

# INSTRUMENT FOR PRE-ACCESSION ASSISTANCE (IPA II) 2014-2020

Kosovo\*
EU Support to clean air in Kosovo – Phase 2

# **Action summary**

The main objective of this action is to support the environmental aspects of the energy sector by reducing the environmental impact of the largest power plant in Kosovo – known as Kosovo B. The action will aim at reducing air pollution by replacing/rehabilitating environmental components of Unit B2 of the Thermal Power Plant (TPP) Kosovo B (dust filters, internal ash transport system and Nitrogen Oxides (NOX) emission reduction equipment). Hence, the action will support Kosovo in complying with its legislation and plan for reduction of emissions and with the acquis on environment, namely the Large Combustion Plants Directive (LCP) and the Industrial Emissions Directive (IE), as required by the Energy Community Treaty for reduction of emissions. This action will complement previous action under IPA 2018 Annual Action Programme consisting in replacing/rehabilitating environmental components of Unit B1 of the Thermal Power Plant (TPP) Kosovo B.

<sup>\*&#</sup>x27;This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence'

Action Identification							
Action Programme Title	Annual Action Programme for Kosovo for the Year 2019 – Part I						
Action Title	EU support to clean air in Kosovo – Phase 2						
Action ID	IPA 2019 / 041 707 / 01/ Kosovo/Energy						
Sector Information							
IPA II Sector	Energy						
DAC Sector	23070						
	Budget						
Total cost	EUR 38 000 000						
EU contribution	EUR 38 000 000						
Budget line(s)	22 02 01 02						
	Management and Implementation						
Management mode	Direct management						
Direct management:	European Union Office in Kosovo						
Implementation responsibilities	European Union Office in Kosovo						
	Location						
Zone benefiting from the action	Kosovo						
Specific implementation area(s)	Kosovo						
	Timeline						
Final date for concluding Financing Agreement(s) with IPA II beneficiary	At the latest by 31 December 2020						
Final date for concluding delegation agreements under indirect management							
Final date for concluding procurement and grant contracts	3 years following the date of conclusion of the Financing Agreement, with the exception of cases listed under Article 114(2) of the Financial Regulation						
Final date for operational implementation	6 years following the conclusion of the Financing Agreement						
Final date for implementing the Financing Agreement (date by which this programme should be decommitted and closed)	12 years following the conclusion of the Financing Agreement						

Policy objectives / Markers (DAC form)				
General policy objective	Not targeted	Significant objective	Main objective	
Participation development/good governance	V			
Aid to environment		Ø		
Gender equality (including Women In Development)				
Trade Development	Ø			
Reproductive, Maternal, New born and child health		V		
RIO Convention markers	Not targeted	Significant objective	Main objective	
Biological diversity	Ø			
Combat desertification	Ø			
Climate change mitigation		Ø		
Climate change adaptation				

#### 1. RATIONALE

#### PROBLEM AND STAKEHOLDER ANALYSIS

Kosovo has inherited a large number of environmental problems accumulated over decades of uncontrolled use of natural and mineral resources, industrial production coupled with very high levels of pollution. The overall environmental situation in Kosovo has worsened over the past years, with increased constructions, traffic and industrial pollution including the pollution from power plants and household heating during the winter.

The 2018 Kosovo report mentions that measures to improve air quality still need to be adopted. Air quality, particularly in urban areas, continues to pose a major threat to public health.

The total estimated economic costs due to health effects of air pollution in Kosovo range from EUR 37 million to EUR 158 million a year, (0.89 to 3.76 percent of GDP). The table below presents the exposed population for 3 defined scenarios:

Category\estimate	Low	Mid	High
Mortality: adults	29,973,823	84,442,006	142,453,784
Mortality: children	232,258	267,514	304,572
Chronic bronchitis	821,763	1,276,667	1,760,920
Hospital admissions	233,932	362,999	500,131
Emergency room visits	455,463	707,595	975,993
Restricted activity days	2,552,296	3,966,004	5,468,837
Lower respiratory illness in children	931,027	1,439,229	1,992,154
Respiratory symptoms	2,031,439	3,156,141	4,353,499
Total cost (€)	37,232,002	95,618,156	157,809,890
Total cost (% of GDP)	0.89	2.28	3.76

**Source:** Monetary effects of health impacts of the "Environmental and Social Impact Assessment (ESIA)" performed in 2017 as part of the EU financed "Feasibility study for environmental and other measures on Kosovo B Thermal Power Plant"

The European Environment Agency's Report on Air Quality in Europe 2017 shows also health impacts of exposure to fine particulate matter, ozone and nitrogen oxides in Europe. Kosovo ranks the second worst after Bulgaria in premature deaths attributable to dust/particulate matter (PM<sub>2,5</sub>), NO<sub>2</sub>, and O<sub>3</sub> exposure in 41 European countries and territories, with 3000 deaths in 2014 (0,166% of population). Kosovo also ranks the second worst, after Bulgaria in terms of Years of life lost (YLL) attributable to PM<sub>2,5</sub>, NO<sub>2</sub>, and O<sub>3</sub> exposure, with 1824/100,000 inhabitants (Bulgaria 1873/100,000 inhabitants, the third is the former Yugoslav Republic of Macedonia with 1578/100,000 inhabitants).

The 2018 Kosovo report also points out the lack of enforcement of Kosovo's strategy for air quality and of the law on ambient air quality. Uncontrolled pollution from the energy sector – particularly from the Kosovo B power plant and household heating – but also from industrial complexes, road traffic, and uncontrolled management of waste and other toxic materials remains a serious problem.

Kosovo is also lacking enforcement of the EU Environmental Liability Directive and this undermines the effectiveness of environmental protection. The use of environmental and strategic impact assessments needs to be improved considerably, especially in industrial sectors with significant effects on the environment such as energy and transport.

Currently, 97 % of the electricity is generated by two lignite combustion power plants (Kosovo A and B), and the remaining part is generated by small hydro plants. Although Kosovo generates electricity from its own sources, the demand is not fully met by domestic generation and it depends on electricity imports which constitute up to 12% of the overall annual demand.

The existing TPPs, Kosovo A (three available units with a total power of 610 MWe – Megawatt electrical) and Kosovo B (two units with a total power of 678 MWe) are old plants and the source of largescale pollution in Kosovo. They are the main sources of dust, nitrogen oxide (NOx) and sulphur dioxide (SO2) emissions.

The TPP Kosovo A has already exceeded its lifetime and large investments would be needed for its rehabilitation in order to bring it closer to the required environmental standards. Given its limited operational lifetime, large investments are not considered by the government as economically feasible<sup>1</sup>. However, the TPP Kosovo A is expected to continue its operation until the planned new power plant "Kosovo e Re" (a privately operated 500 MW KRPP) will be functional.

The TPP Kosovo B is the largest and most important electricity generator in Kosovo with a total installed capacity of 678 MWe. During the period between 2010 and 2015 TPP Kosovo B generated between 3.5 and 4 million MWh (megawatt hour) of electricity yearly. Moreover, TPP Kosovo B delivers 140 MWt (thermal megawatt) to the district heating system of Pristina (operated by the Distric Heating Company - Termokos).

The EU financed Technical Assistance project "Feasibility Study for Environmental and other measures on Kosovo B Thermal Power Plant" completed in May/June 2017, concluded that in both generation units of Kosovo B TPP, the dust and NOx emissions are exceeding by far the Industrial Emission Directive (IED) emission limit value. It also pointed out that the most significant health effects of Kosovo B TPP are caused by particulate matter which are responsible for increases in cardiopulmonary and lung cancer mortality from long-term exposure and for chronic bronchitis and respiratory diseases.

The National Energy Strategy<sup>2</sup> states that the rehabilitation of TPP Kosovo B is a necessity. The objectives of the National Energy Strategy are to improve the plant reliability and enable its compliance with environmental standards<sup>3</sup>. Kosovo has ratified the Energy Community Treaty and is a member of the common electricity market of Europe.

The Kosovo Environmental Strategy (KES) and National Environmental Action Plan (NEAP) 2011-2015, have a list of long-term objectives for environmental protection which includes reducing pollutant emissions including environmental degradation and damage, and minimising or prohibiting those economic activities that are dangerous for human health and the environment.

During the winter 2017/2018, the Ministry of Environment and Spatial Planning (MESP) prepared a "Plan of measures for improving the quality of air and environment condition". This plan includes the refurbishment of both units of Kosovo B, one unit to be refurbished under IPA 2018 and one unit under the present action IPA 2019).

The limits required by LCP and IE Directives are less than  $20 \text{ mg/m}^3$  for dust emission and less than  $200 \text{ mg/m}^3$  for NO<sub>x</sub> emission.

 $<sup>^{\,1}\,\,</sup>$  Study for Decommissioning of Kosovo-A power plant, Evonik Industries, March 2010

 $<sup>^2</sup>$  Kosovo National Energy Strategy adopted by Parliament January  $26^{\text{th}}\,2018$ 

<sup>&</sup>lt;sup>3</sup> Energy Strategy of Kosovo 2009-2018, page 69

In accordance with the National Emission Reduction Plan (NERP) that Kosovo has prepared in line with the terms of the Energy Community Treaty, the limits of emissions of dust and NOx must be fulfilled by 1/01/2023, while the SOx emission limits shall be fulfilled by 1/01/2028.

The emissions of dust and NOx from TPP Kosovo B are well over critical point. The last systematic measurement of emissions of dust and NOx (conducted in September 2016), recorded the following quantities of the related emissions:

- Average dust: Unit B1 243.31 for Gas Duct Line 1 and 389.34 mg/m³ for Gas Duct Line 2; Unit B2 560.3 for Gas Duct Line 1 and 896.0 mg/m³ for Gas Duct Line 2 (>>200 mg/m³).
- Average NOx: Unit B1 809.67 for Gas Duct Line 1 and 674.27 mg/m³ for Gas Duct Line 2; Unit B2 843.2 for Gas Duct Line 1 and 846.9 mg/m³ for Gas Duct Line 2 (>>200 mg/m³)⁴.

Moreover, the operation of TPP Kosovo B without necessary investments on upgrading the Electrostatic Precipitators/ESPs (dust filters) and constructing the de-NOx plant to ensure its compliance with LCP/IE Directives within timeframe of Energy Community Treaty, may lead to early termination of operations due to breach of Kosovo environmental legislation and legal international commitments. In that case, Kosovo would face grave problems with its security of supply considering that TPP Kosovo B supplies more than half of the current domestic electricity demand.

The proposed action aims at initiating the improvement of the environmental performance of TPP Kosovo B by reducing the dust and NOx emissions in line with the mentioned National Emission Reduction Plan (NERP) and fundamentally improving the air quality in Kosovo.

The measures for reduction of dust and NOx emissions on the first unit are indicatively planned to be implemented during the time period April – October 2020. The measures for reduction of dust and NOX emissions on the second unit are indicatively planned to be implemented during the period April – October 2021. This indicative planning was decided by the government and the Kosovo Energy Corporation J.S.C. (KEK) in close cooperation with the EU Office in Kosovo in order to harmonise all the maintenance activities in the TPP Kosovo B that are related also to the maintenance of turbines and generators and other equipment within the boilers. Minimisation of outage time is of strategic importance to reduce the losses in production.

The main stakeholders are MESP, the Ministry of Economic Development (MED) and KEK. As stated in the National Energy Strategy, these two main stakeholders are expected to take the necessary measures to retrofit TPP Kosovo B, the largest electricity generator in Kosovo and the most important in terms of security of supply.

The City of Pristina and the Municipalities of Obiliq/Obilić and Fushe Kosova/Kosovo Polje are also direct stakeholders.

# **OUTLINE OF IPA II ASSISTANCE**

The present action addresses the immediate need of reducing the environmental impact of the Kosovo B power plant.

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<sup>&</sup>lt;sup>4</sup> Table containing min, average and max values is attached in Annex

Considering Kosovo's energy sector challenges, the overall objective of IPA II support in the energy sector is to help Kosovo in ensuring a reliable and clean energy supply and align its legislation to EU energy standards. Priorities identified for IPA support are in accordance to the strategic objectives established in the Kosovo Energy Strategy and the Indicative Strategy Paper/ISP Objectives. Taking into consideration the described problems and challenges, the present action will contribute in further improving the environmental performance of of the Kosovo B TPP. The refurbishment of one of the two units of the TPP is financed under the IPA 2018 programme.

Both actions will support Kosovo in complying with its legislation and plan for reduction of emissions and with the acquis on environment, namely the Large Combustion Plants Directive (LCP) and the Industrial Emissions Directive (IE), as required by the Energy Community Treaty for reduction of emissions.

The full process of the environmental improvement of the plant can be described as follows:

- 1. Measures for reducing dust and NOx emission limits for one Unit will be financed by IPA 2018 action. The works will be carried out indicatively in 2020.
- 2. Measures for reducing dust and NOx emission limits for the second Unit will be financed by the present action (IPA 2019). These works will be performed indicatively in 2021.
- 3. Measures for reducing SOx emissions limits will be implemented within the period 2023-2027. The financing will be identified in 2020-21.

At the end of the full rehabilitation process, the Kosovo B plant will be compliant with both Directives mentioned above.

For this action, the best available technology will be used. As part of the project, the existing Continuous Emission Monitoring System (CEMS) installed at TPP Kosovo B will be replaced in order to provide information regarding emissions continuously and transparently.

Overall, the main impact of this action will be the improvement of quality life of the citizens. The improved air quality will have an immediate effect in the health indicators and the related health costs for the citizens living nearby and in the surrounding municipalities. The most important benefit of this action for the citizens of Kosovo will be secure, reliable and clean power supply for the households and the businesses which will have an immediate effect in their wellbeing as well as the economic prosperity.

# RELEVANCE WITH THE IPA II STRATEGY PAPER AND OTHER KEY REFERENCES

The Indicative Strategy Paper (ISP) clearly identifies the energy sector challenges for Kosovo, with the overall objective of IPA II in the energy sector to help Kosovo ensure a reliable and clean energy supply, and align its legislation to EU energy standards. In this context, in the revised Indicative Strategy Paper, "environment and climate change" has been added as one sector among the priority areas for IPA support in Kosovo.

In its February 2018 Strategy for the Western Balkans, the European Commission announced six flagship initiatives which would become priorities over the coming years to support the efforts of the Western Balkans in area of mutual interest such as expanding the EU Energy Union to the Western Balkans.

Regarding these problems and challenges, the ISP states that IPA II will support Kosovo in the approximation of the EU acquis in the field of energy, environment, climate change and nuclear safety, in particular by supporting the closure and decommissioning of the TPP Kosovo A, reducing emissions from Kosovo B TPP in lines with the limits fixed by the EU directives, increasing the energy efficiency in district heating systems and public buildings, and promoting the increase of renewable energy share in energy consumption. Also, it should be mentioned that one of main objectives of IPA II regarding the energy production is to contribute to the reduction of its environmental and health impact.

This Action also will contribute to the implementation of the EU Gender Action Plan II (GAP II), objective 16; "Equal access and control over clean water, energy, transport infrastructure, and equitable engagement in their management, enjoyed by girls and women", among others.

#### LESSONS LEARNED AND LINK TO PREVIOUS FINANCIAL ASSISTANCE

To ensure the sustainability of such important investment supervising team of specialised experts will be put in place and training will be provided to KEK's staff that will manage the installed equipment.

Significant assistance was provided the Kosovo B power plant under the Community Assistance for Reconstruction, Development and Stabilisation (CARDS) instrument from 2000 to 2006 totalling to EUR 177.5 million. The investment aimed at improving the environment, including upgrading the old dust filters (ESP) on the generation unit B1. Therefore, the experience amongst some of the existing staff members has already been gained. However, the Kosovo B TPP staff lack experience related to the construction, operation and maintenance of De-NOx facilities that Kosovo B TPP did not have in the past. Appropriate training will be provided to KEK staff in order to have a smooth process in the handover of the new facilities.

# 2. Intervention logic

# LOGICAL FRAMEWORK MATRIX

OVERALL OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	
To support the energy sector by reducing the environmental impact of the largest power plant in Kosovo – known as Kosovo B	EU Acquis alignment Air pollution level.	Kosovo Report from the European Commission	
		Different reports prepared by the MED, MESP, KEK, TPP Kosovo B	
SPECIFIC OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
To replace/upgrade the environmental components of Unit B2 of TPP Kosovo B (dust filters, internal ash transport system and the Nitrogen Oxides (NOx) emission reduction equipment) in compliance with the Large Combustion Plant/LCP Directive and the Industrial Emission/IE Directive.	Dust (particles) and NOx emissions levels.	Continuous Emission Monitoring System/CEMS installed in TPP Data from MED, MESP and KEK	Reliable technology is selected; and works are properly and timely implemented, supervised and verified.
RESULTS	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
Dust emissions reduced.  Nitrogen Oxides (NOx) emissions reduced.	Compliance with LCP and IE Directives measurement for:  • Dust emissions: < 20 mg/Nm³,  • NO <sub>x</sub> emissions: < 200 mg/Nm³.	Continuous Emission Monitoring System/CEMS installed in TPP Data from MED, MESP and KEK	Timely completion of the works in accordance with technical specifications.

#### **DESCRIPTION OF ACTIVITIES**

The Action is focused on the reduction of dust/PM and NO<sub>x</sub> emissions from TPP Kosovo B2 Unit in order to meet the emission limit values determined by LCP and IE Directives.

#### **Result 1:** Dust emissions reduced

In order to reduce the dust emissions, the following activities have to be implemented:

# Replacement of Electrostatic Precipitators/ESPs of one unit of Kosovo B TPP including the internal ash transport system

- Preparatory activities:
  - Completion of the Tender Dossier including the concept/preliminary design, functional specification, the budget breakdown and all other necessary documents in line to PRAG procurement rules and conditions.
  - Tendering of the works and signature of the works contract/s.
- Main activities:
  - Execution of the works in line with the tender conditions (including demolition of existing structures where necessary);
  - Construction of new structures, installation of new filters (Electrostatic Precipitators/ESPs) and new internal ash transport system;
  - Commissioning of the new equipment and training of KEK's staff.

# **Result 2:** Nitrogen Oxides (NOx) emissions reduced.

For reducing the NOx emissions, the following activities have to be implemented:

# Construction of de-NOx facilities on one unit of TPP Kosovo B

- Preparatory activities:
  - Completion of the Tender Dossier including the concept/preliminary design, functional specification, the budget breakdown and all other necessary documents in line to PRAG procurement rules and conditions.
  - Tendering of the works and signature of the works contract/s.
- Main activities:
  - Execution of the works in line with the tender conditions;
  - Installation of the system for reduction of NOx emissions including all necessary modifications needed;
  - Commissioning of the new equipment and training of KEK's staff.

The works mentioned above will be included in one works tender procedure and one works contract (together with the works financed under IPA 2018 related to the other Kosovo B unit).

#### **RISKS**

Potential risks that are identified at the initialization of the Action are:

- Lack of timely coordination between the relevant institutions and stakeholders in the implementation of the assistance. (Mitigation: a steering committee with all stakeholders is foreseen).
- Coordination of the selected works contractor with other possible contractors recruited by KEK for other activities (e.g. refurbishment of generators).
- Lack of understanding of the technical improvements introduced in the power plant by the local population.

These risks can be mitigated by increased communication between all parties involved (the EU Office in Kosovo as Contracting Authority, the Works Contractor, the Supervisor of the works and the beneficiary/ies including other stakeholders as indicated below under the roles and responsibilities), better management of the entire project and a proper training and capacity building program for the beneficiary staff that will be part of the works contract requirements.

Potential risks that are identified for the implementation process of the Action are Health & Safety risks:

- Safety at work
- Contingencies appearing during the execution of the works.

The works contractor will be in charge of preparing a safety and work plan in line with EU directives.

The following assumption is considered: KEK and TPP Kosovo B management should ensure a detailed planning of future implementation of other environmental measures in line Energy Community Treaty/EnCT requirements.

#### **CONDITIONS FOR IMPLEMENTATION**

All relevant specific institutional frameworks exist. Kosovo is a member of the Energy Community, and starting from 01<sup>st</sup> January 2018 all international regulations are applicable.

The preconditions that have to be fulfilled include:

- Kosovo confirmed that Kosovo B power plant will remain under the public ownership for a period of at least 10 years;
- A detailed planning of all activities to be carried out on site must be prepared by KEK
  to avoid overlap of activities which would cause delays and other contractual
  implications;
- Any potential delays caused by other works undertaken by KEK in the plant will be borne entirely by KEK;
- A KEK-Kos B TPP coordination team needs to be set-up, meet regularly actively follow-up all activities planned to be implemented under this action.

#### 3. IMPLEMENTATION ARRANGEMENTS

#### **ROLES AND RESPONSIBILITIES**

Main stakeholders responsible for the implementation of this action are Ministry of Economic Development (MED) and KEK as the main beneficiaries of the project. Other institutions that will also be involved include MESP, the Ministry of European Integration (MEI), Ministry of Labor and Social Welfare (MLSW), Ministry of Health (MH), Ministry of Finance (MF) and Energy Regulator Office (ERO).

The European Union Office in Kosovo will play an important role in cooperating with local institutions and other mechanisms established for the implementation of these actions. A Steering Committee for monitoring and coordinating the execution of project/s will be set up.

Other stakeholders such as the Association of Women in the Energy Sector in Kosovo (AWESK) created in 2017 and the Municipality of Obiliq/Obilić will be involved.

# IMPLEMENTATION METHOD(S) AND TYPE(S) OF FINANCING

This Action will be implemented through direct management, through work/s and service/s contracts (including supervision services).

#### 4. Performance measurement

# **METHODOLOGY FOR MONITORING (AND EVALUATION)**

The European Commission may carry out a mid-term, a final or an ex-post evaluation for this action or its components and the action related to the refurbishment of unit B1of the power plant via: independent consultants, or via an implementing partner. In case a mid-term or final evaluation is not foreseen, the European Commission may, during implementation, decide to undertake such an evaluation for appropriately justified reasons either on its own decision or by the initiative of the partner. The evaluations will be carried out as prescribed by the DG NEAR guidelines for evaluations. In addition, the action might be subject to external monitoring in line with the European Commission rules and procedures set in the Financing Agreement. The aim of external monitoring is to provide an independent view and focuses on problematic actions pinpointed by operational managers in their annual risk assessment exercise. It consists of a quick review, based on standard criteria, designed to give a brief snapshot of the quality of a project/programme and recommendations for EUDs/HQ services on how to improve it.

#### **INDICATOR MEASUREMENT**

(2016)	Target (2021) *	Final Target (2025) *	Source of information	
Average dust emission: 560.3 -896.34 mg/Nm <sup>3</sup>	Average PM emission: < 20 mg/Nm³	dust emission: < 20 mg/Nm <sup>3</sup>	Testing of ESPs and De-NOx facilities after the completion of the Action.	
Average NO <sub>x</sub> emission: 843.2-846.9 mg/Nm <sup>3</sup>	Average NO <sub>x</sub> emission: : < 200 mg/Nm <sup>3</sup>	NO <sub>x</sub> emission: < 200 mg/Nm <sup>3</sup>	<ol> <li>Final reports submitted by the Supervisor/Engineer and by the Contractor.</li> <li>Continuous Emission Monitoring System/CEMS of TPP Kosovo B.</li> <li>Reports published by MED and KEK.</li> <li>Regular measurements of periodic emissions required by Law.</li> </ol>	
	560.3 -896.34 mg/Nm³  Average NO <sub>x</sub> emission:	560.3 -896.34 mg/Nm³ < 20 mg/Nm³ Average NO <sub>x</sub> emission: Average NO <sub>x</sub> emission:	560.3 -896.34 mg/Nm³ < 20 mg/Nm³ < 20 mg/Nm³  Average NO <sub>x</sub> emission:  NO <sub>x</sub> emission:	

<sup>\*</sup>The value quoted in the target 2021is the one foreseen in the Directive and it will be the same as the final target 2025.

<sup>\*\*</sup>MED and KEK have taken the necessary measures for initiating the refurbishment of TPP Kosovo B and the reduction of the emissions of pollutants to the level that satisfies requirements of LCP and IE Directives. TPP Kosovo B, with two units, has the total power of 678 MWe. Unit B1 operates from 1983; while the Unit B2 from 1984 year. In spite of the fact that TPP Kosovo B is relatively old, it is still the main electricity generator in Kosovo's Energy System, producing more than half of the electricity. However, the TPP Kosovo B emits large quantities of pollutants. Reducing emissions of dust/PM and NOx to the levels required by LCP and IE Directives are the main results that are expected by this Action and the previous Action (IPA 2018).

# 5. SECTOR APPROACH ASSESSMENT

Kosovo is committed to ensure qualitative and reliable energy supply and environment protection.

MED is the main institutions to exercise drafting the legislation, policies, strategies and plans for Kosovo's energy sector, as well as oversee their implementation always considering the environment protection.

The key strategies to develop the energy sector are the Energy Strategy 2017-2026 and National Development Strategy 2016-2021, aiming the security of energy supply and environmental protection. They both provide an ambitious range of policy initiatives.

The sector strategy objectives are drafted and identified with the cooperation of the Energy Community Secretariat in order to reform the energy sector in Kosovo in line with best EU experiences, directives, and EU standards 20/20/20 that need to be achieved by 2020.

In the context of the Energy Treaty Kosovo has prepared the National Emission Reduction Plan (NERP) fixing among other things the deadlines for emission limits that are regulating the functioning of power plants.

This Action has a direct link with the EU strategy for Western Balkans, where the European Commission announced six flagship initiatives as specific actions for Western Balkans for developing of energy sector.

However, Kosovo yet needs to increase the security and quality of energy supply, improve the environmental impact of the energy activities, especially by taking advantage of the significant energy efficiency potential primarily in the buildings stock, as well as development of RES based energy capacities as envisaged in the new strategy.

Within the Kosovo Institutions, MEI is responsible for coordinating donor assistance. The Aid Management Platform, established with EU support, is used as a main tool for monitoring donor activities. Sector working groups, aiming at coordinating donor activities, have been revitalised and there is a commitment from Kosovo government to schedule regular meetings with the donor community through sub-sector and sector working groups; those would then report to the High Level Forum. The EU Office regularly participates in the Donor Consultation Meeting (DCM) chaired by MEI and which includes the EU Member States and other bilateral and multilateral donors (USAID, BMZ/GIZ, KFW, World Bank, UN agencies, etc.).

To monitor the implementation of the strategy, the Ministry prepares a three-year strategy implementation program. This program includes all projects/measures envisaged to be implemented in the mid-term period (three years). For each project/measure costs, measurable indicators, and implementing institutions are defined. All relevant stakeholders of the energy and environmental sectors contribute in drafting of this program.

#### 6. CROSS-CUTTING ISSUES

#### **GENDER MAINSTREAMING**

Women are not enough represented in the energy sector in Kosovo and around the world. There is a need to bring more women into the energy workforce, to empower them as decision-makers in the sector, and to ensure they have equal access to education, advancement, and professional development.

The Constitution of Kosovo "ensures gender equality as a fundamental value for the democratic development of the society, providing equal opportunities for both female and male participation in the political, economic, social, cultural and other areas of societal life" (Art. 7).

Pursuant to the Kosovo Law on Gender Equality and the Law on Anti-Discrimination, women are encouraged to apply at all levels of employment within the sectors relevant to this project towards achieving an improved gender balance. In line with the Law on Gender Equality, the Ministry will take positive measures to provide internships for, recruit, hire, as well as promote women to higher decision making levels within the Sector.

The Action will involve the integration of a gender perspective into the preparation, design, implementation, monitoring and evaluation with a view to promoting equality between women and men, and combating discrimination. Steps also will be taken in the elaboration of a gender analysis and collecting and analysing sex-disaggregated data towards integrating Gender Responsive Budgeting in budgetary processes.

The activities designed and implemented will ensure that the following regulation and legislation will be applied such as: the UN Convention on the Elimination of All Forms of Discrimination Against Women (Art. 22); The Law on gender Equality 2015; The Recast EU Directive (2006/54/EC) on Equal Opportunities and Equal Treatment of women and men in employment and occupation; the Directive on Equal Treatment of Men and Women in the Access to and the Supply of Goods and Services (2004/113); and "the Joint Staff Working Document on Gender Equality and Women's Empowerment -Transforming the Lives of Girls and Women through EU External Relations 2016-2020" (also known as the EU Gender Action Plan - GAP" P), particularly objectives 16 and 20.

#### **EQUAL OPPORTUNITIES**

Kosovo is fully committed to a policy of equal opportunities. The design and the implementation of the actions will be transparent. All necessary steps will be considered to ensure the equal participation of men and women. It is important to mention that the Kosovo institutions and KEK as beneficiaries - are also particularly sensitive to equal opportunities and gender related issues in regards to supported investment, mainstreaming, and gender impact-assessment approaches in the supported actions.

#### MINORITIES AND VULNERABLE GROUPS

The interventions will in no way harm the rights of any individuals, including minorities and vulnerable groups; on the contrary, it will support vulnerable community, it will strongly

support and facilitate minorities and vulnerable *groups* including both women/men within these groups.

### **ENGAGEMENT WITH CIVIL SOCIETY (AND IF RELEVANT OTHER STAKEHOLDERS)**

Discussions with civil society were pursued throughout the drafting processes of energy strategy, EE and RES plans, and relevant legislation. Civil society will continue to remain included and informed for future policy development, project drafting and implementation through public discussions and campaigns. Women's rights organisations will be more included in the future.

Public discussions will provide means for easier access, review and address of issues of interest for the society. Such discussions will make sure to include diverse women and men. Media will also be part of these activities, in order to adequately inform the diverse women and men on the respective matters and development. All activities related to energy and environmental sector projects will be developed in accordance with relevant and applicable Kosovo legislation, while ensuring close cooperation with relevant municipalities.

# **ENVIRONMENT AND CLIMATE CHANGE (AND IF RELEVANT DISASTER RESILIENCE)**

With regards to environment, this is one of the target sectors of the proposed intervention. All environmental laws, regulations and directives abided by in Kosovo that are directly linked to this action are taken into account in designing the action proposal, i.e. "The Law on Environmental Protection", "Law on Air Protection", "Law on Environmental Impact Assessment", Law on Waste, etc.

After the implementation of this Action, the TPP Kosovo B unit B2 will comply with LCP and IE Directive requirements concerning dust/PM and NO<sub>x</sub> emissions, and will contribute to improve the air quality and reduce pollution of air, soil and underground waters in the Pristina district, Obiliq/Obilic, and Fushe Kosova/Kosovo Polje municipalities.

The Kosovo's budget devoted to the sector is insufficient, while at the same time environmental and climate change mitigation and adaptation concerns are not mainstreamed into other policies. The lack of human, administrative, and financial capacities to implement EU environmental and climate standards has been also reiterated in the European Commission's Staff Working Document "Commission Communication on a Feasibility Study for a Stabilisation and Association Agreement between the European Union and Kosovo", Brussels, 23 October, 2012.

The first Green House Gases/GHG inventory was prepared in 2012, with support from UNDP. There is still no register of sources and emissions of GHGs and a baseline year, from which GHG emissions will be measured, has not been identified as yet. The results of GHG inventory showed that Kosovo compared to EU has low emissions per capita, but high emissions per unit GDP (per capita t CO2 equivalent: Kosovo 5.7/EU 9.9; per Euro GDP kg CO2 equivalent: Kosovo 0.84/EU 0.4).

Kosovo is not a party to the UNFCCC, although it seeks to mirror its framework and activities. In 2014, the first Climate Change Framework Strategy (CCFS) for Kosovo was finalised with the support of the Austrian Development Cooperation, UNDP Bratislava Regional Centre and the United Nations Development Programme (UNDP) in Kosovo. The CCFS consists of two components: Low Emission Development Strategy (LEDS) and

National Adaptation Strategy (NAS). It is an initial step in an adaptive management feedback policy process. It is also an opportunity to look for mitigation and adaptation measures that will boost sustainable development. It is crucial for responding and anticipating the impacts of climate change in Kosovo.

#### 7. SUSTAINABILITY

The implementation of activities intended to reduce the dust/PM and  $NO_x$  emissions represents a good basis for creating the right policy for implementing future major energy and environmental projects in Kosovo with the aim of fulfilling the environmental criteria in line with the relevant EU Directives.

In the context of the present action, technical assistance is foreseen to support KEK in ensuring the proper handover and management of the new Facility. This is first step of the process of rehabilitation of TPP Kosovo B to proceed towards the alignment with EU directives. Kosovo and KEK are committed to the maintenance and development of the process, ensuring that sufficient resources are mobilised.

The implementation of the action in TPP Kosovo B will create an opportunity to adequately plan investments into the improvement of environmental standards and technologies, but also improve management capability of the staff to modernise the organisation and implementation of complex projects, which will essentially improve the stability and security of generated electricity. In addition, the action is supporting the implementation of EU environmental and energy policies contributing to long-term sustainable economic and social development.

#### 8. COMMUNICATION AND VISIBILITY

Communication and visibility should be given high importance during the implementation of the Action. The implementation of the communication activities shall be funded from the budget allocated to this Action.

All necessary measures will be taken to publicise the fact that the action has received funding from the EU in line with the EU communication and visibility requirements in force. All stakeholders and implementing partners shall ensure the visibility of EU financial assistance provided through IPA II throughout all phases of the programme cycle.

Visibility and communication actions shall demonstrate how the intervention contributes to the agreed programme objectives, as well as the benefits of the action for the general public. Actions shall be aimed at strengthening general public awareness and support of interventions financed and the objectives pursued. The actions shall aim at highlighting to the relevant target audiences the added value and impact of the EU's interventions and will promote transparency and accountability on the use of funds.

Visibility and communication aspects shall be complementary to the activities implemented by DG NEAR and the EU Delegations in the field. The European Commission and the EU Delegations should be fully informed of the planning and implementation of the specific visibility and communication activities.

Furthermore, the installation of two digital information panels displaying the information concerning performances of the rehabilitated TPP Kosovo B including emissions (that are in accordance with LCP and IE Directives) could also be an effective tool for visibility.

Annex I: Table with results of the emissions measurement from September 2016

		Unit B1		Unit B2	
		Ch. 1	Ch. 2	Ch.1	Ch.2
	Min	208.69	321.6	637.5	580.1
Dust/PM (mg/Nm³)	Ave	243.31	389.34	809.67	674.27
	Max	277.93	457.08	902.9	727.5
	Min	542.53	782.86	827.5	763.5
NOx (mg/Nm³)	Ave	560.3	896.0	843.2	806.9
	Max	579.56	1031.9	855.1	835.2