsored past, on-going or foreseen activities in the energy sector and with the foreseeable lending operations of the main international financial institutions (including the EIB, the EBRD, and the World Bank), makes the proposed measure a good example of beneficiary country’s involvement and ownership. NGOs with active participation in Energy Efficiency and Alternative Fuels development have also been involved.

3.4. Risks and assumptions

Assumptions

– Ukraine is willing to conduct a policy dialogue with the European Union and other interested donors on the issue of PFM reform.

– Ukraine will keep to all of its commitments under the ENP Action Plan and the Energy MoU, and will continue demonstrating heightened interest in the proposed cooperation in EE/RES.

– Ukraine will not substantially revise the principles underlying its national energy strategy, and its Government will be willing to follow the foreseen reform path, translating it into concrete policies.

Risks

– One or several of the ministries, agencies or companies involved in the programme might either be reluctant or not have the capacity to cooperate in an ordered manner. This risk can be mitigated via the use of established Energy MoU dialogue mechanisms and the provision of adequate technical assistance.

3.5. Crosscutting Issues

The cross-cutting issues of good governance and human rights, as well as environment, are clearly integrated into the proposed programme, through:

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7 Certain projects, such as retrofitting in the power generation sector or the modernisation of the chain of compressor stations on the gas trunk pipeline have already been identified with the MFE.

8 The EIB’s possible contribution to the implementation of EE/RES projects in Ukraine was discussed in October 2007, following a joint review in Kyiv of investment projects under preparation in the energy and environment sectors. The EC and the EBRD are already co-operating closely on energy efficiency measures in the Ukrainian residential sector. Energy efficiency is one of the objectives of the World Bank’s upcoming programmatic loans to Ukraine.
The alignment of EE/RES policies and energy efficiency targets with EU market-based norms, with its three-fold implications: in terms of encouraging wide dissemination of energy savings technologies for the population and small businesses; in terms of mitigating the consequences of the rise in imported energy prices for the population; and in terms of improving access to energy for the population.

The replacement of equipment on the hydrocarbons transit system will go hand in hand with important energy savings and secondary energy recuperation.

Energy efficiency actions will imply active dialogue of the population with the authorities at the local level.

The renewed impetus given to energy-efficiency actions will lead to reduced environmental impact of the economy as a whole.

At this stage, the proposed programme has no identified impact on gender equality.

4. IMPLEMENTATION ISSUES

4.1. Implementation method

Untargeted budget support under centralised management.

4.2. Procurement and grant award procedures

All contracts implementing the action must be awarded and implemented in accordance with the procedures and standard documents laid down and published by the Commission for the implementation of external operations, in force at the time of the launch of the procedure in question.

The essential selection and award criteria for the award of grants are laid down in the Practical Guide to contract procedures for EC external actions. The maximum possible rate of co-financing for grants is 80%. Full financing may only be applied in the cases provided for in Article 253 of the Implementing Rules of the Financial Regulations where financing in full is essential to carry out the action in question.

All programme estimates must respect the procedures and standard documents laid down by the Commission, in force at the time of the adoption of the programme estimates in question.

4.3. Budget and calendar

- Budget support: € 63 million
- Related technical assistance: € 7 million

Budgetary support is expected to be disbursed in three tranches: a first up-front tranche of €31 million, within 3 months following the signature of the Financing Agreement, and two variable tranches of €16 million maximum each, by the end of the 18th and the 36th month following such signature, respectively. Provision of technical support to the measure (technical assistance) will also be included in the programme. This will ensure proper follow-up of implementation, and provide for specific advice to facilitate achievement of critical programme benchmarks. The technical assistance component will include an indicative allocation of 0.5M€ for Evaluation, Audit, and Visibility actions.

The programme will in principle be implemented within 36 months starting from the signature of the Financing Agreement.

4.4. Performance monitoring and criteria for disbursement

Performance monitoring will be exerted by a Joint monitoring group whose basis has been laid down in August 2006 with the establishment of the Energy MoU monitoring group partnering the Ministry of Fuel and Energy and the European Commission. The larger Joint
monitoring group will rely on official information provided by Ukraine and verified as appropriate by the ad-hoc Advisory group currently being established at the Ministry of Energy (100% EC funded).

Key indicators measuring progress will focus on policy improvements, number and effective outcomes of approximated legislation / regulation; surveys and market development studies undertaken; number of EE/RES fostering projects generated (with government departments, energy utilities, donors, dedicated funds, lending institutions, business associations, municipalities, cities’ networks, accreditation bodies, etc); possibly number and quality of training activities number of buildings concerned by energy conservation measures (public and private, new as well as existing); amount of CO₂ emissions saved.

4.5. Evaluation and audit

Evaluation of the results achieved will be entrusted to independent consultants, as well as external audits (which will be carried out if necessary). Evaluation and audit will be funded out of the technical assistance component of the programme.

4.6 Communication and visibility

The programme will follow the orientations of the Manual on Visibility of External Actions (e.g., press release at the signature of the FA, visibility for reports and studies, etc). Given the political importance of EE/RES promotion in Ukraine, a specific communication strategy will be developed, to be funded out of the “technical assistance” budget throughout the measure’s lifetime, in order to inform potential stakeholders of the opportunities that the revamped policies offer, to raise awareness of the potential of EE/RES in the economy, and to generate active support from energy stakeholders and consumers.