PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT
TYPE OF TRUST FUND: GEF TF

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PART I: PROJECT INFORMATION

Project Title: **Finance and Technology Transfer Centre for Climate Change (FINTECC) in Ukraine**			
Country(ies):	Ukraine	GEF Project ID:[1]	6942
GEF Agency(ies):	EBRD	GEF Agency Project ID:	
Other Executing Partner(s):		Submission Date:	2014-08-08 2014-08-22
GEF Focal Area (s):	Climate Change	Project Duration (Months)	48
Integrated Approach Pilot	IAP-Cities ☐ IAP Commodities ☐ IAP-Food Security ☐		Corporate Program: SGP ☐
Name of Parent Program:	(if applicable)	Agency Fee ($)	665,000 (not including PPG Agency fee of $19,000)

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
CC-1 Program 2: Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions	GEFTF	7,000,000	45,150,000
Total project costs		**7,000,000**	**45,150,000**

B. INDICATIVE PROJECT DESCRIPTION SUMMARY:

Project Objective: The proposed project aims to develop and demonstrate innovative policy and technical assistance packages and support development of performance-based financing mechanisms to increase investment in climate technologies in Ukraine. The Project will aim to contribute to achieving an energy efficient economy and increased energy security in Ukraine, while improving its energy self-sufficiency, in line with Ukraine 2030 Strategy.

Project Component	**Financing Type[3]**	**Project Outcomes**	**Trust Fund**	**(in $)**	
				GEF Project Financing	**Co-financing**
Component 1. Supporting the design of innovative policy packages to promote energy self-sufficiency and technology transfer	TA	1.1 Improved legislation, policy and standards strengthen enabling environment for technology transfer and improved energy self-sufficiency.	-	0	918,000
Component 2. Development of industry	TA	2.1 Identification, design and development of climate technology projects 2.2 National capacity for climate	-	0	3,564,000

[1] Project ID number will be assigned by GEFSec and to be entered by Agency in subsequent document submissions
[2] When completing Table A, refer to the GEF Website, *Focal Area Results Framework* which is an *Excerpt from GEF-6 Programming Directions*
[3] Financing type can be either investment or technical assistance

Project Component	Financing Type[3]	Project Outcomes	Trust Fund	(in $)	
				GEF Project Financing	Co-financing
guidelines, methodologies, technology baseline data, technical assistance and energy audits		technology technical service developed			
Component 3. Climate technology finance to support development of performance-based financing	INV	3.1 Increased technology transfer 3.2 Increased investment in climate technologies 3.3 Reduced carbon efficiency gap	GEF TF	7,000,000	39,190,000
Component 4. Knowledge management and awareness	TA	4.1 Increased capacity, knowledge and awareness of climate technologies leading to replication and scaling up 4.2 Carbon price information increasing effective capacity of business to participate in carbon markets	-	0	918,000
		Subtotal		7,000,000	44,590,000
		Project Management Cost (PMC)[4]		0	560,000
		Total Project Cost		**7,000,000**	**45,150,000**

If Multi-Trust Fund project: PMC in this table should be the total and enter trust fund PMC breakdown here( )

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE

Please include confirmed co-financing letters for the project with this form.

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Amount ($)
GEF Agency	EBRD	Loan	39,000,000
GEF Agency	EBRD	In-kind	750,000
Donor Agency	Neighbourhood Investment Facility (NIF) *and/or* other donors	Grants	5,400,000
Total Co-financing			**45,150,000**

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS[A)]

GEF Agency	Trust Fund	Country Region/ Global	Focal Area	Programming of Funds	(in $)		
					Grant Amount (a)	Agency Fee (b)[b)]	Total c=a+b
Total Grant Resources							

a) No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
b) Refer to the Fee Policy for GEF Partner Agencies..

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

E. PROJECT PREPARATION GRANT (PPG)[5]

Is Project Preparation Grant requested? Yes ☑ No □ If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

Project Preparation Grant amount requested: $200,000					PPG Agency Fee: 19,000		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in $)		
					PPG (a)	Agency Fee[6] (b)	Total c = a + b
EBRD	GEFTF	Ukraine	Climate Change		200,000	19,000	219,000
Total PPG Amount					200,000	19,000	219,000

F. PROJECT'S Target Contributions to Global Environmental Benefits[7]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*(Enter number of hectares)*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*(Enter number of hectares)*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins	*(Enter number of freshwater basins)*
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*(Enter percent of fisheries, by volume)*
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO_{2e} mitigated (include both direct and indirect)	0.625 million tons (direct only; indirect emissions to be reviewed and refined during the PPG process)
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	*(Enter number of tons*
	Reduction of 1000 tons of Mercury	*(Enter number of tons*
	Phase-out of 303.44 tons of ODP (HCFC)	*(Enter number of tons*
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	*(Enter number of countries)*
	Functional environmental information systems are established to support decision-making in at least 10 countries	*(Enter number of countries)*

[5] On exceptional basis, PPG amount may differ upon detailed discussion and justification with GEFSEC

[6] PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

[7] Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

PART II: PROJECT JUSTIFICATION

A. PROJECT OVERVIEW

A.1. Project description

A.1.1 Global environmental problems, root causes and barriers that need to be addressed

1. Global greenhouse gas (GHG) emissions are inherently linked to technology use and economic growth. While some countries have achieved an overall decoupling of economic growth with energy use, progress has been uneven. The EBRD's region of operation is characterised by highly inefficient energy use and reliance on carbon intensive fuels. Ukraine is characterised by high energy consumption and high GHG intensity throughout all economic sectors and, like other transition economies, has struggled to decouple emissions from economic development. Ukraine's carbon intensity is one of the highest in the world and, in 2011, was estimated at around 3.21 tonnes of CO_2e per thousand USD compared with 1.98 in Eurasian countries - an increase of 13% from 2009 (US EIA, 2014 Statistics), and 3 times the EU-27 average (based on PPP terms). This high carbon intensity stems mainly from obsolete and out-dated Soviet era capital stock in the power generation and industrial processing sectors, and old and out-dated building stock. Ukraine is also exposed to high energy insecurity and is highly dependent on energy imports especially from Russia. The combination of these challenges threatens Ukraine's competitiveness in the manufacturing and agribusiness sectors. Given the current difficult economic and political context there is urgency to address the climate change challenge and growth in GHG emissions.
2. Transferring energy efficient and renewable energy technologies has been recognised as a key component in the global strategy to reduce GHG emissions and address climate change challenges. Technology transfer necessitates shifting from the current technologies towards cleaner and climate resilient technologies. However the market penetration of GHG mitigation technology in Ukraine is typically low due to a number of awareness, financial, technical, legal and regulatory, and economic barriers. A study of 500 companies in the industrial and commercial sectors in Ukraine has revealed that financial barriers, such as high upfront investment costs of energy efficiency technologies, lack of capital and long pay back periods are the strongest barriers to deployment of energy efficiency technologies. Moreover, the apparent economic potential of energy efficiency measures is often evaluated using an engineering benefit-cost approach that often omits opportunity cost. Other key barriers are the lack of effective government policies to promote or enforce technologies and existing regulation such as government permits required for the adoption of energy efficiency technologies. The study also suggests that energy subsidies remain a pertinent barrier and that energy price rises would yield more adoption of energy efficiency measures. **Table 1** describes the identified barriers to climate technology transfer in Ukraine.
3. Ukraine has been active in the carbon market, and the signing of the Association Agreement between Ukraine and the EU is expected to lead to the introduction of carbon pricing. Through technical assistance by the EBRD, UNDP and the World Bank's *Partnership for Market Readiness*, two carbon pricing schemes are under consideration including a carbon tax and off-set scheme, and/or an emissions trading scheme. Ukraine is also preparing for legislation for the mandatory monitoring of GHG emissions at installations level, which is expected this year. While the concept of carbon pricing is supported, as it may become an important market driver for emission reduction and energy efficiency, the upcoming regulatory changes and consequential uncertainties could become an impediment to investment. An emerging field is the Monitoring, Reporting and Verification (MRV) of GHGs. Project sponsors will meet new challenges in relation to business activities, investments in measurement and control equipment, organisation and skills/expertise needed.

Table 1. Barriers to climate technology transfer

Barrier category	Barrier description
Capacity, awareness and technical	*Weak technical capacity to identify and develop bankable climate technology projects and lack of awareness of energy efficiency potential and opportunities* – There is a lack of experienced project developers and in-house technical expertise within companies to complete the full project cycle (including administrative procedures to access financing). This leads to a distorted view of the viability of projects. Typically, investment in climate technologies with low market penetration is perceived as inherently risky and as having incommensurate financial returns. *Lack of familiarity of carbon market schemes and the impact of carbon pricing* – companies will face a number of new challenges due to upcoming regulatory changes, and consequential uncertainties could become an impediment to investment. *Information asymmetry among stakeholders* – Knowledge is not transferred effectively to the end-users, who typically lack the expertise in identifying and appraising viable investment projects. *Lack of reliable baseline information on best available technologies and market penetration* – There is limited availability of reliable information and baseline data on market penetration of different technologies and sectors. This limits the ability of both private sectors and policy makers to make well-informed decisions and weakens the investment case for prospective climate technology projects. *Underdeveloped supply chains* – There is often lack of competition among technology suppliers which results in high prices and limited availability of technology solutions. Furthermore, the market for engineering service providers and facility management companies is still limited.
Financial	*Limited availability of suitable financial products* – Conventional finance sources such as those provided by local banks are often unsuitable for technology transfer financing. Local banks often do not have the technical expertise to appraise low penetration climate technology projects that often have high upfront investment costs. The perceived level of risk and credit default of these projects often results in higher interest rates and unfavourable investment conditions for project developers. *Transaction cost are usually high* – High transaction costs and a general lack of access to capital is a barrier, as technology projects are usually capital intensive investments with high upfront costs, especially for SMEs. These costs are further increased by the lack of adequate familiarity and experience with identifying and preparing such projects both within industry as well as in the financial sector. *Cost of information* – Such costs can arise from energy audits, feasibility studies, sometimes the need to shut down processes in order to rehabilitate or replace plant.
Institutional	*Lack of institutions and institutional capacity to organise transform, develop and participate in new emerging markets for energy efficiency and carbon markets* – Both government and non-government organisations often do not have the capacity to organise, transform and develop new and emerging markets for energy efficiency and climate. There is also a lack climate technology and carbon market service providers. *Lack of cross-sectoral cooperation and partnerships* – Lack of established communication channels within and between sectors, national boundaries, and institutions undermines the development and consolidation of regional knowledge and regionally appropriate best practices across different sectors.
Policy, legal and regulatory	*High degree of uncertainty in the legal and regulatory environment, anticipated MRV regulations and a lack of adequate regulatory frameworks to incentivise technology transfer* – Regulatory and legal impediments or rules do not provide the full incentives for climate technology investments. In regards to renewable energy, Ukraine largely lacks the regulatory and procedural transparency regarding land acquisition, planning approval, grid connections and local content requirement (EBRD USELF Brochure, 2014). *A number of policies, subsidies and regulatory measures impede technology transfer* –For example subsidies and low prices for oil, gas and coal in Ukraine mean there is limited incentive to improve energy efficiency and reduce GHG emissions.

A.1.2 The baseline scenario or any associated baseline projects

4. Historically, energy consumption in Ukraine has remained inefficient due to aging infrastructure and prolonged energy subsidies. Over the past decade the Government has enacted a number of policies and measures to promote the adoption of renewable energy and energy efficiency although the adoption of these technologies remains slow. Recent political and economic developments, however, have heightened threats to energy security and competitiveness prompting increased calls for Ukraine to increase investment in renewable energy and energy efficient technologies.

5. There are a number of legislative frameworks, policies and baseline projects in the realm of energy efficiency, renewable energy, and GHG reduction in Ukraine. Basic laws for energy efficiency have been in place for more than a decade in Ukraine although limited results in climate technology transfer have been achieved so far. While baseline projects have mobilised significant resources, the majority of these initiatives are not targeted at technology transfer of low penetration technology with significant GHG reduction and energy efficiency potential.

6. On-going activities in Ukraine include the privatisation and unbundling of state-owned energy assets that have been underway for 20 years. While large reforms were reported in 2012, a number of obligation deadlines for Ukraine's membership of the European Energy Community have been missed (based on 'In-Depth review of the energy efficiency policy of Ukraine', 2013 Energy Charter Secretariat).

7. There are a number of on-going policy activities in the area of energy efficiency and renewable energy in Ukraine including:

    - **The Energy Strategy of Ukraine until 2030**. The Ukraine government is now updating its 2006 energy strategy that aims to improve overall energy efficiency and energy security. In particular it aims to: a) realise potential for energy efficiency and energy savings in industry and residential sectors; b) reduce dependency on energy import dependency through expanding domestic gas and renewable energy sources; c) integrate with European energy networks; d) realise potential for energy security; e) set a national target to reduce GHG emissions by 20% and 50% below 1990 levels by 2020 and 2050 respectively, and; f) implement a comprehensive programme of energy efficiency with reductions of energy consumption in the economy by 30-35% by 2030. However the strategy appears to have a number of inherent weaknesses: recommendations are very general; financing issues remain unaddressed; concrete targets and timeframes are not defined; and there is an absence of concrete mechanisms for investment in and incentives to reduce emissions.
    - The **Tax Code** entering into force in 2011 included a number of instruments to promote renewable energy and energy efficiency including feed in tariffs (green tariff), tax exemptions and reductions to stimulate the use of energy efficient technologies and appliances as well as CO_2 taxation to stimulate GHG emissions reductions on the energy supply side.
    - A new **Law on energy efficiency/energy savings** is focusing on residential and public buildings. However, these activities are largely left unimplemented and with little to no enforcement. The on-going nature of the development of these policy activities means that the baseline is not static and need to be considered once these laws come into force. However these laws do not appear to focus on technology transfer in the industry sector, nor do they stipulate minimum energy efficiency performance standards or mandate any state actors the duty of MRV or enforcement activities.

8. **The EBRD' Sustainable Energy Initiative (SEI)** combines project financing of specific energy efficiency or renewable energy investments and technical assistance to support project preparation, implementation and capacity building as well as policy dialogue to support the development of enabling environments for sustainable energy. In Ukraine, the EBRD has invested €1,809 million under the SEI framework in energy efficiency finance for corporate energy efficiency, sustainable energy financing facilities, cleaner energy production, renewable energy and municipal infrastructure energy efficiency (see Figure below). Projects have achieved approximately 3.6 million tons of oil equivalent per year in primary energy savings and from 2006 till 2013 have led to 9,952 ktCO2e GHG emissions reductions from a total of 95 projects. €323 million has supported investments in renewable energy including large hydro, solar, wind and biomass capacity. This has resulted in approximately 1.4TW/h/year electricity production and 0.6 million tCO2e/year emissions reductions.

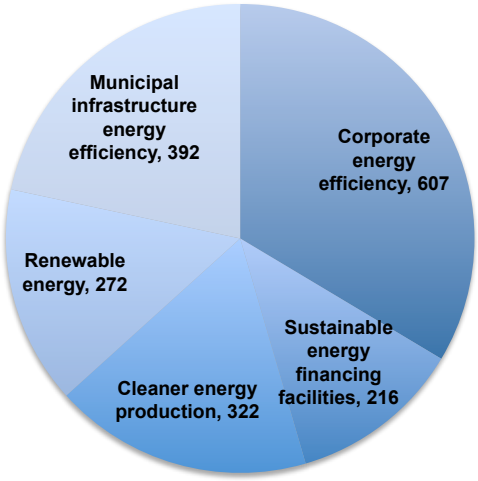

Figure 1. Total SEI ABV (EUR million) in Ukraine by SEI business area (2006-2013)

FINTECC Framework

9. The **EBRD's FINTECC Framework** was established in 2013 with the initial focus on the Early Transition Countries (ETC) and the Southern and Eastern Mediterranean (SEMED) countries to demonstrate the viability of climate technologies in the EBRD region through the combination of project financing for energy efficiency, renewable energy and water efficiency investments; technical assistance to support project preparation, implementation and associated market oriented capacity building, policy dialogue, technical and incentive grants to support the development of an enabling environment for technology transfer. While this is a regional framework for technology transfer, at the national level projects address country specific policy, financial, technical, and institutional barriers to technology transfer to create the conditions necessary for successful investment and technology deployment.

10. The FINTECC Framework is generating outputs replicable across the EBRD region. The methodologies developed as part of the Framework will facilitate better access to information on availability and diffusion of technologies, thus allowing faster structuring of suitable financing products and creating business opportunities along the supply chains.

11. The incentive mechanism utilized within FINTECC Framework in ETC and SEMED is an incentive grant mechanism, which proved to be particularly beneficial due to its following characteristics: (i) *Efficiency of funding utilization:* The incentive grant scheme, compared to other mechanisms such as concessional loans, can support a larger number of projects and does not require new admin structures and has been fully streamlined into the operation of the Bank, (ii) *Fast implementation:* Utilizing existing project assessment structures, the Bank managed to build very quickly a pipeline of eligible projects and provide an interesting value proposition and propose best available climate technologies to be incorporated into investment programmes of companies. In addition, the incentive grant mechanism is a very simple mechanism which can be easily introduced into financing structures, and attractive even to small and medium enterprises; and (iii) *Low risk to the Client:* By supporting introduction of technologies that have been proven in developed countries and have high level deployment in other countries, the associated technological risks for businesses in Ukraine are low. In addition, the technical assistance provided to the Clients ensures that the proposed technology is the most suitable solution in the specific context.

12. The Regional FINTECC Framework is also leveraging partnerships with other international organizations, which could be expanded to other countries of the EBRD region. In particular the strategic partnership with the International Energy Agency and cooperation with Food and Agriculture organization can bring many additional knowledge transfer benefits to local stakeholders. The experience from the first 9 months of the Regional FINTECC Framework implementation has confirmed that the envisaged barriers to climate technology deployment are very pronounced in these markets. The differences in the implementation of FINTECC in the ETC and SEMED indicate that a two-tier approach may be required in the proposed FINTECC Ukraine Project, depending on the size of industrial operations and their development.

13. **Ukraine Sustainable Energy Lending Facility (USELF):** As part of the EBRDs SEI initiative, USELF provides debt finance direct from the EBRD as well as development support undertaking technical and environmental due diligence as well as training and capacity building for developers, investors, banks and other stakeholders. After a slow start due to the under-developed nature of the country's renewable energy sector, the Facility has now signed seven renewable energy projects (USELF Brochure, 2014). USELF has almost fully committed its initial allocation and, with a robust project pipeline remaining and on-going weakness in the commercial financing sector for renewable energy, Phase II replenishment is now sought for launch in 2014. Using further leverage from this replenishment, USELF should continue strengthening the long-term sustainability of the sector by providing financing for another 24-36 months (USELF Brochure, 2014). This Facility coordinates with and benefits from the GEF-funded 'Ukraine - Creating Markets for Renewable Power in Ukraine (EBRD)' (GEF ID: 3535) project.

14. **Ukraine Energy Efficiency Program (UKEEP):** Established by the EBRD in 2007 UKEEP is a credit line that provides targeted intermediated financing through six partner banks with technical support provided by UKEEP for projects that decrease energy consumption and renewable energy. The benefit of the UKEEP Programme is the independent technical consulting support provided by international and local experts for the enterprises, partner banks and vendors, and funded by the Austrian Federal Ministry of Finance. Currently, UKEEP has implemented 80 projects that save approximately 1,100 GWh of electricity and reduce 480,000 tCO2e per year.

15. The **Preparedness for Emissions Trading in the EBRD Region** is assisting Ukraine with the development of a carbon pricing scheme. The proposed design would make the current carbon tax scheme more robust, assist the MRV and governance and enable a domestic carbon market to emerge, driven by the ability to use carbon credits to off-set a carbon tax obligation. The design is subject to further approvals and may be replaced by an Emissions Trading Scheme as a result of the signing of the EU Association Agreement, but it demonstrates that Ukraine is considering carbon pricing.

16. The EBRD has also supported a number of projects through its direct lending operations, with **direct lending in corporate sector representing 27% of the total Sustainable Energy Investments** of the Bank in 2013. As an example, the EBRD supported Astarta, a large sugar producer in Ukraine, between 2008-2012 through multiple loans for energy efficiency and renewable energy. The majority of energy efficiency investments adopted by Astarta had an IRR of more than 20% and the expected impacts will save 34,000 toe/year and emissions reductions of 60,000 tCO2/year.

17. The above-mentioned projects and programmes will compliment the activities of the proposed Project, however they lack specific mechanisms to promote climate technology transfer and specific measures necessary to create enabling environments and systematically address policy, institutional, financial, technical and awareness barriers to encourage investment in low penetration technologies.

A.1.3 The proposed alternative scenario, with a brief description of expected outcomes and components of the project

18. The main objective of the proposed Project is to develop and demonstrate innovative policy and technical assistance packages and support the development of the performance-based financing mechanisms for increased investment in climate technologies in Ukraine. The Project will aim to contribute to achieving energy efficient economy and increased energy security in Ukraine, while improving its energy self-sufficiency, in line with Ukraine 2030 Strategy. **Supporting manufacturing and deployment of best available climate technologies in Ukraine** will also increase competitiveness of Ukraine's private sector through higher operational efficiencies, and **supporting development of manufacturing capabilities for production of climate technologies within Ukraine**. The proposed Project focuses on the transfer of technologies that may be available, but not widely diffused in Ukraine (i.e. technologies with very low market penetration).

19. The Project will target both **vertical and horizontal technology transfer** to ensure prompt deployment of technologies while facilitating creation of suitable regulatory and business environment for technology transfer via comprehensive technical assistance, policy dialogue support and targeted financing. (Note: *horizontal technology transfer* involves long-term sharing of intellectual property, usually via a joint venture or cooperation between foreign direct investor and a domestic company in the host country; *vertical technology transfer* involves the relocation or sale of technology products without the sharing of intellectual property, usually by granting of sole production rights to one investor, or the simple sale of finished products to consumers in a new location.)

20. The Project will benefit from and liaise with the FINTECC regional Framework, which is designed to support the climate technology market with a variety of instruments. The extension of FINTECC into Ukraine will build on the findings of FINTECC's ETC and SEMED experiences with individual activities and products tailored to the conditions and needs of the Ukraine.

21. The Project seeks to reward the early action project sponsors and thereby facilitate demonstration projects, the results of which could be used among others in the design and implementation of a carbon pricing scheme. This Project will assist Ukraine to initiate and intensify national preparations to be in a better position to make contributions to the expected 2015 COP agreement beginning in 2020.

22. While some of the market barriers to technology transfer identified may eventually be reduced and removed through the activities of the market, the EBRD and other stakeholders, this Project will accelerate this process and therefore yield transformational effects in Ukraine.

23. Together, the proposed project components will systematically address barriers to technology transfer and to increasing the competitiveness of local businesses. Table 2 outlines how the proposed project components will overcome barriers to effective technology transfer.

Table 2. Barrier removal measures

Barrier category	Description	Measures
Capacity, awareness and technical	Weak awareness of, and technical capacity to identify energy efficiency potential and develop climate technology projects	A range of technical assistance will be provided through project development support teams including capacity building, training, due diligence, project preparation and MRV. In particular, energy audits as well as tailored information packages will assist companies evaluate opportunities for climate technology investments.
	Weak capacity to participate effectively in carbon market schemes and weak awareness of potential impact on investment and operations	The project aims to demonstrate how Ukraine can overcome such barriers to establishing carbon pricing, by encouraging and incentivising early action and through industry workshops, and availability of information. Provision of carbon price information also increases effective capacity of business to participate in carbon markets. Providing access to market information to market participants and training to Ukrainian service providers will encourage the development of a new range of carbon market services and develop the capacity for in house teams within industry sectors.
	Information asymmetry, underdeveloped supply chains, knowledge transfer and lack of reliable baseline information	To strengthen the information baseline and investment case for prospective BAT and technology projects with low market penetration in Ukraine, the project will link with the EBRD's regional FINTECC project, and other regional and global TT projects. Information will be made available in local language and formats appropriate for industry sectors through workshops, online and informational seminars, as activities of Components 2 and 4. These measures and the development of an enabling policy environment will encourage the development of the supply chain, greater competition among technology suppliers, competitive pricing and improvements in the availability of climate technology. Training of technical experts will grow the market and capacity for engineering service and facility management providers.
Financial	Limited availability of dedicated financial instruments	The dedicated tools for project financing will enable investment in specific technology transfer projects.
	High up front and transaction costs	The Project will aim to address these by provision of dedicated technical assistance and incentives in the form to ensure sustainable impact in the market.
	Cost of information: energy audits and feasibility studies	The project will make available a range of information on technologies and provide feasibility studies, energy audits and technology audits.
Institutional	Lack of cross sectoral, Institutional and national cooperation and partnerships	Policy dialogue supported by this project will encourage the development of partnerships and greater coordination. A number of outputs of this project including a central platform for knowledge exchange will encourage the sharing of information and best practices across sectors.
	Lack of institutions and capacity to coordinate market transformation	Technical assistance provided to government will increase institutional coordination that will help to transform the market.
Policy, legal and regulatory	Lack of regulatory framework and incentives for technology investment	Policy dialogue and financing mechanism will aim to overcome the barriers to technology investments. The use of investment incentives/financing mechanism will be guided by the corresponding technology market status.

Barrier category	Description	Measures
	Policies, subsidies and regulation impedes technology transfer	Policy dialogue will strengthen the enabling environment for the adoption of climate technologies, and could cover encourage adoption of polices to develop enabling environments for investment in technology transfer. The policy dialogue can include strategies for energy tariff reform, carbon pricing and MRV policy dialogue.

24. To launch FINTECC in Ukraine, up to USD 9 million will be required for investment (non-technical assistance) support, with an additional USD 1 million in-kind from the EBRD and USD 6.795 million in technical assistance funded by other donors. The indicative breakdown of project components, with activities and funding requirements, is outlined below.

Component 1: Supporting the design of innovative policy packages to promote energy self-sufficiency and technology transfer.

(USD 918,000 from co-financing, with USD 0 requested from the GEF TF)

25. Component 1 will support **institutional, policy and regulatory policy dialogue** to assist the government in Ukraine to **design innovative policy packages for technology transfer** and will seek to combine ambitious mitigation policy measures with measures aimed at reducing the potential social/economic impact of the ambitious mitigation measures. This Component will seek to improve existing legislative frameworks to create enabling environments for the adoption, innovation and increased capabilities for manufacturing of climate technologies. With a focus on legislation, regulation and procedures, Component 1's objective is the removal of technical, legal and administrative barriers. Specific outputs of Component 1 include a review of existing legislation, policy and regulatory framework and ensuring consistency between legislative and regulatory frameworks, in line with relevant Ukraine's obligations under the EU-Ukraine Association Agreement.

26. The policy packages will focus on:

    (a) energy subsidies and the evaluation of their economic and social impact, including strategies for energy tariff reform;
    and / or
    (b) carbon pricing and MRV systems, including current carbon tax.

27. Recommendations on the focus of the policy dialogue will be made during the development of the full project prior to CEO Endorsement thereby allowing the project to fully reflect the needs of the Government and the activities of other stakeholders given the rapidly changing situation in the country. Policy dialogue will also take into consideration (i) relevant international best practice policy instruments to support climate technology deployment; (ii) effective implementation and enforcement strategies; (iii) relevant EU directives and other amendments to primary or secondary legislation as required to enable deployment of climate technologies with specific reference to Ukraine's obligations of the EU-Ukraine association Agreement.

28. The outcome of Component 1 will be an improved legislative and regulatory environment, policy and standards that will strengthen the enabling environment for technology transfer. In addition, this Component will aim to align policy measures to support energy self-sufficiency and cost-effective reduction of greenhouse gas emissions.

Component 2: Development of industry guidelines, methodologies, technology baseline data, technical support and energy audits

(USD 3,564,000 from co-financing, with USD 0 requested from the GEF TF)

29. **Development of industry standards, guidelines and assessment of technology baseline:** The project will build on methodologies developed as part of regional FINTECC Framework. The EBRD has been working with the International Energy Agency on developing market assessment and monitoring methodology. These methodologies aim at closing the information gap on market

penetration of technologies, climate resilience planning and climate technology investment definition, and delivering clear and consistent market intelligence. This approach ensures that data provides useful outputs for the purpose of structuring sustainable energy financing projects and products. Increasing the level of publicly available information will help to create business opportunities along the supply chain from manufacturing, retail, and servicing of these technologies. In addition, the methodologies already developed within FINTECC will be tailored and applied within FINTECC Ukraine and will ensure that an up-to-date body of information is available with regards to the status of the climate technology market.

30. **Technology deployment support:** technical assistance will be provided to final users of technologies to assist with the identification of viable climate technology investments through to development and implementation of mitigation management practices to reduce energy use and carbon footprint. Technical assistance may include assistance for developing climate resilience planning and application of methodologies for climate technology investment definition. Programs will include capacity building, training, due diligence, project preparation. In particular, energy audits as well as tailored information packages will assist companies to evaluate opportunities for climate technology investments.

31. **Technical assistance for strengthening climate technology supply chains:** In-country training programs, online resource and technical assistance will be provided to private sector companies and technical experts/local consultants in the field of technical service of selected low penetration and GHG MRV technologies where technical expertise does not already exist in Ukraine. National training programs or online resources will be made available for technical experts in engineering service, facility management, project design and implementation, and MRV in energy and GHG reporting. Building the capacity of a national workforce to develop and maintain climate technology will ensure the sustainability of the project after its completion. Technical assistance may also include activities to facilitate horizontal technology transfer (i.e. Support for development of climate technology manufacturing capabilities) and innovation in climate technology production, improving industry environment in Ukraine for innovation of climate technologies through, for example, assisting with R&D, vocational training and certification. A variety of stakeholders may be involved in the activity, including the local universities, research institutes, local manufacturing and service companies, and business/industry associations.

32. The outcome of Component 2 will be the identification, design and development of climate technology projects; and national capacity for climate technology technical service developed.

Component 3: Performance-based climate technology finance support

(USD 39,190,000 from co-financing – corresponding to USD 39,000,000 in loans and USD 190,000 in-kind; with USD 7,000,000 requested from the GEF TF)

33. The Project proposes to pilot a performance-based technology transfer financing mechanism to promote accelerated investment in climate change mitigation technologies. The potential financing mechanisms under consideration will be instruments utilizing a combination of ex-ante and ex-post assessments (where practical and applicable) of GHG emission reductions. A two-tier approach may be required reflecting among others the readiness for a fully functional performance-based financing mechanism.

34. This financing mechanism will use a combination of financing products or instruments in coordination with the technical assistance to facilitate climate technology deployment. The final selection of financing products will be made during preparation of the full project for GEF CEO Endorsement, with the design of the mechanism completed at the outset of the full project implementation. The instruments under consideration include direct financing mechanisms for projects as well as indirect financing through intermediaries and market aggregators where these can be used to deploy climate technologies in the context of their supply/value chains (e.g. retailers, food manufacturers, etc.).

35. The financing mechanism will be structured based on the EBRD's extensive experience in financing technology modernization and innovation, developing market based mechanism for the provision of services, leveraging private sector finance and promoting the introduction of best practice, and will complement other EBRD products in the market. The EBRD has developed a wide range of financial and operational instruments to support technology transfer that combine finance with targeted technical assistance funding. These instruments can be further expanded and leveraged by introducing innovative features to optimize the allocation of credit and implementation risks and reduce the overall transaction costs.

36. Any incentives provided as part of the project will also be smart, will aim not to introduce market distortions, will be designed to address market barriers, will be designed to maximize impact and will be sustainable. The financing mechanism developed will be linked to and aligned with an emerging carbon pricing scheme (where applicable) and will build on lessons learnt from FINTECC ETC and SEMED.

37. The Project may also support the establishment of a GHG MRV and possible carbon pricing in Ukraine. An element of this would be the establishment of a pilot financing mechanism/tool in which expected GHG savings of project are linked to a financial incentive, and in which projects above a certain threshold are monitored after implementation for a specific period of time.

38. The criteria to define eligible technologies will be based on **GHG mitigation potential**, but will also include other criteria such as:

    a. Market penetration
    b. Replication potential
    c. Development of supply chains
    d. MRV and GHG measurement and related control systems
    e. Other co-benefits.

39. A combination of instruments may be implemented to cater to the broad range of private sector operations in Ukraine. The instruments are likely to vary in particular with the size of the company (i.e. the final beneficiary of the EBRD financing), and scale and scope of the overall investment.

40. The EBRD will prepare dedicated risks assessments, and impact and monitoring plans for the finance mechanism to be developed.

41. The outcomes of Component 3 will be increased technology transfer; increased investment in climate technologies; and reduced carbon efficiency gap.

Component 4: Knowledge management and awareness

(USD 918,000 from co-financing, with USD 0 requested from the GEF TF)

42. In close collaboration with the EBRD's FINTECC Framework and regional dialogue on technology transfer, a number of **visibility and knowledge sharing activities** will be undertaken. This is a cost effective approach for knowledge management and awareness as it leverages existing knowledge and support from the Regional FINTECC framework. It is likely that the FINTECC regional network will develop a Virtual Platform for Networks that will include individual networks for policy makers, consultants and corporates. To maximise leverage, activities will, where possible, utilise support and information from other initiatives and link to other events and networks.

43. Specific in-country visibility and knowledge sharing activities will be defined, developed and delivered in partnerships with other organizations and may include:

    (i) Industry sector and technology workshops.
    (ii) Lessons learned study in order to a) disseminate best practice; b) enable creation of long-term partnerships and networks; c) provide capacity building to policy makers, local experts and private enterprises.
    (iii) Information on carbon pricing, regulations and transactions.

44. The Project will seek to provide information on carbon pricing, regulations and transactions. The provision of carbon price information will increase the effective capacity of businesses to participate in carbon markets.

45. The outcomes of Component 4 will be increased capacity, knowledge and awareness of climate technologies leading to replication and scaling up; and carbon price information increasing effective capacity of business to participate in carbon markets.

A.1.4 Incremental/additional cost reasoning and the expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

46. While the identified market barriers may eventually be reduced and removed through the activities of the market, the EBRD and other stakeholders, this proposed GEF project takes a systemic approach by combining policy measures with technical assistance and investments to accelerate the transformational effects and to ensure sustainable impact in the market. The policy dialogue activities under Component 1 will be informed by the investments realized as part of the Project and thus will help (i) to align policy measures to support energy self-sufficiency and cost-effective reduction of greenhouse gas emissions in the private sector, (ii) to take into account impacts of such policies on the overall competitiveness of businesses, and (iii) to optimize the level of investments that can be realized as a result of such policy dialogue activities. In the absence of the three-fold model where policies are being developed in parallel with actual investments and technical assistance provision, there is a risk of policies being developed with less of a focused impact on the private sector.

47. In the absence of the project the EBRD will continue to provide project financing for energy efficiency and renewable energy investments and adaptation initiatives in Ukraine, however, without the GEF funding to address pertinent barriers in Ukraine there is a significant risk of delays in investment in climate technologies and reduced overall leverage of private capital mobilisation. Companies would not be incentivised to make investments - indeed the EBRD's experience is that the companies would delay making strategic investments and opt for sub-optimal solutions, thereby locking into continuous inefficiencies. This experience has been particularly pronounced in the region over recent years.

48. Further, in the absence of GEF funding the proposed technical assistance and project development support would not be made available to local companies in Ukraine thereby limiting the ability of businesses to address energy efficiency challenges and thus reducing their competitiveness. The EBRD's experience is that a combination of tools has to be employed to create a sustained change in the market. In the absence of investments, technical assistance and policy dialogue will have much weaker impact.

A.1.5 Global Environmental Benefits and/or adaptation benefits (LDCF/SCCF)

49. The direct global environmental benefits associated with this project include GHG emissions avoidance at a rate of 62.5 ktCO2e/yr over a lifetime of 10 years and a total of 625 ktCO2e. Energy savings over the lifetime of the project are 0.88 TWh. The above is calculated based on the EBRD experience in Ukraine and in the broader EBRD region, and assumptions made regarding the type of projects and technologies to be supported. Indirect global benefits will arise from the transformative effect of new legislation and innovative policy packages and market initiatives which will continue to foster a new range of mitigation actions. The calculations of direct and indirect global environmental benefits will be further reviewed and refined during the PPG process.

A.1.6 Innovativeness, sustainability and potential for scaling up

50. The project includes a number of components that demonstrate innovativeness and will ensure sustainability through replication and scaling up beyond the end of the project. As an outcome of the project, improved legislation and innovative policy and standards and resulting strengthened enabling environment for technology transfer will drive continued technology transfer, investment

and innovation in climate technology in Ukraine, while increasing competitiveness through improved efficiency, fostering innovation and skills transfer. Furthermore the project not only drives continued market demand for climate technology, but also trains national technical staff ensuring continued support for scaling up climate technology. This will ensure technology transfer continues beyond the duration of the project. The PPG phase will further review and assess various options for greater support and investment in technology transfer.

A.2. Stakeholders

Will project design include the participation of relevant stakeholders from civil society and indigenous people? Yes □ No ☑ *If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:*

51. The key stakeholders in this project will be the State Environmental Investment Agency, Ministry of Regional Development, National Agency of Ukraine on Efficient Energy Use, the Ministry of Environment Protection, as well as the merging Ministry of Industrial Policy and Ministry of Economic Development and Trade.

52. Other government agencies, private sector partners, NGOs, research institutes/universities, and business associations, etc. will be identified during a thorough review at the PPG phase/during the course of the development of the project, and based upon the plans to implement specific demonstration projects or to be involved in specific activities. A stakeholder coordination plan will be included in documentation accompanying the Request for CEO Endorsement.

53. Consistent with the EBRD's mandate to support transition, the Project will offer significant socioeconomic benefits across the country, including those associated with resource savings and efficiency gains. These will contribute to increasing the competitiveness of local industries, and assist in future-proofing these against climate change risks through both investments in climate technologies and the awareness these will raise about the importance of adapting to climate change and building climate resilient environments and communities.

A.3. Gender Considerations

Are gender considerations taken into account? Yes ☑ No *If yes, briefly describe how gender considerations will be mainstreamed into project preparation, taken into account the differences, needs, roles and priorities of men and women.*

54. Concerning gender dimensions, based on the EBRD's internal policy promoting gender equality of opportunities across its full range of investment and donor-funded activities, all Project activities and Components will be fully gender inclusive. Gender equality is considered an integral part of sound business management and also key in the EBRD's activities to advance sustainable growth in its countries of operations. In January 2010 the Board of Directors of the EBRD adopted the Gender Action Plan (GAP), which is based on the EBRD's commitment to the 3rd Millennium Development Goal (to end poverty by promoting gender equality) and the Gender Working Group, which promotes equal opportunities and enhanced economic participation of women across sectors and projects. (Note: the EBRD's Gender Action Plan is available from: http://www.ebrd.com/downloads/sector/gender/genplan.pdf)

55. All investment projects financed by the EBRD are subject to the EBRD's internal procedures, which include an Environmental and Social Action Plan (ESAP) that ensures that all environmental, social, gender and other issues are taken into consideration prior to or during their implementation.

A.4. Risk

Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable)

Economic or political crisis and a lack of state budget	Medium	Recent political crisis in Ukraine poses a number of risks to the project. Furthermore, Ukraine's deficit of US $25 billion, including significant energy debt to Russian energy suppliers. However, it is this situation has driven the Ukrainian Government to follow more sustainable and energy independent development pathways. Provided that new laws on energy efficiency and a variety initiatives to introduce energy efficiency, increase RES and reduce GHG emissions are combined with effective MRV, the risk that successive governments will not provide funding for new investment in climate technologies are low. However, political crisis remain a moderate threat.
Lack of government commitment	Low	A new government may change priorities, however commitment to energy independence and a reduction on energy intensity remains high on government agenda and will be supported by a new law on energy efficiency.
Little incentive to reduce GHG emissions and increase energy efficiency	Low	This risk is considered low because The International Monetary Fund requires Ukraine to phase out domestic subsidies for oil and gas as a requirement of the IMF grant support scheme.
Lack of interest in private sector to invest in climate technology	Low-Medium	While this project specifically targets technology transfer in private sector business by creating enabling policy environments, creating knowledge and awareness of climate technology and providing a finance mechanism and grants to support the development of projects, a level of risk remains that private sector will be slow to respond to such market incentives. However, a new law requiring energy efficiency in combination with appropriate MRV and enforcement should ensure private sector compliance and expansion of climate technology.
Climate change	Low	The project aims to support the transfer of climate mitigation technologies, which will include consideration of the climate resiliency of the investments undertaken.

A.5. Coordination

Outline the coordination with other relevant GEF financed and other initiatives.

56. The project will coordinate extensively with the aforementioned EBRD initiatives, most notably the FINTECC Framework regional initiative. As described above, FINTECC Ukraine will benefit from close collaboration with the FINTECC Framework, including levering the approach for knowledge management and awareness raising.

57. Other ongoing GEF-financed projects operating in Ukraine include: 'Transforming the Market for Efficient Lighting' (UNDP, GEF ID: 3724); 'Improving Energy Efficiency and Promoting Renewable Energy in the Agro-Food and other Small and Medium Enterprises (SMEs) in Ukraine' (UNIDO, GEF ID: 3917).

PART B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions*?* Yes ☑ No. If yes, which ones and how: NAPAs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

58. The project is consistent with 5th National Communication for Ukraine and its major focus on energy efficiency that aims to both reduce GHG emissions and reduce the country's dependence on energy imports. The 5th National Communication also notes that the vast majority of the potential of energy efficiency is yet to be realised. The National Communication also presents a number of barriers to implementing policies and measures such as a lack of incentives for private investments, insufficient government financing and over optimistic planning. Refer to Annex 2 for a summary of information on policies and measures.

59. Analysis of national policies and measures in Ukraine's 5th National Communication as well as the outcomes of recent national initiatives indicates a need for further improvement in policies and measures and in particular their financing and implementation. The proposed project and its finance mechanisms will is consistent with these identified needs and will deliver substantial direct and indirect energy efficiency improvements in the target sectors. It will therefore compliment the key priorities of the Government, namely to increase energy security, reduce GHG emissions and reduce the energy intensity of the Ukrainian economy.

60. This project is fully consistent the *Energy Strategy of Ukraine 2030* which aims to achieve an energy efficient economy and places emphasis on increased renewable energy. In addition the project is fully in line with the Comprehensive National Programme on Energy Conservation that aims to reduce energy-intensity through technological and structural changes.

61. The Ministry of Industrial Policy has approved a *sectoral programme until 2017* that focuses on improving energy efficiency in energy intensive industries ferrous and non-ferrous metallurgy, chemical industry and machine manufacturing. This programme aims to achieve a 50% reduction in energy use and 22.6 MT CO2e.

62. It is to be noted that some of the provisions of these national initiatives are not fully implemented due to lack of financing.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. Record of Endorsement[8] of GEF Operational Focal Point (S) on Behalf of the Government(s): (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Natalia Zagurska	Advisor to the Minister	Ministry of Ecology and Natural Resources	08/11/2014

B. GEF Agency(ies) Certification

This request has been prepared in accordance with GEF policies[9] and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date *(MM/dd/yyyy)*	Project Contact Person	Telephone	Email
Marta Simonetti, EBRD		08/08/2014	Dana Kupova	+44 20 7338 7692	kupovad@ ebrd.com

C. Additional GEF Project Agency Certification *(Applicable Only to newly accredited GEF Project Agencies)*

For newly accredited GEF Project Agencies, please download and fill up the required **GEF Project Agency Certification of Ceiling Information Template** to be attached as an annex to the PIF.

[8] For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required
even though there may not be a STAR allocation associated with the project.

[9] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

Annex 1. Other EBRD facilities with climate technology transfer focus

Other EBRD facilities that result in technology transfer but may not be focused on purely on demonstration of technologies with low market penetration in the countries are summarized in the Table below.

Table 3. EBRD Facilities with climate technology transfer focus

EBRD Products and Initiatives	Coverage	Finance Type	Technical Assistance	Relation to FINTECC
SEFFs (EBRD and various)	12 EBRD countries / regions	Through local FIs Incentive grants in some cases	Yes, for feasibility assessment and capacity building	Complementary, focusing on technologies which have been proven in the country, with established suppliers base in countries
RESET (funded by GEF)	Kazakhstan	Incentive grants For projects financed directly by EBRD (no intermediaries)	Yes, for policy dialogue and capacity building	Applies the same concept to supporting technology transfer, but has different country coverage
Energy Audits Frameworks (funded by various donors)	All CoO	For projects financed directly by EBRD (no intermediaries)	Yes, for energy audits and energy management	Support project identification and provide capacity building assistance in FINTECC projects
AgriREF (being approved)	All CoO	For projects financed directly by EBRD (no intermediaries)	Yes, for feasibility assessment	Supports project identification for FINTECC projects
Energy Management Systems Programme	ETC and ODA	Incentive grants For projects financed directly by EBRD (no intermediaries)	Yes, for project verification.	Complementary, focusing on a specific technology.

Annex 2. Summary of information on policies and measures

Major policies and measures	Examples/ Comments
Policy framework and cross-sectoral measures	▪ National plan for the implementation of provisions of the Convention and its Kyoto Protocol (2005, updated 2009) ▪ The Montreal Protocol ▪ EU-Ukraine Ukraine's Association Agreement and its annexes ▪ Strategy of national policy for environmental protection until 2020 (2010) ▪ National action plan on environmental issues for 2009–2012 ▪ State environmental monitoring programme for 2008–2012
Policies and measures by sector	
Energy	▪ Energy strategy of Ukraine until 2030 (2006) ▪ National energy programme until 2010 (1996) ▪ Law on power industry (1997, with amendments in 2010)
• **Building regulations**	▪ Programme for the building sector 2009–2014 ▪ State programme for the reform and development of housing and communal services for 2004–2010 (2004, with amendments in 2009) ▪ Law on heat supply (2005) ▪ Building codes (2007, 2010)
• **Renewable energy sources**	▪ Law on alternative energy sources (2003) ▪ Law on alternative types of liquid and gaseous fuels (2000) ▪ Law on green tariffs (2008) ▪ Decree on measures promoting the use of alternative energy sources (2009) ▪ Ukraine's comprehensive State programme on construction of wind farms until 2010
• **Energy efficiency**	▪ Comprehensive State programme on energy conservation until 2010 (1997, with amendments in 2000) ▪ Law on energy savings (1994, with amendments in 1999, 2005–2007 and 2011) ▪ Law on combined heat and power generation (2005, with amendments in 2010 ▪ State economic programme on energy efficiency for 2010–2015 (2010) ▪ Sectoral programme on energy efficiency until 2017 (2009) ▪ Sectoral programme on the increase of energy efficiency in buildings for 2010–2014
Transport	▪ Plan for implementation of the governmental environmental protection policy in the transport sector for 2004–2010 (2004) ▪ Sectoral programme for energy conservation and for introduction of alternative fuels in transport for 2006–2010
Industrial processes	▪ State programme on industrial development for 2003–2011 (2003)
Agriculture	
• **Husbandry and crop production**	▪ The governmental programme on the development of Ukrainian village until 2015 (2007). The programme includes a number of sectoral subprogrammes, such as a sectoral dairy husbandry development programme until 2015 and a sectoral soil fertility programme for 2008–2015
• **Manure management systems**	▪ Governmental support for the installation of utilities for biogas use from liquid manure management systems
• **Promotion of efficient farming**	▪ Governmental subsidies and loans for the purchasing of modern, fuel-efficient farming equipment
Land use, land-use change and forestry	▪ Governmental programme on forests of Ukraine for 2010–2015 (2009)