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Ministria e Ekonomisë
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MONITORING AND EVALUATION MANUAL OF THE ENERGY STRATEGY OF THE REPUBLIC OF KOSOVO

2022 - 2031

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of the
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OF THE REPUBLIC OF KOSOVO
2022-2031**

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TABLE OF ACRONYMS

AOP	Annual operational plan
BSA	Bulk Supply Agreement
DoE	Department of Energy
DoEn	Department of Environment (MESPI)
DSO	Distribution System Operator
EE	Energy Efficiency
ERO	Energy Regulatory Office
DSPRC	Division of Strategic Planning and Regional Cooperation
DEE	Division of Energy Efficiency
DES	Division of Energy Systems
DSPBH	Division of Spatial Planning, Building and Housing
DRES	Division of Renewable Energy Sources
DH	District Heating
ESRK	Energy Strategy of the Republic of Kosovo
ETS	Emissions Trading System
EU	European Union
GHG	Greenhouse gases
GoK	Government of Kosovo
IAS	Indicator Analysis Sheet
IIS	Indicator Identity Sheet
KEEF	Kosovo Energy Efficiency Fund
KEK	Kosovo Energetic Corporation
KEDS	Kosovo Electricity Distribution Company
KEPA	Kosovo Environmental Protection Agency
KESCO	Kosovo Electricity Supply Company
KOSTT	Kosovo Transmission System and Market Operator
Ktoe	Kiloton of Oil Equivalent

KSA	Kosovo Statistics Agency
M&E	Monitoring and evaluation
MoE	Ministry of Economy
MW	Megawatts
NOx	Nitrogen Oxides
MESPI	Ministry of Environment, Spatial Planning and Infrastructure
MFLT	Ministry of Finance, Labor and Transfers
MoE	Ministry of Economy
PIU	Project Implementation Unit
PM	Project Manager
PSC	Project steering committee
PV	Photovoltaic
RBM	Results Based Management
RES	Renewable Energy Sources
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
TSO	Transmission System Operator

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1. INTRODUCTION

1.1 Scope of the manual

The Monitoring and Evaluation (M&E) Manual for the Energy Strategy of the Republic of Kosovo (ESRK) 2022-2031 is a document providing guidance on the minimum requirements and agreed M&E approaches for the implementation of this strategy.

A monitoring and evaluation system is being developed in an attempt to ensure relevant information needed to properly manage the strategy is available and accessible during its implementation including a digital module.

The purpose of this document is to clarify and formalize data collection, aggregation and analysis procedures, define reporting format and roles and responsibilities of ESRK stakeholders involved in data collection and analysis (see table 4 at page 22).

This Manual is subject to periodic reviews to incorporate feedback from the Department of Energy (DoE) of the Ministry of Economy and all other stakeholders during the implementation of the M&E system. It should be pointed out that all changes made to the methodology of data collection/analysis should be handled carefully (to avoid generating inconsistencies, e.g. inability to use baseline values and/or previous indicator's values) and incorporated into subsequent review of the document.

Stakeholders responsible for collecting data on the indicators assigned to them (see Table 4) do not need to be familiar with all sections of the document. Based on the summary provided in the indicator descriptions, they should be able to identify the sections and indicators relevant to their responsibilities. The M&E Manual does not have any legal implication because it is an M&E reference manual for the Department of Energy of Ministry of Economy and all other stakeholders involved for monitoring the ESRK 2022-2031 indicators.

The Manual has been inspired by, and ultimately aligned with, the terminology proposed in the *Manual for Planning, Developing and Monitoring Strategic Documents and Their Action Plans* (Strategic Planning Office of the Office of the Prime Ministry, 2019).

2. SUMMARY OF THE ESRK STRATEGY

2.1 Current State of Affairs in the energy sector

The energy sector is among the priority areas in the framework of sustainable and inclusive growth, with a particular focus on Kosovo's Green Agenda which is a key priority area in the framework of Kosovo's Energy Strategy for 2022-2031, the Energy Strategy Implementation Program 2022-2025 and the draft NECP 2025-2030. The Green Agenda is a manifesto for Kosovo's transformation to address the growing environmental and climate challenges by placing sustainable development, diversification of the energy sources, resource efficiency, nature protection and climate action at the centre of all economic activities and turning these challenges into opportunities.

The Western Balkans is one of the regions in Europe most heavily affected by the impact of climate change, and this trend is projected to continue, with estimates suggesting that temperatures will increase by 1.7 – 4.0°C, and even exceeding 5.0°C¹ by the end of the century, depending on the global effort to reduce greenhouse gasses emissions. Kosovo, in particular, has been experiencing more frequent and severe droughts and floods. Electricity production that is highly reliant on fossil fuels and lignite-based generation capacities high energy consumption in relation to GDP contribute to severe air pollution and environmental degradation and negatively impacts the health of the country's citizens, risking Kosovo's long-term development prospects.

As a contracting party of the Energy Community and with a clear prospect of joining the legal framework. Kosovo also signed the Sofia Declaration on the Green Agenda for the Western Balkans in 2020, committing to achieve net-zero emissions by 2050.

The vision of the GoK is to develop a sustainable energy sector, integrated in the Pan-European market, ensuring security of electricity supply and affordability for citizens. The Energy Strategy of the Republic of Kosovo (ESRK) 2022-2031 aims to achieve sustainable and affordable energy supply by: improving system resilience, increasing EE, diversifying energy sources, flexibility, strengthening regional cooperation and market functioning and protecting and empowering consumers. The strategy envisages a dynamic and progressive increase of RE generation capacities, mainly in wind and photovoltaic (PV) technologies supported by renewable actions, public investment and active participation of prosumers in this process. It foresees refurbishment of lignite units and the phasing out of one or two Kosovo A units, improving the EE of building and promotion of efficient cogeneration and efficient district heating systems

The energy crisis showed that Kosovo's energy system needs to undergo a profound transformation to become more resilient, flexible and diversified so that it can compete with neighbouring systems. In order to boost employment, increase growth, reduce poverty, and improve people's lives, Kosovo needs affordable and reliable energy. The country's current electricity system is outdated, inadequate and undependable – posing significant challenges to economic growth and development. Frequent power outages hinder investment and disrupt manufacturing, education, and health services.

The energy sector in Kosovo faces many challenges. It continues to heavily rely on very old inefficient and polluting coal-fired power plants with limited generation capacity. The demand for energy is constantly on the rise, while the use of energy is often inefficient. Consecutive Kosovo governments have faced significant challenges in making meaningful investments in diversifying energy sources, curbing consumption, or improving the grid, while dealing with other needs in building up Kosovo. Furthermore, despite its commitment to a greener future as part of the EU integration process, the country continues to

1 "Climate change in the Western Balkans and EU Green Deal: status, mitigation and challenges Report" 2022.

struggle with air pollution (also a direct result of the aging fossil-based power base), waste management issues, and overall incomplete energy reforms.

2.2 Energy Strategy of the Republic of Kosovo 2022-2031

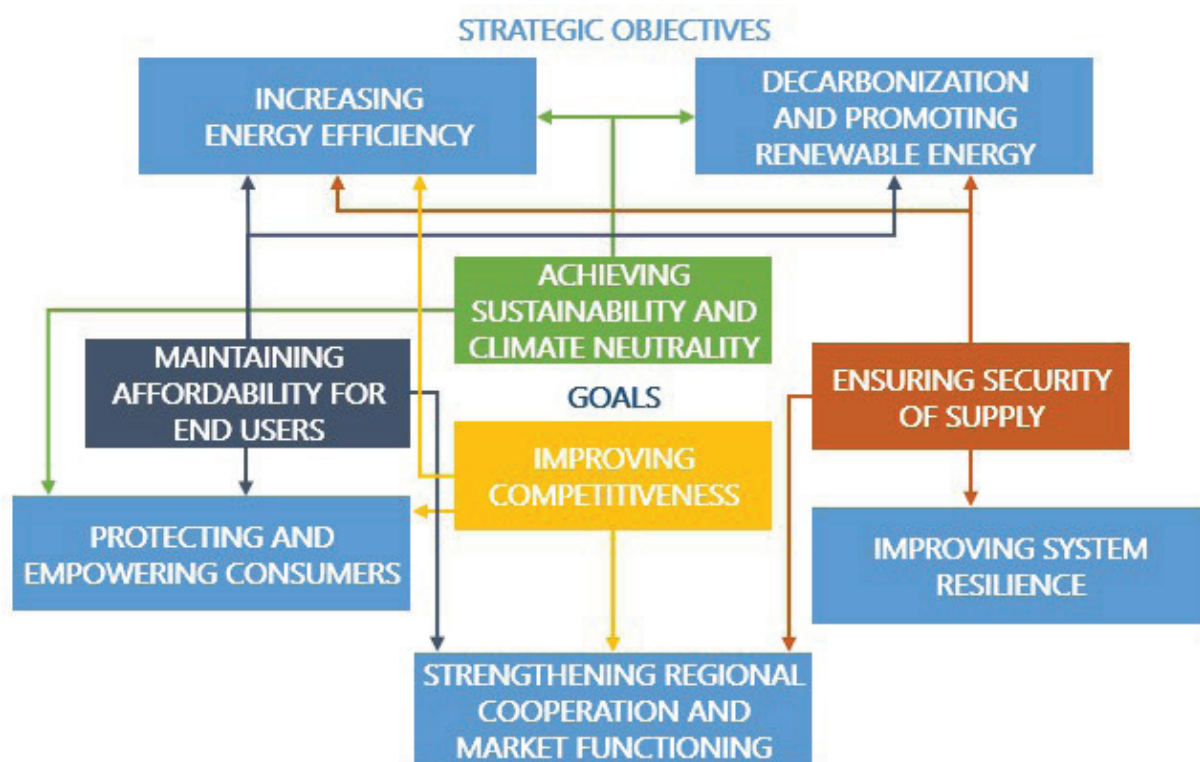
The M&E system for the energy sector in Kosovo will be centred around the Energy Strategy of the Republic of Kosovo (ESRK) 2022-2031, the Energy Strategy Implementation Programs, a description of the strategy is provided below. Energy Strategy of the Republic of Kosovo (ESRK) 2022-2031 was developed with the aim of defining a clear vision and strategic approach within the continuity of reforms through which the energy sector in Kosovo is undergoing. Initiation of the process of reform is intended to enable the energy transition in line with Kosovo's targets, as well as in the framework of compliance with EU rules and directions of the energy sector.

The Energy Strategy 2022-2031 is led by the following vision: “sustainable energy sector integrated into the Pan-European market, ensuring energy security and affordability for citizens”.

The ESRK has defined four overall goals of Kosovo in the energy sector, which comprise of the following:

- Goal 1: Ensuring security of supply;
- Goal 2: Achieving sustainability and climate neutrality;
- Goal 3: Improving competitiveness;
- Goal 4: Maintaining affordability.

Figure 1: Main goals of the Kosovo Energy Strategy (2022 – 2031)



The ESRK has further defined five Strategic objectives, through which the MoE will guide the sector towards achieving its vision and goals.

Strategic Objective I: Improving system resilience;

Strategic Objective II: Decarbonization and promoting renewable energy;

Strategic Objective III: Increasing energy efficiency;

Strategic Objective IV: Strengthening regional cooperation and market functioning;

Strategic Objective V: Protecting and empowering consumers, and workforce development.

In order to ensure that the four goals of Kosovo in the energy sector are achieved, the ESRK 2022-2031 has tried to spread the contribution into five strategic objectives. Further, each strategic objective contains a number of specific objectives.

2.3 ESRK intervention logic

vision: “sustainable energy sector integrated into the Pan-European market, ensuring energy security and affordability for citizens”

Strategic objective 1: Improving system resilience

Security of supply will be ensured by guaranteeing the unified functioning of the electricity system. This requires adequately sized capacities for supply and reserves, reliability, flexibility, and efficiency of generation units, network elements and integrated markets.

This strategic objective is addressed by the following four specific objectives:

1. Enhancing system flexibility
2. Modernization of networks and reduction of network losses
3. Rehabilitation of existing electricity production capacities and investments in new capacities, and
4. Ensuring cybersecurity of the energy sector. The main targets for this strategic objective are to:
 - Improve quality of supply indicators: System Average Interruption Duration Index (SAIDI) by 35% and System Average Interruption Frequency Index (SAIFI) by 30% by 2031, launch market-based reserve services and reach at least 170 MW of flexible regulation capacity by 2031,
 - decrease the transmission losses to current EU technical loss ratios by 2031, and decrease distribution losses to the levels of technical losses of 9% by 2031,
 - refurbish two Kosovo B power plant units and at least one Kosovo A power plant unit to ensure at least 540 MW capacity for baseload and 360 MW capacity as strategic reserve by 2030.

Strategic objective 2: Decarbonization and promoting renewable energy

The path of reducing CO₂ emissions of the sector will be accompanied by the development of large- scale RES capacities, based on their technical and economic potential¹. The reduction of lignite-based electricity generation contributes to reducing pollution and GHG emissions, but its effects on security of supply and generation adequacy are offset by relying increasingly on domestic clean sources of energy. Moreover, considering that

renewable technologies have reached market parity with traditional energy sources, their utilization will lead to lower energy costs over the long term.

New RES capacities, with existing and innovative technologies, will gradually replace the use of coal, achieving coal phase-out by 2050 at the latest.

This strategic objective is addressed by 3 specific objectives:

1. Gradual implementation of carbon pricing,
2. Promoting renewable energy sources in the electricity generation mix,
3. Promoting the use of renewable energy in heating. The main targets for this objective are to:
 - Complete all preparations for implementing a carbon pricing system by 2025, enabling the introduction of a carbon price which will gradually increase until Kosovo's integration in the pan-European market and the EU's Emissions Trading System (ETS),
 - Reduce GHG emissions in the power sector by at least 32% by 2031,
 - Cover at least 35% of electricity consumption by RES by 2031,
 - Develop new RES capacities (600 MW wind, 600 MW solar PV, 20 MW biomass & at least 100 MW of prosumer capacity), to reach a total installed RES capacity of 1600 MW by 2031.

Strategic objective 3: Increasing energy efficiency

A more energy-efficient development pathway will be followed, leading to a less energy-intensive economy. This has multiple benefits, including the contribution to reduction of energy supply needs (and thus costly investments and the GHG emissions and pollution they entail), decrease in import dependency, and reduction of the financial burden on citizens and businesses.

This strategic objective is addressed by 2 specific objectives:

1. Improving the energy efficiency of buildings
2. Promotion of efficient cogeneration and efficient district heating systems. The main targets for this objective are to:
 - Limit the final energy consumption in Kosovo to the level of 1877 ktoe in 2031,
 - Achieve cumulative energy savings of 266.4 ktoe in buildings including public, private, and commercial by 2031,
 - Certification of 150 Near Zero Energy Buildings by 2031.

Strategic objective 4: Strengthening regional cooperation and market functioning

Kosovo is committed to the implementation of all obligations of the Energy Community Treaty for the creation of a free, integrated and competitive electricity market. This contributes to the security of supply through wider regional market integration, while also supporting the goals of affordability and competitiveness by optimizing the wholesale and reserve markets and making them more efficient.

Market integration with Albania is particularly important, starting with the full functioning of ALPEX both on the day-ahead and intraday electricity markets.

The functioning of the market and the overall energy sector will also be supported by investing in the skills of Kosovar men and women in line with the requirements of a

dynamically evolving sector, and ensuring that they have access to jobs in the sector.

This strategic objective is addressed by 3 specific objectives:

1. Strengthening regional cooperation,
2. Removing the barriers to effective market-functioning,
3. Training in energy-related fields and women's inclusion.

The main targets for this strategic objective are to:

- Achieve market integration with Albania in 2023,
- Join the pan-European market area by 2030,
- Gradually phase out the Bulk Supply Agreement, starting from 2025 at the latest,
- Increase the number of graduates in energy-related fields and ensure that at least 25% of employees in the sector are women, by 2031.

Strategic objective 5: Protecting and empowering consumers

The Energy Strategy places citizens in its focus by supporting affordability of energy bills for vulnerable consumers, and investing in energy efficiency (of buildings and household appliances) and heating solutions, empowering them to actively participate in the liberalized energy market, and reducing their exposure to environmental pollution.

This strategic objective is addressed by 3 specific objectives:

1. Protecting vulnerable consumers,
2. Empowering all consumers,
3. Preserving human health and environment.

The main targets for this strategic objective are to:

- Revise the current price-support scheme for new vulnerable consumers program by 2024, and further advance it to a means-tested scheme linked to the reformed social assistance scheme,
- Introduce at least two new energy-related schemes for vulnerable consumers (e.g. energy efficiency, heating solutions, solar panels, etc.) by 2024, and develop four new schemes by 2031,
- Introduce more than two programs supporting community projects in energy efficiency and self-consumption by 2024, and more than five by 2031,
- Implement at least 9 energy-related awareness and information campaigns annually,
- Develop a fully functioning Price Comparison Tool by 2024 to ensure diversity and comparability of services offered to consumers.

Figure 2: Inter-connectedness of ESRK goals and strategic objectives



2.4 M&E Project institutional set up

Three key institutions are involved in the implementation of ESRK M&E system:

- 1) ESRK M&E monitoring and Evaluation Working Group
- 2) ESRK working group in charge to design the ESRK Implementation Programme
- 3) Department of energy

The **ESRK M&E Working Group** is chaired by Ministry of Economy and it is responsible for the collection, synthesise and analysis of the 33 ESRK indicators tracking the achievement of the five strategic objectives and related specific objectives. It will integrate information from various sources such as MoE, KEEF, MESPI and KOSTT data to determine “if” and “how” the major changes expected before the end of its implementation period are really achieved. To detects and analyses the major challenges/bottlenecks and to promote best practices and successful strategies implemented.

The complete ToRs of this key working group is presented in Annexe2 of the present manual

See below the long terms changes (overall objectives), the key objectives to achieve (specific objective), the major results to deliver and some of the key activities to be annually carried out by this working group.

Key objectives of this group are

- To report the process of ESRK data collation and facilitate analysis and synthesis of findings and recommendations during ESRK M&E Working group sessions;
- To standardize Monitoring and Evaluation procedures and tools in the MoE, MESPI, KOSTT, KEEF and other ESRK institutions in the sector;
- To digitize the data collection, aggregation and presentation of ESRK indicators for key institutions such as Department of Energy (MoE), MEPSI, KOSTT and KEEF²
- To promote the use of the recommendations generated by the ESRK M&E working group to improve the performance of the energy sector.

The most important results to achieve are:

- (a) Organise on annual bases at least one data analysis workshop to discuss about the performance of ESRK indicators;
- (b) Update the ESRK implementation reports improving the analysis of ESRK indicators and proposing consequently applicable M&E recommendations to improve (if the targets are not achieved) or maintain (if the targets are achieved) the performance of the strategy;
- (c) Support the design of an ESRK software user manual;
- (d) Update at least biannually the ESRK M&E Matrix.

The activities to be undertaken as part of this assignment shall include the following:

- Organize an annual/biannual "data analysis workshops".
- Produce indicator data analysis sheets based to clarify for each ESRKT indicator: a) data trends, b) data disaggregation c) list of activities linked to the performance of the indicator d) problems encountered e) data analysis f) M&E recommendations and g) follow up of the previous M&E recommendations.
- Contribute to the preparation of the annual and six months ESRK implementation reports
- Facilitate ad hoc reports and/or workshop of ESRK information sharing and analysis.
- Share all improved M&E knowledge and skills among the institution staff they are appointed.
- Facilitate the dissemination of ESRK data collected and analysed.

ESRK working group in charge to design the ESRK Implementation Programme has as main objective to design every three this planning document. This group is chair by the Department of Energy and the main activities are

² All data generated will be publicly available in the website of the Ministry of Economy

- Propose “interim targets” for all 33 ESRK indicators covering the period of programme implementation,
- Propose a list of annual actions for each ESRK specific objective the period of programme implementation including the lead and supporting organizations(s) responsible for and the related output delivered;
- Establish a tentative budget for all annual actions including the proposed source of founding;

Department of Energy is organized in four divisions whose reporting roles in the Energy sector are as follows:

1. Strategic Planning and Regional Cooperation Division - Drafts policies, national strategies, their implementation programs for the energy sector and monitors and reports on their implementation;
2. Renewable Energy Resources Division - Drafts RES development policies, monitors their implementation and reports;
3. Energy Efficiency Division - Drafts energy efficiency development policies, monitors their implementation and reports on such policies;
4. Energy Systems Division - Monitors and reports on the performance of energy systems, security of supply and technical safety of electricity, natural gas and thermal energy systems; and -Monitors and reports on the organization of the electricity, thermal energy and natural gas market, tariffs and customer care

3. PROJECT MONITORING AND EVALUATION SYSTEM

3.1 Objectives of the Monitoring/Evaluation system

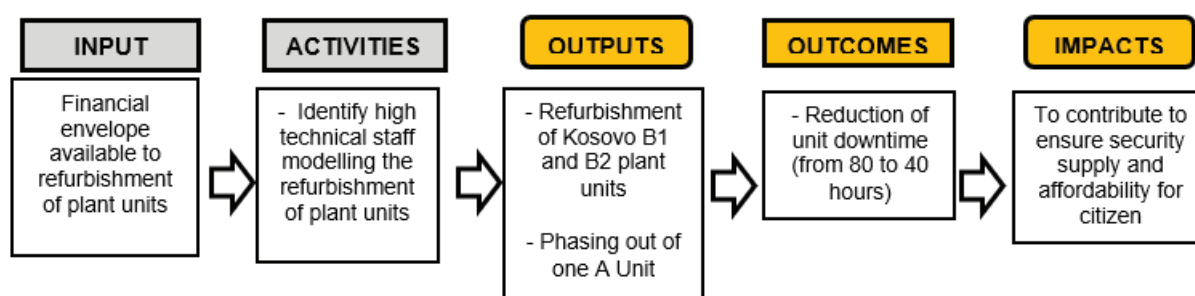
The main objectives guiding the implementation of the ESRK monitoring and evaluation system are as follows:

- i) To provide the Department of Energy (MoE) and all other ESRK stakeholders with timely information on ESRK performance, supporting decision-making and enabling corrective measures as needed.
- ii) To harmonize, standardize, and simplify the monitoring and evaluation system across ESRK stakeholders, particularly in data collection, analysis, and reporting formats.
- iii) To regularly disseminate ESRK data and information to partners and stakeholders, fostering greater participation and awareness of ESRK results.
- iv) To contribute multi-sectoral data and insights to national development efforts and pan-European strategic energy initiatives.
- v) To support national efforts aimed at consolidating a harmonized monitoring and evaluation system across line ministries (e.g., through the “Manual for Planning, Developing and Monitoring Strategic Documents and Their Action Plans” developed by the Strategic Planning Office)

The ESRK M&E system has been designed based on the Results-Based Management (RBM) approach. RBM is a strategy focused on achieving intended results within a given context. It integrates a results-oriented philosophy and principles into all aspects of management, while also incorporating good practices and lessons learned from past performance into decision-making processes. The ESRK M&E system is designed to be results-oriented. In other words, it follows a “results chain” approach, which emphasizes the effects and changes brought about by the strategy rather than the activities or events implemented. It assesses the changes that have occurred as a result of the ESRK, rather than focusing solely on the implementation of each three-year action plan.

As a result, the M&E system looks at how inputs and outputs relate to achieve outcomes as shown in Figure 3 below.

Figure 3: Kosovo’s Energy Strategy for 2022-2031 and intervention logic (results chains)



The 33 ESRK indicators and their linkages with the ESRK intervention logic are presented in Table 1 below.

Table 1: ESRK Indicators disaggregated according to the ESRK intervention logic and typology

RESULTS CHAIN	INDICATOR	TYPE
Strat. Obj. 1	1. System Average Interruption Duration Index (SAIDI).	Outcome
Strat. Obj. 1	2. System Average Interruption Frequency Index (SAIFI)	Outcome
Spec. Obj. 1.1	3. Level of flexible regulation capacity	Output
Spec. Obj. 1.2	4. Distribution losses	Outcome
Spec. Obj. 1.2	5. Amount of vRES capacity that the network is able to handle/integrate	Outcome
Spec. Obj. 1.3	6. Number of refurbished lignite units	Output
Spec. Obj. 1.3	7. Number of phased out lignite units	Output
Spec. Obj. 1.4	8. Cyber response capabilities (identify, detect, respond and re-cover) in the energy sector	Output
Strat. Obj. 2	9. GHG reduction in the power sector compared to 2019	Outcome
Strat. Obj. 2	10. Renewable share in the electricity sector consumption (res-e share)	Outcome
Spec. Obj. 2.1	11. Gradual introduction of carbon pricing	Outcome
Spec. Obj. 2.2	12. RES capacity in the electricity sector (including prosumers)	Outcome
Spec. Obj. 2.2	13. Prosumer capacity	Outcome

RESULTS CHAIN	INDICATOR	TYPE
Spec. Obj. 2.3	14. Installed RES capacity in district heating system	Output
Strat. Obj. 3	15. Final energy consumption level	Outcome
Strat. Obj. 3	16. Cumulative energy savings achieved in the building sector	Outcome
Spec. Obj. 3.1	17. Total cumulative energy savings of public buildings	Outcome
Spec. Obj. 3.1	18. Total cumulative energy savings of residential & commercial buildings	Outcome
Spec. Obj. 3.1	19. Number of near to zero energy buildings	Output
Spec. Obj. 3.2	20. Increasing capacity of co-generation in "TERMOKOS" (Prishtina)	Output
Spec. Obj. 3.2	21. Number of customers connected to the district heating systems (Prishtina & Gjakova)	Outcome
Strat. Obj. 4	22. Market integration with pan European electricity market	Outcome
Spec. Obj. 4.1	23. Offered cross-border capacity/nominal cross-border capacity	Outcome
Spec. Obj. 4.2	24. Status of Bulk Supply Agreement phase-out	Output
Spec. Obj. 4.2	25. Number of offers available for non-household customers	Outcome
Spec. Obj. 4.3	26. Annual number of new graduates obtaining academic degrees or professional qualifications in the field of energy and related fields	Outcome
Spec. Obj. 4.3	27. Percentage of women employed in the energy sector	Outcome
Strat. Obj. 5	28. Number of new schemes dedicated to vulnerable consumers	Output

RESULTS CHAIN	INDICATOR	TYPE
Strat. Obj. 5	29. Number of programs supporting community projects in efficiency and self-consumption	Output
Spec. Obj. 5.1	30. Price support scheme for vulnerable consumers	Output
Spec. Obj. 5.2	31. Energy-related awareness and information campaigns implemented	Output
Spec. Obj. 5.2	32. Diversity and comparability of services offered to consumers	Outcome
Spec. Obj. 5.3	33. Dust, NO _x and SO ₂ emissions of lignite power plants	Outcome

Out of the 33 indicators retained in Kosovo's Energy Strategy for 2022–2031, 21 (64%) are outcome indicators, which measure the final changes resulting from ESRK implementation at the level of primary and final beneficiaries. The remaining 12 indicators (36%) are output indicators, capturing the products and services delivered (see Figure 4 below) through the implementation of the strategy.

Figure 4: Distribution of ESRK indicators according to their typology

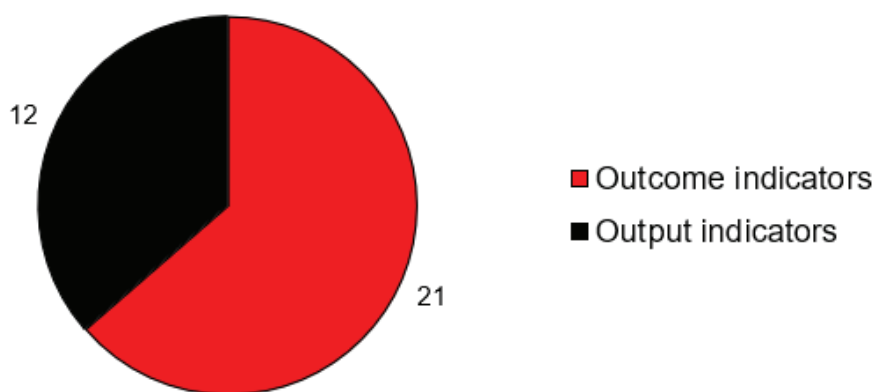
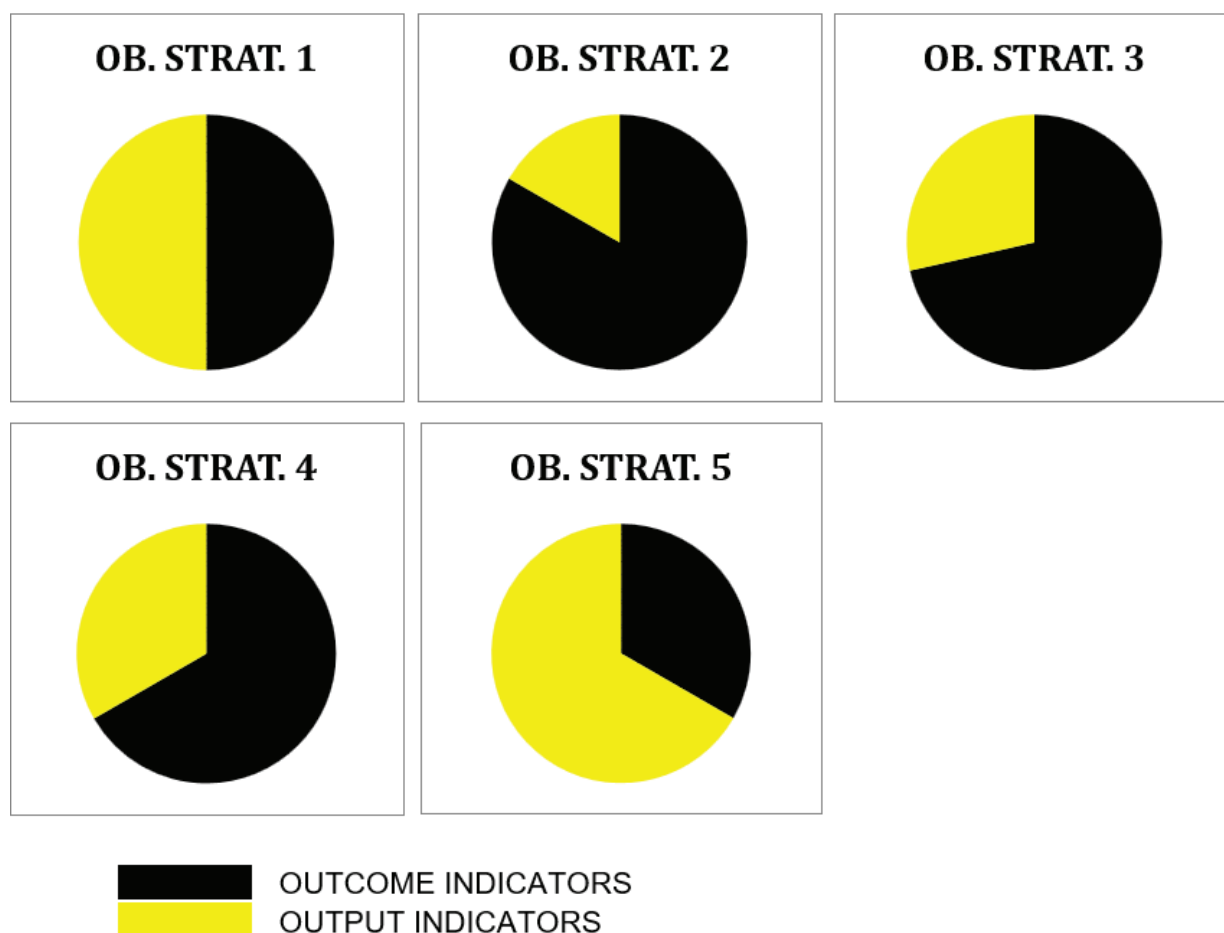


Figure 5: ESRK strategic objectives disaggregated by type of indicator (outcome/output)



Based on Figure 5, it is evident that all ESRK strategic objectives (represented in black in each pie chart) are predominantly covered by outcome indicators, except for Strategic Objective 5: “Protecting and empowering consumers.” This exception is expected, as the related interventions, such as awareness and information campaigns, are more effectively monitored through output indicators rather than by measuring actual changes.

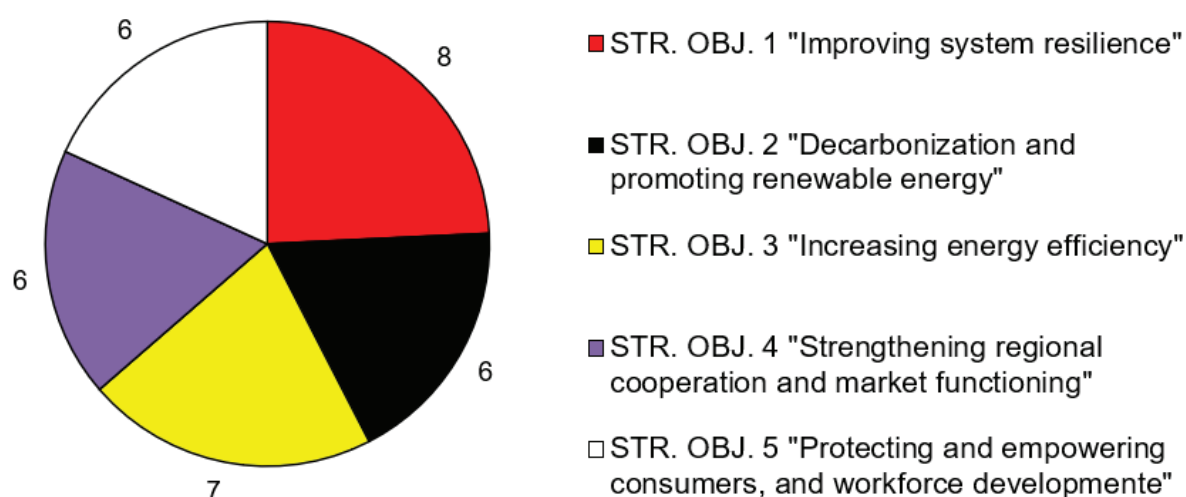
In contrast, Strategic Objective 2 stands out as the most Results-Based Management (RBM)-oriented objective within the ESRK, with 83% of its indicators classified as outcome indicators. Table 2 further outlines the four criteria used to categorize ESRK indicators as either output or outcome indicators.

Table 2: Criteria to distinguish ESRK outcome and output indicators

OUTPUTS	OUTCOMES
Do not reflect the changes to beneficiaries directly as the result of use of goods and services	Reflect the changes in the beneficiaries directly as the result of use of goods and services
Achieved in short term	Achieved in medium term
External factors do not limit ESRK managerial control (=MoE)	External factors may limit ESRK managerial control (=MoE) over the attainment of outcomes, but ESRK managers are still responsible for their overall attainment.
Generated by the use of inputs and the implementation of the activities	Generated by the delivery of the outputs (services and products)

Figure 6 shows that the 33 indicators are distributed relatively evenly across the five strategic objectives. However, there is a slight predominance of Strategic Objective I, "Improving System Resilience" (24%), and Strategic Objective II, "Increasing Energy Efficiency" (22%), compared to Objectives III, IV, and V, each of which accounts for 18% of the total."

Figure 6: Distribution of ESRK Indicators by Strategic Objective



3.3 M&E Matrix

The ESRK Monitoring and Evaluation (M&E) Matrix captures all 33 indicators outlined in the ESRK strategy. It defines the baseline, actual values, annual targets, frequency, and the structures/institutions responsible for data collection and analysis. As such, it serves as the primary tool for monitoring the implementation of the ESRK M&E System.

If the Results Framework is considered the "summary of the strategy," then the M&E Matrix can be regarded as the "summary of the ESRK M&E System."

This document spans ten years of ESRK implementation (2022–2031). For most outcome indicators, baseline data, typically referring to the year 2021, should be presented.

A color-coded system is used to highlight indicator performance year by year. The color is

applied exclusively to the column showing annual achievements and varies depending on the extent to which annual targets are met. The percentage for each of the three categories below is calculated by comparing the annual indicator value achieved against the annual target value:

	Achieved (100% or more of the annual target has been met)
	On track; (Between 75% and 99% of the annual target has been met; the final target is expected to be achieved)
	Delay/issue; solution requires the attention of the PIU (Less than 74% of the annual target has been met)

Table 3 : ESRK M&E Matrix format

Indi- ca- tors	UoM	Base- line values (2021)	Cumulative target value				Method of veri- fication	Source of verification	Fre- quency	Period of data collec- tion	Responsi- bility	
			Year 1		Year “n”						Data col- lect	Data anal
			Pla- nned	Achi- eved	Pla- nned	Achi- eved						
Strategic objective 1												
Strategic objective 2												
Strategic objective 3												
Strategic objective 4												
Strategic objective 5												

Currently, the ESRK does not include intermediate targets (e.g., annual or biannual), which makes it challenging to assess the annual performance of each indicator. To address this, it has been agreed that staff from the Department of Energy (MoE) will engage with the various stakeholders responsible for data collection to establish appropriate targets. These targets will be incorporated into the ESRK M&E Matrix (see Annex 1).

The M&E Matrix is updated twice a year and presented during each biannual meeting of the *Project Technical Committee* and the annual meeting of the *Project Steering Committee*. It is also attached as an annex in all periodic project reports (see Chapter 4).

3.5 Key M&E tasks

The M&E system of ESRK has been designed in order to accomplish three key M&E functions, which are: i) data collection; ii) data aggregation and iii) data analysis and data entry.

For each indicator, three key functions were identified to reliably determine its value:

- (i) **data collection** (at ESRK stakeholders' level);
- (ii) **data aggregation** (at ESRK stakeholders' level).
- (iii) **data analysis** (at ESRK M&E working group level) in order to compare the value actually achieved with the expected target value (presented in the M&E matrix), and proposing technical recommendations in order to improve the performance of the results targeted by the indicator.

These three functions are carried out by different stakeholders are presented in the next page in table 4).

The ESRK M&E system has been designed to fulfill three core monitoring and evaluation functions: (i) data collection, (ii) data aggregation, and (iii) data analysis.

For each indicator, these functions are clearly defined to ensure the reliable determination of its value:

- i) data collection at the level of ESRK stakeholders;
- ii) data aggregation also at ESRK stakeholder level;
- iii) data analysis by the ESRK M&E Working Group, which compares the actual results with the expected target values (as outlined in the M&E matrix) and formulates technical recommendations to enhance performance against the targeted results.

The roles and responsibilities of the different stakeholders in carrying out these three functions are detailed in Table 4 on the next page.

Table 4: Stakeholders involved in the 3 key functions of ESRK indicators

INDICATOR	COLLECT.	AGGREG.	ANALYSIS
1. System Average Interruption Duration Index (SAIDI)	KEDS	KEDS	KEDS
2. System Average Interruption Frequency Index (SAIFI)	KEDS	KEDS	KEDS
3. Level of flexible regulation capacity	KOSTT and ESCorp (in the future)	KOSTT and ESCorp (in the future)	KOSTT and DoE (MoE)
4. Distribution losses	DSO	DSO	ERO and DoE (MoE)
5. amount of vRES capacity that the network is able to handle/integrate	KOSTT	KOSTT	KOSTT
6. Number of refurbished lignite units	KEK	KEK	KEK
7. Number of phased out lignite units	KEK	KEK	KEK
8. Cyber response capabilities (identify, detect, respond and recover) in the energy sector	KOSTT ICT Department (still not existent)	KOSTT ICT Department (still not existent)	KOSTT ICT Department (still not existent)
9. GHG reduction in the power sector compared to 2019	KSA	KEPA (MESPI)	KEPA KSA
10. Renewable share in the electricity sector consumption (RES-E SHARE)	KSA	DRES (MoE)	DRES
11. Gradual introduction of carbon pricing	KEPA and Department of Environment (MESPI)	KEPA and Department of Environment (MESPI)	KEPA and Department of Environment (MESPI)
12. RES capacity in the electricity sector (including prosumers)	ERO	DRES (MoE)	DRES (MoE)
13 Prosumer Capacity	ERO	DRES (MoE)	DRES (MoE)
14 Installed vRES capacity in district heating system	ERO	DoE (MoE)	DoE (MoE)
15 Final energy consumption level	KAS	DSPRC (MoE)	DSPRC (MoE)
16 Cumulative energy savings achieved in the building sector	KEEF, DEE (MoE)	KEEF, DEE (MoE)	KEEF, DEE (MoE)
17 Total cumulative energy savings of public buildings	KEEF, DEE (MoE)	KEEF, DEE (MoE)	KEEF, DEE (MoE)
18 Total cumulative energy savings of residential & commercial buildings	KEEF, DEE (MoE)	KEEF, DEE (MoE)	KEEF, DEE (MoE)

INDICATOR	COLLECT.	AGGREG.	ANALYSIS
19 Number of near to zero energy buildings	Division of Spatial Planning, Building and Housing of MESPI.	Division of Spatial Planning, Building and Housing of MESPI.	Division of Spatial Planning, Building and Housing of MESPI.
20 Increasing capacity of co-generation in "TERMOKOS" (Prishtina)	Termokos	Termokos	Termokos, DoE (MoE)
21 Number of customers connected to the district heating systems (Prishtina & Gjakova)	Termokos	Termokos	Termokos, DoE (MoE)
22 Market integration with pan European electricity market	KOSTT	KOSTT	KOSTT
23 Offered cross-border capacity / nominal cross-border capacity	KOSTT	KOSTT	KOSTT
24 Status of BSA Phase-Out	KEK KEDS	DoE (MoE)	DoE (MoE)
25 Number of offers available for non-household customers	KEK KEDS	DSPRC (MoE)	DSPRC (MoE)
26 Annual number of new graduates obtaining academic degrees or professional qualifications in the field of energy and related fields	MESTI	MESTI	MESTI
27. Percentage of women employed in the energy sector	Senior Officer for Training and Gender Equality in MoE	Senior Officer for Training and Gender Equality in MoE	Human Resources Department (MoE)
28 Number of new schemes dedicated to vulnerable consumers	Department for Social Schemes in the MFLT	Department for Social Schemes in the MFLT	Department for Social Schemes in the MFLT
29 Number of programs supporting community projects in efficiency and self-consumption	KEEF, DoE (MoE)	KEEF, DoE (MoE)	KEEF DoE (MoE)
30 Price support scheme for vulnerable consumers	Department for Social Schemes in the MFLT	Department for Social Schemes in the MFLT	Department for Social Schemes in the MFLT
31 Energy-related awareness and information campaigns implemented	Institutions promoting an awareness and information campaign	DEE (MoE)	DEE (MoE)
32 Diversity and comparability of services offered to consumers	DSPRC (MoE)	DSPRC (MoE)	DSPRC (MoE)
33 Dust, NOX and SO2 emissions of lignite power plants	Kosovo Environmental Protection Agency (KEPA).	Kosovo Environmental Protection Agency (KEPA).	Kosovo Environmental Protection Agency (KEPA).

3.5.1 Data collection

KOSTT, KEEF, KEDS, KEK, are the primary stakeholders responsible for data collection, covering 15 of the 33 indicators. The remaining 18 indicators (55%) are collected by other institutions.

It is important to note that the Ministry of Economy is engaged through three distinct departments/services: Department of Energy, Strategic Planning Division and Regional Cooperation and Division for Training and Gender Equality

Figure 7: Stakeholders involved in the collection of ESRK indicators

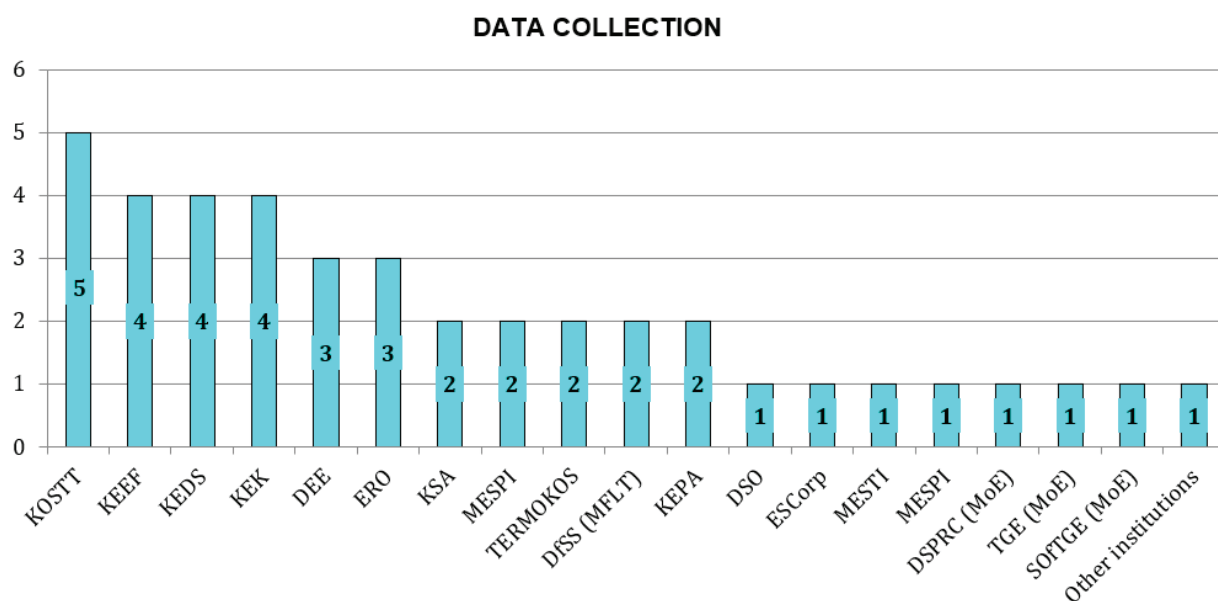
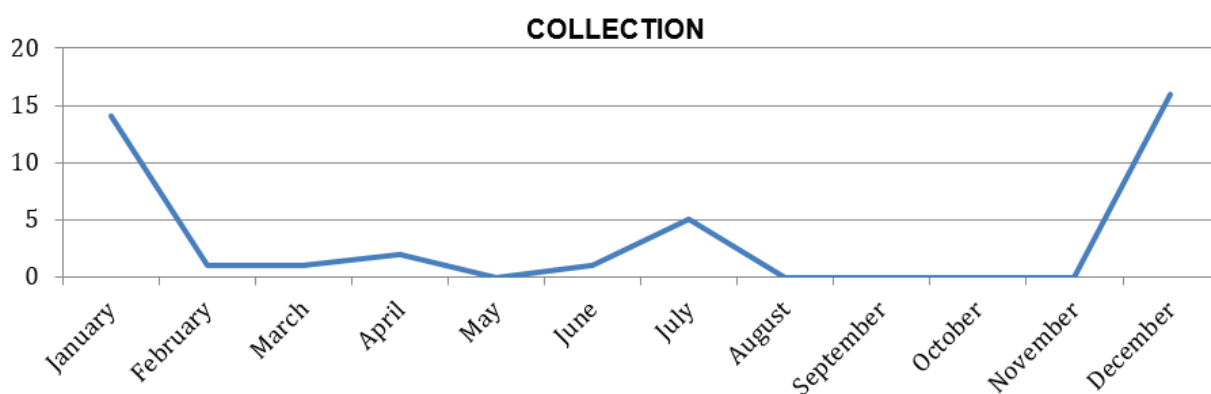


Figure 8 illustrates the monthly workload associated with indicator data collection, based on the 'frequency' column specified in each *Indicator Identity Sheet* (refer to Chapter 6 of this Manual).

A clear peak in activity is observed in January, as the majority of indicators are collected either at the end of the calendar year or in January of the following year (year $n+1$).

Figure 8: Collection period (aggregated) of ESRK indicators



On the other hand, Table 5 presents, for each indicator, the specific month(s) during which data collection should occur. This schedule is based on the information provided in the *Indicator Identity Sheet* (Chapter 5 of this Manual), outlining the collection period by indicator.

Table 5: Collection period (disaggregated by indicator)

INDICA-TOR	January	Febru-ary	March	April	May	June	July	August	Sep-tember	October	Novem-ber	Decem-ber
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
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3.5.1.1 Indicator Identity Sheet

For each indicator of the ESRK Results Framework, a standardized format called the Indicator Identity Sheet (IIS) has been developed. This tool is designed to harmonize data collection and analysis among ESRK stakeholders. (A full list of stakeholders, disaggregated by key M&E function, is provided in Table 4.).

The purpose of the IIS is to offer a clear, detailed, and standardized definition and methodology for indicator data collection and analysis, ensuring that all stakeholders share a common understanding and reference framework.

Each IIS consists of six sections:

- a) Type of in indicator: outcome or output;
- b) Definition of the indicator including clarification of the terms used and the information that can be disaggregated;
- c) Expected sampling method if required for its calculation;
- d) Method of data collection and data analysis explaining the different steps to collect, consolidate the data, establish the value of the indicator and the flow of information from data institution collectors (i.e. MASPI) to the MoE (including the forms for data collection, aggregation, analysis and dissemination);
- e) Frequency and period of data collection.
- f) Source of verification

Three tables are normally attached to each IIS: i) data collection table; ii) data aggregation table and iii) data presentation table.

All 33 Indicator Identity Sheets have been designed by Department of Energy staff (Ministry of Economy) under the supervision of the international external consultant recruited to support the setting up of the ESRK monitoring system.

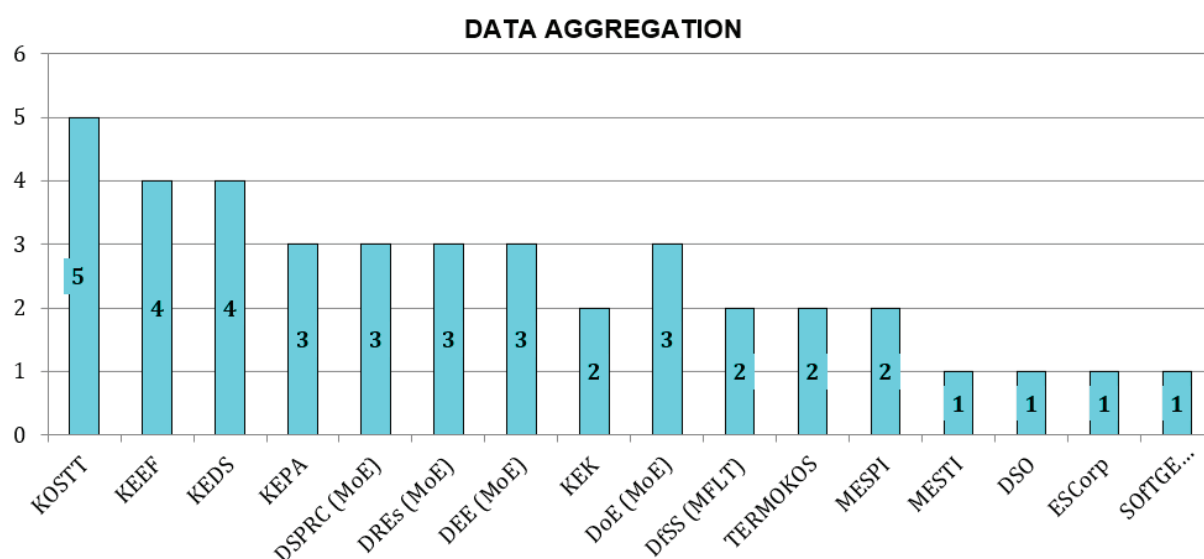
All IISs are presented in chapter 5 of this document.

3.5.2 Data aggregation

Almost one third of all ESRK indicators are aggregated³ by different departments of Ministry of Economy (DoE; DRES, DEE, DSRPC), if we consider also the senior officer of Training and Gender Equality, the same ministry covers almost 50% of the indicator. KEEF and KOSTT are also well involved in data aggregation (see Figure 9).

³ Please notice that same indicator in some cases are aggregated by more institutions.

Figure 9: Stakeholders involved in the aggregation of ESRK indicators



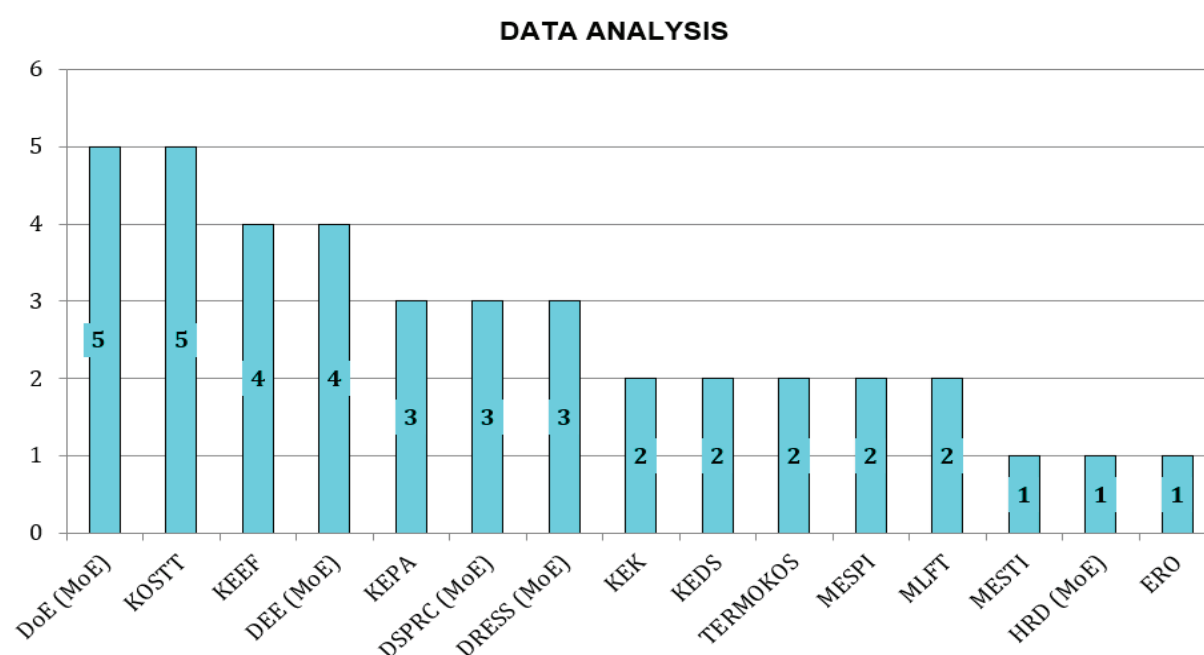
3.5.3 Data analysis

The indicator analysis function (see Figure10) is consistently carried out some key ESRK stakeholders, although the analysis of each indicator value will be discussed and improved during the regular meetings organized by the ESRK M&E working group.

Ideally considering the majority of the indicators are collected in December and January and the remaining ones between April and June, it is suggested that the ESRK M&E working group organizes two meetings a year (February and July) to analyze the data and propose eventual M&E recommendations in order to improve the performance of the strategy.

Figure 10 shows again how the Department of Energy is involved for data analysis in more than 50% of the ESRK indicators.

Figure 10: Key stakeholders involved in the analysis of the data



Indicator analysis involves the following steps:

1. Quality control of the collected data, focusing on: reliability of the information source, methodology used and accuracy of the data
2. Presentation of data using the tables provided in each Indicator Identity Sheet (IIS)
3. Preliminary analysis, including interpretation and identification of underlying causes
4. Assessment of deviations from planned outputs and outcomes as outlined in the ESRK logical framework
5. Outcome analysis (positive and/or negative) based on the data collected. This will be conducted during the bi-annual ESRK Working Group meetings held in February and July. To support understanding of the results, thematic maps will be developed to visualize the interventions carried out and the beneficiaries affected.

The analysis for each indicator will be compiled and presented in a dedicated format called the Indicator Analysis Sheet (IAS).

3.5.3.1 Indicator Analysis Sheet

The purpose of this tool is to enable a comprehensive analysis of the values achieved by each indicator, including:

- Evaluation of trends over time
- Comparison with the expected target values (as presented in the M&E matrix)
- Identification and analysis of any gaps (positive or negative)
- Formulation of technical recommendations to improve the performance of the results targeted by the indicator

While the final analysis and the proposal of operational recommendations for each indicator fall under the responsibility of the key stakeholders identified in the last column of Table 4, the completion of all Indicator Analysis Sheets (IAS) is typically carried out during the bi-annual ESRK M&E Working Group meetings.

The benefits of adopting the analysis sheet are:

- i) Presentation of the standardized analysis: this involves using the same format for all indicators throughout the intervention.
- ii) More in-depth analysis: this involves carrying out a real analysis of the data—on the causes, external factors, and influences due to the intervention. All ESRK M&E Working Group members must contribute to this.
- iii) Analysis on time: in principle, the analysis sheet should be completed within a few months after data collection (February for all indicators collected mainly between December and January, and July for all the remaining indicators).

The proposed format of each ESRK IAS comprises 7 sections:

- i) Data presentation: it is the explanation of the definition of the indicator and its relevance (both copied from the definition of the IIS) plus a table showing the annual performance of the ESRK indicator (annual achievement and target) copied from the M&E Matrix;
- ii) Trends (section shows the trend performance of the indicator compared to

previous years as graphs or tables) disaggregated by the key parameters listed in the definition of each IIS;

- iii) Key activities implemented: section listing as bullet points of key activities carried out as reported in the biannual ESRK progress reports which, of course, are related to the result/objective area covered by the indicator;
- iv) Problems/challenges: section listing the problems encountered during the implementation of the activities covered by the indicator presented or in data collection/analysis of the indicator);
- v) Data Analysis: section focuses on: i) comparison with annual targets proposed in the ESRK Results Framework; ii) comparison with previous years (trend analysis see. Section ii); and iii) analysis of the reasons for deviation (positive or negative) from the achievement of the final target. All data should be analysed using the criteria proposed in the definition of each IIS;
- vi) M&E recommendations: section listing the key recommendations proposed to improve the performance (if not good) or keep the performance (if already good) of the expected results/objective.
- vii) Status of the previous M&E recommendations: status of the M&E recommendations proposed the previous year: done, not done, ongoing). This section is not applicable in the first year the IAS are designed by the project.

The process design of each ESRK IAS will be composed by 5 steps:

- 1) Each ESRK institution responsible for data collection (see last column of Table 4) prepares a draft IAS in PowerPoint using a standard format comprising the seven sections mentioned above.
- 2) The draft of each ESRK IAS is presented and discussed during the bi-annual ESRK data analysis workshop organized by the ESRK M&E Working Group.
- 3) Based on the discussion with other members of the ESRK M&E Working Group involved/connected to the indicator, the IAS is improved and M&E recommendations are approved/adopted. This step is composed of two sub-steps:
 - 3.1) Some analysis and M&E recommendations are incorporated into the ESRK Progress Implementation Report.
 - 3.2) Some key M&E recommendations may require approval from competent authorities before implementation.
- 4) Key analysis and recommendations are copied into the ESRK progress reports.
- 5) The M&E Matrix is updated bi-annually accordingly and attached to the bi-annual ESRK progress report.

3.7 Mid Term Review of Action Plan and Final evaluation

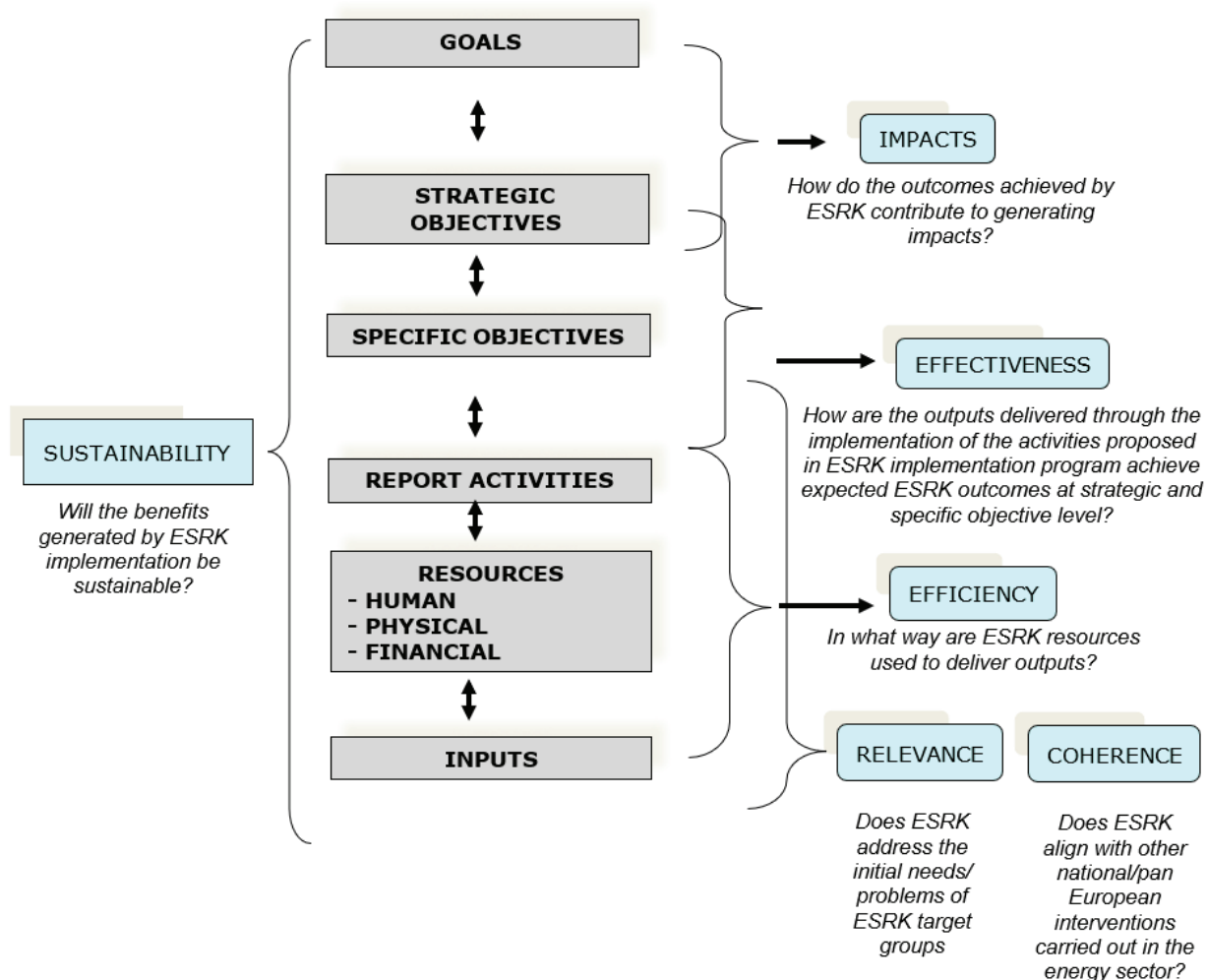
According to the Law on Energy a review of the Strategy will be carried out every three years, in order to review the target achievements and make the necessary adjustments. The review process will elaborate on areas where the Energy Strategy set the main direction, but a final target or action was not elaborated, as the necessary assessment or feasibility study was not finalized. This will be also followed by the evaluation of the Action plan.

The Midterm review shall evaluate all strategic and specific objectives, along with their indicators. Any derogation will be assessed, and corrected measures and actions defined in order to enable target achievement.

The evaluation process will be carried out to measure implementation performance under 5 key criteria:

- ✓ Relevance: the appropriateness of ESRK objectives to the problems that it was supposed to address, and to the physical and policy environment within which it operates. It includes an assessment of the quality ESRK preparation and design;
- ✓ Efficiency: when the ESRK results have been achieved at reasonable cost, i.e. how well inputs/means have been converted into activities, in terms of quality, quantity and time, and the quality of the results achieved. This generally requires comparing alternative approaches to achieving the same results, to see whether the most efficient process has been adopted;
- ✓ Effectiveness: an assessment of the contribution made by results to achievement of the Strategic and Specific Objectives, and how external factors have affected ESRK achievements.
- ✓ Impact: the effect of ESRK on its wider environment, and its contribution to the four ESRK goals.
- ✓ Sustainability: an assessment of the likelihood of benefits produced by ESRK to continue to flow after the closure of the strategy, and with particular reference to factors of ownership by beneficiaries, policy support, economic and financial factors, socio-cultural aspects, gender equality, appropriate technology, environmental aspects, and institutional and management capacity.

Figure 11: Evaluation Criteria in ESRK Evaluation



4. REPORTING

The key reports to be prepared are intended to present the progress of the Energy Strategy of the Republic of Kosovo (2022–2031):

- a)** Six-month ESRK progress report (covering January to June of each ESRK implementation year)
- b)** Annual ESRK progress report (covering January to December of each ESRK implementation year)

Both reports are prepared by the ESRK Working Group under the coordination of the Department of Energy (Ministry of Economy).

The six-month reports present the achievements of activities implemented in the first semester and the status of ESRK indicators collected between January and June. These are based on discussions, analysis, and recommendations raised by the ESRK M&E Working Group held in July.

The annual report presents the overall status of all activities implemented during the year and the status of ESRK indicators collected between July and December. These are based on discussions, analysis, and recommendations raised by the M&E Working Group held in January of the following year.

It is proposed that both reports be digitized, with most of the information automatically copied from the ESRK Multi-Annual Implementation Report (see Chapter 5).

The reporting format for both reports comprises four major sections and two key annexes, as proposed below:

1. SUMMARY AND CONTEXT
2. CURRENT STATE OF ESRK STRATEGIC OBJECTIVES (reporting results achieved, (outputs, outcomes and eventually impacts) as measured by their corresponding indicators, against agreed baseline and target and relevant data sources. This chapter should analysis the reasons for the deviation of progress from the main ESRK outputs and outcomes planned This analysis of the outcome (positive and/ or negative) should arise from the elements reflected should be based on the bi-annual ESRK working Group meetings (February and July).
3. PROBLEMS AND RISKS AND MEASURES TAKEN (reporting: a) the majors problems encountered in the implementation of the activities and/or in the data collection of ESRK indicators b) the external factors (risks) which could / have impacted the most in the delivery of the planned outputs and / or in in the achievement of the expected outcomes)
4. CONCLUSIONS AND RECOMMENDATIONS (based on the analysis of the ESRK strategic objectives (chapter 2) and the problems and risks identified (chapter 3), this chapter should report the major recommendations raised during the bi-annual ESRK Working Group meetings in order to improve the performance (if not good) or keep the performance (if already good) of the expected results/objectives
5. ANNEXES
 - 5.1 PROGRESS REPORT MATRIX FOR THE PERIOD (this matrix is based on the format of the ESRK Implementation Program, plus a few additional columns to tracks the achievements of ESRK indicators in the period considered and the status on the delivery of the planned outputs. This format of the matrix is proposed in table 6.
 - 5.2 Updated Monitoring & Evaluation Matrix (M&E Matrix).

Table 6: Format of the Annex 1 "PROGRESS REPORT MATRIX FOR THE PERIOD"

No.	Strategic and specific objectives, indicators and actions	Base-line value	Final Target (2031)	Annual Values								Key findings in data analysis ⁴ (year n)	Key implementable M&E Recommendations ⁵ (year n)								
				Planned 2022		Achieved 2022		Planned 2023		Achieved 2023				Planned 2024		Achieved 2024		Planned 2025		Achieved 2025	
1	STRATEGIC OBJECTIVE 1																				
1	Indicator 1 for Strategic objective 1																				
2	Indicator 2 for Strategic objective 1																				
1.1	Specific Objective 1.1																				
1	Indicator 1 for Specific Objective 1.1																				
2	Indicator 1 for Specific Objective 1.1																				
No.	Action	Dead-line		BUDGET				Source of funding	Leading and supporting institution	Output	Implementation progress (activities and related outputs) covering the period of the report (year n)										
				2022	2023	2024	2025														
1.1.1	Activity 1.1																				
1.1.2	Activity 1.1																				

⁴ Copied from the major data analysis findings proposed in the Indicator Analysis Sheet prepared in the last M&E working group meeting

⁵ Copied from the key M&E recommendations proposed in the Indicator Analysis Sheet prepared in the last M&E working group meeting

5. DIGITIZATION OF THE M&E SYSTEM

5.1 Digitization of the ESRK indicators

The aggregation of all ESRK indicator data is proposed to be digitized, following the tables outlined in each Indicator Identity Sheet presented in Chapter 6 of this M&E manual. Table 7 below presents the specific table associated with each indicator to be digitized, along with the responsible institution in charge of data entry using the ESRK software.

Table 7: IIS tables to be digitized for each ESRK indicator

INDICATOR	TABLES TO BE DIGITIZED	INSTITUTION RESPONSIBLE FOR DATA ENTRY
1. System Average Interruption Duration Index (SAIDI)	1.1	KEDS
2. System Average Interruption Frequency Index (SAIFI)	2.1	KEDS
3. Level of flexible regulation capacity	3.2	KOSTT
4. Distribution losses	4.3, 4.4	KEDS
5. Amount of vRES capacity that the network is able to handle/integrate	5.3	KOSTT
6. Number of refurbished lignite units	6.2, 6.3	KEK
7. Number of phased out lignite units	7.1	KEK
8. Cyber response capabilities (identify, detect, respond and recover) in the energy sector	8.3	KOSTT
9. GHG reduction in the power sector compared to 2019	9.4	KEPA (MESPI)
10. Renewable share in the electricity sector consumption (RES-E SHARE)	10.6	DRES (MoE)
11. Gradual introduction of carbon pricing	11.1	DoEn (MESPI)
12. RES capacity in the electricity sector (including prosumers)	12.4	DRES (MoE)
13 Prosumer Capacity	13.3	DRES (MoE)
14 Installed RES capacity in district heating system	14.2	DHCs
15 Final energy consumption level	15.2	DSPRC (MoE)
16 Cumulative energy savings achieved in the building sector	16.7	DEE (MoE) and KEEF
17 Total cumulative energy savings of public buildings	17.6	DEE (MoE) and KEEF
18 Total cumulative energy savings of residential & commercial buildings	18.4	DEE (MoE) and KEEF
19 Number of near to zero energy buildings	19.3	DSPBH (MESPI)
20 Increasing capacity of co-generation in "TERMOKOS" (Prishtina)	20.1	DH Termokos
21 Number of customers connected to the district heating systems (Prishtina & Gjakova)	21.1	DHCs Termokos & Gjakova
22 Market integration with pan European electricity market	22.1	KOSTT
23 Offered cross-border capacity / nominal cross-border capacity	23.5	KOSTT
24 Status of BSA Phase-Out	24.1	DES (MoE)
25 Number of offers available for non-household customers	25.1	DES (MoE)
26 Annual number of new graduates obtaining academic degrees or professional qualifications in the field of energy and related fields	26.2	MESTI
27. Percentage of women employed in the energy sector	27.2, 27.3	DSPRC (MoE)

INDICATOR	TABLES TO BE DIGITIZED	INSTITUTION RESPONSIBLE FOR DATA ENTRY
28 Number of new schemes dedicated to vulnerable consumers	28.2, 28.3	MFLT
29 Number of programs supporting community projects in efficiency and self-consumption	29.2	DEE (MoE) or KEEF
30 Price support scheme for vulnerable consumers	30.4	MFLT
31 Energy-related awareness and information campaigns implemented	31.3	DSPRC (MoE)
32 Diversity and comparability of services offered to consumers	32.1	DES (MoE)
33 Dust, NOX and SO2 emissions of lignite power plants	33.4	KEPA (MESPI)

5.2 Digitization of the ESRK implementation multi annual program

The ESRK Working Group enters all information concerning the new multi-annual program into a digitized table using the ESRK software. This table is used to present the proposals for each strategic objective, including: all related indicators and annual targets, the planned activities, annual budget, source of funding, responsible institutions, and planned outputs.

The information digitized in the ESRK implementation program will be automatically transferred into the progress report.

Table 8: format of the ESRK implementation programme (to be digitized through ESRK software)

No.	Strategic and specific objectives, indicators and actions	Baseline value		ANNUAL TARGETS				OUTCOME	
				YEAR 1	YEAR 2	YEAR 3	YEAR 4		
1	STRATEGIC OBJECTIVE 1								
1	Indicator 1 for Strategic objective 1								
2	Indicator 2 for Strategic objective 1								
1.1	Specific Objective 1.1								
1	Indicator 1 for Specific Objective 1.1								
2	Indicator 1 for Specific Objective 1.1								
No.	Activity	BUDGET				Source of funding	Leading and supporting institution	Out-puts	Reference to documents
		2022	2023	2024	2025				
1.1.1	Activity								
1.1.2	Activity								

5.3 Digitization of the ESRK progress reports

The annual and six-month reports can be easily digitized if the ESRK implementation program has previously been digitized, as most of the information remains the same. The only additional data captured in these reports are:

1. Actual values collected during the implementation period covered by the report (based on the data collection proposed in Table 5).
2. Key findings copied by DoE from data analysis and implementable M&E recommendations, presented as bullet points copied from the Indicator Analysis Sheet prepared by the M&E Working Group during the bi-annual data analysis workshop.
3. Annual implementation progress, detailing the execution of planned annual activities and related outputs during the reporting period. These progress entries are digitized through the ESRK software either by the institutions responsible for implementing the activities or by the Department of Education (DoE) within the Ministry of Education (MoE). This is because the DoE may revise or enhance the contributions submitted by the implementing institutions. Therefore, it is essential that these cells remain editable by the DoE to ensure accurate and updated reporting.

All contributions to the digitization of the ESRK progress report are summarized in Annex 1, and presented in Table 9 (see next page).

Table 9: Different contributions to the digitalization of Annex 1 of the ESRK progress report

No.	Strategic and specific objectives, indicators and actions	Baseline value	Final target (2031)	Annual Values								Key data analysis facts (year n)	Key implementable M&E Recommendations (year n)
				Planned 2022	Achieved 2022	Planned 2023	Achieved 2023	Planned 2024	Achieved 2024	Planned 2025	Achieved 2025		
1	STRATEGIC OBJECTIVE 1												
1	Indicator 1 for Strategic objective 1												
2	Indicator 2 for Strategic objective 1												
1.1	Specific Objective 1.1												
1	Indicator 1 for Specific Objective 1.1												
2	Indicator 1 for Specific Objective 1.1												
No.	Action	Deadline		BUDGET				Source of funding	Leading and supporting institution	Output	References to documents	Implementation progress (activities and related outputs) covering the period of the report (year n)	
				2022	2023	2024	2025						
1.1.1	Activity 1.1												
1.1.2	Activity 1.1												

Data automatically copied by the software from the ESRK Implementation program

Data copied by DoE from the Indicator Analysis Sheet prepared by the ESRK working group during the bi-annual data analysis workshop

These progress entries are digitized through the ESRK software either by the institutions responsible for implementing the activities or by the Department of Education (DoE) within the Ministry of Education (MoE). This is because the DoE may revise or enhance the contributions submitted by the implementing institutions. Therefore, it is essential that these cells remain editable by the DoE to ensure accurate and updated reporting. Annual value of ESRK indicators automatically generated through ESRK software

6 INDICATOR IDENTITY SHEETS

6.1 SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI)

Type of Indicator: Outcome Indicator

1. DEFINITION

The *System Average Interruption Duration Index (SAIDI)* represents the cumulative average duration of power supply interruptions experienced by customers in a given system over a specific period. It is measured in hours per year.

SAIDI is calculated as the total duration of interruptions affecting all consumers, divided by the total number of consumers served over the same period.

This index provides a measure of continuity of electricity supply, directly related to the availability of the distribution system, and reflects the average duration of the service interruptions experienced by each customer per year. Power supply interruptions in the distribution system are recorded and monitored by the Distribution System Operator (DSO). According to the Electricity Service Quality Standards Rule, outages are classified as:

- Short interruptions: ≤ 3 minutes;
- Long interruptions: > 3 minutes

Only long interruptions are included in SAIDI reporting, in line with the Rule and international standards. Long interruptions are further categorized into:

- Planned interruptions
- Unplanned interruptions

SAIDI is a key performance indicator (KPI) for the DSO, reflecting how efficiently the electricity network operates and how frequently or for how long consumers experience power outages.

The indicator is calculated using the following formula:

SAIDI: System Average Interruption Duration Index

SAIDI is calculated according to the formula given below;

$$SAIDI = \frac{\sum_{i=1}^n U_i t_i}{U_{tot}}$$

t_i	Duration of the i_{th} interruption
U_i	Number of customers affected by the i_{th} interruption
U_{tot}	Total number of customers served*
n	Total number of the interruptions

SAIDI is disaggregated by voltage levels (0.4 kV, 10(20) kV and 35 kV) and by interruption type (Planned and Unplanned).

2. SAMPLING METHOD

No sampling is applied. The SAIDI value is calculated using complete data from all interruptions and all affected consumers in the system.

3. METHOD OF DATA COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The Kosovo Electricity Distribution Company (KEDS) collects data such as:

- Outage start and end times;
- Number of consumers affected;
- Total number of active consumers;
- Total number of outage events.

3.2 KEDS calculates the SAIDI value using the above data and presents it in the format defined in table 1.1.

3.3 KEDS enters the data into the ESRK software. Data presentation table is automatically generated by ESRK software (same format as table 1.1)

3.4 The value analysis is carried out by KEDS. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by DoE (MoE) in liaison with other ESRK M&E working group members.

3.5 The value of the indicator based on table 1.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software.

3.6 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance

4. FREQUENCY AND REPORTING PERIOD

Data are collected on a monthly basis and results are reported biannually in July and January of the following year (year n+1).

5. SOURCE OF VERIFICATION

The primary source of verification is the KEDS data presentation table.

Table 1.1: Data presentation table (ESRK software)

DESCRIPTION	VOLTAGE LEVEL			SAIDI TOTAL (hours/year)
NIVELI I TENSIONIT / VOLTAGE LEVEL	0.4kV	10(20) kV	35kV	
SAIDI planned (hours in decimal)				
SAIDI unplanned (hours in decimal)				
Total				

6.2 SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI)

Indicator Type: Outcome Indicator

1. DEFINITION

The System Average Interruption Frequency Index (SAIFI) represents the average number of interruptions experienced by customers in a given system over a specified period. It is measured in interruptions per customer per year.

SAIFI is calculated as the total number of interruptions affecting all consumers, divided by the total number of consumers served during the same period.

This index is a key performance indicator (KPI) for the Distribution System Operator (DSO), as it helps identify recurring network issue, improve consumer service, and guide strategic investment in network reliability.

This index provides a measure of continuity of electricity supply, directly related to the availability of the distribution system, and reflects the number of the service interruptions experienced by each consumer within a year. Power supply interruptions in the distribution network are recorded and monitored by the Distribution System Operator (DSO). According to the Electricity Service Quality Standards Rule, outages are classified as:

- Short interruptions: ≤ 3 minutes;
- Long interruptions: > 3 minutes;

Only long interruptions are included in SAIFI reporting, in line with the Rule and international standards. Long interruptions are further categorized into:

- Planned interruptions
- Unplanned interruptions

The indicator is calculated using the following formula:

SAIFI: System Average Interruption Frequency Index

SAIFI is calculated according formula given below;

$$SAIFI = \frac{\sum_{i=1}^n U_i}{U_{tot}}$$

U_i	Number of customers affected by the i_{th} interruption
U_{tot}	Total number of customers served*
n	Total number of the interruptions

SAIFI is disaggregated by voltage levels (0.4 kV , 10(20) kV and 35 kV) and by interruption type (Planned and Unplanned).

2. SAMPLING METHOD

No sampling is applied. The SAIFI value is calculated using complete data from all interruptions and all affected consumers in the system.

3. METHOD OF DATA COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

- 3.1 The Kosovo Electricity Distribution Company (KEDS) collects data such as:
 - Outage start and end times;
 - Number of consumers affected;
 - Total number of active consumers;
 - Total number of outage events;
- 3.2 KEDS calculates the SAIFI value using the above data and presents it in the format defined in table 2.1
- 3.3 KEDS enters the data into the ESRK software. Data presentation table is automatically generated by ESRK software (same format as table 2.1).
- 3.4 The value analysis is carried out by KEDS. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by DoE (MoE) in liaison with other ESRK M&E working group members.
- 3.5 The value of the indicator based on table 2.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software.
- 3.6 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance

4. FREQUENCY AND PERIOD OF COLLECTION

Data are collected on a monthly basis and results are reported bi-annually in July and January of the following year (year n+1).

5. SOURCE OF VERIFICATION

The primary source of verification is the KEDS data presentation table.

Table 2.1: Data presentation table (ESRK software)

DESCRIPTION	VOLTAGE LEVEL			SAIFI TOTAL (count per year)
NIVELI I TENSIONIT / VOLTAGE LEVEL	0.4kV	10(20) kV	35kV	
SAIFI planned (count)				
SAIFI unplanned (count)				
Total				

6.3 LEVEL OF FLEXIBLE REGULATION CAPACITY

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the capacity amount of secondary aFRR (automatic Frequency Restoration Reserve which is a reserve in the power grid that helps to keep the grid frequency stable) and tertiary mFRR (manual Frequency Restoration Reserve that helps to stabilize the frequency of the electricity grid) reserves that are available for Kosovo Transmission System Operator (KOSTT) to use or activate for system flexibility. Transmission System Operator can activate aFRR automatically after 30 seconds. If the grid imbalance persists after 12.5 minutes, the mFRR supports or replaces aFRR gradually. The unit of measurement for this indicator is megawatt (MW).

Currently, Kosovo provides 5 MW of primary reserves using domestic energy production from KEK (Kosovo Energetic Corporation)⁶. However, it lacks the capacity to independently provide secondary and tertiary reserves, relying on the Albania Transmission System Operator (TSO) to meet these needs. To address this gap, two battery energy storage systems (BESS) will be implemented in the future. These systems will enable Kosovo to substitute its primary reserves and independently provide secondary (aFRR) and tertiary (mFRR) reserves. KOSTT will secure a lithium-ion (or equivalent advanced technology) BESS for aFRR services, while a newly established public entity, the Energy Storage Corporation (ESCorp), will own and manage another BESS to provide mFRR services and perform energy arbitrage (storing surplus electricity, from sources including renewables, when there's ample supply and lower prices and then providing that energy to the grid when demand is greater and prices are therefore higher). Investing in these technologies will enhance system flexibility, support the integration of variable renewable energy sources, and ensure compliance with ENTSO-E's (European Network of Transmission System Operators for Electricity which represents 40 electricity transmission system operators (TSOs) from 36 countries across Europe, thus extending beyond EU borders; established and given legal mandates by the EU's Third Package for the Internal energy market in 2009, which aims at further liberalizing the gas and electricity markets in the EU) reserve requirements. It's important to consider that despite these advancements, the anticipated growth in demand for ancillary services, suggests that Kosovo will continue cooperation with Albania.

The value of this indicator is calculated through the following formula:

$$D = \sum_{i=1}^n (s + t + is + ts)$$

where:

D = total capacity amount of secondary aFRR and tertiary mFRR reserves available for KOSTT (categorized by domestic and international capacity reservation contracts) to use or activate for system flexibility

s= Domestic aFRR (MW) in year "n" of ESRK implementation period

t = Domestic mFRR (MW) in year "n" of ESRK implementation period

is = International aFRR (MW) in year "n" of ESRK implementation period

⁶ The current baseline of 5 MW reflects only domestic primary reserves and excludes secondary and tertiary reserves provided through the Kosovo-Albania agreement. This distinction should be clearly documented to avoid misunderstandings and ensure transparency throughout the reporting

ts = International mFRR (MW) in year “n” of ESRK implementation period

This indicator should be disaggregated by international vs domestic contracts and type of service (aFRR and mFRR).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 KOSTT and ESCorp (in the future) will collect data on the reserve capacity (in MW) held for secondary (aFRR) and tertiary (mFRR) reserves, categorized by domestic and international capacity reservation contracts. For now there are displayed only international reserves since they are the only one available. In the future the data collection form is supposed to change after

3.2 KOSTT and ESCorp (in the future) will collect this data (see data collection table - screenshot 3.1)

3.3 KOSTT and ESCorp (in the future) enter the data using the ESRK software (see table 3.2). Data presentation table is automatically generated by ESRK software.

3.4 The value analysis is carried out by the KOSTT and Department of Energy (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.5 The value of the indicator based on table 3.2 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.6 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Official excel sheets published on the website of kostt.com

Table 3.1: Data collection table, a screenshot of the excel sheet of amount of contracted reserves published on the webpage <https://kostt.com/Transparency/Balancing#collapseExample>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Data Date	Ora Hour	Rezerva aFRR (aFRR Reserve) blerje (buying) (MW)	Çmimi i rezervës aFRR (aFRR Reserve Price) blerje (buying) (Euro/MW)	Rezerva aFRR shitje selling (MW)	Çmimi i rezervës aFRR (aFRR Reserve Price) shitje selling (Euro/MW)				Data Date	Ora Hour	Rezerva mFRR (mFRR Reserve) blerje (buying) (MW)	Çmimi i rezervës mFRR (mFRR Reserve Price) blerje (buying) (Euro/MW)	Rezerva mFRR shitje selling (MW)	Çmimi i rezervës mFRR (mFRR Reserve Price) shitje selling (Euro/MW)
35797	12/31/2024	12	25	53.77	25	54.78				12/31/2024	12	150	5.48	30	2.45
35798	12/31/2024	13	25	53.77	25	62.88				12/31/2024	13	150	5.48	30	2.45
35799	12/31/2024	14	25	53.77	25	62.88				12/31/2024	14	150	5.48	30	2.45
35800	12/31/2024	15	25	53.77	25	62.88				12/31/2024	15	150	5.48	30	2.45
35801	12/31/2024	16	25	53.77	25	62.88				12/31/2024	16	150	5.48	30	2.45
35802	12/31/2024	17	25	53.77	25	63.28				12/31/2024	17	150	5.48	30	2.45
35803	12/31/2024	18	25	53.77	25	54.78				12/31/2024	18	5	5.48	30	2.45
35804	12/31/2024	19	25	53.77	25	54.78				12/31/2024	19	150	5.48	30	2.45
35805	12/31/2024	20	25	53.77	25	54.78				12/31/2024	20	150	5.48	30	2.45
35806	12/31/2024	21	25	53.77	25	54.78				12/31/2024	21	150	5.48	30	2.45
35807	12/31/2024	22	25	60.27	25	54.78				12/31/2024	22	150	5.48	30	2.45
35808	12/31/2024	23	25	65.27	25	73.28				12/31/2024	23	150	5.48	30	2.45
35809	12/31/2024	24	25	65.27	25	73.28				12/31/2024	24	150	5.48	30	2.45
35810	1/1/2025	1	0	0	0	0				1/1/2025	1	196	8.52	50	4.2
35811	1/1/2025	2	0	0	0	0				1/1/2025	2	196	8.52	50	4.2
35812	1/1/2025	3	0	0	0	0				1/1/2025	3	196	8.52	50	4.2
35813	1/1/2025	4	0	0	0	0				1/1/2025	4	196	8.52	50	4.2
35814	1/1/2025	5	0	0	0	0				1/1/2025	5	196	8.52	50	4.2
35815	1/1/2025	6	0	0	0	0				1/1/2025	6	196	8.52	50	4.2
35816	1/1/2025	7	0	0	0	0				1/1/2025	7	196	8.52	50	4.2
35817	1/1/2025	8	0	0	0	0				1/1/2025	8	196	8.52	50	4.2
35818	1/1/2025	9	0	0	0	0				1/1/2025	9	196	8.52	50	4.2
35819	1/1/2025	10	0	0	0	0				1/1/2025	10	10	8.52	50	4.2
35820	1/1/2025	11	0	0	0	0				1/1/2025	11	10	8.52	50	4.2
35821	1/1/2025	12	0	0	0	0				1/1/2025	12	50	8.52	50	4.2
35822	1/1/2025	13	0	0	0	0				1/1/2025	13	50	8.52	50	4.2
35823	1/1/2025	14	0	0	0	0				1/1/2025	14	35	8.52	50	4.2

Table 3.2 : Data presentation table (to be digitised through ESRK software)

	Domestic Reserves		International Re-serves		Total capacity amount of secondary aFRR and tertiary mFRR reserves available for KOSTT to use or activate for system flexibility (columns A+B+C+D)
	aFRR	mFRR	aFRR	mFRR	
	A	B	C	D	
Level of flexible regulation capacity					

6.4 DISTRIBUTION LOSSES

Indicator Type: Outcome Indicator

1. DEFINITION

In energy systems, losses refer to the differences between the electricity injected into the system and the electricity billed to end consumers. This represents the amount of electricity injected into the network that is consumed but not billed to end consumers. Total losses consist of two components: technical losses and non-technical (commercial) losses. Technical losses occur naturally as electricity flows through system elements such as distribution lines, transformers, and metering systems, and commercial losses, which result from unauthorized energy usage by consumers.

The Distribution System Operator (DSO) continuously invests in the distribution network based on the allocated investment budget approved by the Energy Regulatory Office, and this increases the operation of the distribution system to provide reliable electricity supply.

The Distribution System Operator - KEDS, is responsible for the operation and maintenance of the distribution system. The distribution network consists of voltage lines 35 kV, 10(20) kV, 6 kV and 0.4 kV, as well as the corresponding substations of the level 35/x kV, 10(20)/0.4 kV and 6/0.4 kV.

Investment projects are selected by analyzing the need for investments in the most critical areas, evaluating them through priority criteria to achieve the main investment objectives, such as: i) reduction of technical and non-technical losses, ii) reliable and better quality electricity supply and iii) increasing existing network capacities and modernizing the network.

Distribution losses in Kosovo remain high, and reducing them is crucial for improving electricity distribution. Lowering loss levels enhances supply quality, energy efficiency, flexibility, and supports the integration of renewable energy sources. Key factors influencing loss reduction include investments, legislation, and monitoring. This indicator is important in order to track the success of lowering of the distribution losses. Kosovo has improved dramatically in terms of lowering the distribution losses compared to the period after war (after 1999 the distribution losses at some point were ~45%). Regarding distribution networks, annual electricity losses are on average at about 2 to 12% in the European Union countries according to ERGEG (The European Regulators' Group for electricity and gas) Position Paper on Treatment of Losses by Network Operators. The baseline distribution losses (2021) are 18.48 of which (16.4% are allowed due to the old technology and not so efficient electrical distribution infrastructure and 2.08% not allowed) meanwhile in the 2024 distribution losses are 14.5% which already shows a progress within such a short period of time. The actual situation in Republic of Kosovo is close to completely eliminate the nontechnical losses with actions of eliminating these undesirable losses therefore it won't be necessary to calculate it in the future. However, the goal is to reduce even more the distribution losses at 9% by 2031 which would put Republic of Kosovo on an European Union level.

The value of the indicator is calculated through the following formula:

$$D = \frac{(e - b)}{e} * 100 (\%)$$

where:

D = distribution losses

e = Energy entering to distribution in year “n” of ESRK implementation period.

b = electricity billed to end consumers in year “n” of ESRK implementation period

An example: it was produced (electricity entering distribution) 100 MWh on a period of one year. During that year, if 89 MWh are billed and 11 MWh not billed then the distribution losses would be:

$$D = \frac{100-89}{100} * 100 = \frac{11}{100} * 100 (\%) = 11\%.$$

This indicator can be disaggregated by distribution losses in percentage of the overall electricity production.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

Data collection and analysis are made by Losses Department in KEDS. The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Measuring the energy entering from TSO to the DSO at the border points and reading or transferring the measurements to the remote reading system and data are stored into their databases.

3.2 Data collection for billing of consumers is done monthly reading of consumers through direct or remote reading of the consumer's meter and data are stored into respective databases.

3.3 Data for “entering energy on DSO” and “billing energy of costumers” are stored in their respective databases, including the date of reading (time of reading) and the energy reading value.

3.4 DSO enters the data into the ESRK software. Data presentation table is automatically generated by ESRK software.

3.5 The value analysis is done by the KEDS in liaison with DoE. Data analysis will focus on: i) comparison with expected targets; ii) the analysis of the value of the indicators based on the criteria used for decomposition (see the definition of this SII); iii) the reasons for any deviation (positive or negative) from the expected targets; and iv) proposing M&E recommendations to improve the performance of the target results. All these aspects will be taken into account in the Indicator Analysis Sheet (IAS) and it should be drafted by the Distribution System Operator - KEDS for in collaboration with other members of the working group for M&E SERK.

3.6 The value of the indicator based on table 4.4 is automatically archived in the M&E Matrix in electronic format through the ESRK software and presented in the ESRK Semiannual Report prepared by the Division for Strategic Planning and Regional Cooperation of the Department of Energy (DoE).

3.7 The Indicator Analysis Sheet is presented and discussed at the next annual meeting of the ESRK M&E working group. All M&E recommendations emerging from this meeting should be implemented in the following year to improve SERK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The data is collected monthly since the billing is on monthly basis, however it is presented in January of the following year (year n+1).

5. SOURCE OF VERIFICATION

Annual Report of ERO for Electricity and thermic energy.

Table 4.1 Data collection table (Annual Report of ERO for Electricity and thermic energy which is an estimation of the losses)

(MWh)	Gjithsejt	Janar	Shkurt	Mars	Prill	Maj	Qershor	Korrik	Gusht	Shtator	Tetor	Nëntor	Dhjetor
Kërkesa e Distribucionit	6,115,262	764,815	658,349	599,907	512,962	394,820	355,861	386,441	377,633	350,592	450,441	539,809	723,630
HC Distributive dhe BRE	197,600	14,109	14,658	21,122	26,992	30,935	26,032	12,016	7,527	8,579	9,545	11,085	15,000
HC distributive për konsum universal	180,107	13,195	13,649	19,538	24,660	27,773	23,452	10,746	6,720	7,639	8,600	10,147	13,990
Kërkesa totale e Distribucionit	6,295,369	778,010	671,998	619,444	537,622	422,594	379,313	397,187	384,354	358,231	459,041	549,956	737,619
Dërgimi													
110 kV	0												
35 kV	62,156	5,785	5,248	5,136	4,744	5,218	5,007	5,213	5,090	4,821	5,110	5,152	5,632
10 kV	503,659	45,155	42,841	45,530	38,371	37,586	37,313	40,313	39,304	37,827	42,086	46,010	51,322
0.4 kV	503,900	49,597	45,416	46,535	39,510	38,977	38,598	40,751	38,381	34,705	38,409	42,552	50,469
0.4/II kV	821,396	87,977	81,435	76,218	61,813	56,963	56,759	66,143	66,488	49,053	60,840	71,518	86,189
Amvisnia	3,292,975	435,823	362,400	319,869	288,101	221,584	186,534	196,705	198,262	174,513	232,398	281,206	395,581
Ndriçimi publik	41,047	4,468	3,599	3,659	2,940	2,791	2,578	2,555	2,928	3,340	3,994	3,991	4,204
Rrjeti Distributiv neto	5,225,133	628,806	540,940	496,947	435,478	363,119	326,789	351,680	350,453	304,259	382,837	450,429	593,397
Humbjet teknike	801,677	115,539	96,368	81,878	69,073	48,050	39,996	40,736	31,683	43,473	53,754	71,150	109,978
Humbjet komerciale	268,560	33,665	34,690	40,620	33,072	11,424	12,527	4,772	2,218	10,500	22,450	28,378	34,244
Total humb. ne Rrjetin e Shperndarjes	1,070,236	149,204	131,058	122,497	102,145	59,474	52,524	45,507	33,900	53,972	76,204	99,528	144,223

Table 4.2 Table of reporting for distribution losses – data collection table

Month	EED	Energy Billed	Technical Losses		Commercial Losses		Total Losses	
	MWh	MWh	MWh	%	MWh	%	MWh	%
January								
February								
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								

Table 4.3: KEDS Data aggregation/calculation table (to be digitized through ESRK software)

Month	Energy entering EED (E)	Energy billed (B)	DISTRIBUTION LOSSES (%)
Unit	MWh	MWh	$(E - B)/E * 100$
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Total			

Table 4.4: Data presentation table (to be digitized through ESRK software)

INDICATOR	Energy entering	Energy billed	TOTAL
Distribution Losses (%)			

6.5 AMOUNT OF vRES CAPACITY THAT THE NETWORK IS ABLE TO HANDLE/ INTEGRATE

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the capacity of all Variable Renewable Energy Sources (vRES) in MW, which the electricity grid can accommodate, without jeopardizing the security of the system.

Variable renewable energy (VRE) sources refer to types of energy generation that come from natural, renewable resources but are subject to fluctuations due to varying environmental conditions. These sources are “variable” because their output is not constant and depends on factors like time of day, weather, or seasonal changes. Energy from wind and solar is referred to as variable renewable energy (VRE) due to their intermittent nature of availability, leading to challenges to integrate it into the existing energy system.

According to the Energy Strategy of the Republic of Kosovo 2022-2031, the integration of renewable sources is possible only if there is a suitable infrastructure for transmission and technology. The integration of a certain amount of variable renewable generation requires flexible networks, modern equipment and selected network control networks.

KOSTT (Kosovo Electricity Transmission, System and Market Operator) already is aware of the capacity that the grid can integrate for renewable energy sources, but this is contingent upon being implemented according to their specific geographical area. Although KOSTT is aware of the capacity the grid can integrate for renewable energy sources, this knowledge

does not guarantee that every investment application for RES in Kosovo aligns with the specific regions or areas where that capacity is available. As a result, each application is individually reviewed, and a response is provided based on the assessment of its compatibility with the grid's capacity in the relevant location. This means that this indicator is measured based on the applications that have been approved and the agreements signed for specific megawatt (MW) capacities in designated regions.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = amount of vRES capacity that the network is able to handle integrate

m = vRES capacity that the network is able to handle integrate in year "n" of ESRK implementation period.

The value of the indicator is not disaggregated in any criteria.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 A RES developer (an individual or company seeking to invest in renewable energy sources) applies to KOSTT for Technical Information to determine whether their project can be connected to the transmission network (Table 5.1).

3.2 The Sector for Long-Term Planning in KOSTT models the application, through PSS (Power System Simulator for Engineering) a software tool used by power system engineers to simulate electrical power transmission networks (Annex 5.1), of the RES applied in its existing grid, analyses the integration of these renewable sources into the security of the transmission system and determines the capacity from RES that can be accommodated in the grid.

3.3 If the grid can handle the amount of RES applied then the request is approved and a Connection Agreement is signed between KOSTT and the RES developer where the connection point in the grid is then saved for that project for two years (meaning the Res developer has two years to construct the project).

3.4 If the grid cannot handle the amount of RES applied the request is denied with the opportunity that the RES developer invests in new grid.

3.5 KOSTT keeps track of the Connection Agreements signed (see table 5.2) and biannually enters in the data concerning the MW approved/signed into data calculation/aggregation table (see table 5.3).

3.6 KOSTT enters the data into the ESRK software. Data presentation table is automatically generated by ESRK software (see table 5.3).

3.7 The value analysis is carried out by the Sector for Long-Term Planning in KOSTT. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Sector for Long-Term Planning in KOSTT in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table 5.3 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.9 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The data is collected biannually in January and July.

5. SOURCE OF VERIFICATION

Data collection table from KOSTT Connection Agreements.

Table 5.1: The application for Technical Information:

Personi kontaktues 2

KOSTT

Rr. Isa Boletini nr.39 10000 Prishtinë Republika e Kosovës

Aplikuesi	
Personi kontaktues	
Kontakt detajet e	
Aplikuesit	
Lokacioni i propozuar i nënstacionit <i>Bashkëngjit hartën e lokacionit</i>	
Data e kërkuar e përfundimit	
A është kërkesa për kyçje në faza <i>Bashkëngjit detajet e planit kohor</i>	
Tipi i Karburantit	
Nëse është Hidro bashkëngjit detajet e plota hidrologjike	
Nëse është me Erë bashkëngjit informatat meteorologjike	
Nëse është me diell bashkëngjit informatat meteorologjike	
Numri i propozuar i gjeneratorëve dhe madhësitë (MW) <i>Bashkëngjit skemën e planimetrisë së nënstacionit</i>	
Gjenerimi maksimal (MW)	
Gjenerimi maksimal stabil (MW)	
Maksimumi i MVA dhënje dhe MVA marrje	
Pala Përgjegjëse për Kyçje	
Ju lutem paraqitni informatat relevante	
teknike si kërkohet në Kodin e Rrjetit	
Ju lutem paraqitni informata tjera relevante të cilat do të ndihmojnë në studimin e dizajnit	
Bashkëngjitur pagesa per Taksen e Aplikimit	

Unë i poshtë shënuari me këtë konfirmoj se të gjitha informatat e paraqitura më lartë janë të sakta në bazë të njohurisë time më të mirë. Unë do të njoftoj **KOSTT** për çfarëdo ndryshimi të madh të këtyre të dhënave sa më parë që të jem në dijeni për atë.

Aplikuesi

Emri dhe Pozita: _____

Nënshkrimi: _____

Data: _____

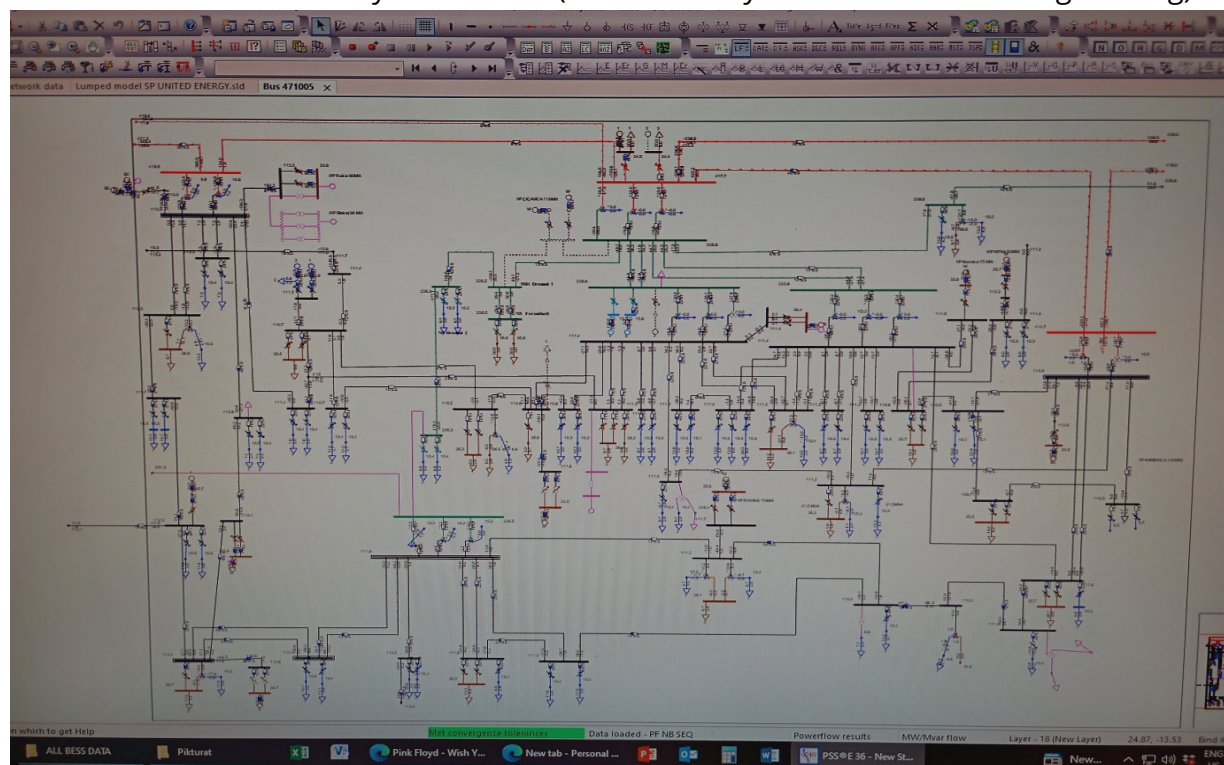
Table 5.2: Data collection table (from KOSTT Connection Agreements)

Projektet të BRE-ve											
Emri i Kompanisë	Nr. Unik Identifikues	Adresa e kompanisë	Pershëritja	Vendi i Kycjes dhe Komuna ku kërkohet kycja	Data e Aplikimit (data e kërkesës)	Nr. i Protokollit (nr. i kërkesës)	Lloji i gjeneratorit	Kapaciteti i kycjes në MW	Nënshtkrimi i Marrëveshjes së kycjes	Viti i përfundimit	Komentet
AIR-ENERGY-NS KITKA	810163072	Rr. Isa Boletini, Gjilan		Në nënstacionin NS Berivojë (komuna e Kameçicës)	02.02.2009	76	Erë	34.6	13.01.2011	2018	I kycur në rrjet dhe asetet e da
Kelkos Energy SH.P.K.	810796005	Rr. Demë Ali Pozhari, Nr. 41, Deçan		Në nënstacionin NS Deçan	19.09.2012	600	Ujë	33.17	28.02.2013.	2016	I kycur në rrjet dhe asetet e da
SOWI sh.p.k	810850249	Mujë Ullinajku nr.12, Prishtinë		Në nënstacionin NS Vushtrri 1 (Komuna e Vushtrrisë)	23.06.2016	327	Erë	105	17.05.2018	2021	I kycur në rrjet dhe asetet e da
Aplikuesit me Marrëveshje të Kycjes											
Emri i Kompanisë	Nr. Unik Identifikues	Adresa e kompanisë	Pershëritja	Vendi i Kycjes dhe Komuna ku kërkohet kycja	Data e Aplikimit (data e kërkesës)	Nr. i Protokollit (nr. i kërkesës)	Lloji i gjeneratorit	Kapaciteti i kycjes në MW	Nënshtkrimi i Marrëveshjes së kycjes	Afati i marrëveshjes (Afati i skadimit)	Komentet
Prishtina Energy - Koznica	811181437	Sheshi Nënë Terezë nr.46/5, Prishtinë		Në linjën 110KV L 129(184/1) NS Prishtina 4 - NS Gjilani 1. Prishtinë	30.11.2016	978	Erë	34.5	21.06.2018		Ka autorizim preliminar në z
Hidroenergji Sh.p.k.	810524240	Rr. Dëshmorët e Kombit, Ferizaj		Në linjën 110KV L106(118/3) NS Sharr-NS Ferizaj 2, Kaçanik	03.05.2017	169	Ujë	9.92	21.06.2018	afati nuk është i definuar me MK	Ka autorizim preliminar në z
Bondcom Energy Point-plus 11MW	810968414	Rr. Sheshi i lidhjes p.n, Prizren		Linjën 110KV L127(179/2) NS Theranda me NS Ferizaj 1, Therandë	20.09.2017	949	Erë	46	18.11.2019		Ka autorizim

Table 5.3: Data presentation table (to be digitized through ESRK software)

	ANNUAL AMOUNT OF vRES CAPACITY
Amount of vRES capacity that the network is able to handle/integrate	

Annex 5.1: The model analysis software (PSS -Power System Simulator for Engineering)



6.6 NUMBER OF REFURBISHED LIGNITE UNITS

Indicator Type: Output indicator

1. DEFINITION

This indicator measures the number of lignite-fired power plant units that have undergone refurbishment or upgrades to improve their operational efficiency, reliability, and compliance with environmental standards.

The Energy Strategy of the Republic of Kosovo 2022-2031 foresees that the refurbishment of the lignite power plants will be carried out in two phases. The Kosovo B1 and B2 units will be upgraded to more efficient and reliable operations by the end of 2025 and 2026, respectively. Additionally, one of the Kosovo A units will be refurbished by the end of 2024 (Kosovo A3). However, the decision whether another unit of Kosovo A (A4 or A5) will be refurbished or phased out will be made later.

The investment in the existing lignite capacities, particularly for the Kosovo B (B1 and B2) power plant units that were commissioned in 1983 and the largest power station, is a critical step to ensure the continued reliability of the energy supply while also adhering to stringent environmental regulations. By refurbishing these units, the goal is to enhance their efficiency, reduce emissions, and ensure that they comply with the Industrial Emission Directive/European Union standards.

The Kosovo Energy Corporation operates the country's power plants and is therefore the responsible institution overseeing their refurbishment process.

The refurbishment of the lignite units include works done according the following five criteria⁷:

- i) Modernization of the turbine
- ii) Electrical generator- rewinding of stator busbars
- iii) 24kV circuit breaker repair,
- iv) Power distribution switchgear cabinet- medium voltage 6.3kV and low voltage 0.4kV,
- iv) Steam turbine condenser

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of refurbished lignite units

m = number of number of refurbished lignite units in year "n" of ESRK implementation period.

The value of the indicator is disaggregated by the power plant units and the criteria for refurbishment.

⁷ These criteria are just a "proposal" that should be confirmed in the tender to select the economic operator responsible for the refurbished lignite unit works

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The contracts are designed from KEK to outline the terms and conditions for refurbishments (including the criteria of the refurbishments and the timeline) and an economic operator (a company) is chosen to carry out the refurbishments.

3.2 The work/construction (to refurbish the powerplants) is done by the economic operator during this timeline frame given in the contract.

3.3 The contract manager of the economic operator (company who is chosen to carry out the construction for the refurbishment) informs the Director of the respective unit that the work is done.

3.3 The Central Unit for Planning and Strategies in KEK responsible annually to enter in the data concerning the programs they implement (see table 6.1).

3.4 The data for all the lignite units is entered by KEK staff in the data aggregation table (see table 6.2) using ESRK software. and presented using table 6.3.

3.5 The value analysis is carried out by the Central Unit for Planning and Strategies in KEK. Strategic Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by KEK in liaison with other ESRK M&E working group members.

3.6 The value of the indicator based on table 6.3 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.7 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is spot-collected and presented in December.

5. SOURCE OF VERIFICATION

KEK data collection table.

Table 6.1: Data collection table

CRITERIA	STATUS (yes/no)	COMMENTS
Modernization of the turbine		
Electrical generator- rewinding of stator busbars		
24kV circuit breaker repair		
Power distribution switchgear cabinet- medium voltage 6.3kV and low voltage 0.4kV		
Steam turbine condenser		

Table 6.2: Data aggregation table (to be digitized through ESRK software)

CRITERIA	B1 (Yes/No)	B2 (Yes/No)	A3 (Yes/No)	A4/5 (Yes/No)
I. Modernization of the turbine				
II. Electrical generator- rewinding of stator busbars				
III. 24kV circuit breaker repair				
IV. Power distribution switchgear cabinet- medium voltage 6.3kV and low voltage 0.4kV				
V. Steam turbine condenser				
REFURBISHED LIGNITE UNITS (=5 yes) YES/NO				

Table 6.3: Data presentation table (to be digitized through ESRK software)

UNIT	REFURBISHED LIGNITE UNITS (yes/no)	DATE OF THE OFFICIAL DECISION	REFERENCE DOCUMENT OF THE OFFICIAL DECISION

6.7 NUMBER OF PHASED OUT LIGNITE UNITS

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the number of lignite-based power plant units that have been decommissioned or shut down as part of the country's transition to cleaner energy sources.

Kosovo heavily relies on lignite for its electricity production, but to meet its environmental, decarbonization, and EU climate commitments, it is working to reduce its dependence on lignite and transition to more sustainable energy alternatives.

This indicator helps assess the progress Kosovo is making in phasing out outdated and environmentally harmful lignite units, aligning with its National Energy and Climate Plan (NECP) and broader energy strategy for a greener, more sustainable future.

Kosovo A, located in Obiliq, built in the 1980s, is one of the main sources of lignite-based electricity in Kosovo. These units are outdated and inefficient, with significant environmental impact. As part of Kosovo's Energy Strategy 2022-2031, the country plans to decommission one of the units (either A4 or A5) once the refurbishment of other lignite units is completed. This is part of Kosovo's broader effort to reduce its reliance on lignite and transition toward cleaner, more sustainable energy sources in line with its National Energy and Climate Plan (NECP).

The Kosovo Energy Corporation operates the country's power plants and is therefore the responsible institution overseeing their phase-out process

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of phased out lignite units

m = number of number of phased out lignite units in year "n" of ESRK implementation period.

The value of the indicator is disaggregated by the power plant units: Kosova A 4 dhe A5

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 After the refurbishment of the decided lignite units is taken by KEK's management and board members, a decision taken by KEK's board members needs to be approved which operating Kosova A power/lignite unit will be phased-out

3.2 The decided unit is decommissioned.

3.3 The Central Unit for Planning and Strategies in KEK is responsible annually to enter in the data concerning the programs they implement using collection table in the ESRK software (see table 7.1).

3.4 The value analysis is carried out by the Central Unit for Planning and Strategies in KEK. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv)

proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by KEK in liaison with other ESRK M&E working group members.

3.5 The value of the indicator based on table 7.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.6 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is spot-collected and presented in December.

5. SOURCE OF VERIFICATION

KEK data collection table.

Table 7.1: Data collection and aggregation table (to be digitized through ESRK software)

UNIT	PHASED OUT STATUS Y/N	DATE OF THE OFFICIAL DECISION	REFERENCE DOCUMENT OF THE OFFICIAL DECISION
Decided unit (A4 or A5)			

6.8 CYBER RESPONSE CAPABILITIES (IDENTIFY, DETECT, RESPOND AND RECOVER) IN THE ENERGY SECTOR

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the four major cyber capabilities (identification, detection, response and recovery), in the energy sector, to ensure protection of the energy system from cyber-attacks.

Cybersecurity in the energy sector is increasingly important especially with the continuous development and digitalization of electricity systems. As the electricity market is liberalized, the roles played by the system operator and other market participants (generators, suppliers and traders) will become increasingly important for a reliable market operation. Ensuring cybersecurity will require regular audits and assessments of the software platforms that maintain secure operation of the electricity market. A sectoral CERT (Computer Emergency Response Team) for energy will be established by 2025, and a cybersecurity energy risk management framework will be developed that will treat the cybersecurity threats in the energy sector.

The four capabilities represent:

Identification of cyberattacks is done through firewall/antivirus and Data Loss Prevention (DLP) devices and alerts the appropriate devices.

Event detection involves finding the type of attack and other details of the attack through identification devices.

The response, based on the first two points, the staff of the ICT sector has the appropriate knowledge to respond to the attack. However, this is a field that is constantly being updated.

Recovery will create a parallel (redundant) server room, located in different locations, which will include 4 sectors within KOSTT:

- i) Supervision, Control, and Data Acquisition / Energy Management System & Substitution Control System (SCADA/EMS&SCS)
- ii) Telecommunication (Telekom)
- iii) ICT,
- iv) Remote Metering Centre (RMC).

i, ii and iv are operational technology (OT).

The indicator is disaggregated by type of the cyber response capabilities that the defense system has received/responded.

2. SAMPLING METHOD

The data aren't collected through the sampling method because all cases will be taken into account to define the value of the indicator.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 The officer for cyber security (still not existent in KOSTT), is responsible for data collection in all sectors including: ICT, SCADA, Telecom, and RMC on cyber-attacks. Data are entered in table 8.1.

3.2 The ICT Department aggregates the data on cyber events in the table 8.2. Data is entered by KOSTT staff using ESRK software using the format of table 8.3.

3.3 The value analysis by the officer for cyber security in KOSTT. Data analysis will focus on: i) comparison with expected targets; ii) the analysis of the value of the indicators based on the criteria used for decomposition (see the definition of this SII); iii) the reasons for any deviation (positive or negative) from the expected targets; and iv) proposing M&V recommendations to improve the performance of the target results. All these aspects will be taken into account in the Indicator Analysis Sheet (IAS) and it should be drafted by officer for cyber security in collaboration with other members of the working group for M&V ESRK.

3.4 The value of the indicator based on table 8.3 s is entered by KOSTT through the ESRK software.

3.5 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

Another way of data collection is done via ICT in cooperation with SCADA/EMS&SCS that will have a back-up away from Prishtina which will store the data in real time. This will be possible due to the internal network of optical fibers.

4. FREQUENCY AND PERIOD OF COLLECTION

The data is collected thorough the year and reported annually in December.

5. SOURCE OF VERIFICATION

Data collection table of cyber attacks

Table 8.1: Data collection table of cyber-attacks (data collection)

ATTACKS	TYPE	MONTH	COMMENTS
Supervision, Control, and Data Acquisition / Energy Management System & Substation Control System (SCADA/EMS&SCS)			
Telecommunication (Telekom)			
ICT			
Remote Metering Centre (RMC)			
Total			

Table 8.2: Data aggregation for all cyber response capabilities

LIST OF ATTACKS	IDENTIFICATION	DETECTION	RESPONSE	RECOVERY	STATUS (Y/N)

Table 8.3: Data analysis table on the cyber capabilities (data presentation) (to be digitized through ESRK software)

TYPE	SECTOR	CAPABILITY USED (AT LEAST ONCE) (Y/N)	COMMENTS/ ANALYSIS
IDENTIFY			
DETECT			
RESPOND			
RECOVER			

6.9 GHG REDUCTION IN THE POWER SECTOR COMPARED TO 2019

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator presents the average rate of reduction of greenhouse gas emissions measured in 2019 before ESRK implementation and expressed as a percentage reduced from the current level, taking into account GHG emissions from the energy sector. The GHG are measured through the number of units of kilo-tons of carbon dioxide equivalent (ktCO₂e).

GHG are the gases in the atmosphere that raise the surface temperature of the earth. What distinguishes them from other gases is that they absorb the wavelengths of radiation that a planet (earth) emits, resulting in the greenhouse effect. The Earth is warmed by sunlight, causing its surface to radiate heat, which is then mostly absorbed by greenhouse gases. Without greenhouse gases in the atmosphere, the average temperature of Earth's surface would be about -18 °C rather than the present average of 15 °C. Key GHGs include Carbon dioxide, nitrous oxide, methane, and water vapor. In Kosovo, according to the Report of the State of the Environment, the two main GHG emitters are electricity producers and agriculture. This is one of the most important indicators for the energy sector, considering that GHG emissions have a direct impact on air pollution and therefore on the health status of the population. It provides a clear benchmark to track progress toward decarbonizing the energy sector, aligns with the country's commitments and supports global efforts to mitigate climate change while addressing Kosovo's heavy reliance on fossil fuels such as lignite coal for electricity production or mazut for heating.

Although Republic of Kosovo is not a party to either the United Nations Framework Convention on Climate Change (UNFCCC) or the Paris Agreement, nor is the official European Union candidate (doesn't have to fulfil the Green Deal), it has set equivalent voluntary national commitments to reduce the GHG emissions in order to reduce its impact on the climate change and to join voluntarily other countries to reduce the global warming below 2°C (to keep the raise of the average from 15°C to not more than 17°C by 2050). Republic of Kosovo has adopted Energy Strategy and is in the process of adopting National Energy and Climate Plan 2025-2030 (NECP) which includes not only the energy sector but also transport and industry, all of them which have the aim of reducing the greenhouse gases. By measuring this indicator one can track the progress of the greenhouse gas reduction whether it is about to reach reduction of 32 % in the energy sector compared to the 2019 (6316 ktCO₂).

The value of the indicator is calculated through the following formula:

$$\text{Reduction of GHG emission} = \frac{\text{GHG 2019} - \text{GHG current}}{\text{GHG 2019}} * 100 (\%)$$

The value of the indicator is disaggregated by type of emission (CO₂, CH₄ and NO₂.)

2. SAMPLING METHOD

The data is not collected through the sampling method because all the steps of the process will be taken into account to determine the value of the indicator.

3. DATA COLLECTION AND ANALYSIS

The value of this indicator is extracted through the following steps:

3.1 The Kosovo Environmental Protection Agency (KEPA), in MESPI (Ministry of Environment, Spatial Planning and Infrastructure) makes a request to KAS for the energy balance (ratio of total energy supply to total energy demand, reflecting the equilibrium between energy production, imports, and consumption within Kosovo).

3.2 The division for energy statistics in the Kosovo Statistics Agency (KSA) sends the energy balance, which is collected from various sources.

3.3 KEPA in MESPI calculates the total value of GHG emissions according to the Common Reporting Format (CRF) in excel (Table 9.1 and 9.2). The CRF classification (Common Reporting Format) is the method used to report to the different international authorities on greenhouse gas emissions. Among these authorities, particular mention is made of the European Commission and the United Nations Secretariat for the General Convention on Climate Change (UNFCCC), within the compliance framework of the Kyoto Protocol.

3.4 The results and data are reported to the European Environment Agency according to the format determined by them. (Table 9.3).

3.5 The Kosovo Environmental Protection Agency (KEPA), in MESPI, will generate the tables presenting indicator value using the excel format according to the Greenhouse Gas Inventories guide (IPCC Guidelines 2006). (Table 9.4).

3.6 KEPA is responsible for entering the data using the ESRK software. Data presentation table is automatically generated by ESRK software (see table 9.4)

3.7 The value analysis is done by the KEPA in liaison with KSA. Data analysis will focus on: i) comparison with expected targets; ii) the analysis of the value of the indicators based on the criteria used for decomposition (see the definition of this SII); iii) the reasons for any deviation (positive or negative) from the expected targets; and iv) proposing M&V recommendations to improve the performance of the target results. All these aspects will be taken into account in the Indicator Analysis Sheet (SAT) and it should be drafted by the Kosovo Environmental Protection Agency (KEPA) for in collaboration with other members of the working group for M&V SERK.

3.8 The value of the indicator based on table 9.4 is automatically archived in the P/P Matrix in electronic format through the SERK software and presented in the SERK Semiannual Report prepared by the Strategic Planning Division of the Department of Energy (DoE).

3.9 The Indicator Analysis Sheet is presented and discussed at the next annual meeting of the SERC M&V working group. All M&V recommendations emerging from this meeting should be implemented in the following year to improve SERK performance.

4. FREQUENCY AND PERIOD OF DATA COLLECTION

The data is collected annually and presented in January of the following year (year n+1).

5. SOURCE OF VERIFICATION

Presentation table in the Greenhouse Gas Inventories guide

Table 9.1: Data available for all types of pollutants according to the Common Reporting Format (CRF)

1.A.1.a Energy Industries - Main Activity Electricity and Heat Production		AD	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Main Pollutants (from 1990)	Total Fuels	TJ	774	774	814	814	854	884	934	769	528	526	486	441	441	243	243	196	179	202	63.4
	Liquid Fuels	TJ	49,527	49,184	51,844	53,100	50,112	50,081	52,812	56,330	64,362	66,902	64,476	61,222	63,142	54,598	63,532	66,473	55,789	59,501	62,162
	Solid Fuels	TJ	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Gaseous Fuels	TJ	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Biomass	TJ	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Other Fuels	TJ	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Other activity (specified)	TJ	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	NOx (as NO ₂)	Emission	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Energy Industries - Main Activity Electricity and Heat Production	Gg	12.33	12.25	12.91	13.22	12.48	12.48	13.16	14.03	16.01	16.59	15.99	15.18	15.65	13.54	15.72	16.45	13.80	14.72	15.38
	NM VOC	Emission	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Energy Industries - Main Activity Electricity and Heat Production	Gg	0.07	0.07	0.07	0.08	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.08	0.08	0.09
	SOx (as SO ₂)	Emission	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Energy Industries - Main Activity Electricity and Heat Production	Gg	83.51	82.94	87.42	89.53	84.51	84.48	89.09	95.02	108.52	112.62	108.50	103.02	106.26	91.91	106.82	111.76	93.79	100.02	104.53
	NH ₃	Emission	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Energy Industries - Main Activity Electricity and Heat Production	Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	PM _{2.5}	Emission	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Energy Industries - Main Activity Electricity and Heat Production	Gg	0.17	0.17	0.18	0.18	0.17	0.17	0.18	0.20	0.22	0.22	0.21	0.20	0.21	0.18	0.21	0.22	0.18	0.19	0.20
	PM ₁₀	Emission	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Energy Industries - Main Activity Electricity and Heat Production	Gg	0.41	0.40	0.43	0.44	0.41	0.41	0.44	0.46	0.53	0.54	0.52	0.49	0.51	0.44	0.51	0.53	0.44	0.47	0.49

Table 9.2: Reporting of GHG emissions according to the Common Reporting Format (CRF)

Data for CRF tables																											
1.A.1.a Energy Industries - Main Activity Electricity and Heat Production																											
Fuels		AD	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
1	Liquid fuels	Gg CO2 equivalent	60	60	63	63	63	66	69	72	59	41	40	37	34	34	19	19	15	14	15	15	15	14	NE	NE	
GWP N2O	Solid fuels	Gg CO2 equivalent	5,026	4,991	5,261	5,388	5,085	5,082	5,359	5,716	6,533	6,789	6,542	6,212	6,407	5,540	6,447	6,745	5,661	6,038	6,310	6,421	6,507	6,396	NE	NE	
298	Gaseous fuels	Gg CO2 equivalent	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
GWP CH4	Other fossil fuels	Gg CO2 equivalent	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
25	Peat	Gg CO2 equivalent	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Biomass (excluding CO2)	Gg CO2 equivalent	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
CO2	Emission		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
	Total 1.A.1.a	CO2 Gg	5,062	5,027	5,299	5,426	5,124	5,124	5,403	5,761	6,562	6,798	6,552	6,221	6,411	5,548	6,435	6,732	5,650	6,023	6,296	6,406	6,492	6,383	NE		
	Liquid fuels	CO2 Gg	59	59	62	62	66	69	72	59	41	40	37	34	34	19	19	15	14	15	15	15	14	NE	NE		
	Solid fuels	CO2 Gg	5,002	4,968	5,236	5,363	5,061	5,058	5,334	5,689	6,503	6,757	6,512	6,183	6,377	5,514	6,417	6,714	5,635	6,010	6,280	6,391	6,477	6,369	NE		
	Gaseous fuels	CO2 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Other fossil fuels	CO2 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Peat	CO2 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Biomass (not included in the total)	CO2 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	N2O	Emission		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
		Total 1.A.1.a	N2O Gg	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	0.10	0.10	0.10	0.09	0.09	0.08	0.10	0.10	0.08	0.09	0.09	0.10	0.10	0.09	NE	NE
Liquid fuels		N2O Gg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NE		
Solid fuels		N2O Gg	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.10	0.10	0.10	0.09	0.09	0.08	0.10	0.10	0.08	0.09	0.09	0.10	0.10	0.09	NE	NE	
Gaseous fuels		N2O Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
Other fossil fuels		N2O Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
Peat		N2O Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
Biomass		N2O Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
CH4		Emission		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
		Total 1.A.1.a	CH4 Gg	0.05	0.05	0.05	0.06	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	NE	NE
	Liquid fuels	CH4 Gg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NE		
	Solid fuels	CH4 Gg	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	NE		
	Gaseous fuels	CH4 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Other fossil fuels	CH4 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Peat	CH4 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	Biomass	CH4 Gg	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Table 9.3: Reporting to the European Environment Agency

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO ₂	CH ₄	N ₂ O	NO _x	CO	NM VOC	SO ₂
		(Gg)						
Total Energy		8955.33	4.84	0.47		NA	NA	NA
A. Fuel Combustion Activities (Sectoral Approach)		8955.33	4.84	0.47		NA	NA	NA
1. Energy Industries		6,489	0.35	0.39				
a. Public Electricity and Heat Production		6,489	0.35	0.39				
b. Petroleum Refining		NA	NA	NA				
c. Manufacture of Solid Fuels and Other Energy Industries		NA	NA	NA				
2. Manufacturing Industries and Construction		744.41	0.05	0.01		NA	NA	NA
a. Iron and Steel		133.86	0.01	0.00				
b. Non-Ferrous Metals		70.07	0.00	0.00				
c. Chemicals		2.84	0.00	0.00				
d. Pulp, Paper and Print		NE,NO	NE,NO	NE,NO				
e. Food Processing, Beverages and Tobacco		55.34	0.01	0.00				
f. Non-Metallic mineral		373.81	0.01	0.00				
g. Other (as specified in table 1.A(a) sheet 2)		108.49	0.01	0.00		NA	NA	NA
3. Transport		1412.35	0.06	0.01		NA	NA	NA
a. Civil Aviation		NA,NO	NA,NO	NA,NO				
b. Road Transportation		1409.03	0.06	0.01				
c. Railways		3.32	0.00	0.00				
d. Navigation		NA	NA	NA				
e. Other Transportation (as specified in table 1.A(a) sheet 3)		NA	NA	NA		NA	NA	NA

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Table 9.4: Data presentation table (to be digitized through ESRK software)

TYPE OF GHG	BASELINE (2019) (KTCO ₂)	ANNUAL VALUE (ktCO ₂ e)	% GHG REDUCTION IN THE POWER SECTOR COMPARED TO 2019
CO ₂			
CH ₄			
NO _x			
Total			

6.10 RENEWABLE SHARE IN THE ELECTRICITY SECTOR CONSUMPTION (RES E-SHARE)

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the RES-E share consumption in percentage in total energy consumption. RES (renewable which is also called green energy) share in electricity consumption are from wind, solar, hydro, biomass and other renewables. There are variable and controllable renewable energy sources. Variable renewable energy sources are those that have a fluctuating nature, such as wind power and solar power. In contrast, controllable renewable energy sources include dammed hydroelectricity, bioenergy or geothermal power.

Currently total RES share in electricity consumption is around 9% the rest 91% are from fossil fuel. Republic of Kosovo is one of the most fossil fuel dependent country in the world which also results in very high pollution and surprisingly very low price of electricity (around €0.07 per KWh compared to €0.289 on the average of European Union; some European countries such as Germany, Ireland, Italy and Denmark have the price of around €0.40). However, if taken in account the consequences of such high-carbon emissions and the impact on the environment and public health, Republic of Kosovo will focus on developing more renewable energy sources in the future (which will also result in the raise of the price of the electricity) which also aligns with its aspiration to join European Union, respectively Green Deal is seen as a model, and to join the international efforts on reducing the climate change such as Paris Agreement on Climate Change which particularly focuses on renewable share in the electricity sector consumption as one of the main contributors to climate change. On other side, with upcoming adoption of EU's Carbon Border Adjustment Mechanism (CBAM) that is the EU's tool to put a fair price on the carbon emitted during the production of carbon intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries. CBAM will apply in its definitive regime from 2026, while the current transitional phase lasts between 2023 and 2025. This gradual introduction of the CBAM is aligned with the phase-out of the allocation of free allowances under the EU Emissions Trading System (ETS) to support the decarbonization of EU industry. CBAM is also a preventive tool for carbon leakage (increase in greenhouse gases in one country as a result of an emission reduction by a second country with stricter climate change mitigation policies). Republic of Kosovo has also foreseen the introduction of carbon tax which, considering the actual situation (a huge reliance on fossil fuels in the energy sector) will contribute maybe even more on the raise of the electricity price so the choice of RES-E is more feasible since the price anyways is going to grow.

Increasing the share of renewables in the electricity sector is fundamental to reach decarbonization targets and to ensure a just energy transition in Kosovo. Diversifying

the energy mix is vital for Kosovo's decarbonization efforts and maintaining security of supply. The national RES target in Kosovo was set by the Ministerial Council of the Energy Community in 2021, and confirmed through the adoption of Law on promotion of use of RES adopted by Parliament in 2024. Kosovo has set the 35% of share in electricity consumption in Energy Strategy of Kosovo 2022-2031. However, the representation of different RES technologies is set by Administrative Instruction for RES target 2023-2031, and there are significant differences in the sectoral RES shares. The current renewable installed capacities in Republic of Kosovo are 279 MW (approximately 10%) meanwhile it was planned that by year 2025 the target is 490 MW installed and it has aim to reach 1600MW by year 2031 which could almost replace completely the fossil fuel (coal) power plants. However, considering that a significant amount of RES-E is of a variable nature, still the reliance on fossil fuel power plants cannot be opted-out since the fluctuating nature of variable RES-E make it unreliable and unpredictable and the storage was not projected in order to cover the grid demand (only 170 MW are planned for 2031 which will serve only as reserves).

The value of the indicator is calculated through the following formula:

$$RES - E \text{ Share (\%)} = \frac{\text{Renewable Electricity Consumption}}{\text{Total Electricity Consumption}} \times 100 (\%)$$

RES-E = renewable electricity consumption in year "n" of ESRK implementation period

The value of the indicator is disaggregated by the type of RES-E (hydro, wind, solar, solid biofuels and other renewable).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Kosovo Agency of Statistics collect data for energy balance form institutions such: electricity producers, Energy Regulatory office, Transmission System, Electricity distributions. (See tables 10.1, 10.2 and 10.3).

3.2 Annually realized balance (annual report) published from Kosovo Agency of Statistics (KAS).

3.3 Eurostat after analysis the data received from KAS each year publish Share Tools for RES (Table 10.4)

3.4 Energy Regulatory Agency also analyses data from Transmission System Company (KOSTT), Kosovo Statistics Agency (KAS), Electricity Distribution Company (KEDS) and Eurostat (the data should be the same). Then publishes Annual Report of Electricity and Heating Energy on its website ero-ks.org (table 10.5).

3.5 The data above are aggregated from RES Division (DRES) within Energy Department - Ministry of Economy, which takes data from Kosovo Statistics Agency, is responsible to report on achieving of the target for RES in electricity consumption set on Energy Strategy

of Republic of Kosovo 2022-2031, progress report implementation of SEK (table 10.5). Key data is entered by Division of Renewable Energy within Department of Energy (MoE) in table 10.6 using ESRK software.

3.6 The value analysis is carried out by the DRES (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.7 The value of the indicator based on table 10.6 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.8 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

Information is collected and published annually on January (for the previous year).

5. SOURCE OF VERIFICATION

Annual Report of Kosovo Agency of Statistics.

Table 10.1: Data on Electricity production (from Kosovo Agency of Statistics)

Producers GWh	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
TPP A3 gross	750,2	104,2	87,9	101,7	66,9	102,8	53,4	13,7	79,7	37,6	0,0	75,2	27,2
TPP A4 gross	908,3	78,0	87,2	101,7	99,0	82,4	57,5	105,4	50,9	84,5	70,9	23,8	66,9
TPP A5 gross	632,0	0,0	0,0	0,0	0,0	50,5	78,7	79,8	64,4	60,3	104,8	101,7	91,9
TPP Own expendi	281,0	21,8	20,8	23,5	19,4	29,6	23,4	24,3	24,3	22,4	22,9	24,8	23,8
TPP Athreshold	2 009,5	160,4	154,3	179,8	146,5	206,1	166,2	174,6	170,7	160,0	152,8	175,9	162,1
TPP B1 gross	1 630,3	193,9	170,5	154,2	184,7	171,6	193,3	136,9	0,0	0,0	48,1	177,7	199,3
TPP B2 gross	1 613,4	180,5	139,7	182,1	86,9	0,0	0,0	95,0	191,1	194,5	199,8	144,4	199,5
TPP B Own expendi	322,5	35,6	30,3	32,8	26,4	16,5	19,0	26,4	19,1	19,1	25,8	32,1	39,3
TPP Bthreshold	2 921,2	338,8	279,9	303,5	245,2	155,1	174,3	205,4	172,0	175,5	222,2	289,9	359,5
Ujmani	145,3	16,0	17,2	13,3	17,5	13,7	18,5	7,9	5,9	3,1	4,5	9,0	18,7
Lumbardhi	41,5	4,2	1,3	2,5	2,7	4,9	4,9	2,1	0,6	0,5	0,5	8,4	8,9
Kitka	91,4	8,0	8,0	8,4	7,1	8,1	4,7	5,5	6,3	7,1	7,7	11,3	9,2
Sowi	303,0	25,1	33,7	28,8	27,4	27,0	9,3	16,5	18,5	24,9	23,4	40,2	28,2
RES Distr.	186,4	15,3	9,0	16,7	21,9	32,3	29,4	16,2	6,2	4,1	3,3	12,6	19,3
Total	5 698,3	567,8	503,5	553,0	468,3	447,2	407,3	428,1	380,2	375,0	414,4	547,4	606,0
Balance 2023	6 292,0	582,5	534,1	519,0	514,9	471,3	432,4	530,3	457,7	442,4	506,6	616,4	684,4
Total ratio/balan	90,6%	97,5%	94,3%	106,5%	91,0%	94,9%	94,2%	80,7%	83,1%	84,8%	81,8%	88,8%	88,5%

Table 10.2 : Production of RES (from Kosovo Agency of Statistics)

RES connected in transmission	Installation capacity	Production	Participation in production*
	MW	MWh	%
HPP Ujmani	35,00	145 297	25,00
HPP Kaskada Lumbardh	32,15	41 518	7,14
Air Energy/Kitka	32,40	91 383	15,72
PEE Selaci	103,41	302 985	52,13
Total RES	202,96	581 183	100%

Table 10.3: Distribution of RES (from Kosovo Agency of Statistics)

RES distribution	Installation capacity	Production	*Participation in production
	MW	MWh	%
Hydroline T	4,58	16 794	9,01
Dikanci	4,02	10 907	5,85
Radavci	1,00	3 752	2,01
Burimi	0,95	2 300	1,23
Brodi II-Eurokos	4,80	50 994	27,35
Me ere	1,35	256	0,14
Solar LLT	4,00	82	0,04
Solar-Feti	9,99	0	0,00
Solar-ONIX	1,00	596	0,32
HC Brezovica	0,31	5 097	2,73
Centrali solar"Birra Peja"	1,35	3 891	2,09
Centrali solar"FrigoFood"	0,10	3 929	2,11
Centrali solar"Eling"	0,10	662	0,35
HPP Orqusha	0,50	18 033	9,67
HPP Lepenci 3	3,00	34 126	18,31
Solar Green energy	3,00	3 774	2,02
Dilli com	0,40	1 412	0,76
HPP ECO Energy	3,00	1 805	0,97
HPP Sharri	6,45	5 703	3,06
HPP Shterpca	4,60	7 682	4,12
HPP Vica	5,30	12 488	6,70
Ngr. Gjakove		0,367	0,00
Pro Energy	3,00	2 142	1,15
Total RES	62,80	186 423	100%

Table 10.4: Electricity generation from all sources (from Eurostat)

ktoe (thousand tonnes of oil equivalent)		Kosovo						
		Data prior to 2021 have no legal value and will not be uploaded into Eurostat's database. Please consult https://ec.europa.eu/eurostat/web/energy/data/shares for results up to 2020.						
		2021	2022	2023	2024	2025	2026	2027
Electricity								
Hydro		26.4	26.4	0.0	0.0	0.0	0.0	0.0
Wind		5.9	15.8	0.0	0.0	0.0	0.0	0.0
Solar		1.4	1.2	0.0	0.0	0.0	0.0	0.0
Solid biofuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0
All other renewables		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (RES-E numerator)		33.6	43.4	0.0	0.0	0.0	0.0	0.0
Notes: Hydro is normalised and excluding pumping. Wind is normalised. Solar includes solar photovoltaics and solar thermal generation. All other renewables includes electricity generation from gaseous and liquid biofuels								
Electricity generation from all sources								
Total (RES-E denominator)		654.2	648.9	0.0	0.0	0.0	0.0	0.0
RES-E [%]		5.14%	6.68%					

Table 10.5: Annual balance of electric energy in Republic of Kosovo (ERO)

		MWh	Gjithësejt	Janar	Shkurt	Mars	Prill	Maj	Qershor	Korrik	Gusht	Shtator	Tetor	Nëntor	Dhjetor
1	Kosova A - Prodhimi në prag të transmetimit	2,271,167	221,714	170,014	185,752	173,854	182,272	171,684	179,742	182,808	175,898	183,504	177,204	266,721	
2	Kosova B - Prodhimi në prag të transmetimit	3,684,872	351,137	332,596	371,196	282,951	361,357	254,068	180,087	223,320	349,145	286,874	341,229	350,912	
3	Ujmani + Kaskada e Lumbardhit+PE KITKA+PE Selad	520,318	48,380	53,240	55,060	54,950	55,405	38,270	27,860	23,960	28,590	34,840	46,260	53,503	
4	Prodhimi i HC, me erë dhe panele fotovoltaike në Shpërndarje	202,206	14,894	15,392	21,906	27,371	30,935	26,032	12,016	7,527	8,579	9,925	11,844	15,785	
5	(1+2+3+4) Prodhimi Nacional	6,678,562	636,125	571,242	633,914	539,126	629,970	490,054	399,706	437,616	562,212	515,140	576,536	686,921	
6	(1+2+3) Prodhimi (hyrje në Transmetim)	6,476,356	621,231	555,851	612,007	511,753	599,035	464,022	387,689	430,089	553,633	505,217	564,692	671,136	
7	Importi i KESCO	650,008	151,535	117,118	51,511	57,429	0	16,306	56,799	36,528	0	43,170	35,043	84,570	
	Importi i Ferrokelit	423,360	36,456	34,104	34,104	35,280	36,456	32,928	36,456	36,456	32,928	36,456	35,280	36,456	
	Importi i SharrCemit	68,600	5,800	5,400	5,200	6,400	6,300	3,000	6,100	6,900	6,300	6,000	5,800	5,400	
	Importi i Trepçës	24,773	2,315	2,315	2,315	2,084	1,852	1,852	1,852	1,852	1,852	2,084	2,084	2,315	
	Importi për humbje në Transmetim	73,798	12,407	10,776	6,835	6,558	891	3,549	6,160	5,259	205	4,517	6,184	10,473	
	Importi për furnizim nga Elektrovereri	232,474	27,518	24,551	25,456	21,459	14,534	10,925	9,764	9,830	12,051	22,184	25,532	28,669	
	Importi total	1,473,013	236,032	194,264	125,401	129,210	60,033	68,560	117,131	96,825	53,340	114,411	109,923	167,883	
8	(6+7) Energjia në hyrje të Transmetimit	7,949,369	857,263	750,114	737,409	640,965	659,067	532,582	504,820	526,914	606,973	619,628	674,615	839,019	
8*	(8+4) Energjia në disponim	8,151,575	872,157	765,506	759,315	668,336	690,003	558,614	516,836	534,441	615,552	629,553	686,459	854,804	
9	Trepça sh.a.	24,773	2,315	2,315	2,315	2,084	1,852	1,852	1,852	1,852	1,852	2,084	2,084	2,315	
10	SharrCemi	68,600	5,800	5,400	5,200	6,400	6,300	3,000	6,100	6,900	6,300	6,000	5,800	5,400	
11	NewCo Ferrokeli	423,360	36,456	34,104	34,104	35,280	36,456	32,928	36,456	36,456	32,928	36,456	35,280	36,456	
12	Mihjet	104,309	10,371	8,605	9,274	9,384	8,296	7,342	7,556	8,254	8,112	8,216	9,108	9,790	
13	Shpënzimet e TC nga Transmetimi	154,560	10,095	13,246	26,370	15,327	11,415	11,752	16,269	9,409	9,283	11,291	10,227	9,877	
14	Humbjet totale të Shpërndarjes	1,070,236	149,304	131,058	122,497	102,145	59,474	52,524	45,507	33,900	53,975	76,204	99,528	144,223	
15	Kërkesa neto në Shpërndarje	5,225,133	628,806	540,940	496,947	435,478	363,119	326,789	351,680	350,453	304,259	382,837	450,429	593,397	
16	(9+10+11+12+13+14+15) Kërkesa neto	7,070,972	843,047	735,668	696,708	606,097	486,912	436,188	465,420	447,225	416,706	523,087	612,455	801,458	
17	Humbjet në Transmetim	139,036	14,941	13,110	12,895	11,235	11,539	9,317	8,848	9,232	10,627	10,838	11,793	14,659	
18	Eksport	941,568	14,169	16,728	49,712	51,004	191,551	113,110	42,567	77,984	188,219	95,627	62,210	38,687	
19	(16+17) Kërkesa gjithsej	7,210,907	857,988	748,778	709,603	617,332	498,452	445,505	474,268	456,457	427,333	533,926	624,249	816,116	
20	(19 - 8*+18) Bilanci	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 10.6: Data presentation table (to be digitized through ESRK software)

Type of RES-E	Installed capacity (MW)	RES-E electricity consumption (MWh)	Total Consumption (MWh)	Renewable share in the electricity consumption (RES-E) (%)
Hydro				
Wind				
Solar				
Solid biofuels (biomass)				
All other renewables				
Total				

6.11 GRADUAL INTRODUCTION OF CARBON PRICING

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the introduction of carbon pricing in Republic of Kosovo. Carbon pricing is a market-based strategy to reduce greenhouse gas emissions by assigning a cost to emitting carbon dioxide (CO₂) and other greenhouse gases. The idea is to incentivize businesses and individuals to reduce their carbon footprint by making it more expensive to pollute.

There are two main types of carbon pricing:

1. **Carbon Tax** – A direct tax on the carbon content of fossil fuels or on greenhouse gas emissions. It sets a fixed price per ton of CO₂ emitted, making fossil fuels more expensive and encouraging cleaner alternatives.
2. **Cap-and-Trade (Emissions Trading System, ETS)** – A system where the government sets a limit (cap) on total emissions and issues permits or allowances that companies can buy, sell, or trade. Companies that reduce emissions below their allowance can sell excess permits to others that exceed their limits.

Kosovo intends to reduce carbon emissions. As a signatory of the Green Agenda for the Western Balkans and as an Energy Community Contracting Party, Kosovo rights but also obligations regarding carbon pricing.

A national emission trading scheme (ETS) will be introduced, with a gradual minimum price increase until integration in the pan-European market and the EU ETS. This serves to (gradually) internalize the cost of GHG emissions (CO₂ is one of the main greenhouse gases and reducing it is usually proportional with the reduction of other greenhouse gases) in the power sector and ensures that Kosovo gains exemption from EU's CBAM measures.

CBAM (**Carbon Border Adjustment Mechanism**) is a policy introduced by the **European Union (EU)** to put a carbon price on imported goods. It is a carbon tariff on carbon intensive products, such as steel, cement and some electricity, imported to the European Union. It is designed to prevent **carbon leakage**, which happens when companies move production to countries with weaker climate regulations to avoid stricter carbon pricing in the EU.

CBAM works in following scenarios:

- Importers of certain carbon-intensive goods (like steel, cement, aluminum, fertilizers, electricity, and hydrogen) must **pay a fee** based on the carbon emissions embedded in those products.
- The fee is linked to the EU's **Emissions Trading System (ETS)**, meaning if a foreign company's home country does not impose a similar carbon price, the importer will have to **buy CBAM certificates** to cover the emissions.
- If the exporting country already has a carbon price, the CBAM cost is **adjusted** accordingly.

Knowing that Republic of Kosovo aspires to join European Union and has tendency to develop its economy, the export to European Union is seen as desirable for companies in Republic of Kosovo. It was estimated that the price of electricity in Kosovo coming from the actual coal power plants will grow at least double of what is now (from 35 €/MWh it will grow to at least 75 €/MWh).

Whereas the starting year and minimum level of carbon price that power producers have to pay will be subject to negotiation with the EU, ESRK target for 2025 foresees preparations for the introduction of a carbon pricing system. Revenues collected from this system will be one of the sources of a Just Transition Fund, the uses of which will be determined, and may include promotion of RES, training and retraining of the workforce, energy-related projects for vulnerable consumers, etc. (only for energy low-carbon impact activities and those funds cannot be used for other purposes nor can be subsidized from any way of funding). This will be accompanied by the phasing out of subsidies for fossil fuels and introduction of MRV.

Measurement, Reporting, and Verification (MRV) refers to the multi-step process to *measure* the amount of greenhouse gas (GHG) emissions reduced by a specific mitigation activity, such as reducing emissions from climate mitigation and climate adaptation actions, over a period of time and *report* these findings to an accredited third party. The third party then *verifies* the report so that the results can be certified and carbon credits can be issued.

MRV seeks to prove that an activity has actually avoided or removed harmful GHG emissions so that actions can be converted into credits with monetary value. One credit equals one ton of reduced GHG emissions expressed in tons of CO₂ equivalent (tCO₂eq). In order that Republic of Kosovo implements the MRV it needs licensed verifiers whose, unfortunately are inexistent in Republic of Kosovo and about this topic there may be solutions which include foreign verifiers or investment in creation of local capacities.

However, this indicator is still in early phases and after impact study is done, the further analysis followed from Government of Republic of Kosovo, taking in consideration the huge energy consumers` poverty, disability of consumers due to poor economic conditions make it difficult for people to afford energy services even though with actual prices which are amongst the lowest in Europe, the gradual introduction of carbon pricing has been concluded as unaffordable for the citizens of the Republic of Kosovo. Considering that electricity in Republic of Kosovo is still very highly fossil-fuel dependent, and the introduction of carbon pricing will increase dramatically the electricity prices and on other hand the exports of Republic of Kosovo are very low towards European Union, the gradual introduction of carbon pricing is not foreseen in the near future.

Seeing that carbon pricing isn't a simple and easy process, the monitoring of this indicator includes reporting on three processes. Especially for carbon pricing, the process is considered done when the desired carbon price is introduced fully, for example: the carbon price agreed (targeted) in negotiations with EU is 35 €/ton CO₂ but in the first year it will be only 10 €/ton CO₂, the second year 20 €/ton CO₂, third year 30€/ton CO₂ and the fourth year will reach its goal of 35 €/ton CO₂. The carbon pricing is considered done only at the moment when its price is equivalent with CBAM regulations otherwise even with functional carbon pricing, still a fee is required to be paid when the goods and electricity will be exported to EU (the difference between minimum required carbon price and the actual carbon price multiplied by the emissions that were emitted during the process of

manufacturing – if MRV system is licensed and trustworthy).

This indicator should be disaggregated in following categories: i) MRV, ii) Carbon pricing (tax) and iii) Integration in EU ETS

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Government of Republic of Kosovo altogether with European Union and International Monetary Fund start initiation of the process by meeting up and setting up a framework for further development and assessment of the gradual introduction of carbon pricing.

3.2 An impact study is done in cooperation with IMF by using Climate Policy Assessment Tool (CPAT).

3.2 The Government of Kosovo discusses with all stakeholders about the necessary changes and create a working group led by MESPI (Agency Environmental Protection in Kosovo (KEPA) and other institutions: IMF, Ministry of Finance, Ministry of Economy, Electricity Corporation of Kosovo (KEK), Transmission Corporation of Kosovo (KOSTT), Energy Regulatory Office (ERO).

3.3 The working group will start activities by firstly determining which activities are necessary for policy changes. There may be multiple policies that need to be adjusted to the new system.

3.4 The working group will propose changes of policies and send them for public discussion. After public discussion the policies are sent to Assembly of Republic of Kosovo for their approval.

3.5 Monitoring, Reporting, and Verification (MRV) will be established by MESPI-KEPA. Depending on the situation, licensed verifiers will be hired (foreign or investing in creation of local experts). After the legislative part is adapted, the first measures should start and the system of carbon pricing will slowly begin to be established.

3.6 After the establishment of MRV, the carbon pricing will start to be slowly introduced. If necessary the new agencies/institutions will be created in order to coordinate the process. Considering the situation of energy poverty in Republic of Kosovo it will be introduced not at the full price but step by step since it is necessary political consensus.

3.7 Once the carbon pricing is established, the further steps for integration in European Union Emission Trading System (EU ETS). KEPA and Department of Environment are responsible for data entry. The data is automatically aggregated using ESRK software and the calculation of the data is done following the procedure proposed in table 11.1.

3.8 The value analysis is carried out by the KEPA and Department of Environment (MESPI). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of

value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.9 The value of the indicator based on table 11.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software.

3.10 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

KEPA Monitoring, Reporting, and Verification (MRV)

Table 11.1 Data presentation table of the actual status of carbon pricing (to be digitized through ESRK software)

	STATUS OF PROCESS (in a process - ongoing, approved partially, approved)	PROCESS IMPLEMENTED (YES/NO) (process achieved with 2 “yes” – MRV is obligatory YES)	COMMENTS
MRV			
Carbon pricing			
Integration in EU ETS			

6.12 RES CAPACITY IN THE ELECTRICITY SECTOR (INCLUDING PROSUMERS)

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the RES capacity, expressed in MW, which is integrated in the electricity network and in operation.

Renewable Energy Sources (RES) capacity is energy that comes from a source that does not run out. They are natural and self-replenishing, and usually have a low or zero-carbon footprint. Examples of renewable energy sources include wind power, solar power, bioenergy (organic matter burned as a fuel) and hydroelectric, including tidal energy.

RES capacity in operation implies that this capacity is approved and installed, nevertheless, this capacity is not necessarily produced constantly, but production is based on the different

climate and other conditions.

There are two categories of RES producers:

- Generators - companies which produce and sell energy in the energy market;
- Prosumers – RES capacity for self-consumption, which can be 2 types: a) commercial company and b) private user.

For each category there is a certain procedure in order that an applicant becomes generator or prosumer. In the stage of applying for being producer (generator or prosumer), an entity is considered as a RES applicant. A RES applicant may even have the RES capacities installed but until it gets registered officially and has obtained the permit to produce (or self-consume in case of prosumers) it cannot produce electricity and its capacities will not be counted.

Increasing the share of renewables in the electricity sector is fundamental to reach decarbonization targets and to ensure a just energy transition in Kosovo. Diversifying the energy mix is vital for Kosovo's decarbonization efforts and maintaining security of supply. To create a stable regulatory and market framework capable of attracting investment in renewable energy sources the legal framework will be reviewed and the Law on Renewable Energy Sources (Law on RES) will be adopted.

Another significant specific goal is to promote renewable self-consumers (prosumers) and renewable energy communities, whose deployment will be encouraged by improved legal and regulatory framework and administrative procedures, as well as the introduction of various support schemes. In addition to boosting the share of RES in final electricity consumption, this will help to reduce distribution network losses.

The necessary data to define this indicator are:

- # of MWs RES capacity approved and in operation in the electricity network.
- # of MWs of prosumers capacity approved and in operation

The formula to calculate this indicator is the following:

$$D = \sum_{i=1}^n (g + p)$$

where:

D = Total RES capacity in electricity sector

g = total capacity in operation from generators in year "n".

p = total capacity in operation from prosumers in year "n".

This indicator will be disaggregated by: type of RES producer: generators and prosumers, (prosumers as company and private user, <10 MW and >10MW), type of RES: hydro-energy, solar energy, wind energy and biomass, and municipality.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 Each applicant for RES capacity <10 MW will apply for an allowance certificate from KEDS (Annex 12.1), while for RES capacity >10 MW will apply for an allowance certificate from KOSTT (Annex 12.2), which will specify the maximum capacity to be connected to the electricity grid. Prosumers have to apply for technical specification at KEDS and for permit at the municipality (depends on the location where the prosumer is from).

3.2 After completing the documents from the applications, each applicant (generator – using Annex 12.1 and Annex 12.2) will apply for licensing in ERO (Annex 12.3 and Annex 12.4).

3.3 The Board of ERO will meet regularly (based on the need, at least 10 annual meetings) and approve capacity, based on the defined criteria from the applications.

3.4 The Board of ERO will issue the decisions for each application, and will publish the decision in the ERO website: ero-ks.org (Annex 12.5).

3.5 ERO will publish the list of beneficiaries with the RES capacities installed and in operation (table 12.1) and the graph using 4 colors (hydro energy – blue, solar energy – orange, wind energy – green and biomass – gray) (table 12.2).

3.6 The data above are aggregated from RES division (DRES) within Energy Department - Ministry of Economy (table 12.3), takes data from Register of RES of ERO (table 12.1 and table 12.2.), which is responsible to report on achieving of the target for RES capacity set on Energy Strategy of Republic of Kosovo 2022-2031. Key data is entered by DoE staff in table 12.4 using ESRK software.

3.7 The value analysis is carried out by the DRES (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table 12.5 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.9 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in April concerning the previous year.

5. SOURCE OF VERIFICATION

The data is collected from Register of RES capacity in operation by type of RES (ERO).

Annex 12.1 Application for allowance certificate from KEDS, for RES capacity <10 MW



Ndërtesa e Elektrokovës
Bulevardi Bili Klinton nr 5
Prishtinë 10000
Republika e Kosovës

Elektrokosova Building
Bil Clinton Boulevard no.5
Prishtine 10000
Republic of Kosovo



SHTOJCA 1. FORMULARI I KËRKESËS PËR KYÇJE

Nr. i referencës.: Click here to enter text.				
Data: Click here to enter a date.				
Pjesa 1: Të dhënat e konsumatorit			Pjesa 2: Të dhënat e personit të autorizuar (nëse ka)	
Emri, Mbiemri: Click here to enter text.			Emri, Mbiemri: Click here to enter text.	
Nr. i ID: Click here to enter text.			Nr. i ID: Click here to enter text.	
Shifra e konsumatorit: Click here to enter text.			Emri i kompanisë: Click here to enter text.	
Adresa: Click here to enter text.			Nr. i biznesit të kompanisë: Click here to enter text.	
Nr. i tel: Click here to enter text.			Adresa: Click here to enter text.	
E-mail adresa: Click here to enter text.			Nr. i tel: Click here to enter text.	
E-mail adresa: Click here to enter text.			E-mail adresa: Click here to enter text.	
Pjesa 3: Të dhënat teknike			Pjesa 4: Të dhënat e sistemit fotovoltaik (FV)	
Kapaciteti i kontraktuar: Click here to enter text. kW			a) Modulet FV	
Veprimtaria e objektit: Click here to enter text.			i. Tipi: Monokristalinë ☐ Polikristalinë ☐	
Lloji i BRE: Solar ☐ Me erë ☐ Biomasë ☐ Tjetër: (Specifiko)			Tjetër: Click here to enter text.	
Click here to enter text.			ii. Prodhuesi Click here to enter text.	
Kapaciteti gjenerues i kërkuar: Click here to enter text. kW _p			iii. Modeli Click here to enter text.	
Instalimi i baterive për ruajtje të energjisë: Po ☐ Jo ☐			iv. Fuqia nominale Click here to enter text. W _p	
			b) Invertori	
			i. Nr. Invertorëve të instaluar: Click here to enter text.	
			ii. Fuqia e invertorit Click here to enter text. kW	
			iii. Tipi: Një-fazor ☐ Tre-fazor ☐	
			iv. Prodhuesi Click here to enter text.	
			v. Modeli: Click here to enter text.	
			vi. Faktori i fuqisë cosφ: Click here to enter text.	
Pjesa 5: Deklarata				
Duke nënshkruar këtë formular, unë deklaroj se:				
Unë e përfaqësoj aplikantin e objektit dhe informacioni i dhënë më sipër është i vërtetë në njohuritë dhe besimin tim. Më tej, jam dakord të respektoj specifikimet, termat dhe kushtet e përcaktuara në udhëzimet e zbatueshme dhe rregulloret përkatëse, të ndryshuara herë pas here.				
Emri, Mbiemri: Click here to enter text.				
Data: Click here to enter a date.				
Nënshkrimi:				

	Konsumi		Vlerësimi i prodhimit	Vlerësimi tepriçës së injektuar në rrjet
Muaji	Viti	kWh	kWh	kWh
Janar				
Shkurt				
Mars				
Prill				
Maj				
Qershor				
Korrik				
Gusht				
Shtator				
Tetor				
Nëntor				
Dhjetor				
Total				

Annex 12.2 Application for allowance certificate from KOSTT, for RES capacity >10 MW

	CONNECTION APPLICATION	FO-KSHE-006
	ver. 1.0	page 1 to 2

CONNECTION APPLICATION FORM – GENERATION “G”

When completed send this application form to:

Contact Person¹

KOSTT

St. Isa Boletini Street, no.39

10000 Prishtina

Kosovo



Applicant	
Contact person	
Applicant's contact details	
Proposed substation location <i>Attach site map</i>	
Requested completion date	
Is the connection requirement staged <i>Attach timetable details</i>	
Fuel Type	
If Hydro attach full hydrological details If Wind <u>attach metrological</u> information If solar attach solar information	
Proposed number of generators and sizes (MW) <i>Attach sketch of proposed substation layout</i>	
Maximum generation (MW)	
Minimum Stable Generation (MW)	
Maximum leading MVAr and	

¹ If you have questions about your Connection Application please contact 2nd Contact Person

	CONNECTION APPLICATION	FO-KSHE-006
	ver. 1.0	page 2 to 2

maximum lagging MVARs	
Connection Responsible Party	
Please supply relevant technical information as required under the Grid Code	
Please supply any other relevant information that will assist the design study	
Application Fee enclosed	Yes

☐

I the undersigned hereby affirm that all the information supplied above is accurate to the best of my knowledge. I shall advise **KOSTT** of any significant changes to this data as soon as I am aware of it.

Name and Position: _____

Signature: _____

Date: _____

Annex 12.3 Application for licensing in ERO for generator



Republika e Kosovës
Republika Kosova - Republic of Kosovo

ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



ANEKSI 1: Aplikimi për Kapacitete të Reja Gjeneruese

TË DHËNA TË PËRGJITHSHME PËR APLIKUESIN		
EMRI I APLIKUESIT (PERSONI JURIDIK):		
ADRESA:		
REGJISTRIMI NR.		
TELENONI:		
E-MAIL:		
EMRI DHE MBIEMRI I PERSONIT KONTAKTUES:		
ADRESA:		
TELENONI:		
E-MAIL:		
INFORMACION SPECIFIK RRETH PROJEKTIT TË INFRASTRUKTURËS ENERGETIKE		
LLOJI I PROJEKTIT	KAPACITETET E REJA GJENERUESE: (a) Burimet e ripërtëritshme të energjisë; (b) Lëndë djegëse fosile	☐ ☐
Vendndodhja dhe Koordinatat	Komuna(atë)	Informacion specifik mbi projektin (kapaciteti i instaluar, lloji i teknologjisë, prodhimi vjetor i vlerësuar, etj.)

Adresa: Rr. Bekim Fehmiu (Ish Ndërtesa e Fazitës), kati:2, 10000 Prishtinë, Kosovë
Tel: 038 247 615 lok. 101, Fax: 038 247 620, E-mail: info@ero-ks.org, web: www.ero-ks.org



Nr.	Dëshmitë/dokumentet që duhen bashkëngjitur:	Shkruaj: Po ose Jo	
		PO	JO
1.	Certifikata e Biznesit, përfshirë edhe vendimin e bordit të kompanisë për përfaqësuesin e autorizuar për Aplikim		
2.	Dëshmi mbi aftësinë financiare të Aplikuesit dhe të kompanisë amë se posedon të paktën dhjetë përqind (10%) të vlerës së investimit. Kjo dëshmi duhet të mbështetet me dëshmi bankare të lëshuara jo më herët se pesë (5) ditë prej datës së Aplikimit		
3.	Certifikatën e solvencës të biznesit të Aplikuesit, duke përfshirë edhe certifikatën e solvencës së biznesit të kompanisë amë, e lëshuar nga gjykata kompetente, ku dëshmohet se Aplikuesi apo kompania amë nuk është në falimentim		
4.	Vërtetim nga Autoriteti Tatimor		
5.	Dëshmi mbi të drejtat e pronësore dhe ligjore		
6.	Studimi teknik dhe financiar i fizibilitet, për projektin me kapacitet të instaluar mbi 1MW		
7.	Parakontrata ose Kontrata për Inxhinieri, Prokurim dhe Ndërtim (EPC)		
8.	Plani i biznesit që përmban parametrat teknike të projektit dhe planin financiar (siç kërkohet sipas Nenit 8, paragrafi 1, nënparagrafi 1.8)		
9.	Akti i Komunës (duke konfirmuar se projekti lejohet të zbatohet në komunën përkatëse dhe është në përputhje me planin zhvillimor komunal)		
10.	Marrëveshja e kycjes me operatorin përkatës të sistemit sipas nivelit të tensionit		
11.	Pëlqimi Mjedisor e lëshuar nga subjekti përkatës, nëse kërkohet për objektin e projektit		
12.	Të Drejtat Ujore (nëse kërkohet)		
13.	Leja e Ndërtimit dhe planin dinamik të realizimit		

Annex 12.4 Application for licensing in ERO for prosumer



Republika e Kosovës
Republika Kosova - Republic of Kosovo

ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



ANEKSI 2: Aplikimi për ndërtimin e Kapacitete të Reja Gjeneruese për vetë-konsumatorët me Burimeve të Ripërtërishme

TË DHËNA TË PËRGJITHSHME MBI APLIKUESIN		
EMRI I APLIKUESIT (PERSONI JURIDIK):		
ADRESA:		
REGJISTRIMI NR.		
TELENONI/		
E-MAIL:		
EMRI DHE MBIEMRI I PERSONIT KONTAKTUES:		
ADRESA:		
TELENONI/		
E-MAIL:		
INFORMACION SPECIFIK RRETH PROJEKTIT TË INFRASTRUKTURËS ENERGJETIKE		
LLOJI I PROJEKTIT	KAPACITETI I RI I GJENERIMIT PËR VETËKONSUMIMIN E BURIMEVE TË RIPËRTËRITSHME	☐
Vendndodhja dhe Koordinatat	Komuna	Informacion specifik mbi projektin

Nr.	Dëshmitë/dokumentet që duhen bashkëngjitur:	Shkruaj:	
		Po ose Jo	
		PO	JO
1.	Dëshmi nga operatori i sistemit mbi konsumin vjetor të energjisë		
2.	Vlerësimi i prodhimit vjetor të kWh të Vetë-gjeneratorit të propozuar		
3.	Marrëveshja e kyçjes me operatorin e sistemit		
4.	Pëlqimi i Komunës për instalimin e pajisjeve vetë-konsumuese të Ripërtërishme, nëse kërkohet me legjislacion përkatës për ndërtim.		

Adresa: Rr. Bekim Fehmiu (Ish Ndërtesa e Fazitës), kati:2, 10000 Prishtinë, Kosovë
 Tel: 038 247 615 lok. 101, Fax: 038 247 620, E-mail: info@ero-ks.org, web: www.ero-ks.org

Annex 12.5 An example of the approval certificate issued by ERO

**Bordi i Zyrës së Rregullatorit për Energji**

Mbështetur në Nenin 9 paragrafi 1 nënparagrafi 1.7, Nenin 15 paragrafi 1 nënparagrafi 1.15, Nenin 25, Nenin 26 paragrafi 1 nënparagrafi 1.2 dhe Nenin 43 paragrafi 1 të Ligjit për Rregullatorin e Energjisë (Nr. 05/L-084); Nenin 9 të Rregullës Nr. 03/2022 për Procedurën e Autorizimit për Ndërtimin e Projekteve të Energjisë të nxjerr nga Bordi i ZRRE-së; Nenin 3, 4, 5 dhe 7 të Rregullës Nr. 03/2023 për Vet-Konsumatorët me Burime të Ripërtitshme të nxjerr nga Bordi i ZRRE-së, dhe Aplikacionin për ndërtimin e kapaciteteve të reja gjeneruese për vetë - konsum nga panelet solare/fotovoltaike me kapacitet të instaluar prej 7 kW, e pranuar me datë 28.06.2024 nga aplikuesi "Besnik Xhoxhaj", me adresë: "Petrovë" Komuna e Prizrenit, Republika e Kosovës,

në seancën e mbajtur më 01 korrik 2024 nxori këtë:

V E N D I M**PËR NDËRTIMIN E KAPACITETEVE GJENERUESE PËR VETË-KONSUM**

- I. **APROVOHET** - kërkesa dhe miratohet Statusi i Prosumatorit aplikuesit "Besnik Xhoxhaj" për ndërtimin e kapaciteteve të reja gjeneruese për vetë – konsum nga panelet solare/fotovoltaike me kapacitet të instaluar prej 7 kW në Komunën e Prizrenit.
- II. **OBLIGOHET** – aplikuesi "Besnik Xhoxhaj" me shifër të regjistruar të njehsorit elektrike DPZ - 9049426 që pas ndërtimit të kapaciteteve të reja gjeneruese për vetë-konsum, të parashtroj kërkesë në KEDS SH.A., për pranim teknik të objektit energjetik.
- III. ZRRE do të konsideroj projektin e finalizuar nga data e pranimit teknik sipas Pëlqimit Elektroenergjetik të lëshuar nga KEDS SH.A.
- IV. Aplikuesi "Besnik Xhoxhaj" do të lidh Marrëveshje për vetë-prodhim me furnizuesin me të cilën ka kontratë për furnizim me energji elektrike, pas konfirmimit të pranimit teknik nga KEDS SH.A., në pajtim me Nenin 7 paragrafi 5 dhe 6 i Rregullës Nr. 03/2023 për Vet-Konsumatorët me Burime të Ripërtitshme.

A r s y e t i m

- o ZRRE, me datë 28.06.2024 nga aplikuesi "Besnik Xhoxhaj" ka pranuar aplikacionin për ndërtimin e kapaciteteve të reja gjeneruese për vetë – konsum nga panelet solare/fotovoltaike, me kapacitet të instaluar prej 7 kW në Komunën e Prizrenit.
- o Aplikuesi, s'bashku me aplikacionin ka bashkangjitur edhe dëshminë nga KEDS për konsumin vjetor të energjisë elektrike, vlerësimin për prodhimin vjetor në kW/h të pajisjeve të



instaluar dhe pëlqimin elektroenergetik Nr. 6321 të datës 17.05.2024 të lëshuar nga KEDS SH.A.

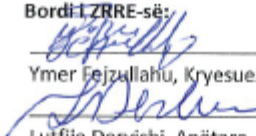
- o Bordi i ZRRE-së, pas analizimit të kërkesës së aplikuesit "Besnik Xhoxhaj" dhe dëshmime të bashkangjitura, për marrjen e statusit të prosumtorti dhe ndërtimin e kapaciteteve të reja gjeneruese për vetë - konsum nga panelet solare/fotovoltaike, me kapacitet të instaluar prej 7 kW në Komunën e Prizrenit, ka vlerësuar ato, dhe ka konsideruar se janë plotësuar të gjitha dëshmitë relevante për lëshimin e vendimit për ndërtimin e kapaciteteve gjeneruese për vetë-konsum, dhe duke u mbështetur në dispozitat ligjore të cekura në hyrje të këtij Vendimi, ka vendosur si në dispozitiv të këtij Vendimi.

V. Vendimi nxirret dhe publikohet në gjuhët zyrtare në Republikën e Kosovës.

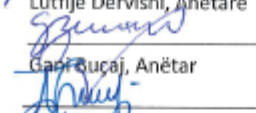
VI. Vendimi hyn në fuqi në datën e miratimit nga Bordi, dhe do të publikohet në faqen elektronike zyrtare të ZRRE-së.

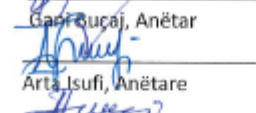
Këshillë juridike: Pala e pakënaqur me këtë Vendim mund të inicioj konflikt administrativ në Gjykatën Kompetente, brenda tridhjetë (30) ditëve nga data e pranimi të Vendimit ose data e publikimit të tij në faqen elektronike të ZRRE-së, cilado që ndodh e fundit.

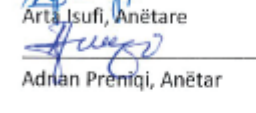
Bordi i ZRRE-së:


Ymer Fejzullahu, Kryesues


Lutfije Dervishi, Anëtare


Gani Zucaj, Anëtar


Arta Isufi, Anëtare


Adnan Preniqi, Anëtar

Vendimi lu dërgohet:

- Palës,
- KEDS SH.A.,
- KESCO dhe
- Arkivë të ZRRE-së.

Table 12.1 Register of RES capacity in operation by type of RES

 Republika e Kosovës Republika Kosova - Republic of Kosovo ZYRA E RREGULLATORIT PËR ENERGIJË REGULATORY OFFICE ENERGY REGULATORY OFFICE 												
Regjistri i Aplikacioneve për Ndërtim të kapaciteteve të reja gjeneruese dhe Pranim në Skemë Mbështetëse nga BRE												
Register of Applications for construction of new generating capacities and Admission to Support Scheme from RES												
APLIKACIONE HIDROCENTRALE / HYDRO												
Autorizime FINALE/NË OPERIM / IN OPERATION												
Nr.	Shoqëria/Entity:	Adresa / Address:	Lokacioni / Location:	BRE/RES	Kapaciteti i Instaluar/ Installed Capacity	Data e aplikimit për Autorizim/ Date of application for Authorization	Data e dhënies së Autorizimit Preliminar/ Date of Issuance of Preliminary Authorization	Data e Dhënies së Autorizimit Final/ Date of Issuance of Final Authorization	Data e aplikimit për Pranim në Skemë Mbështetëse/ Date of application for admission to Support Scheme	Data e Pranimit në Skemë Mbështetëse / Date of Admission to Support Scheme	Data Operimit/Date of Operation	Aplikacionet që përjashtohen/tërhen nga Skema Mbështetëse/ Applications that are exempt/withdrawn from Support Scheme
1	"KELKOS" ENERGY" Sh.p.k	Rr.Zagreb, 10000, Prishtinë, Republika e Kosovës	HC Belaje, KK Deçan, Republika e Kosovës.	Gjenerim i energjisë nga uji/ Hydro Generation	8.06 MW	09.08.2010 AEU_02/10	11.11.2010	24.10.2013	13.07.2015	16.07.2015	01.04.2016	
2	"KELKOS" ENERGY" Sh.p.k	Rr.Zagreb, 10000, Prishtinë, Republika e Kosovës	HC Deçan, KK Deçan, Republika e Kosovës.	Gjenerim i energjisë nga uji/ Hydro Generation	9.8 MW	09.08.2010 AEU_02/10	11.11.2010	24.10.2013	13.07.2015	16.07.2015	01.04.2016	
3	"Eurokos J.H." sh.p.k.	20. Zenun Beqa, Ferizaj, Republika e Kosovës	HC Brodi II. Lumi Restelica KK Dragash.	Gjenerim i energjisë nga uji/ Hydro Generation	4.8 MW	29.09.2011 AEU_09/11	10.02.2012	24.10.2013	26.01.2015	20.02.2015	18.12.2015	
4	"Eurokos J.H." sh.p.k.	20. Zenun Beqa, Ferizaj, Republika e Kosovës	HC Restelica I & Restelica II. Lumi Restelica KK Dragash.	Gjenerim i energjisë nga uji/ Hydro Generation	2.28 MW	29.09.2011 AEU_09/11	10.02.2012	24.10.2013	26.01.2015	20.02.2015	01.12.2016	
5	"HYDRO-LINE" SH.P.K.	Mbretresha Teutë p.n. Mitrovicë, Republika e Kosovës	HC Albaniku 3 (Dolac) Lumi Bistrica, Komuna Mitrovicë, Republika e Kosovës	Gjenerim i energjisë nga uji/ Hydro Generation	4.267 MW	03.05.2013 AEU_07/13	28.06.2013	24.10.2013	03.02.2015	20.02.2015	12.04.2016	
6	"MATKOS GROUP" SH.P.K.	Veternik p.n. Prishtinë, Republika e Kosovës	HC Brezovica, Lumi Lepenc, Komuna e Shterpcës, Republika e Kosovës.	Gjenerim i energjisë nga uji/ Hydro Generation	2.1 MW	29.03.2013 AEU_03/13	28.06.2013	26.01.2016	12.02.2015	20.02.2015	19.04.2017	

APLIKACIONE PANELE FOTOVOLTAIKE / SOLAR PANELS												
Autorizime FINALE/NË OPERIM / IN OPERATION												
Nr.	Shoqëria/Entity:	Adresa / Address:	Lokacioni / Location:	BRE/RES	Kapaciteti i Instaluar/ Installed Capacity	Data e aplikimit për Autorizim/ Date of application for Authorization	Data e dhënies së Autorizimit Preliminar/ Date of Issuance of Preliminary Authorization	Data e Dhënies së Autorizimit Final/ Date of Issuance of Final Authorization	Data e aplikimit për Pranim në Skemë Mbështetëse/ Date of application for admission to Support Scheme	Data e Pranimit në Skemë Mbështetëse / Date of Admission to Support Scheme	Data Operimit/Date of Operation	Aplikacionet që përjashtohen/tërhen nga Skema Mbështetëse/ Applications that are exempt/withdrawn from Support Scheme
1	LED LIGHT TECHNOLOGY KOSOVA sh.p.k.	Ulpiana C2, Hyrja III., nr.8, Bulevardi Dëshmorët e Kombit, 10000, Prishtinë, Republika e Kosovës	Gjurgjevik/Malisheve, KK Klina, Republika e Kosovës.	Gjenerim nga energjia Fotovoltaike/ Photovoltaic Generation	0.102 MW	11.09.2013 AES_13/13		03.10.2014	23.02.2015	10.04.2015	30.07.2015	
2	"ONIX SPA" L.L.C.	Adresa rr. M. Maksutaj, Banja e Pejës p.n. 31010, Istog, Republika e Kosovës.	Lokacioni - Banja e Pejës, ZK Istog, KK Istog, Republika e Kosovës.	Gjenerim nga energjia Fotovoltaike/ Photovoltaic Generation	0.5 MW	09.12.2014 AES_07/14	20.02.2015	28.01.2016	09.12.2014	20.02.2015	01.07.2016	
3	"BIRRA PEJA" SH.A.	Adresa 160, Nexhat Basha, Pejë, Republika e Kosovës	Madanaj-Rypaj, ZK Kusar, KK Gjakovë, Republika e Kosovës.	Gjenerim nga energjia Fotovoltaike/ Photovoltaic Generation	3 MW	04.11.2014 AES_05/14	20.02.2015	03.10.2016	20.01.2015	20.02.2015	06.11.2018	
4	"FRIGO FOOD KOSOVË" "H.P.K.	Adresa Kompleksi Royal, Hyrja 3 Kati 7 nr. 22 10000, Prishtinë, Republika e Kosovës	Lokacioni - Madanaj, ZK Kusar, KK Gjakovë, Republika e Kosovës.	Gjenerim nga energjia Fotovoltaike/ Photovoltaic Generation	3 MW	26.12.2014 AES_09/14	20.02.2015	03.10.2016	28.01.2015	20.02.2015	06.11.2018	
5	"N.T.SH." "Eling"	Adresa "Dardania SU 1/1 Hyr 2 nr 1-b, 10000, Prishtinë, Republika e Kosovës	Lokacioni: Llabjan, ZK Lajban, KK Pejë, Republika e Kosovës.	Gjenerim nga energjia Fotovoltaike/ Photovoltaic Generation	0.4 MW	26.01.2015 AES_01/15	16.07.2015	31.03.2017	22.01.2015	16.07.2015	27.03.2019	
6	"SOLAR GREEN ENERGY" SH.P.K.	Adresa "Luan Haradinaj" nr.21/1, 10000, Prishtinë, Republika e Kosovës	Novoselë, KK Kamenica, Republika e Kosovës.	Gjenerim nga energjia Fotovoltaike/ Photovoltaic Generation	3 MW	16.12.2014 AES_08/14	20.02.2015	03.10.2016	16.12.2014	20.02.2015	18.09.2019	
					10 MW							

APLIKACIONE TURBINA TË ERËS / WIND TURBINES

Autorizime FINALE/në OPERIM / IN OPERATION

Nr.	Shoqëria/Entity:	Adresa / Address:	Lokacioni / Location:	BRE/RES	Kapaciteti i Instaluar/ Installed Capacity	Data e aplikimit për Autorizim/ Date of application for Authorization	Data e dhënies së Autorizimit Preliminar/ Date of Issuance of Preliminary Authorization	Data e Dhënies së Autorizimit Final/ Date of Issuance of Final Authorization	Data e aplikimit për Pranim në Skemën Mbështetëse/ Date of application for admission to Support Scheme	Data e Pranimit në Skemën Mbështetëse / Date of Admission to Support Scheme	Data Operimit/Date of Operation	Aplikacionet që përjashtohen/tërheqen nga Skema Mbështetëse/ Applications that are exempt/withdrawn from Support Scheme
1	"WIND POWER" S.H.A.	Rr. "Nënë Tereza" QT. Euromed Lokali 17, 12000, Fushë Kosovë, Republika e Kosovës	GOLESH, HARILAQ, Republika e Kosovës	Gjenerim i energjisë nga era / Wind Generation	1.35 MW	03.03.2009 ZRR/AEE_03/08	22.09.2009	29.12.2009	N/A	N/A	08.06.2010	
2	"AIR-ENERGY" S.H.P.K.	Rr. "Isa Boletini" p.n. Gjilan, Republika e Kosovës	WIND PARK "KITKA", fsh. Polleqë, KK Kamenica, Republika e Kosovës.	Gjenerim i energjisë nga era / Wind Generation	32.4 MW	25.09.2013 AEE_14/13	27.12.2013	23.06.2016	22.01.2015	20.02.2015	11.10.2018	
3	"SOWI KOSOVO" L.L.C.	Adresa: Mujo Ulqinaku, Nr.12, 10000 Prishtinë, Republika e Kosovës.	Lokacioni Selac1, ZK Selac, Komuna Mitrovicë, Republika e Kosovës	Gjenerim i energjisë nga era / Wind Generation	34.47 MW	14.07.2016 AEE_13/16	25.11.2016	13.06.2018	14.07.2016	25.11.2016	20.10.2021	
4	"SOWI KOSOVO" L.L.C.	Adresa: Mujo Ulqinaku, Nr.12, 10000 Prishtinë, Republika e Kosovës.	Lokacioni Selac2, ZK Selac, Komuna Mitrovicë, Republika e Kosovës	Gjenerim i energjisë nga era / Wind Generation	34.47 MW	14.07.2016 AEE_14/16	25.11.2016	13.06.2018	14.07.2016	25.11.2016	14.12.2021	
5	"SOWI KOSOVO" L.L.C.	Adresa: Mujo Ulqinaku, Nr.12, 10000 Prishtinë, Republika e Kosovës.	Lokacioni Selac3, ZK Selac, Komuna Mitrovicë, Republika e Kosovës	Gjenerim i energjisë nga era / Wind Generation	34.47 MW	14.07.2016 AEE_15/16	25.11.2016	13.06.2018	14.07.2016	25.11.2016	26.02.2022	
Totali					137.2 MW							

APLIKACIONE BIOMASA / BIOMASS

Autorizime FINALE / FINAL AUTHORIZATION

Nr.	Shoqëria/Entity:	Adresa / Address:	Lokacioni / Location:	BRE/RES	Kapaciteti i Instaluar/ Installed Capacity	Data e aplikimit për Autorizim/ Date of application for Authorization	Data e dhënies së Autorizimit Preliminar/ Date of Issuance of Preliminary Authorization	Data e Dhënies së Autorizimit Final/ Date of Issuance of Final Authorization	Data e aplikimit për Pranim në Skemën Mbështetëse/ Date of application for admission to Support Scheme	Data e Pranimit në Skemën Mbështetëse / Date of Admission to Support Scheme	Data Operimit/Date of Operation	Aplikacionet që përjashtohen/tërheqen nga Skema Mbështetëse/ Applications that are exempt/withdrawn from Support Scheme
1	N.P. NGROHTORJA E QYTETIT S.H.A. GJAKOVA	Nruga Transite p.n., Gjakovë, Republika e Kosovës	Lokacionin, Rezina, Gjakovë, KK Gjakova, Republika e Kosovës	BIOMASA	1.2 MW	20.04.2018	16.04.2019	27.11.2019	20.04.2018	16.04.2019	Proces/Komisionim	
Totali					1.2 MW							

Table 12.2 : Data analysis graph by type of RES (hydro energy – blue, solar energy – orange, wind energy – green and biomass – gray)

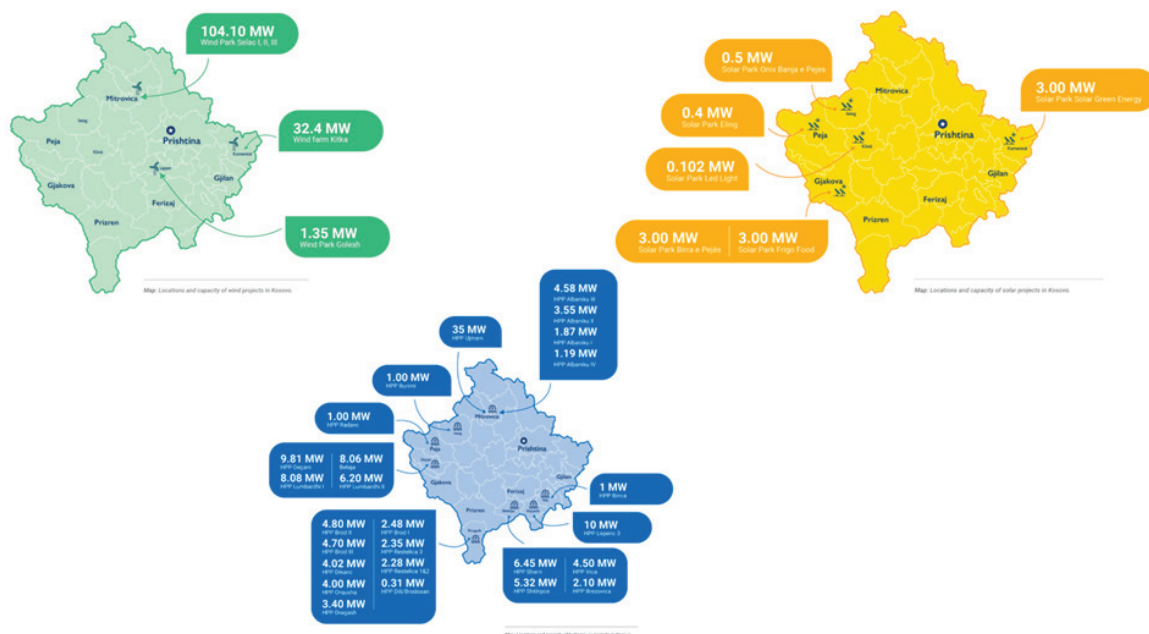


Table 12.3 Data collection table (for each municipality)

Type	<10MW			>10MW			TOTAL (=A+B+C+D+E+F)
	A)Generators (MW)	Prosumers (MW)		D)Generators (MW)	Prosumers		
		B)Comm. users(MW)	C)Private users		E)Comm. users (MW)	F)Private users (MW)	
Hydro							
Solar							
Wind							
Biomass							
TOTAL							

Table 12.4 Data aggregation and data presentation table (to be digitized through ESRK software)

Municipality	Type of RES	<10MW			>10MW			Total (per type of RES)	Total RES capacity per municipality = A+B+C+D+E+F
		A) Generators (MW)	Prosumers		D) Generators (MW)	Prosumers			
			B) Comm. users (MW)	C(Pri-vate users (MW)		E) Comm. users (MW)	F) Pri-vate users (MW)		
Municipality 1	Hydro								
	Solar								
	Wind								
	Bio-mass								
Municipality 2	Hydro								
	Solar								
	Wind								
	Bio-mass								
Municipality n	Hydro								
	Solar								
	Wind								
	Bio-mass								
TOTAL									

Table 12.5 : data presentation table (to be digitized through ESRK software)

Type	RES CAPACITY IN THE ELECTRICITY SECTOR		
	Generators (A)	Prosumers (B)	Total RES capacity (A+B)
Hydro			
Solar			
Wind			
Biomass			
TOTAL			

6.13 PROSUMER CAPACITY

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the prosumer capacity, expressed in KW, which is integrated in the electricity network and in operation.

Renewable Energy Sources (RES) capacity is energy that comes from a source that does not run out. They are natural and self-replenishing, and usually have a low or zero-carbon footprint. Examples of renewable energy sources include wind power, solar power, bioenergy (organic matter burned as a fuel) and hydroelectric, including tidal energy.

Prosumer capacities usually mean RES capacities for self-consumption which (in case of Republic of Kosovo) considers solar panels (also known as solar cell panels, solar electric panels, or PV - photovoltaic modules), small wind turbines, small hydro power plants and biogas. Solar panels are the most representative choice when it comes to prosumers and may be considered also zero-carbon footprint because the electricity is produced without extracting-emitting any carbon emission but the materials for building solar panels are the ones that have quite significant carbon footprint which makes solar panels impossible to be considered as zero-carbon footprint.

A solar panel is a device that converts sunlight into electricity by using photovoltaic (PV) cells. PV cells are made of materials that produce excited electrons when exposed to light. These electrons flow through a circuit and produce direct current (DC) electricity, which can be used to power the consumer or in cases when there is no demand (no use) then the electricity through the grid returns back to the network. The amount of this electricity is measure by two-way counters which is the obligation of Kosovo Distribution Company to install to prosumers (removing the current one-way counters).

There are two types of prosumers:

- o commercial company,
- o private user.

Increasing the prosumers in the electricity sector is fundamental to reach decarbonization targets and to ensure a just energy transition in Kosovo. Diversifying the energy mix is vital for Kosovo's decarbonization efforts and maintaining security of supply.

This indicator has significant specific goal to measure the promotion of renewable self-consumers (prosumers) and renewable energy communities, whose deployment will be encouraged by improved legal and regulatory framework and administrative procedures, as well as the introduction of various support schemes. In addition to boosting the capacity of prosumers in final electricity consumption, will also help to reduce distribution network losses. Measuring prosumers (producer-consumers) is essential for understanding and optimizing their role in modern energy, economic, and social systems. Institutions responsible for monitoring prosumers are Distribution Company of Kosovo (KEDS) and Energy Regulatory Office (ERO). Since installation of solar panels can influence the object's façade and construction also Municipalities need to give permit for construction permit because the installation of them usually is on the rooftops.

Prosumers are individuals or entities that both produce and consume goods or services, often in the context of distributed systems like energy production (solar panels). Prosumer is a consumer that also partially produces electricity but only for his own needs. It depends on the season (usually during the summer prosumers that have solar panels tend to

produce more than they consume but during the winter period then they produce less and consume more from the grid), on annual basis if the prosumer tends to produce more than 10% of what it has consumed (looking on annual basis), then with the notice of the Distribution Operator, the prosumer status will be lost and in order to proceed furthermore the consumer is considered as a generator onwards and needs to apply on different procedures to be able to return (sell) electricity to the grid or they can apply again after one year with expectation that the situation will change (whether to lower the installed capacity of RES producers or if there is an increase in the consumption due to different reasons). Here are the key reasons for measuring prosumers:

i) Understanding Contribution to Systems

- **Energy Systems:** In renewable energy, prosumers generate electricity (e.g., through solar panels) and consume it locally. Measuring their production and consumption helps balance supply and demand on the grid.
- **Content Ecosystems:** In digital platforms, prosumers create and consume content. Measuring their contributions helps platforms optimize user engagement and content quality.

ii) Policy and Regulation

- **Incentive Design:** Governments and organizations can design better subsidies, tax breaks, or incentives for prosumers if their contribution is quantified accurately.
- **Grid Management:** In energy systems, understanding prosumer behavior is critical for regulating distributed energy resources and maintaining grid stability.

iii) Economic Impact

- Prosumers play a dual economic role. Measuring their activities helps in assessing their overall impact on markets, such as reducing energy costs or increasing platform revenues.

iv) Technological Optimization

- **Efficiency Improvements:** Measuring prosumer activities enables technological advancements, such as smarter grids or personalized recommendations in digital platforms.
- **Integration:** For energy systems, measuring prosumer input helps in integrating renewable energy sources effectively.

v) Behavioral Insights

- Measuring prosumers helps understand their motivations, preferences, and usage patterns, which can inform better product design, marketing strategies, and user experiences.

vi) Sustainability and Resilience

- Prosumers often play a critical role in sustainable practices, such as reducing carbon footprints in energy systems. Measuring their contributions can guide progress toward sustainability goals.
- Their participation enhances system resilience, especially in decentralized networks.

vii) Market Development

- Understanding the scale and scope of prosumer activities can help identify new business opportunities, such as peer-to-peer energy trading or content monetization strategies.

Measuring prosumers is a way to harness their potential while ensuring that systems remain efficient, fair, and aligned with broader societal goals.

The necessary data to define this indicator are:

- # of KWs of prosumers` capacity approved and in operation in the electricity network.

The formula to calculate this indicator is the following:

$$D = \sum_{i=1}^n p$$

where:

D = Total RES capacity in electricity sector

p = total capacity in operation from prosumers in year "n".

This indicator will be disaggregated by (prosumers as company and private user) and municipality.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 The right for applying has every "end consumer" which is registered to the supplier and is connected to the low tension grid (0.4 kV) and medium level tension grid (6kV, 10kV, 20kV and 35kV). Each applicant will apply for approval for network connection at KEDS, approval from respective municipality, yearly consumption of electricity (at KEDS) and annual assesment of electricity production (kWh) from generators (KEDS).

3.2 Applicants then apply for licensing in ERO (Annex 13.1).

3.3 After obtaining the license from ERO, applicants then need to obtain following documents: appliance to the relevant municipality for Urban Consent (Request for Electrical Consent), appliance to KEDS (Customer Authorization for Project Installer/Developer), license of the developing company (electro energetic profile) and diploma of the executive engineer, electric project which includes:

- requested producing capacity
- type of RES (solar, wind, hydro, biogas),
- annual assesment of electricity production of electricity (kWh) from the generator by months
- consume from the grid in the last 12 months (kWh)

3.4 The capacity of installation of RES will be announced based on the annual

consumption and the approximate calculation, the installed capacity should be able to provide electricity no more than 10% on the annual balance (summed consumption and production which can also be for self-consumption and for returning to the grid). Later the procedure continues with the following procedures:

- coefficient of production by technology
- information about the system components:
- per module:
 - (type, producer, model, capacity of model, number of strings-for PV), as per inverter (number of installed inverters, capacity of inverter, type)
 - Producer
 - Model
 - Capacity of model
 - Number of strings (for PV)
- per inverter:
 - Number of installed inverters
 - Capacity of inverter (kW)
 - Type: one-phase or three-phase
 - Producer (origin where the inverter is made)
 - Model
 - Factor of power
- per battery (if there is one)
 - Capacity of batteries (kWh)
 - Type
 - producer

3.5 The Board of ERO will meet regularly (monthly) and approve capacity, based on the defined criteria from the applications.

3.6 The Board of ERO will issue the decisions for each application and will publish the decision in the ERO website: ero-ks.org (Annex 13.2).

3.7 Implementation company will install the RES and will bring the connection close to KEDS electricity grid. KEDS will install two-way counters and connect the RES producing facility to the grid.

3.8 ERO will provide a short analysis of the indicator on the annual report and publish it on the webpage ero-ks.org, on annual basis using tables 13.1 . However, the annual report only gives annual installed capacities and not overall capacities of prosumers. ERO also provides a Register of Applications for Generators for Self – Consumption where all approved prosumers are listed (table 13.2).

3.9 The data above are aggregated from RES division (DRES) within Energy Department-Ministry of Economy, which is responsible to report on achieving of the target for RES in electricity consumption set on Energy Strategy of Republic of Kosovo 2022-2031, progress report implementation of SEK for each municipality (table 13.3 is just a sample for one municipality). Data is entered by RES DoE staff using ESRK software using the same format of table 13.3.

3.10 The value analysis is done by DRES (MoE). Data analysis will focus on: i) comparison with expected targets; ii) the analysis of the value of the indicators based on the criteria used for decomposition (see the definition of this SII); iii) the reasons for any deviation

(positive or negative) from the expected targets; and iv) proposing M&V recommendations to improve the performance of the target results. All these aspects will be taken into account in the Indicator Analysis Sheet (SAT) and it should be drafted by the Distribution System Operator - KEDS for in collaboration with other members of the working group for M&V SERK.

3.11 The value of the indicator based on table 13.3 is archived in the S/E Matrix in electronic for-mat by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software.

3.12 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in April concerning the previous year (year n+1).

5. SOURCE OF VERIFICATION

Register of Applications for Generators for Self – Consumption (<https://www.ero-ks.org/zrre/en/applicants-register-authorization>).

Annex 13.1: Application for licensing in ERO for prosumer



Republika e Kosovës
Republika Kosova - Republic of Kosovo

ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



ANEKSI 2: Aplikimi për ndërtimin e Kapacitete të Reja Gjeneruese për vetë-konsumatorët me Burimeve të Ripërtërishme

TË DHËNA TË PËRGJITHSHME MBI APLIKUESIN		
EMRI I APLIKUESIT (PERSONI JURIDIK):		
ADRESA:		
REGJISTRIMI NR.		
TELENONI/		
E-MAIL:		
EMRI DHE MBIEMRI I PERSONIT KONTAKTUES:		
ADRESA:		
TELENONI/		
E-MAIL:		
INFORMACION SPECIFIK RRETH PROJEKTIT TË INFRASTRUKTURËS ENERGJETIKE		
LLOJI I PROJEKTIT	KAPACITETI I RI I GJENERIMIT PËR VETËKONSUMIMIN E BURIMEVE TË RIPËRTËRITSHME	☐
Vendndodhja dhe Koordinatat	Komuna	Informacion specifik mbi projektin

Nr.	Dëshmitë/dokumentet që duhen bashkëngjitur:	Shkruaj:	
		Po	ose Jo
1.	Dëshmi nga operatori i sistemit mbi konsumin vjetor të energjisë		
2.	Vlerësimi i prodhimit vjetor të kWh të Vetë-gjeneratorit të propozuar		
3.	Marrëveshja e kycjes me operatorin e sistemit		
4.	Pëlqimi i Komunës për instalimin e pajisjeve vetë-konsumuese të Ripërtërishme, nëse kërkohet me legjislacion përkatës për ndërtim.		

Adresa: Rr. Bekim Fehmiu (Ish Ndërtesa e Fazitës), kati:2, 10000 Prishtinë, Kosovë
Tel: 038 247 615 lok. 101, Fax: 038 247 620, E-mail: info@ero-ks.org, web: www.ero-ks.org

Annex 13.2: Examples of the approval certificate issued by ERO

**Bordi i Zyrës së Rregullatorit për Energji**

Mbështetur në Nenin 9 paragrafi 1 nënparagrafi 1.7, Nenin 15 paragrafi 1 nënparagrafi 1.15, Nenin 25, Nenin 26 paragrafi 1 nënparagrafi 1.2 dhe Nenin 43 paragrafi 1 të Ligjit për Rregullatorin e Energjisë (Nr. 05/L-084); Nenin 9 të Rregullës Nr. 03/2022 për Procedurën e Autorizimit për Ndërtimin e Projekteve të Energjisë të nxjerr nga Bordi i ZRRE-së; Nenin 3, 4, 5 dhe 7 të Rregullës Nr. 03/2023 për Vet-Konsumatorët me Burime të Ripërtitshme të nxjerr nga Bordi i ZRRE-së, dhe Aplikacionin për ndërtimin e kapaciteteve të reja gjeneruese për vetë - konsum nga panelet solare/fotovoltaike me kapacitet të instaluar prej 7 kW, e pranuar me datë 28.06.2024 nga aplikuesi "Besnik Xhoxhaj", me adresë: "Petrovë" Komuna e Prizrenit, Republika e Kosovës,

në seancën e mbajtur më 01 korrik 2024 nxori këtë:

V E N D I M**PËR NDËRTIMIN E KAPACITETEVE GJENERUESE PËR VETË-KONSUM**

- I. **APROVOHET** - kërkesa dhe miratohet Statusi i Prosumatorit aplikuesit "Besnik Xhoxhaj" për ndërtimin e kapaciteteve të reja gjeneruese për vetë – konsum nga panelet solare/fotovoltaike me kapacitet të instaluar prej 7 kW në Komunën e Prizrenit.
- II. **OBLIGOHET** – aplikuesi "Besnik Xhoxhaj" me shifër të regjistruar të njehsorit elektrike DPZ - 9049426 që pas ndërtimit të kapaciteteve të reja gjeneruese për vetë-konsum, të parashtoj kërkesë në KEDS SH.A., për pranim teknik të objektit energjetik.
- III. ZRRE do të konsideroj projektin e finalizuar nga data e pranimit teknik sipas Pëlqimit Elektroenergjetik të lëshuar nga KEDS SH.A.
- IV. Aplikuesi "Besnik Xhoxhaj" do të lidh Marrëveshje për vetë-prodhim me furnizuesin me të cilën ka kontratë për furnizim me energji elektrike, pas konfirmimit të pranimit teknik nga KEDS SH.A., në pajtim me Nenin 7 paragrafi 5 dhe 6 i Rregullës Nr. 03/2023 për Vet-Konsumatorët me Burime të Ripërtitshme.

A r s y e t i m

- ZRRE, me datë 28.06.2024 nga aplikuesi "Besnik Xhoxhaj" ka pranuar aplikacionin për ndërtimin e kapaciteteve të reja gjeneruese për vetë – konsum nga panelet solare/fotovoltaike, me kapacitet të instaluar prej 7 kW në Komunën e Prizrenit.
- Aplikuesi, s'bashku me aplikacionin ka bashkangjitur edhe dëshminë nga KEDS për konsumin vjetor të energjisë elektrike, vlerësimin për prodhimin vjetor në kW/h të pajisjeve të



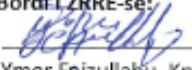
instaluar dhe pëlqimin elektroenergjetik Nr. 6321 të datës 17.05.2024 të lëshuar nga KEDS SH.A.

- o Bordi i ZRRE-së, pas analizimit të kërkesës së aplikuesit "Besnik Xhoxhaj" dhe dëshmime të bashkangjitura, për marrjen e statusit të prosuamtorti dhe ndërtimin e kapaciteteve të reja gjeneruese për vetë - konsum nga panelet solare/fotovoltaike, me kapacitet të instaluar prej 7 kW në Komunën e Prizrenit, ka vlerësuar ato, dhe ka konsideruar se janë plotësuar të gjitha dëshmitë relevante për lëshimin e vendimit për ndërtimin e kapaciteteve gjeneruese për vetë-konsum, dhe duke u mbështetur në dispozitat ligjore të cekura në hyrje të këtij Vendimi, ka vendosur si në dispozitiv të këtij Vendimi.

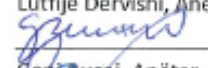
- V. Vendimi nxirret dhe publikohet në gjuhët zyrtare në Republikën e Kosovës.
- VI. Vendimi hyn në fuqi në datën e miratimit nga Bordi, dhe do të publikohet në faqen elektronike zyrtare të ZRRE-së.

Këshillë juridike: Pala e pakënaqur me këtë Vendim mund të inicioj konflikt administrativ në Gjykatën Kompetente, brenda tridhjetë (30) ditëve nga data e pranimit të Vendimit ose data e publikimit të tij në faqen elektronike të ZRRE-së, cilado që ndodh e fundit.

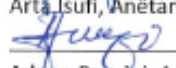
Bordi i ZRRE-së:


Ymer Fejzullahu, Kryesues


Lutfije Dervishi, Anëtare


Gani Gucaj, Anëtar


Arta Isufi, Anëtare


Adrian Preniqi, Anëtar

Vendimi lu dërgohet:

- Palës,
- KEDS SH.A.,
- KESCO dhe
- Arkivit të ZRRE-së.

Table 13.1 Annual report on new capacities of prosumers published on webpage ero-ks.org

Nr.	Subjekti Juridik	Objekti	Lokacioni	Kapaciteti i instaluar KW	Data e Lëshimit të Vendimit
1	NTP BLETA	Solare	Adresa: Greme, Komuna e Ferizajt, Republika e Kosovës	35.77	27.01.2023
2	SANTEFARM SH.P.K.	Solare	Adresa: Silatinë e madhe, Komuna e Fushë Kosovës	38.72	27.01.2023
3	FATMIR MJEKU B.I.	Solare	Adresa: Obiliq, Republika e Kosovës	70	27.01.2023
4	KUVENDI KOMUNAL PRIZREN	Solare	Adresa: Prizren, Republika e Kosovës	40	27.01.2023
5	Person Fizik S.M.	Solare	Adresa: Çagllavicë, Komuna e Prishtinës, Republika e Kosovës	10	27.01.2023
6	SH.F.M.U "Shkolla Model"	Solare	Adresa: Prishtinë, Republika e Kosovës	20	23.03.2023
7	SEFA METAL SH.P.K	Solare	Adresa: Tankosiq, Ferizaj, Republika e Kosovës	100	23.03.2023
8	RAHVERA - AB N.T.P	Solare	Adresa: Rahovec, Republika e Kosovës	14	23.03.2023
9	MOBILE DEKOR SH.P.K.	Solare	Adresa: Qyshk Pejë, Republika e Kosovës	15	23.03.2023
10	GNTC GORENJE sh.a.	Solare	Adresa: Veternik Prishtinë, Republika e Kosovës	100	23.03.2023
11	FEIS-COM SH.P.K.	Solare	Adresa: Parku I Bizneseve Mitrovica, Republika e Kosovës	49.95	23.03.2023
12	MABECO GROUP SH.P.K.	Solare	Adresa: Sigë Pejë, Republika e Kosovës	48	23.03.2023
13	ALFA SH.P.K.	Solare	Adresa: Veternik Prishtinë, Republika e Kosovës	49.95	23.03.2023
14	FOORTESA SH.P.K.	Solare	Adresa: Çagllavicë Prishtinë, Republika e Kosovës	50	23.03.2023
15	CONCORDIA Projekte Sociale	Solare	Adresa: 15 Faik Çabrat, Prizren, Republika e Kosovës	8.62	23.03.2023
16	DELFIN LTD	Solare	Adresa: Magj. Prishtinë -Lipjan, Republika e Kosovës	100	23.03.2023
17	Person Fizik N.SH.	Solare	Adresa: Gjakovë, Republika e Kosovës	10	23.03.2023
18	Person Fizik P.D.	Solare	Adresa: Korenicë, Gjakovë, Republika e Kosovës	8	23.03.2023
19	Person Fizik E.E.	Solare	Adresa: Drenas, Republika e Kosovës	8	23.03.2023
20	Person Fizik XH.H.	Solare	Adresa: rr. Isa Boletini, Gjakovë, Republika e Kosovës	5	23.03.2023
21	Person Fizik E.O.	Solare	Adresa: Nekodim, Ferizaj, Republika e Kosovës	8	23.03.2023
22	Person Fizik N.R.	Solare	Adresa: Novolan, Vushtrri, Republika e Kosovës	3	23.03.2023
23	Person Fizik S.B.	Solare	Adresa: rr. 24 Maji, Prishtinë, Republika e Kosovës	3	23.03.2023
24	SWISS MALL SH.P.K.	Solare	Adresa: Çagllavicë, Republika e Kosovës	30	05.05.2023
25	GELI SH.P.K.	Solare	Adresa: Rr. Skenderbeu, Gjakovë Republika e Kosovës	20	05.05.2023
26	Person Fizik S.A.	Solare	Adresa: Rr. 1 Tetori, Prishtinë, Republika e Kosovës	8	05.05.2023
27	Person Fizik E.K.	Solare	Adresa: Llapashticë, Podujevë, Republika e Kosovës	5	05.05.2023
28	Person Fizik H.B.	Solare	Adresa: Davidovc, Shtime, Republika e Kosovës	7	05.05.2023

Nr.	Subjekti Juridik	Objekti	Lokacioni	Kapaciteti i instaluar KW	Data e Lëshimit të Vendimit
34	Person Fizik L.B.	Solare	Adresa: Lagjja Qershia, Prishtinë, Republika e Kosovës	5.04	05.05.2023
35	Person Fizik M.A.	Solare	Adresa: Bruznik, Vushtrri, Republika e Kosovës	4.7	05.05.2023
36	Person Fizik A.M.	Solare	Adresa: Lagjja Avenue 23, Prishtinë, Republika e Kosovës	8.25	05.05.2023
37	Person Fizik X.H.B.	Solare	Adresa: Lagjja Qendresa, Prishtinë, Republika e Kosovës	3	05.05.2023
38	Person Fizik M.H.	Solare	Adresa: Orize, Gjakovë, Republika e Kosovës	5	05.05.2023
39	BANJA E DOBËRQANIT SH.P.K.	Solare	Adresa: Dobërqa n, Gjilan, Republika e Kosovës	40	13.12.2023
40	GOLDEN IMPERIAL SH.P.K.	Solare	Adresa: Shkabaj, Obiliq, Republika e Kosovës	35	13.12.2023
41	NT XENI COMERCE	Solare	Adresa: Xërxë, Rahovec, Republika e Kosovës	100	13.12.2023
42	HOTEL DARDANI SH.P.K.	Solare	Adresa: Shupkoc, Mitrovica, Republika e Kosovës	31	13.12.2023
43	MOBILERI DIORI SH.P.K.	Solare	Adresa: Ferizaj, Republika e Kosovës	25	13.12.2023
44	Person Fizik K.K.	Solare	Adresa: Ferizaj, Republika e Kosovës	4.5	13.12.2023
45	Person Fizik A.I.	Solare	Adresa: Prishtinë, Republika e Kosovës	5	13.12.2023
46	Person Fizik M.K.	Solare	Adresa: Karavicë, Gjilan, Republika e Kosovës	10	13.12.2023
47	Person Fizik V.S.	Solare	Adresa: Lagjja Nicë, Prishtinë, Republika e Kosovës	2.5	13.12.2023
48	Person Fizik R.G.	Solare	Adresa: Rr. Wesley Clark, Gjakovë Republika e Kosovës	3.5	13.12.2023
49	Person Fizik B.H.	Solare	Adresa: Skivjan, Gjakovë Republika e Kosovës	2.5	13.12.2023
50	Person Fizik D.K.	Solare	Adresa: Damjan, Gjakovë Republika e Kosovës	3	13.12.2023
51	Person Fizik A.P.	Solare	Adresa: Lec Gradica, Prishtinë Republika e Kosovës	6	13.12.2023
52	Person Fizik D.P.	Solare	Adresa: Lugbunar i, Gjakovë Republika e Kosovës	3	13.12.2023
53	Person Fizik B.J.	Solare	Adresa: Slivovë Ferizaj, Republika e Kosovës	5	13.12.2023
54	ILIRIA SH.P.K.	Solare	Adresa: Balloç Podujeva, Republika e Kosovës	100	28.12.2023
55	NTSH BACI PETROL	Solare	Adresa: Lidhja e Prizrenit, Klina, Republika e Kosovës	15	28.12.2023
56	BIFFE MARTIN NUE SIMONI	Solare	Adresa: Fshati Dol, Gjakovë Republika e Kosovës	15	28.12.2023
57	EUROTHESI SH.P.K.	Solare	Adresa: Doganaj, Kaçanik Republika e Kosovës	100	28.12.2023
58	Person Fizik A.D.	Solare	Adresa: Rr. Tivarit, Gjakovë, Republika e Kosovës	6	28.12.2023
59	Person Fizik S.S.	Solare	Adresa: Rr. Flamuri, Prizren, Republika e Kosovës	7	28.12.2023
60	Person Fizik F.B.	Solare	Adresa: Rr. Muaharrem Çami, Prizren, Republika e Kosovës	6	28.12.2023
64	Person Fizik E.R.	Solare	Adresa: Rr. Bekim Osmani, Ferizaj, Republika e Kosovës	3	28.12.2023
62	Person Fizik R.B.	Solare	Adresa: Rr. Turjakë, Malisheva, Republika e Kosovës	3	28.12.2023
63	Person Fizik M.H.	Solare	Adresa: Hereç, Gjakovë, Republika e Kosovës	5	28.12.2023
64	Person Fizik X.H.B.	Solare	Adresa: Raçë, Gjakovë, Republika e Kosovës	3	28.12.2023
65	Person Fizik G.J.T.	Solare	Adresa: Pasko Vasha, Gjakovë, Republika e Kosovës	5	28.12.2023
66	Person Fizik G.J.T.	Solare	Adresa: Rr. Bajo Topulli, Prizren, Republika e Kosovës	3	28.12.2023
Gjithsej				1610.2 kW	

Table 13.2: Register of Applications for Generators for self – consumption (published on <https://www.ero-ks.org/zrre/en/applicants-register-authorization>)

 Republika e Kosovës Republika Kosovo - Republic of Kosovo ZYRA E RREGULLATORIT PËR ENERGJI REGULATORNI URED ZA ENERGIJU ENERGY REGULATORY OFFICE 						
Regjistri i Aplikacioneve për gjeneratorët për VETË – KONSUM						
Register of Applications for Generators for SELF - CONSUMPTION						
Nr.	Shoqëria/Entity:	Lokacioni / Location:	Gjenerator për VET-KONSUM/ SELF CONSUMPTION	Kapaciteti i instaluar/ Installed Capacity - kW-	Data e aplikimit për Autorizim/ Date of application for Authorization	Data e Dhënies së Autorizimit/ Date of Issuance of Authorization
1	"SHQIKOS ARALKO" SH.P.K.	Adresa: Fshati Bunovc, Kamenicë, komuna e Kamencës, Republika e Kosovës	SOLARE	67.2	31.08.2018	proces
2	"N.T "LIRIDONI"	Adresa: Magjistralla Pejë - Decan, Komuna e Pejës, Republika e Kosovës	SOLARE	95	05.09.2018	24.09.2018
3	"AGRO TRADE" SH.P.K.	Adresa: Gracanice, Komuna e Gracanices, Republika e Kosovës	SOLARE	60	05.09.2018	24.09.2018
4	"ÇARSHIA" SH.P.K.	Adresa: Lagjja Marigona Rezidence Nr. 7/1, komuna e Gracanices, Republika e Kosovës	SOLARE	100	05.09.2018	24.09.2018
5	"IADK"	Adresa: Sfaracak I Ulët nr. 11, Komuna e Vushtrrisë, Republika e Kosovës	SOLARE	10	18.12.2018	28.01.2019
6	"Person Fizik"- S.I.	Adresa: Rr. "Nënë Tereza" K III, Komuna e Gjakovës	SOLARE	4.88	05.09.2018	28.01.2019
7	"Person Fizik - RR.D."	Adresa: Rr. "Isa Kastrati", Komuna e Prishtinës, Republika e Kosovës.	SOLARE	5	02.04.2019	16.04.2019
8	"Person Fizik - S.H."	Adresa: fsh. "CECELI", Komuna e Vushtrrisë, Republika e Kosovës.	SOLARE	5	10.04.2019	05.06.2019
9	NTSH "TIC - TAC - Service & Supply"	Adresa: "Shkuzga", Komuna e Gjakovës, Republika e Kosovës.	SOLARE	4.8	15.04.2019	05.06.2019
280	BIFFE MARTIN NUE SIMONI	Adresa: Fshati Dol, Gjakovë Republika e Kosovës	SOLARE	15	18.12.2023	28.12.2023
281	EUROTHESI SH.P.K.	Adresa: Doganaj, Kaçanik Republika e Kosovës	SOLARE	100	21.12.2023	28.12.2023
282	Person Fizik A.D.	Adresa: Rr. Tivarit, Gjakovë, Republika e Kosovës	SOLARE	6	12.12.2023	28.12.2023
283	Person Fizik S.S.	Adresa: Rr. Flamuri, Prizren, Republika e Kosovës	SOLARE	7	13.12.2023	28.12.2023
284	Person Fizik F.B.	Adresa: Rr. Muaharrem Çami, Prizren, Republika e Kosovës	SOLARE	6	18.12.2023	28.12.2023
285	Person Fizik E.R.	Adresa: Rr. Bekim Osmani, Ferizaj, Republika e Kosovës	SOLARE	3	20.12.2023	28.12.2023
286	Person Fizik R.B.	Adresa: Rr. Turjakë, Malisheva, Republika e Kosovës	SOLARE	3	20.12.2023	28.12.2023
287	Person Fizik M.H.	Adresa: Hereç, Gjakovë, Republika e Kosovës	SOLARE	5	20.12.2023	28.12.2023
288	Person Fizik XH.B.	Adresa: Raçë, Gjakovë, Republika e Kosovës	SOLARE	3	21.12.2023	28.12.2023
289	Person Fizik GJ.T.	Adresa: Pasko Vasha, Gjakovë, Republika e Kosovës	SOLARE	5	21.12.2023	28.12.2023
290	Person Fizik GJ.T.	Adresa: Rr. Bajo Topulli, Prizren, Republika e Kosovës	SOLARE	3	26.12.2023	28.12.2023
				9474.06		

Table 13.4: Data aggregation and data presentation table (to be digitized through ESRK software)

MUNICIPALITY	PROSUMERS				TOTAL
	COMPANIES		PRIVATE USERS		
	#	KW	#	KW	
Municipality 1					
Municipality 2					
Municipality "n"					
TOTAL					

6.14 INSTALLED RES CAPACITY IN DISTRICT HEATING SYSTEM

Indicator Type: Output Indicator

1. DEFINITION

This indicator determines the installed capacity of RES (e.g. biomass, geothermal, solar heat pumps) in district heating (DH) systems. Kosovo as of now only has two municipality based DH; Termokos (Prishtina) and Gjakova DH. However, the Energy Strategy of the Republic of Kosovo foresees a feasibility study for DH systems in eight municipalities (in addition to Gjakova and Prishtina). The level of use and combination of technologies until 2031 and the decision for the development of such technologies will be determined through the review of the 3-year energy strategy implementation program and inclusion in the National Energy Plan and Climate. It also foresees that the existing heating system in Prishtina will diversify technologies so that by 2025 it will also include solar-based heating of at least 50 MW.

Renewable energy-based district heating (RES-based DH) is highly relevant for Kosovo as the country seeks to transition towards a more sustainable, energy-secure future. Kosovo relies heavily on coal for electricity generation, leading to high carbon emissions and significant air pollution, which are major public health concerns. By investing in RES-based district heating systems, Kosovo could reduce its dependence on fossil fuels, diversify its energy mix, and lower emissions. Moreover, this shift would enhance energy security by decreasing reliance on imported fuels and align Kosovo with broader EU climate goals, which emphasize decarbonization and renewable energy integration.

The value of this indicator is calculated through the following formula:

$$D=(p1+ p2+pn)$$

where:

D = Total RES capacity in district heating

P1 = capacity installed in the district heating of Prishtina in year "n" of ESRK implementation period

P2 = capacity installed in the district heating of Gjakova in year "n" of ESRK implementation period

Pn = capacity installed in the district heating of all the other municipalities in year "n" of ESRK implementation period

The indicator is disaggregated by the type of RES technology (biomass, solar and geothermal) and municipality

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 The municipality contracts the team for Feasibility Studies and Environmental and Social Impact Assessment in which document is included definition of the location where the heating plant and deposits will be built, source of energy, cost-benefit analysis, etc.

3.2 The municipality selects the project consultancy/company, signs the contract, prepares the conceptual design, identifies parcels, manages the expropriation process, and conducts the financial analysis

3.3 Publication of the Tender announcement for the selection of the contractor.

3.4 The contractor has to apply to Energy Regulatory Office (ERO) for production, distribution and supplying thermal energy of new capacity based on RES permits (Annex 14.1);

3.5 ERO then issues the license (Annex 14.2) and publishes the decision and the list of beneficiaries with the RES capacities installed and in operation in their annual reports (see table 14.1).

3.6 Prior to starting construction the contractor needs to apply for additional permits such as: environmental, construction conditions, permits and consents for works related to terrain analysis, the impact of the electric lines on the heating plant, the water supply network, etc.

3.7 The number of capacities is entered and automatically aggregated by the ESRK software run by District Heating Companies (DHCs) using the format proposed in table 14.2.

3.8 The value analysis is carried out by the District Heating Companies (DHCs), Ministry of Economy – Department of Energy and Municipalities. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by District Heating in liaison with other ESRK M&E working group members.

3.9 The value of the indicator based on table 14.2 is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Strategic Planning Division of the Department of Energy (MoE).

3.10 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implementing in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually and presented in January of the following year (year n+1).

5. SOURCE OF VERIFICATION

MOE/DoE data collection table.

Annex 14.1: License from ERO



Annex 14.2: An example of the approval certificate issued by ERO



Republika e Kosovës
Republika Kosova - Republic of Kosovo

ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



LICENCË PËR BASHKËPROD HIM TË ENERGJISË ELEKTRIKE DHE ENERGJISË TERMIKE (nga biomasa)

DHËNË :

“Ngrohtorja e Qytetit” SH.A.

Numri i Licencës: ZRRE/Li_97/24

Table 14.1: Register of RES capacity by heating system

APLIKACIONE BIOMASA / BIOMASS

Autorizime FINALE / FINAL AUTHORIZATION

Nr.	Shoqëria/Entity:	Adresa / Address:	Lokacioni / Location:	BRE/RES	Kapaciteti i Instaluar/ Installed Capacity	Data e aplikimit për Autorizim/ Date of application for Authorization	Data e dhënies së Autorizimit Preliminar/ Date of Issuance of Preliminary Authorization	Data e Dhënies së Autorizimit Final/ Date of Issuance of Final Authorization	Data e aplikimit për Pranim në Skemën Mbështetëse/ Date of application for admission to Support Scheme	Data e Pranimit në Skemën Mbështetëse / Date of Admission to Support Scheme	Data Operimit/Date of Operation	Aplikacionet që përfshihen/tërsh ken nga Skema Mbështetëse/ Applications that are exempt/withdrawn from Support Scheme
1	N.P. NGROHTORJA E QYTETIT SH.A. GJAKOVA	Nruga Transite p.n., Gjakovë, Republika e Kosovës	Lokacionin, Rezina, Gjakovë, KK Gjakova, Republika e Kosovës	BIOMASA	1.2 MW	20.04.2018	16.04.2019	27.11.2019	20.04.2018	16.04.2019	Proces/Komisionim	
Totali					1.2 MW							

Table 14.2: Data collection and aggregation table (to be digitized through ESRK software)

MUNICIPALITY	TYPE OF RES			CAPACITY INSTALLED ()
	BIOMASS	GEOTHERMAL	SOLAR	
Prishtina (Termokos)				
Gjakova DH				
Gjilan				
Ferizaj				
Prizren				
Pejë				
Drenas				
Obiliq/Kastriot				
Mitrovicë				
Zveqan				
				TOTAL

6.15 FINAL ENERGY CONSUMPTION LEVEL

Indicator Type: Outcome Indicator

1. DEFINITION

The final energy consumption level refers to the total amount of energy consumed by end-users (e.g., households, industry, transport, agriculture and services) within a specified period, typically measured in kilotons of oil equivalent (ktoe). This indicator is used to assess the efficiency of energy use across different sectors and track progress towards energy efficiency targets. For example, in Kosovo's Energy Strategy, the target for final energy consumption by 2031 is set at 1,877 ktoe, which represents a 22.2% reduction compared to baseline projections from 2007 PRIMES modelling.

This indicator helps determine the success of energy efficiency measures in reducing overall energy consumption, improving sustainability, and achieving long-term energy goals, such as decreasing dependency on imports, ensuring affordability, and reducing environmental impacts. Various data sources contribute to the tracking of energy consumption in Kosovo, including the **Kosovo Agency of Statistics** for demographic and social data, the **Kosovo Energy Corporation (KEK)** for data on coal (production, supply, and stocks) and electricity consumption, **Distributive Corporation KESCO** for data on electricity consumption, **KOSTT** for periodic data on the electro-energy balance, **Kosovo Coal** for coal trading data, **central heating enterprises** for energy flow data, and **MTI** for processed data on petroleum products. These institutions collectively provide valuable insights into energy consumption patterns and help guide energy management policies.

The value of this indicator is calculated through the following formula:

$$D = \sum_{i=1}^n (E_H + E_I + E_T + E_A + E_S)$$

where:

D = final energy consumption level

E_H = is the final energy consumption level of households in year "n" of ESRK implementation period

E_I = is the final energy consumption level of industry in year "n" of ESRK implementation period

E_T = is the final energy consumption level of transport in year "n" of ESRK implementation period

E_A = is the final energy consumption level of agriculture in year "n" of ESRK implementation period

E_S = is the final energy consumption level of services in year "n" of ESRK implementation period

The value of the indicator is disaggregated by type of end-user/economic sectors: households, industry, transport, agriculture and services

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Kosovo Agency of Statistics (KAS) requests information from the institutions mentioned in section 1.

3.2 KAS drafts the report based on the received data, using EUROSTAT's methodologies, and publishes the report (Table 15.1). The report is then sent to EUROSTAT for review and further action.

3.3 Division of Strategic Planning and Regional Cooperation (DSPRC) will aggregate the data for the final energy consumption based on the table 15.2. This data presentation table is digitized using ESRK software by DoE.

3.4 The value analysis is carried out by the DSPRC (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.5 The value of the indicator based on table 15.2 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.6 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually and presented in June of the following year (year n+1).

5. SOURCE OF VERIFICATION

MOE/DoE data collection table.

Table 15.1: Data collection table:

Balanca Vjetore e Energjisë e Republikës së Kosovës për vitin 2017

Shtojca 3. Balanca vjetore e energjisë e Republikës së Kosovës për vitin 2017

Balanca vjetore e Energjisë për 2017 (ktoe)	Totali	Antracit	Thëngjill bituminoz dhe tjera	Linjit	Koks dhe glysëm koks	Totali i thëngjillit
Prodhim primar	1785,84			1408,89		1408,89
Prodhimet e përfituara	0,00					0,00
Importet	817,28	0,00	1,20	1,60	0,15	2,94
Diferenca e stokut	38,66			38,66		38,66
Eksportet	107,95	0,00	0,00	2,65	0,00	2,65
Bunkerët	0,00					0,00
Konsumi i brendshëm bruto	2633,84	0,00	1,20	1446,50	0,15	1447,85
Hyrja në transformim	1393,00	0,00	0,00	1385,82	0,00	1385,82
Termocentralet	1392,04			1385,82		1385,82
Termocentralet me prodhim automatik						
Centralet bërthamore						
Implantet me lëndë djegëse të patentuara dhe briqete						
Implantet me furrë koks						
Implantet me furrë martin						
Stacionet e gazifikimit	0,00					
Rafineritë (mikro rafineri)	0,00					
Implantet e ngrohjes qëndrore	0,54					
Panele solare	0,42					
Daljet nga Transformimi	512,57	0,00	0,00	0,00	0,00	0,00
Termocentralet	492,39					
Termocentralet me prodhim automatik						
Centralet bërthamore						
Implantet me lëndë djegëse të patentuara dhe briqete						
Implantet me furrë koks						
Implantet me furrë martin						
Stacionet e gazifikimit						
Rafineritë (mikro rafineri)	0,00					
Implantet e ngrohjes qëndrore	19,76					
Panele solare	0,42					
Shkëmbimet dhe transferet, kthimet	0,00					
Transferet e mesproduktit	0,00					
Produktet e transferuara	0,00					
Kthimet nga industria petrokimike	0,00					
Humbjet në transformim	0,00					0,00
Konsumi nga depët e energjisë (vetëkonsumi)	52,09					
Humbjet në bartje dhe shpërndarje	65,84					
Në dispozicion për konsum final	1634,64	0,00	1,20	60,68	0,15	62,03
Konsumi final jo-energetik	37,11					0,00
Industria kimike	0,00					0,00
Sektorët tjerë	37,11					0,00
Konsumi final i energjisë	1461,74	0,00	1,20	60,69	0,15	62,04
Industria	301,24	0,00	1,19	15,37	0,15	16,71
Industria e hekurit dhe çelikut	79,02	0,00	1,19	12,14	0,15	13,48
Industria e metaleve jo-ferrore	25,86	0,00	0,00	0,00	0,00	0,00
Industria kimike	1,41	0,00	0,00	0,00	0,00	0,00
Industria e xhamit, qeramikës dhe materialeve ndërtimore	94,13	0,00	0,00	0,25	0,00	0,25
Industria e nxjerrjes së xeheve	1,94	0,00	0,00	0,00	0,00	0,00
Industria e ushqimit, pijeve dhe duhanit	49,75	0,00	0,00	2,97	0,00	2,97
Industria e tekstilit, lëkurës dhe veshëmbathjes	0,11	0,00	0,00	0,00	0,00	0,00
Industria e letrës dhe stampimit	0,27	0,00	0,00	0,00	0,00	0,00
Inxhinieringu dhe industritë tjera të metaleve	0,01	0,00	0,00	0,00	0,00	0,00
Industritë tjera	48,74	0,00	0,00	0,01	0,00	0,01
Transporti	408,36	0,00	0,00	0,00	0,00	0,00
Transporti hekurudhor	2,23	0,00	0,00	0,00	0,00	0,00
Transporti rrugor	400,20	0,00	0,00	0,00	0,00	0,00
Transporti ajror	5,92	0,00	0,00	0,00	0,00	0,00
Navigacioni i brendshëm	0,00	0,00	0,00	0,00	0,00	0,00
Amvisëria	557,68	0,00	0,00	7,44	0,00	7,44
Bujqësia	29,60	0,00	0,00	0,69	0,00	0,69
Shërbimet	164,86	0,00	0,01	37,19	0,00	37,20
Diferenca statistikore	35,69	0,00	0,00	0,00	0,00	-0,01

Table 15.2. Data presentation table (to be digitized though ESRK software)

FINAL ENERGY CONSUMPTION (KTOE)	TOTAL
HOUSEHOLDS	
INDUSTRY	
TRANSPORT	
AGRICULTURE	
SERVICES	
	TOTAL

6.16 CUMULATIVE ENERGY SAVINGS ACHIEVED IN THE BUILDING SECTOR

Indicator Type: Outcome Indicator

DEFINITION

The most significant goal within energy efficiency is to improve energy efficiency in the building stock, as buildings account for more than 40% of annual national energy consumption. This objective will be achieved by setting minimum energy performance requirements for new buildings and those being renovated, and the implementation of EE measures in the existing building stock through different support schemes²⁴ (implementation of the Building Renovation Strategy), promoting Near Zero Energy Consumption Buildings, supporting highly efficient technology deployment (e.g. heat pump, solar thermal, etc.), introducing the Energy Performance Certification in buildings, energy auditing, and raising public awareness for EE measures. The indicator “Energy savings of public buildings” measures the reduction in energy consumption achieved in government, public and commercial sector facilities through energy efficiency improvements. It quantifies the impact of measures such as enhanced insulation, efficient heating, ventilation, and cooling (HVAC) systems, sustainable lighting, and building renovations. This reduction is expressed in energy units (GWh or ktoe) and is monitored to ensure compliance with Kosovo’s Energy Strategy 2022–2031 and Law No. 06/L-079 on Energy Efficiency. Specifically, Article 2 of the law mandates an annual renovation of at least 1% of the total floor area of central government buildings, increasing to 3% under the revised law, to meet minimum energy performance standards.

Energy saving in the building sector is a worldwide known practice of reducing the energy consumption and the pollution at the same time. According to the International Energy Agency (IEA), cumulative energy savings from efficiency measures in buildings between 2010 and 2020 in the world were about 5,000 TWh—enough to power the entire European Union for more than a year. Net-zero and energy-efficient buildings are expected to prevent nearly 10 Gt of CO₂ emissions by 2050, an equivalent of two times CO₂ emissions of United States (~5 Gt of CO₂ per year) or four times of European Union (~2.5 Gt of CO₂ per year). For absorbing 10 Gt of CO₂ it is needed 455 trillion trees in a year (there are ~3 trillion trees worldwide). All these facts show how important energy saving in the building sector is in tackling climate change and reducing of impact on the environment. Following the world trends, Republic of Kosovo also has set some targets of achieving energy saving in the building sector. The Energy Efficiency Fund was created in order to support the energy saving in the building sector. There are subventions for energy efficient HVAC equipment for households which boost the reduction of energy consumption. Energy savings do not just impact the environment, but also contribute to reduction of energy poverty since Republic of Kosovo is known for its huge energy poverty (inability of people to cover their energy expenses or to afford sufficient energy to meet basic needs). Efficient equipment refers to devices, appliances, or systems that use less energy, water, or resources to perform the same function as their conventional counterparts which allows that people can meet their basic needs meanwhile not raising the electricity bill.

However, tracing the energy savings in the building sector is quite a complex process, especially in Republic of Kosovo since there isn’t mandatory to have energy audit for each object. For now, the energy savings can be traced completely only in public sector, meanwhile residential sector is monitored only for some of the Energy Efficient measures are applied (mostly insulation measures and eventually heating/cooling). As per commercial sector, there isn’t ways of reporting the energy savings since it is not mandatory energy audit

for commercial objects. Majority of the subventions for the energy efficient equipment do not have monitoring/reporting measures for the energy savings in the residential or commercial sector. Usually, the practice is that the amount of the investments multiplied by a supposed energy saving for 5 million Euros of investment in EE the energy saving would be approximately 1 ktoe

This indicator was chosen for its importance in tracking Kosovo's progress toward national and EU energy efficiency targets, including compliance with the Energy Efficiency Directive (2012/27/EU) and the Directive on Energy Performance of Buildings (2010/31/EU, amended by Directive (EU) 2018/844). It supports the National Building Renovation Strategy (SKRN), which aims to transform public buildings into near-zero energy structures. By measuring reductions in energy used for heating, cooling, and lighting, the indicator ensures cost-effective renovations and incentivizes sustainable investments. Despite these efforts, Kosovo faces challenges, including high energy intensity—exceeding the Western Balkans average by 25% and nearly three times that of the EU. Addressing these issues requires continued investment, policy implementation, and public awareness to achieve the nation's energy efficiency objectives.

The value of the indicator is calculated through the following formula from monitoring and verification platform (MVP) that is managed by the Division of Energy within the Ministry of Economy (MoE) is:

$$FES = B_{public} + B_{residential} + B_{commercial}$$

Where:

FES- The equation for calculating the energy saving for mass M1; kWh/year

B_{public} - Energy savings in public buildings

B_{residential} - Energy savings in residential buildings

B_{commercial} - Energy savings in commercial buildings.

The parameters that may be used to disaggregate the indicator is types of public buildings (public buildings, residential buildings, commercial etc.).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The collection, analysis, and dissemination of data for public buildings implementing energy efficiency (EE) measures follow these structured steps:

3.1 Before implementing EE measures for public buildings, a detailed energy audit is conducted by Energy Auditor for each public building who will produce an "Energy Audit Report" – Annex 16.1. This audit assesses the building's current energy consumption and identifies opportunities for efficiency improvements. As for now, this procedure is not completely implemented and the savings are usually calculated with the difference between the electricity bill (before and after the implementation of the measure).

3.2 Based on the recommendations from the Energy Audit Report, energy efficiency measures such as insulation upgrades, heating, cooling eventually ventilation system improvements, or sustainable lighting installations are implemented by the owners of the buildings. These measures are designed to enhance the building's energy performance (Annex 16.2)

3.3 Once the renovations are completed, the effectiveness of the implemented EE measures must be verified by the MVP platform. This involves re-evaluating the building's energy performance to determine the actual energy savings and the amount of CO2 emissions released compared to the pre-renovation baseline or once the renovation is completed the energy savings may be presented as calculated.

3.4 The Department of Energy within MoE enters key energy saving data into the Monitoring and Verification Platform (MVP) run by MoE. The MoE collects the data using Excel files from institutions such as Kosovo Energy Efficiency Fund (KEEF) and eventually municipalities for each public building in order to populate MVP. The value of energy savings for residential sector is calculated via the formula:

$$FES = \left(\frac{SHD_{init}}{\eta_{init}} - \frac{SHD_{new}}{\eta_{new}} \right) \cdot A_{Heated}$$

See the MVP data entry screenshot proposed in the screenshot table 16.1.

3.5 MVP automatically aggregates the data (see screenshot Table 16.2). This table provides comprehensive insights into the cumulative energy efficiency improvements achieved across public buildings. Table 16.3 summarizes the most important information captured in the MVP data aggregation table.

3.6 The value of the residential savings is automatically generated by MVP (see data presentation screenshot 16.4).

3.7 Residential buildings that implement energy efficiency (EE) insulation measures are monitored through a structured process. The data collection begins with an energy audit, which can be either a simplified or a detailed audit (see annex 16.1), depending on the requirements and EE measures are recommended.

3.8 After the implementation of recommended measures, KEEF verifies/inspects the implementation/ quality and calculates the energy savings using World Bank Protocol (see annex 16.3) and presents the energy savings for each beneficiary in a report including table 16.4.

3.9 KEEF presents the overall energy savings for all beneficiaries in a report, published on KEEF webpage on regular basis (see annex 16.4).

3.10 Energy savings from implementing energy efficient appliances in residential buildings are collected through electricity consumption of beneficiary meters. MoE will send a request to KESCO using table 16.5, requesting an electricity consumption report for periods before and after measure implementation, for beneficiary meters.

3.11 Commercial buildings that implement energy efficiency (EE) measures are calculated by Energy Efficiency division within Energy Department of Ministry of Economy from investments, using the following formula: 5 M EUR for 1 ktoe, as presented in table 16.6.

3.12 The data is entered by Energy Efficiency Division within Energy Department, in Ministry of Economy, and all the investments are presented in the table 16.7 using ESRK software.

3.13 The value analysis is carried out by the DEE, part of Ministry of Economy, Kosovo Energy Efficiency Fund and municipalities. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by Department of Energy part of ministry of Economy and KEEF in liaison with other ESRK M&E working group members.

3.14 The value of the indicator based on table above is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Strategic Planning Division of the Department of Energy (MoE).

3.15 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implementing in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Data for public sector is collected from MPV platform (table 16.3). The source of data for residential buildings is the report from detailed audit report from FKEE (table 16.4, 16.5 and Annex 16.4) and for commercial buildings the reporting tables from Energy Efficiency Division within Energy Department of Ministry of Economy (table 16.3).

Annex 16.1: Format of the simplified energy audit report

General details of the applicant/household

Simplified Energy Audit Report - Form of Application to KEEF	
House owner:	
Name & Surname:	
Name/surname of the co-owner:	
Contact number	
Home address	
Coordinates – GPS	
Municipality	
Electric meter number or D – unique number (found on the energy bill)	
House construction year:	
Ground floor area [m ²]	
Number of floors	
Total area of all floors [m ²]	
Heated area in %	_____ %
Number of residents living in the house	
Energy source used for heating.	☐ Firewood _____ [m ³ /year] _____ [€] ☐ Electricity _____ [KWh/vit] _____ [€] ☐ Lignite _____ [tonne/year, or m ³ /year] _____ [€] ☐ Gas _____ [m ³ /year] _____ [€] ☐ Other _____ (specify) _____ [€]
Total energy consumption before EE measures	_____ [kWh/year]
Total estimated energy consumption after proposed measures	_____ [kWh/year]
Potential savings of primary energy	[kWh/year] _____
Reduction of CO ₂	Ton CO ₂ [ton/year] _____
Heating system	☐ Central heating system ☐ System with individual heaters ☐ No heating system
Cooling system:	☐ Split AC system ☐ Multi split AC system ☐ No air conditioning

Type of measure you apply:	☐ Thermal insulation of external walls ☐ Thermal insulation of the roof frame, entrance overhangs, balcony ceilings ☐ Replacement of windows and terrace doors ☐ Replacement of entrance doors ☐ Thermal insulation of sloped roof - warm roof/used ☐ Thermal insulation of sloped roof - roof deck/cold roof ☐ Thermal insulation of flat roof and/or terrace above heated space ☐ Thermal insulation of basement ceiling/unheated ground floor
Are there dangerous materials (<i>asbestos, etc.</i>) in the positions where the EE measures will be applied. Note: If asbestos material is present, the AE must inform the applicant/beneficiary to agree to its treatment, according to the legislation in force in Kosovo	☐ Yes ☐ No
Is the existing thermal envelope of the external walls suitable for the proposed measures, according to the criteria defined by KEEF	☐ Yes ☐ No

*Note: multi-apartment buildings are not part of this project

Date of visit	
Date of issuance of the report	
Date of revision of the report (when applicable)	

The data for the Energy Auditor

Name and surname	
Number of certificate	
Contact number and Email	
Signature	

Annex 16.2 Technical description of the Energy Efficiency Measures to be applied

Description of measure					
S.N.	House Envelope Elements (Insert a photo)	Detailed description of the EE measure according to the technical criteria defined by KEEF in BoQ	Quantity [m ²]	Price per unit [Euro]	Total cost [Euro]
1	External walls				
.....	The position that will be implemented based on the BoQ of KEEF (Insert a photo)				
Total cost of energy efficiency measures					
			Total cost [Euro]:		
Sub-sidy cost			Subsidy cost – value 45% [Euro]:		
	Subsidy cost – value 50% [Euro]:				

The data for the Energy Auditor

Name and surname	
Number of certificate	
Contact number and Email	
Signature	

By signing this report, the Auditor confirms that he/she will perform the service in compliance with Article 17-“Code of Conduct for Energy Auditors” of Regulation No. 05/2020⁸, that he/she has physically visited the building and has accurately applied the criteria determined according to the legal regulations in force and the KEEF and that he/she takes responsibility for the accuracy of the measurements and quantities presented for the building subject to this report. The auditors will perform the service in compliance with the legal provisions of Law No. 06/L-011 on Prevention of Conflict of Interest in Discharge of Public Functions. Concerning this Project, the energy auditors do not have the right to verify the implementation of EE measures in the individual houses for which they performed simplified energy audits.

If the Energy Audit Report does not meet the predetermined criteria, KEEF will identify the Energy Auditor and request the ME to act in accordance with the provisions of Regulation No. 05/2020

Furthermore, it confirms that this service has been carried out according to KEEF's specified criteria for payment up to 150 Euros per report and that the same may serve as a document for disbursement of the auditing service.

⁸ Regulation (MEETIES) No. 05/2020 for the system of energy service providers and minimum criteria for energy audit

LLOGARITJA E VLERËS U

SHËNIM: PLOTËSONI HAPËSIRAT E HIJEZUARA ME TË GJELBËR SIPAS MASAVE TE PROPOZUARA

Shënim: Tabelat llogaritëse të shtohen sipas nevojës

Fasada 1				
Muri i jashtëm				
Shitesat	d (m)	λ (W/m ² ·°C)	R (m ² ·°C/W)	U (W/m ² ·°C)
Rezistenca e sipërfaqes (e jashtme)	0.02	1	0.04	
Shitesat i jashtëm				
Isolimi termik (EPS) 15-20 kg/m ³	0.12	1	0.120	
Blloqe argjile me vrima	0.25	1	0.250	
Sivaja e brendshme	0.02	1	0.020	
Rezistenca e sipërfaqes (e brendshme)			0.13	
Total Resistancë			0.6	1.72

Fasada 2				
Muri i jashtëm				
Shitesat	d (m)	λ (W/m ² ·°C)	R (m ² ·°C/W)	U (W/m ² ·°C)
Rezistenca e sipërfaqes (e jashtme)	0	1	0.04	
Shitesat i jashtëm				
Isolimi termik (EPS) 15-20 kg/m ³	0	1	0.000	
Blloqe argjile me vrima	0	1	0.000	
Sivaja e brendshme	0	1	0.000	
Rezistenca e sipërfaqes (e brendshme)			0.13	
Total Resistancë			0.2	5.88

Kulmi				
Shitesat	d (m)	λ (W/m ² ·°C)	R (m ² ·°C/W)	U (W/m ² ·°C)
Rezistenca e sipërfaqes (e jashtme)	0.02	1	0.04	
Shitesat i jashtëm				
Isolimi termik (EPS) 15-20 kg/m ³	0.15	1	0.150	
Plaka masive nga betoni / amuar	0.25	1	0.250	
Sivaja e brendshme	0.02	1	0.020	
Rezistenca e sipërfaqes (e brendshme)			0.1	
Total Resistancë			0.6	1.72

Shënim: Shkoni tabelat sipas nevojës

F	G	H	I	J
Çmimi [€/Vit]	KgCO2/m2/Vit		Ton CO2/Vit	kWh/vit
2,843.38	2,241.53		179.32	124,702.52
				Te dhenat finale per RA

Tabela përmbledhese e të dhënave për Raport të Thjeshtezuar të Auditimit

Konsumi i përgjithshëm i energjisë para masave për EE	155,836.17	[kWh/vit]
Konsumi i përgjithshëm i llogaritur i energjisë pas masave të propozuara	124,702.57	[kWh/vit]
Kursimet potenciale të energjisë primare	31,134	[kWh/vit]
Vlera e CO ₂ i përgjithshëm i energjisë para masave për EE	224.09	Ton CO ₂ [ton/vit]
Vlera e CO ₂ i llogaritur i energjisë pas masave të propozuara	179.3	Ton CO ₂ [ton/vit]
Reduktimi i CO ₂	44.79	Ton CO ₂ [ton/vit]

Annex 16.3: World Bank Protocol cover page

Guidance Note on Measurement and
Verification for World Bank
Energy Efficiency Projects



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Annex 16.4: A screenshot of the report of FKEE where the value of the savings for residential buildings is displayed (fkee-rks.net)

wnload/raporti-vjetor-fkee-per-vitin-2024/?wpdmdl=4536&refresh=67ebadf74cea61743498743

perfitojnë rreth 785 familje të cënueshme, nga të cilat rreth 75 familje u takojnë komuniteteve joshumicë.

6.3.3 Kursimi i energjisë për ngrohje

Të dhëna mbi energjinë e kursyer (në kwh,).

- Sa i përket komponentës së subvencionimit të aplikimit të masave EE në shtëpitë individuale, janë bërë edhe kalkulimet e kursimeve të energjisë për ngrohje dhe ka rezultuar se për **2218** përfitues të trajtuar brenda 2024 është arritur kursime të llogaritura të energjisë primare prej rreth **63,550 MWh/vit (rreth 5.6 ktoe/vit)**. Në bazë të kalkulimeve, pas aplikimit të masave EE është arritur një kursim mesatar i energjisë primare për ngrohje rreth **30%**.

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- Sa i përket ndërtesave sociale shumë-banesore, të cilat janë në rinovim, sipas auditimeve detale kursimi i energjisë do të jetë rreth **6,205 MWh/vit (rreth 0.53 ktoe/vit)**.

Table 16.1: Format of MVP data entry tables (screenshot)

Masa e zbatuar - Masat e rinovimit në ndërtesa (M1)	
Shënimet e përgjithshme	
Titulli i masës	
Përshkrimi masës	
Lloji i masës	Masat e rinovimit në ndërtesa (M1)
Lokacioni	
Sektori	NDËRTESTAT DHE SHËRBIMET
Grupi	
Lloji i lëndës djegëse (para)	
Lloji i lëndës djegëse (pas)	
Data e zbatimit	
Vlen deri më	
Entiteti	
Lokacioni i masës	
Rruga dhe nr	
Përgjegjës	
Përsoni përgjegjës (emri)	
Përsoni përgjegjës (emaili)	
Përsoni përgjegjës (telefoni)	
☐ Bashkë-Financimi ☐ Dokumentet	
Kursimet dhe kostoja	
Final energy savings	0,00
Kursimi i EP (kWh/vit)	0,00
Zvogëlimi i CO2 (t)	0,00
Kosto e masës (€)	0,00
Të dhënat për kalkulim	
Formula	$FES = \left(\frac{SHD_{mit}}{\eta_{mit}} - \frac{SHD_{nëv}}{\eta_{nëv}} \right) \cdot A_{heated}$
Nevoja specifike për ngrohje (e vjetër) (kWh/m2/vit)	
Nevoja specifike për ngrohje (e re) (kWh/m2/vit)	
Sipërfaqja e ngrohur (m2)	
Efiçienca sezonale e sistemit të vjetër të ngrohjes (Totali) (-)	
Efiçienca sezonale e sistemit të ri të ngrohjes (Totali) (-)	
Ose	
Efiçienca e kaldajës së vjetër (-)	
Efiçienca e kaldajës së re (-)	
Efiçienca e emetimit të sistemit të vjetër të ngrohjes (-)	
Efiçienca e emetimit të sistemit të ri të ngrohjes (-)	
Efiçienca e rrjetit të sistemit të vjetër të ngrohjes (-)	
Efiçienca e rrjetit të sistemit të ri të ngrohjes (-)	
Fut Kalkulo	

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Table 16.3: Data collection from data presentation table of MVP

SKEDARI										BAZA										NDERFUT										STRUKTURA E FAQES										FORMULA										TË DHËNA										RISHIKO										PAMJE										ACROBAT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		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Table 16.4 Example of the table for calculating energy savings using World Bank Protocol

	REPORT- ED SCE- NARIO	BASELINE SCENAR- IO	1. ENVE- LOPE REN- OVATION EPS	3. LIGHTING RENOVA- TION	4. HEATING RENOVA- TION	5. SHW REN- OVATION
HEAT CONSUMPTION						
Energy source	Wood	Wood	Wood	Wood	Wood pellets	Wood pellets
Energy consumption [kWh/a]		198,516	75,983	198,516	198,516	198,516
Fuel consumption [kWh/a]	93,240	381,761	146,121	381,761	259,498	381,761
Specific consumption [kWh/a/m ²]	0.0	205.7	78.7	205.7	205.7	205.7
Specific fuel consumption [kWh/a/m ²]	96.6	395.6	151.4	395.6	268.9	395.6
Energy savings			61.72%	0.00%	32.03%	0.00%
Electricity consumption						
Electricity consumption [kWh/a]	338	11,125	11,125	5,846	11,125	8,914
Specific Consumption [kWh/a/m ²]	0.4	11.5	11.5	6.1	11.5	9.2
Electricity savings			0%	47%	0%	20%
Total consumption [kWh/a]	93,578	392,886	157,246	387,607	270,623	390,675
Total savings [kWh/a]			235,640	5,279	122,263	2,211
Total savings [%]			59.98%	1.34%	31.12%	0.56%

Table 16.5: Savings in ktoe from measures in energy efficient appliances (MoE table filled in by KESCO)

M E T E R NUMBER	A) CONSUMPTION JANUARY 2024	B) CONSUMPTION JANUARY 2025	C) DIFFERENCE = (A-B)	SAVINGS IN KTOE = C*8.59845*10 ⁻⁸

Table 16.6: Savings from investments in energy efficiency measures in commercial buildings

COMPANY/ BUSINESS	A) INVEST- MENT FROM THE GOV- ERNMENT	B) INVEST- MENT FROM GRANTS	C) INVEST- MENT OF THE COMPANY	D) TOTAL IN- VESTMENT IN M EUR = A+B+C	SAVINGS IN KTOE = D*0.2 (5 M EUR = 1 KTOE)

Table 16.7: Simplified data presentation table (to be digitized using ESRK software)

ENERGY SAVING IN THE BUILDING SECTOR				TOTAL ENERGY SAVINGS (ktoe) =a + b + c
a) Public buildings	b) Residential buildings		c) Commercial buildings	
	Building structure	Appliances		

6.17 TOTAL CUMULATIVE ENERGY SAVINGS OF PUBLIC BUILDINGS

Indicator Type: Outcome Indicator

1. DEFINITION

The indicator “Energy savings of public buildings” measures the reduction in energy consumption achieved in government and public sector facilities through energy efficiency improvements. It quantifies the impact of measures such as enhanced insulation, efficient heating, ventilation, and cooling (HVAC) systems, sustainable lighting, and building renovations. This reduction is expressed in energy units (GWh or ktoe) and is monitored to ensure compliance with Kosovo’s Energy Strategy 2022–2031 and Law No. 06/L-079 on Energy Efficiency. Specifically, Article 2 of the law mandates an annual renovation of at least 1% of the total floor area of central government buildings, increasing to 3% under the revised law, to meet minimum energy performance standards.

This indicator was chosen for its importance in tracking Kosovo’s progress toward national and EU energy efficiency targets, including compliance with the Energy Efficiency Directive (2012/27/EU) and the Directive on Energy Performance of Buildings (2010/31/EU, amended by Directive (EU) 2018/844). It supports the National Building Renovation Strategy (SKRN), which aims to transform public buildings into near-zero energy structures. By measuring reductions in energy used for heating, cooling, and lighting, the indicator ensures cost-effective renovations and incentivizes sustainable investments. The value of the indicator is calculated through the following formula from monitoring and verification platform (MVP) that is managed by the Division of Energy within the Ministry of Economy (MoE) is:

$$FES = \left(\frac{SHD_{init}}{\eta_{init}} - \frac{SHD_{new}}{\eta_{new}} \right) \cdot A_{Heated}$$

FES- The equation for calculating the energy saving for mass M1; kWh/year

M1- Renovation measures in buildings two or more.

SHD_{init} - Specific demand for heating the building before the implementation of EE measures (based on the criteria of categorization of buildings over the years) kWh/m² year.

SHD_{new} - specific demand for heating the building after the implementation of EE measures (based on the criteria of categorization of buildings over the years) kWh/m² year. A_{Heated} - heated surface of the renovated building m².

η_{init} - old seasonal efficiency of the heating system. η_{new} - new seasonal efficiency of the heating system. The parameters that may be used to disaggregate the indicator are:

- Types of Public Buildings (schools, hospitals, government offices, municipal buildings, etc.)
- Municipality
- EE measure implemented which are shown in the table 17.1 down below:

Table 17.1: List of EE Measures implemented

	Masat e rinovimit në ndërtesa (M1)
	Masat e rinovimit të izolimit të komponenteve të ndërtesës (M2)
	Fuqja në përdorim e kodit të ri të ndërtimit (M3)
	Zëvendësimi i pajisjeve për furnizim me ngrohje në ndërtesa (M4)
	Zëvendësimi ose instalimi i pajisjeve për ngrohjen e ujit (M5)
	Instalimi ose zëvendësimi i split sistemeve (më pak 12 kW) për kondicionimin e ajrit (M6)
	Ngrohja solare e ujit (M7)
	Zëvendësimi i pajisjeve të amvisërisë që konsumojnë energji (M8)
	Zëvendësimi ose instalimi i ri i poqave në ndërtesat rezidenciale (M9)
	Zëvendësimi ose instalimi i ri i sistemit të ndriçimit në ndërtesat terciare (M10)
	Zëvendësimi, apo pajisje të reja për zyrë (M11)
	Zëvendësimi ose instalimi i ri i sistemeve për ndriçimin e rrugëve (M12)
	Instalimi i pompave termike (M13)
	Auditimi energjetik (M14)
	Kyçja e ndërtesës në sistemin e ngrohjes në largësi (M15)
	Modulët fotovoltaike (M17)
	Fushatat e vetëdijesimit (M18)
	Instalimi ose zëvendësimi i pompave qarkulluese (M19)
	Sistemet e rikuperimit të nxehtësisë (M20)
	Sistemi i menaxhimit të energjisë (M21)
	Njehsorët inteligjent dhe faturimi informues (M22)

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are considered.

3. METHOD OF COLLECTION AND ANALYSIS

The collection, analysis, and dissemination of data for public buildings implementing energy efficiency (EE) measures follow these structured steps:

3.1 Before implementing EE measures, a detailed energy audit is conducted by Energy Auditor for each public building who will produce an “Energy Audit Report”. This audit assesses the building’s current energy consumption and identifies opportunities for efficiency improvements.

3.2 Based on the recommendations from the Energy Audit Report, energy efficiency measures such as insulation upgrades, heating, cooling eventually ventilation system improvements, or sustainable lighting installations are implemented by the owners of the buildings. These measures are designed to enhance the building’s energy performance.

3.3 Once the renovations are completed, the effectiveness of the implemented EE measures must be verified by the MVP platform. This involves re-evaluating the building’s energy performance to determine the actual energy savings and the amount of CO₂ emissions released compared to the pre-renovation baseline or once the renovation is completed the energy savings may be presented as calculated.

3.4 The Division of Energy Efficiency within MoE enters key energy saving data into the Monitoring and Verification Platform (MVP) run by MoE. The MoE collects the data using Excel files from institutions such as Kosovo Energy Efficiency Fund (KEEF) and eventually municipalities for each public building in order to populate MVP. See the MVP data entry screenshot proposed in the screenshot table 17.2

3.5 MVP automatically aggregates the data (see screenshot Table 17.3). This table provides comprehensive insights into the cumulative energy efficiency improvements achieved across public buildings. Table 17.4 summarizes the most important information captured in the MVP data aggregation table.

3.6 The value of this indicator is automatically generated by MVP (see data presentation screenshot 17.5). A simplified data presentation table (see Table 17.6) is digitized using ESRK software and entered by Division of Energy Efficiency in MoE.

3.7 The value analysis is carried out by the Division of Energy Efficiency, part of Ministry of Economy, Kosovo Energy Efficiency Fund and municipalities. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by Department of Energy part of ministry of Economy and KEEF in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table above is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Strategic Planning Division of the Department of Energy (MoE).

3.9 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implementing in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

Data is collected continuously throughout the year and is then presented in July and January of the following year.

5. SOURCE OF VERIFICATION

Data entry form MPV platform

Table 17.2: Format of MVP data entry tables (screenshot)

Masa e zbatuar - Masat e rinovimit në ndërtesa (M1)	
Shënimet e përgjithshme	
Titulli i masës	
Përshkrimi masës	
Lloji i masës	Masat e rinovimit në ndërtesa (M1)
Lokacioni	
Sektori	NDËRTESET DHE SHËRBIMET
Grupi	
Lloji i lëndës djegëse (para)	
Lloji i lëndës djegëse (pas)	
Data e zbatimit	
Vlen deri më	
Entiteti	
Lokacioni i masës	
Rruga dhe nr	
Përgjegjës	
Përsoni përgjegjës (emri)	
Përsoni përgjegjës (emaili)	
Përsoni përgjegjës (telefoni)	
☐ Bashkë-Financimi ☐ Dokumentet	
Kursimet dhe kostoja	
Final energy savings	0,00
Kursimi i EP (kWh/vit)	0,00
Zvogëlimi i CO2 (t)	0,00
Kosto e masës (€)	0,00
Të dhënat për kalkulim	
Formula	$FES = \left(\frac{SHD_{mit}}{\eta_{mit}} - \frac{SHD_{nëv}}{\eta_{nëv}} \right) \cdot A_{heated}$
Nevoja specifike për ngrohje (e vjetër) (kWh/m2/vit)	
Nevoja specifike për ngrohje (e re) (kWh/m2/vit)	
Sipërfaqja e ngrohur (m2)	
Eficienca sezonale e sistemit të vjetër të ngrohjes (Totali) (-)	
Eficienca sezonale e sistemit të ri të ngrohjes (Totali) (-)	
Ose	
Eficienca e kaldajës së vjetër (-)	
Eficienca e kaldajës së re (-)	
Eficienca e emetimit të sistemit të vjetër të ngrohjes (-)	
Eficienca e emetimit të sistemit të ri të ngrohjes (-)	
Eficienca e rrjetit të sistemit të vjetër të ngrohjes (-)	
Eficienca e rrjetit të sistemit të ri të ngrohjes (-)	
Fut Kalkulo	

Table 17.3 Format of MVP data aggregation table (screenshot)

The screenshot shows a web application interface for MVP data aggregation. The table displays the following columns: Veporimi, Bllokuri, ID, Tipi i masës, Përshkrimi i masës, Lloji i masës, Vendi/Komuna, Niveli i lokacionit 2, Niveli i lokacionit 4, Niveli i lokacionit 5, Kurimi i EP, Kurimi i EP, Zgjedhja e CO2, Kosto e masës (€), Vite prej, Emri i Entitetit, Kodi i Entitetit, Shteti, Grupi, and Statusi. The table contains 16 rows of data, each representing a different energy efficiency measure implemented in various locations across Kosovo.

Table 17.4: Simplified data aggregation table (to be digitized using ESRK software)

MUNI- CIPALI- TY	BUILD- ING NAME	AD- DRESS	YEAR OF CON- STRUC- TION	YEAR OF RENOVA- TION	HEAT- ED AREA (M ²)	FUEL TYPE BEFORE	FUEL TYPE AFTER	COST OF THE MEA- SURE (€)	EE MEA- SURE IM- PLEMEN- TED	EN- ERGY SAV- INGS (KWH)

Table 17.5: Format of MVP data presentation (screenshot)

	A	B	C	D	E	F	G	H	I
	Titulli i masës	Lloji i masës	Vendi-Kosovë	Komuna	Kursimi i EF	Kursimi i EP	Zvogëllimi i CO2	Kosto e masës (€)	Vlen prej
3	KEEREP Konvicki Studentor Nr.6	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	1,097,496.73	4,936,765.60	127.06	54,913.00	1-Oct-18
4	KEEREP Fakulteti i Edukimit dhe Arteve	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	1,541,887.39	3,905,736.80	358.29	211,511.00	1-Oct-18
5	KEEREP Fakulteti i Arkitektures	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	721,257.09	1,827,007.86	167.60	71,075.00	8-Oct-18
6	KEEREP Ndertesa e Institutit	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	1,393,436.49	3,765,252.73	309.82	351,745.00	15-Oct-18
7	KEEREP Klinika Ortopedike	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	1,447,545.18	3,866,634.66	324.51	195,094.00	15-Oct-18
8	KEEREP Klinika e Neurologjise	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	1,158,760.37	3,095,242.25	259.77	305,920.00	22-Oct-18
9	KEEREP Qendra Ortoproestetike	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	534,039.68	1,413,200.87	120.51	160,300.00	29-Oct-18
10	KEEREP Klinika Psikiatrike	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	1,172,792.23	3,132,723.70	262.91	227,512.00	9-Oct-18
11	KEEREP Fakulteti i Mjekesise	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	818,670.45	2,166,404.19	184.74	146,106.00	10-Oct-18
12	KEEREP Instituti i Shendetit Publik	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	2,104,744.61	5,569,674.03	474.95	189,515.00	26-Oct-18
13	KEEREP Fakulteti i Stomatologjise	Masat e rinovimit në ndërtesa (M1)	Kosove	Prishtinë	2,171,856.55	5,747,268.79	490.09	185,659.00	31-Oct-18
14	KEEREP Instituti Rajonal i Shendetit Publik	Masat e rinovimit në ndërtesa (M1)	Kosove	Prizren	901,965.41	2,188,639.80	448.68	160,367.00	23-Oct-18
15	KEEREP Spitali psikiatrik dhe i hemodializes	Masat e rinovimit në ndërtesa (M1)	Kosove	Prizren	316,586.39	1,127,225.58	275.71	20,209.00	7-Oct-19
16	KEEREP Spitali qendror	Masat e rinovimit në ndërtesa (M1)	Kosove	Prizren	3,637,143.94	8,812,202.05	1,804.88	278,096.00	14-Oct-19
17	KEEREP Spitali i Semandjeve Infektive	Masat e rinovimit në ndërtesa (M1)	Kosove	Prizren	1,350,602.35	3,272,287.54	670.22	171,134.00	22-Oct-19

Sheet1 | Totali-Vitet | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | KEEREP-BB | FKEE | (+)

Table 17.6: Simplified data presentation table (to be digitized using ESRK software)

MUNICIPALITY	TYPE OF PUBLIC BUILDING						EE MEASURE IMPLEMENT- ED (see table 17.1)				ENERGY SAVINGS (KWH)
	schools	hospitals	government offices	municipal buildings	Other (to specify)		EE 1	EE 2	EE 3	EE “η”	
											Tot.

6.18 TOTAL CUMULATIVE ENERGY SAVINGS OF RESIDENTIAL & COMMERCIAL BUILDINGS

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the reduction in energy consumption achieved over time due to energy efficiency improvements in residential and commercial properties. These savings result from implementing measures such as improved insulation, high-efficiency heating, cooling systems, energy-efficient windows, and efficient lighting.

According to Kosovo's Energy Strategy 2022-2031, these initiatives aim to support energy conservation by reducing overall demand and aligning with EU standards for sustainable energy.

The cumulative target reflects a progressive reduction in energy use (measured in GWh or ktoe) and assesses progress toward Kosovo's energy efficiency and climate goals:

This indicator directly measures the reduced energy consumption in residential and commercial buildings, with a particular focus on insulating, heating, cooling, lighting, and other building services. By implementing efficiency measures, these buildings decrease their operational energy needs, contributing to annual and cumulative energy savings targets. Kosovo's Energy Strategy 2022-2031 prioritizes achieving cumulative energy savings of 266.4 ktoe in buildings by 2031. This ambitious target encompasses public, private, and commercial buildings, reflecting a strong commitment to enhancing energy efficiency and fostering sustainable energy practices.

Indirect benefits include reductions in greenhouse gas emissions and overall environmental impact. The financial savings associated with reduced energy consumption lower costs for property owners, supporting broader economic stability. Furthermore, these savings help decrease the national reliance on imported energy, improving energy security. According to projections, annual energy savings by 2040 are expected to contribute significantly to Kosovo's climate targets, with half of the overall target reached by 2030.

The energy savings are achieved through three different components:

- Investment in the structure of residential buildings, mainly implemented by Kosovo Energy Efficiency Fund (KEEF), which includes: improved insulation, energy-efficient windows, and efficient lighting and is measured through a pre audit including recommended measures to be taken to achieve a projected saving and verification/inspection of the implementation of recommended measures/quality (see 3.1 and 3.2).
- Investment in efficient appliances for residential buildings mainly implemented by Ministry of Economy (MoE), which include: heat pumps, solar thermal, efficient heating and cooling systems and other efficient appliances and is measured by comparing energy bills before and after the measures (see 3.3 and 3.4).
- Investment in commercial buildings, mainly implemented by MoE and/or MINT/KIESA and is measured using an energy savings coefficient based on investments (see step 3.5).

Since the indicator includes different measures in both residential and commercial sectors, the value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n (a + b + c)$$

where:

D = total cumulative energy savings of residential & commercial buildings

a = energy savings in residential buildings from measures in the building structure (insulation, windows etc.) in year “n” of ESRK implementation period.

b = energy savings in residential buildings from measures in efficient appliances (heat pump, solar thermal) in year “n” of ESRK implementation period.

c = energy savings in commercial buildings in year “n” of ESRK implementation period.

The value of the indicator should be disaggregated by type of building (residential or commercial).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 Residential buildings that implement energy efficiency (EE) insulation measures are monitored through a structured process. The data collection begins with an energy audit, which can be either a simplified or a detailed audit (see annex 18.1), depending on the requirements and EE measures are recommended.

3.2 After the implementation of recommended measures, KEEF verifies/inspects the implementation/ quality and calculates the energy savings using World Bank Protocol (see annex 18.2) and presents the energy savings for each beneficiary in a report including table 18.1.

3.3 KEEF presents the overall energy savings for all beneficiaries in a report, published on KEEF webpage on regular basis (see annex 18.3).

3.4 Energy savings from implementing energy efficient appliances in residential buildings are collected through electricity consumption of beneficiary meters. MoE will send a request to KESCO using table 18.2, requesting an electricity consumption report for periods before and after measure implementation, for beneficiary meters.

3.5 Commercial buildings that implement energy efficiency (EE) measures are calculated by Energy Efficiency division within Energy Department of Ministry of Economy from investments, using the following formula: 5 M EUR for 1 ktoe, as presented in table 18.3.

3.6 The data is presented (entered) by Energy Efficiency Division within Energy Department, in Ministry of Economy, and all the investments are calculated using the table 18.4 using ESRK software.

3.7 The value analysis is carried out by the Energy Efficiency Division and Kosovo Energy Efficiency Fund (KEEF). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the

targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by Department of Energy part of ministry of Economy and KEEF in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table above is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Division for Strategic Planning and Regional Cooperation of the Department of Energy (MoE).

3.9 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

Data is collected continuously throughout the year and is then presented during the first trimester of the following year.

5. SOURCE OF VERIFICATION

The source of data for residential buildings is the report from detailed audit report from FKEE (table 18.1, 18.2 and Annex 18.3) and for commercial buildings the reporting tables from Energy Efficiency Division within Energy Department of Ministry of Economy (table 18.3).

Table 18.1 Example of the table for calculating energy savings using World Bank Protocol

	REPORTED SCENARIO	BASELINE SCENARIO	1. ENVELOPE RENOVATION EPS	3. LIGHTING RENOVATION	4. HEATING RENOVATION	5. SHW RENO- VATION
HEAT CONSUMPTION						
Energy source	Wood	Wood	Wood	Wood	Wood pellets	Wood pellets
Energy consumption [kWh/a]		198,516	75,983	198,516	198,516	198,516
Fuel consumption [kWh/a]	93,240	381,761	146,121	381,761	259,498	381,761
Specific consumption [kWh/a/m ²]	0.0	205.7	78.7	205.7	205.7	205.7
Specific fuel consumption [kWh/a/m ²]	96.6	395.6	151.4	395.6	268.9	395.6
Energy savings			61.72%	0.00%	32.03%	0.00%
Electricity consumption						
Electricity consumption [kWh/a]	338	11,125	11,125	5,846	11,125	8,914
Specific Consumption [kWh/a/m ²]	0.4	11.5	11.5	6.1	11.5	9.2
Electricity savings			0%	47%	0%	20%
Total consumption [kWh/a]	93,578	392,886	157,246	387,607	270,623	390,675
Total savings [kWh/a]			235,640	5,279	122,263	2,211
Total savings [%]			59.98%	1.34%	31.12%	0.56%

Table 18.2 Savings in ktoe from measures in energy efficient appliances (MoE table filled in by KESCO)

METER NUMBER	A) CONSUMPTION JANUARY 2024	B) CONSUMPTION JANUARY 2025	C) DIFFERENCE = (A-B)	SAVINGS IN KTOE = $C \cdot 8.59845 \cdot 10^{-8}$

Table 18.3: Savings from investments in energy efficiency measures in commercial buildings

COMPANY/BUSINESS	A) INVESTMENT FROM THE GOVERNMENT	B) INVESTMENT FROM GRANTS	C) INVESTMENT OF THE COMPANY	D) TOTAL INVESTMENT IN M EUR = A+B+C	SAVINGS IN KTOE = $D \cdot 0.2$ (5 M EUR = 1 KTOE)

Table 18.4 Data presentation table (to be digitized though ESRK software)

TOTAL CUMULATIVE ENERGY SAVINGS OF RESIDENTIAL & COMMERCIAL BUILDINGS			
a) Residential buildings		b) commercial buildings	Total (ktoe)= a + b
Building structure	Appliances		

Annex 18.1: Format of the simplified energy audit report

General details of the applicant/household

Simplified Energy Audit Report - Form of Application to KEEF	
House owner:	
Name & Surname:	
Name/surname of the co-owner:	
Contact number	
Home address	
Coordinates – GPS	
Municipality	
Electric meter number or D – unique number (found on the energy bill)	
House construction year:	
Ground floor area [m ²]	
Number of floors	
Total area of all floors [m ²]	
Heated area in %	_____ %
Number of residents living in the house	
Energy source used for heating.	☐ Firewood _____ [m ³ /year] _____ [€] ☐ Electricity _____ [kWh/vit] _____ [€] ☐ Lignite _____ [tonne/year, or m ³ /year] _____ [€] ☐ Gas _____ [m ³ /year] _____ [€] ☐ Other _____ (specify) _____ [€]
Total energy consumption before EE measures	_____ [kWh/year]
Total estimated energy consumption after proposed measures	_____ [kWh/year]
Potential savings of primary energy	[kWh/year] _____
Reduction of CO ₂	Ton CO ₂ [ton/year] _____
Heating system	☐ Central heating system ☐ System with individual heaters ☐ No heating system
Cooling system:	☐ Split AC system ☐ Multi split AC system ☐ No air conditioning

Type of measure you apply:	☐ Thermal insulation of external walls ☐ Thermal insulation of the roof frame, entrance overhangs, balcony ceilings ☐ Replacement of windows and terrace doors ☐ Replacement of entrance doors ☐ Thermal insulation of sloped roof - warm roof/used ☐ Thermal insulation of sloped roof - roof deck/cold roof ☐ Thermal insulation of flat roof and/or terrace above heated space ☐ Thermal insulation of basement ceiling/unheated ground floor
Are there dangerous materials (<i>asbestos, etc.</i>) in the positions where the EE measures will be applied. Note: If asbestos material is present, the AE must inform the applicant/beneficiary to agree to its treatment, according to the legislation in force in Kosovo	☐ Yes ☐ No
Is the existing thermal envelope of the external walls suitable for the proposed measures, according to the criteria defined by KEEF	☐ Yes ☐ No

LLOGARITJA E VLERËS U

SHËNIM: PLOTËSONI HAPËSIRAT E HIJEZUARA ME TË GJELBËR SIPAS MASAVE TE PROPOZUARA

Shënim: Tabelat llogaritëse të shtohen sipas nevojës

Fasada 1				
Muri i jashtëm				
Shtresat	d (m)	λ (W/m.°C)	R (m².°C/W)	U (W/m².°C)
Rezistenca e sipërfaqes (e jashtme)			0.04	
Shtresa fasadës	0.02	?	0.020	
Isolim termik (EPS) 15-20 kg/m ³	0.12	?	0.120	
Billogje argjille me vrima	?	?	0.250	
Suvaja e brendshme	0.02	?	0.020	
Rezistenca e sipërfaqes (e brendshme)			0.13	
Total Resistance			0.6	1.72

Fasada 2				
Muri i jashtëm				
Shtresat	d (m)	λ (W/m.°C)	R (m².°C/W)	U (W/m².°C)
Rezistenca e sipërfaqes (e jashtme)			0.04	
Shtresa fasadës	0	?	0.000	
Isolim termik (EPS) 15-20 kg/m ³	0	?	0.000	
Billogje argjille me vrima	0	?	0.000	
Suvaja e brendshme	0	?	0.000	
Rezistenca e sipërfaqes (e brendshme)			0.13	
Total Resistance			0.2	5.88

Kulmi				
Shtresat	d (m)	λ (W/m.°C)	R (m².°C/W)	U (W/m².°C)
Rezistenca e sipërfaqes (e jashtme)			0.04	
Shtresa fasadës	0.02	?	0.020	



Drejtimi i përhapjes së nxehtësisë	Rezistenca termike e sipërfaqes [(m ² . °C)/W]	
	Brenda (R _{si})	Jashtë (R _{se})
Horizontal (Këndi 0° derishta 30°)	0.13	0.04
Lart	0.1	
Poshtë	0.17	

F	G	H	I	J
Çmimi [€/Vit]	KgCO ₂ /m ² /Vit		Ton CO ₂ /Vit	kWh/vit
2,843.38	2,241.53		179.32	124,702.52
Te dhënat finale per RA				

Tabela permbledhese e te dhenave per Raport te Thjeshtezuar te Auditimit

Konsumi i përgjithshëm i energjisë para masave për EE	155,836.17	[kWh/vit]
Konsumi i përgjithshëm i llogaritur i energjisë pas masave te propozuara	124,702.57	[kWh/vit]
Kursimet potenciale të energjisë primare	31,134	[kWh/vit]
Vlera e CO ₂ i përgjithshëm i energjisë para masave për EE	224.09	Ton CO ₂ [ton/vit]
Vlera e CO ₂ i llogaritur i energjisë pas masave te propozuara	179.3	Ton CO ₂ [ton/vit]
Reduktimi i CO ₂	44.79	Ton CO ₂ [ton/vit]

Annex 18.2: World Bank Protocol cover page

Guidance Note on Measurement and Verification for World Bank Energy Efficiency Projects



Energy and Extractives Global Practice Group

Annex 18.3: A screenshot of the report of FKEE where the value of the savings for residential buildings is displayed (fkee-rks.net)

wnload/raporti-vjetor-fkee-per-vitin-2024/?wpdmcl=4536&refresh=67ebadf74cea61743498743

përfitojnë rreth 785 familje të cenueshme, nga të cilat rreth 75 familje u takojnë komuniteteve joshumicë.

6.3.3 Kursimi i energjisë për ngrohje

Të dhëna mbi energjinë e kursyer (në kwh,).

- Sa i përket komponentës së subvencionimit të aplikimit të masave EE në shtëpitë individuale, janë bërë edhe kalkulimet e kursimeve të energjisë për ngrohje dhe ka rezultuar se për **2218** përfitues të trajtuar brenda 2024 është arritur kursime të llogaritura të energjisë primare prej rreth **63,550 MWh/vit (rreth 5.6 ktoe/vit)**. Në bazë të kalkulimeve, pas aplikimit të masave EE është arritur një kursim mesatar i energjisë primare për ngrohje rreth **30%**.

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- Sa i përket ndërtesave sociale shumë-banesore, të cilat janë në rinovim, sipas auditimeve detale kursimi i energjisë do të jetë rreth **6,205 MWh/vit (rreth 0.53 ktoe/vit)**.

6.19 NUMBER OF NEAR ZERO ENERGY BUILDINGS

Indicator Type: Output Indicator

1. DEFINITION

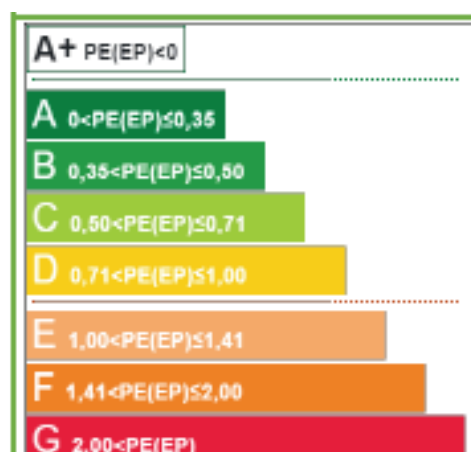
This indicator measures the number of any “near-zero energy” buildings are being built/renovated certified based on their saving performance.

According to the Law No. 08/L-242 on “energy performance of buildings” approved on 12 June 2024, “Nearly zero-energy building (NZEB) – is a building that has a very high energy performance. The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby”. This Law is partially aligned with the Directive 2010/31/EU on the Energy Performance of Buildings and Directive (EU) 2018/844 amending Directive 2010/31/EU on the energy performance of buildings.

The assessment of NZEB is based on an Energy Performance Certificate (EPC) indicating the energy performance of the building or building unit, calculated according to a National Calculation Methodology (NCM) which is the official methodology developed by MESPI. The certificate ranks each building according to 8 energy performance categories (from A+ to G).

A “Nearly zero-energy building (NZEB)” are classified into category A+ (EP<0) (see table below).

Table 19.1: Energy Performance categories:



This indicator has been integrated into the ESRK as it enables to cut down on energy consumption by building more energy-efficient buildings. Currently, buildings consume over 40% of the country's total energy. By investing in energy efficiency, Kosovo can reduce energy demand, save resources, and significantly cut carbon emissions.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of “near-zero energy” buildings are being built/renovated

m = number of “near-zero energy” buildings are being built/renovated in year “n”.

The value of the indicator should be disaggregated by municipality and sector (residential, public, others).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Prior to renovating a building the owner can contact an “energy auditor” to prepare a “simplified energy audit report” (see the format in Annex 19.1).

3.2 Recommendations from the energy audit report are supposed to be implemented by the owner of the building. In case the owner does not agree on some of the recommendations proposed by the auditor, an independent expert can be appointed by the Division of Spatial Planning, Building and Housing (DSPBH) in MESPI, to revise the energy audit report.

3.3 After the implementation of all energy recommendations, a private energy assessors officially agreed/certified by MESPI is contracted by the owner to assess if the building can be certified by entering all energy data parameters in a software designed by MESPI.

3.4 Based on data entered into the software, DSPBH can certify a “Nearly zero-energy building (NZEB)” using the Energy Performance Certificate (EPC) (see an example in table 19.2) automatically generated by the software (National Registry of Energy Performance of Buildings -NREPB-).

3.5 The number of “Nearly zero-energy building (NZEB)” is automatically aggregated by the software run by Division of Spatial Planning, Building and Housing of MESPI.

3.6 The value of this indicator is presented (entered) using the format proposed in table 19.3 by the Division of Spatial Planning, Building and Housing of MESPI. The data presentation table is entered by MESPI into the ESRK software.

3.7 The value analysis is carried out by the Department of Spatial Planning, Buildings and Housing of MESPI. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by Division of Spatial Planning, Building and Housing in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table 19.3 is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Division for Strategic Planning and Regional Cooperation of the Department of Energy (MoE).

3.9 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implementing in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Energy Performance Certificate (EPC) automatically generated by the software (National Registry of Energy Performance of Buildings).

Tableau 19.2: Example of Energy Performance Certificate / data collection form (automatically generated by NREPB)



Republika e Kosovës
Republika Kosovo - Republic of Kosovo
Qeveria – Vlada - Government
Ministria e Mjedisit, Planifikimit Hapësinor dhe Infrastrukturës
Ministarstvo Životne Sredine, Prostornog Planiranja i Infrastrukture
Ministry of Environment, Spatial Planning and Infrastructure



CERTIFIKATA E PERFORMANCËS ENERGJETIKE - CPE

CERTIFIKAT ENERGETSKIH PERFORMANSI - CEP

ENERGY PERFORMANCE CERTIFICATE - EPC

TE DHENAT E PERGJITHSHME TE NDERTESES OPSTI PODACI ZGRADE GENERAL BUILDING DATA			
Pronari i ndërtësës Vlasnik zgrade Building owner: Republika e Kosovës		Adresa Adresa Address: Luan Haradinaj p.n - Ndërtesa e ish Rilindjes	
Parcela kadastrale Katastarska parcela Cadastral parcel: 06191-2 319-0		Destinimi i ndërtësës Destinacija zgrade Building use: Administrative building	
Ndërtesa e trajtuar Tretirana zgrada Treated building: Si ndërtësë e plotë		Viti i ndërtimit Godina izgradnje Year of construction: 1978	
Etazhitet Spratovi Floors: 19			
Sipërfaqe bruto Bruto površina Gross floor Area [m²]:	19458,57	Sipërfaqe neto Neto površina Net floor area [m²]:	15566,86
TE DHENAT PER CPE PODACI ZA CEP EPC DATA			
Nr. i CPE-së CEP broj EPC number: 1-1		CPE e lëshuar CEP izdato EPC issued: Si e ndërtuar	
Data e lëshimit Datum izdavanja Issued date:	18.09.2024	Data e vlefshmërisë Rok validnosti (trajanj) Validity date:	18.09.2034
Klasa energjetike Energetska klasa Energy class:	C	Energjia e prodhuar nga BRE [kWh/m²v] Energija proizvedena od OIE [kWh/m²g] Energy produced by RES [kWh/m²a]	0,00
A+ PE(EP)<0 A 0<PE(EP)≤0,35 B 0,35<PE(EP)≤0,50 C 0,50<PE(EP)≤0,71 D 0,71<PE(EP)≤1,00 E 1,00<PE(EP)≤1,41 F 1,41<PE(EP)≤2,00 G 2,00<PE(EP) 0,58		Pjesëmarrja e energjisë nga burimet e ripërtëritshme Učesće energije iz obnovljivih izvora Share of energy from renewable sources [%]	
		Totali i energjisë primare të sipërfaqes së shfrytëzuar [kWh/m²v] Ukupna primarna energija korišćene površine [kWh/m²g] Total primary energy per useful floor area [kWh/m²a]	205,88
		Ndërtesa referente Referentna zgrada Reference building	355,47
		Totali i energjisë së furnizuar të sipërfaqes së shfrytëzuar [kWh/m²v] Ukupna energija isporučena korišćene površine [kWh/m²g] Total delivered energy per useful floor area [kWh/m²a]	119,77
		Ndërtesa referente Referentna zgrada Reference building	174,23
		Emetimi vjetor i CO ₂ [kg CO ₂ /m²v] Godišnje emisija o CO ₂ [kg CO ₂ /m²g] Annual emission CO ₂ [kg CO ₂ /m²a]	77,89
		Ndërtesa referente Referentna zgrada Reference building	31,89
ENERGJIA NE NDERTESE ENERGIJA U ZGRADI ENERGY IN THE BUILDING [kWh/m²]			
Tipi i energjisë Vrsta energije Type of energy	Energjia e nevojshme Potrebna energija Energy need	Energjia e furnizuar Ukupna energija Delivered energy	Energjia primare Ukupna primarna Primary energy
Ngrohja Grejanje Heating	87,95	88,06	114,47
Ftohja Hlađenje Cooling	25,56	6,10	18,72
Uji i ngrohtë Topla voda Hot water	3,10	3,34	4,35
Ndriçimi Osvetljavanje Lightening	7,94	12,91	39,63
Ventilimi Ventilacija Ventilation	0,00	9,35	28,69
Pajisje ndihmëse Pomoćna oprema Auxiliary	0,00	0,01	0,02
Totali Total Total	124,55	119,77	205,88
INFORMATAT ADMINISTRATIVE ADMINISTRATIVNE INFORMACIJE ADMINISTRATIVE INFORMATION			
Vlerësuesi i energjisë Energetski procenjivač Energy assessor: Servet Spahiu Arben Ajazi		Nr. i licencës Br. licence License no.: IBP-003-2358012 IBP-003-2358001	
Ky dokument është gjeneruar me anë të një procedure automatike nga një sistem elektronik Ovaj dokument je automatski generisan od strane elektronskog sistema This document is generated through an automatic procedure by an electronic system			

Table 19.3: Format of the data presentation table (automatically generated by NREP and to be entered in ESRK software)

MUNICIPALITY	SECTOR			TOTAL
	RESIDENTIAL	PUBLIC	OTHERS	
				Total

Annex 19.1: Format of the simplified energy audit report

1. General details of the applicant/household

Simplified Energy Audit Report - Form of Application to KEEF	
House owner:	
Name & Surname:	
Name/surname of the co-owner:	
Contact number	
Home address	
Coordinates – GPS	
Municipality	
Electric meter number or D – unique number (found on the energy bill)	
House construction year:	
Ground floor area [m ²]	
Number of floors	
Total area of all floors [m ²]	
Heated area in %	_____ %
Number of residents living in the house	
Energy source used for heating.	☐ Firewood _____ [m ³ /year] _____ [€] ☐ Electricity _____ [KWh/vit] _____ [€] ☐ Lignite _____ [tonne/year, or m ³ /year] _____ [€] ☐ Gas _____ [m ³ /year] _____ [€] ☐ Other _____ (specify) _____ [€]
Total energy consumption before EE measures	_____ [kWh/year]
Total estimated energy consumption after proposed measures	_____ [kWh/year]
Potential savings of primary energy	[kWh/year] _____
Reduction of CO ₂	Ton CO ₂ [ton/year] _____
Heating system	☐ Central heating system ☐ System with individual heaters ☐ No heating system
Cooling system:	☐ Split AC system ☐ Multi split AC system ☐ No air conditioning

Type of measure you apply:	☐ Thermal insulation of external walls ☐ Thermal insulation of the roof frame, entrance overhangs, balcony ceilings ☐ Replacement of windows and terrace doors ☐ Replacement of entrance doors ☐ Thermal insulation of sloped roof - warm roof/used ☐ Thermal insulation of sloped roof - roof deck/cold roof ☐ Thermal insulation of flat roof and/or terrace above heated space ☐ Thermal insulation of basement ceiling/unheated ground floor
Are there dangerous materials (<u>asbestos, etc.</u>) in the positions where the EE measures will be applied? Note: If asbestos material is present, the AE must inform the applicant/beneficiary to agree to its treatment, according to the legislation in force in Kosovo	☐ Yes ☐ No
Is the existing thermal envelope of the external walls suitable for the proposed measures, according to the criteria defined by KEEF	☐ Yes ☐ No

*Note: multi-apartment buildings are not part of this project

Date of visit	
Date of issuance of the report	
Date of revision of the report (when applicable)	

The data for the Energy Auditor

Name and surname	
Number of certificate	
Contact number and Email	
Signature	

2. Technical description of the house envelope elements - in the existing condition

Description of the existing condition			
S.N.	House Envelope Elements (Insert a photo)	Structure / Technical description <i>Note: Technical description must be given for all elements of the house envelope in the existing condition, regardless of the measure for which it is applied.</i>	Thermal insulation thickness [cm]
1	External walls (Insert a photo)		
2	Parapet walls		
3	Consoles (slabs, balconies, entrance overhangs) in contact with the external air		
4	Exterior windows and doors (Insert a photo)		
5	Existing entrance doors		
6	Roof (including attic, if any) (Insert a photo)		
7	Unheated Basement/ground floor ceiling (Insert a photo)		

3. Technical description of the Energy Efficiency Measures to be applied

Description of measure					
S.N.	House Envelope Elements (Insert a photo)	Detailed description of the EE measure according to the technical criteria defined by KEEF in BoQ	Quantity [m ²]	Price per unit [Euro]	Total cost [Euro]
1	External walls (Insert a photo)				
.....	The position that will be implemented based on the BoQ of KEEF				
	(Insert a photo)				
Total cost of energy efficiency measures			Total cost [Euro]:		
Subsidy cost			Subsidy cost – value 45% [Euro]:		
	Subsidy cost – value 50% [Euro]:				

The data for the Energy Auditor

Name and surname	
Number of certificate	
Contact number and Email	
Signature	

By signing this report, the Auditor confirms that he/she will perform the service in compliance with Article 17-"Code of Conduct for Energy Auditors" of Regulation No. 05/2020⁹, that he/she has physically visited the building and has accurately applied the criteria determined according to the legal regulations in force and the KEEF and that he/she takes responsibility for the accuracy of the measurements and quantities presented for the building subject to this report. The auditors will perform the service in compliance with the legal provisions of Law No. 06/L-011 on Prevention of Conflict of Interest in Discharge of Public Functions. Concerning this Project, the energy auditors do not have the right to verify the implementation of EE measures in the individual houses for which they performed simplified energy audits. If the Energy Audit Report does not meet the predetermined criteria, KEEF will identify the Energy Auditor and request the ME to act in accordance with the provisions of Regulation No. 05/2020

Furthermore, it confirms that this service has been carried out according to KEEF's specified criteria for payment up to 150 Euros per report and that the same may serve as a document for disbursement of the auditing service.

⁹ Regulation (MEETIESI) No. 05/2020 for the system of energy service providers and minimum criteria for energy audit

6.20 INCREASING CAPACITY OF CO-GENERATION IN “TERMOKOS” (PRISHTINA)

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the expansion of Termokos’ cogeneration capacity for more efficient heat production. Cogeneration refers to the process of producing electricity and thermal energy (heat) from a single energy source within the country. Cogeneration technologies are increasingly being explored as a way to improve energy efficiency, reduce emissions, and meet local heating demands.

The cogeneration system has started to operate in the region of Prishtina on 2014 with capacity of 140 MWth through DH “Termokos”. This has been done as result of overloading of electricity systems which is most used for heating in Kosovo.

“Termokos” is the primary district heating company in Prishtina, the capital of Kosovo. It provides centralized heating services to homes, businesses, and public institutions in the city, primarily during the colder months. “Termokos” operates one of the largest district heating systems in Kosovo and plays a critical role in meeting the heating needs of Prishtina’s population.

While cogeneration in Kosovo has not been widely adopted on a national scale, there are increasing efforts and potential for investment in such systems, particularly in the context of EU integration and the push towards cleaner and more efficient energy practices.

Taking into consideration the number of new buildings in the region of Prishtina the DH “Termokos” has requested to double the thermal capacity from the current 140 MWth that receives from KEK to 280 MWht.

The formula to calculate this indicator is the following:

$$D = 140\text{MW} + P_n$$

where:

D = Total capacity of cogeneration in district heating

P_n = new cogeneration capacity

The value of the indicator is not disaggregated in any criteria.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The finalization of the Feasibility Studies and Environmental and Social Impact Assessment which includes the definition of the location where the substation plants will be built, cost-benefit analysis for the project to double the thermal capacity of Termokos from the current 140 MWth that receives from KEK to 280 MWht.

3.2 Termokos selects the project consultancy, signs contracts, prepares the conceptual design, identifies parcels, manages expropriation, and conducts financial analysis

3.3 Application for the permits such as: environmental, construction conditions, permits and consents for works related to terrain analysis, etc needed for the realization of the project to double the thermal capacity from the current 140 MWth that receives from KEK to 280 MWth.

3.4 Publication by Termokos of the Tender announcement for the selection of the contractor.

3.5 Termokos will collect and aggregate the data for the installed co-generation capacity based on the table 20.1. and enter this data in the ESRK software.

3.6 The value analysis is carried out by Termokos and the Department of Energy (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by Termokos in liaison with other ESRK M&E working group members.

3.7 The value of the indicator based on table 20.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.8 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually in January of the following year (n+1).

5. SOURCE OF VERIFICATION

Termokos Data collection table.

Table 20.1: Data collection and aggregation table (to be digitized using ESRK software)

GENERATION UNIT	NO. OF HEAT EX- CHANGERS	INSTALLED CA- PACITY OF HEAT EXCHANGERS	DATE OF IN- STALLATION	TOTAL INSTALLED CO-GENERATION CAPACITY
CO-GENERATION SYS- TEM-TC KOSOVA B				

6.21 NUMBER OF CUSTOMERS CONNECTED TO THE DISTRICT HEATING SYSTEMS (PRISHTINA & GJAKOVA)

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator will measure the number of the consumers connected to the district heating systems in Prishtine and Gjakove.

Within the final energy consumption, the largest share belongs to households, accounting for 40% of the total use in 2020. Centralized systems for heating have high efficiency and the connection of existing buildings to the district heating network should result in both – primary and final energy savings.

The existing district heating systems in Prishtina and Gjakova have a large potential for expansion which will be targeted by several actions. Aside from doubling the cogeneration capacity at Termokos and adding at least 50 MWth of RES capacity, the energy efficiency of the distribution network will be enhanced, and additional new consumers (public and private) will be connected to the DH network, contributing to lower electricity consumption and lower air pollution.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n (m + n)$$

where:

D = total number of consumers connected to district heating system (Prishtina & Gjakova)

m = number of consumers connected to district heating system in Termokos- Prishtina in year “n” of ESRK implementation period.

N = number of consumers connected to district heating system in Prishtina and Gjakova

The value of the indicator is disaggregated by district heating system (Prishtine, Gjakove) and type of consumer (household, institutional, business).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The district heating systems (Prishtina and Gjakova) plan the expansion of the network taking into consideration the existing heating capacity available, closeness to the existing network, density of the multiple apartment buildings, institutional building and notifies the potential consumers of that region for the plan.

3.2 Consumers after the notification of the plan of expansion by the district heating

systems (Prishtina and Gjakova) have to apply for the connection to the system (Annex 21.1) and they receive from a list of conditions that must be completed to connect to the heating system (they are not standardized as it differs for each case).

3.3 The district heating systems (Prishtina and Gjakova) review the applications, and if it fulfils the required conditions, they need to sign an agreement. (Annex 21.2)

3.4 The district heating systems (Prishtina and Gjakova) construct the expansion of the network and substations.

3.5 After the connection of the consumers the district heating systems signs individual supply contract with the consumers (Annex 21.3).

3.6 The list of customers who have signed the contracts (Annex 21.3) are sent to the billing division to be entered into the billing system. The data collected for the new customer is placed in the dedicated table/ folder (Annex 21.4).

3.7 The data is aggregated and presented by the Supply Department of DH Termokos-Prishtine and DH Gjakove as per table 21.1 (data presentation table). This data is entered in the ESRK software by the respective district heating companies and digitized using the software

3.8 The value analysis is carried out by Termokos-Prishtine and DH Gjakove and Ministry of Economy – Department of Energy. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by District Heating in liaison with other ESRK M&E working group members.

3.9 The value of the indicator based on table 21.1 is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Strategic Planning Division of the Department of Energy (MoE).

3.10 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implementing in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected bi-annually in July and in January of the following year (year n+1)

5. SOURCE OF VERIFICATION

District application to heating systems (Prishtina and Gjakova)

Table 21.1: Data aggregation and presentation table (to be digitized using ESRK software)

DISTRICT HEATING SYSTEM	TERMOKOS PRISHTINE	GJAKOVE	TOTAL
Household consumers			
Institutional consumers			
Business consumers			
Total consumers			

Annex 21.1: The application for new customers that needs to be signed from the applicants

 Termokos Ngrohja e qytetit	
Formular: Aplikacion për kyçje të reja	
Rrjeti i Ngrohjes qendrore ☐ për kyçje ☐ për kushte teknike projektuese ☐ të tjera: Informacion lidhur me mundësinë e kyçjes në sistemin e ngrohjes qendrore ☐ të tjera: (Nënvizo fushën e kërkuar)	
TË DHËNAT E OBJEKTIT:	
Rruga:	Nr
M ² :	Numri i
Komuna	Ngastra kadastrale
parceles	
DESTINIMI I OBJEKTIT:	
☐ Banesor	☐ Afarist
☐ Banesoro-Afarist	☐ të tjera:
Kërkuesi i kyçjes:	
Emri dhe mbiemri:	
Telefoni:	
(Shtëpi/Zyre/Mobil):	
INVESTITORI/PRONARI I OBJEKTIT:	
Emri i Investitorit/Pronarit	
Numri i biznesit:	
DOKUMENTACIONET SHITESË (shëno fushën adekuate, apo jep shënime për dokumente tjera):	
☐ Dokumentacioni i projektit ☐ dokumenti i pronësisë ☐ leja urbanistike ☐ kopja e planit ☐ ☐ Shënim: 	
Me nënshkrimin e këtij dokumenti vërtetoj që informacionet e mia personale vlejnë për nevojat e N.Q "Termokos" sh.a	
Prishtinë, më	Nënshkrimi



NGROHTORJA E QYTETIT GJAKOVA SH.A. DISTRICT HEATING GJAKOVA J.S.C.

Adresa: "Behuje Dashi", pn GJAKOVË, KOSOVË
Tel 046 127 066

Nr. i Biznesit: 811326471
www.ngrohtorja.org

Aplikacioni për Kyçje dhe Furnizim me Energji Termike

Konsumatorët shtëpiakë

Kyçje e Re dhe Furnizim

Numri Regjistruar i Furnizuesit: 811326471 Ngrohtorja e Qytetit Gjakova, SH.A. Gjakovë/

Kërkoj nga ju të kyçni objektin e përshkruar më poshtë në rrjetin e ngrohjes.

1. Aplikuesi:

- Emri dhe mbiemri: _____
- Nr. personal: _____
- Përfaqësuesi ligjor (nëse është e aplikueshme): _____
- Adresa: _____
- Nr. i telefonit: _____
- E-mail: _____
- Pronari / shfrytëzuesi i autorizuar i objektit: _____

2. Përfaqësuesi i aplikuesit:

- Emri dhe mbiemri: _____
- Përfaqësuesi ligjor (nëse është e aplikueshme): _____
- Adresa: _____
- Nr. i telefonit: _____
- E-mail: _____

3. Të dhënat për objektin për të cilin kërkohet kyçja:

- Rruga: _____
- Nr.: _____
- Qyteti: _____
- Kodi postar: _____
- Pronari: _____
- Shfrytëzuesi i autorizuar i objektit: _____
- Zona e ndërtuar e objektit / ngastra: _____

4. Shënimet teknike:

- Kapaciteti i instaluar: _____ kW
- Sipërfaqja e pronës: _____ m²
- Përshkrimi i pronës:
 - Bodrumi _____ m²
 - Dhoma e ditës _____ m²
 - Kuzhina _____ m²
 - Dhoma e fjetjes _____ m²
 - Të tjera _____ m²
 - Lokacioni i nënstacionit _____ m²

Annex 21.2: The agreements signed after the application is approved

		Kodi: aktori/kytari						
Për:								
Nga:								
Regjistri i pronarëve të banesave në:								
Sektor: Banesor								
Nr. ser.	Konsumatori	Adresa	Sipërfaqja ngrohëse neto m ²	Vlerë(tja)	Kati	Nr. i banesës	Nr. i telefonit	Nr. personal
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								



NGROHTORJA E QYTETIT GJAKOVA SH.A. DISTRICT HEATING GJAKOVA J.S.C.

Adresa: "Behije Dashi" pn Rezinë, Gjakovë
Tel: +383 (0) 46 127 066

NUI: 811326471

E: info@ngrohtorja.org

Më: _____
Nr. _____

MARRËVESHJE PËR KYÇJEN NË RRJETIN E DISTRIBUIMIT TË NGROHJES QENDRORE

E lidhur më _____, në mes të:

1. NP "NGROHTORJA E QYTETIT GJAKOVA" SH.A në Gjakovë,
(në tekstin e mëtejshëm: FURNIZUESI)

dhe

2. Emri: _____
Emri i babës: _____
Mbiemri: _____

(në tekstin e mëtejshëm: SHFRYTËZUESI I SISTEMIT),

Vendbanimi: _____
Letërnjoftimi nr: _____
Telefoni nr: _____

Dokumentacioni i nevojshëm:

1. Kërkesa për kyçje në rrjetin e distribuimit të ngrohjes qendrore,
2. Certifikata për Pronësinë e Objektit,
3. Një kopje e Projektit të Objektit dhe
4. Leja e Ndërtimit nga Drejtoria e Urbanizmit.

Neni 1

Lëndë e kësaj Marrëveshjeje është përcaktimi i kushteve për kyçje në rrjetin e distribuimit të ngrohjes nga ana e FURNIZUESIT deri tek objekti i SHFRYTËZUESIT TË SISTEMIT, të objektit për banim individual me sip. _____ m², me etazhitet _____ në ngastrën kadastrale ndërtimore P- _____, Z.K. Gjakovë-J-Qytet, rr. " _____ " nr. _____.

Annex 21.3: The supply contracts

**NGROHTORJA E QYTETIT SH.A. GJAKOVË****DICTRICT HEATING J.S.C. GJAKOVA**

Adresa: "Behije Dashi" Rezinë, Gjakovë
Tel & Fax:
Mob: +383 (0) 46 127 066

NUI: 811326471
info@ngrohtorja.org
www.ngrohtorja.org

Më: _____

Nr: _____

K O N T R A T Ë

Për Furnizim me Ngrohje Qendrore

- Furnizuesi: **Ngrohtorja e Qytetit SH.A. Gjakovë**
- Emri dhe Mbiemri i konsumatorit – Institucionit: _____
- Adresa e konsumatorit: **Rruga** _____
- Grupi i konsumatorëve: _____
- Data e fillimit të furnizimit me energji: **Nga 15 Tetor – 15 Prill.**
- Lloji i tarifës: **m² – Njësorë**
- Hapësira ngrohëse: _____m²

Ngrohtorja e Qytetit SH.A. Gjakovë (tani e tutje "Furnizuesi") furnizon konsumatorin me shërbime të ngrohjes, në përputhje me dispozitat e kësaj kontrate, rregullave të Zyrës së Rregullatorit për Energji (ZRRE), ligjeve dhe rregulloreve në fuqi në Kosovë.

Neni 1**Të Drejtat dhe Obligimet e Konsumatorit**

Pa cenuar dispozitat ligjore dhe rregulloret e aplikueshme, konsumatori ka të drejta dhe obligime si në vazhdim:

- 1.1. Të pranojë ngrohjen në mënyrën e specifikuar me këtë kontratë dhe marrëveshjen për kyçje (nëse marrëveshja ekziston);
- 1.2. Të shfrytëzojë energjinë ngrohëse në përputhje me këtë kontratë dhe të mos shkaktojë pengesa apo devijim në rrjedhjen e energjisë;
- 1.3. Të paguajë faturën e ngrohjes në pajtim me tarifat e aplikueshme duke pasur për bazë matësit e energjisë apo sipërfaqen ngrohëse për m² nëse pajisjet matëse nuk janë të instaluar;
- 1.4. Të informojë furnizuesin për çdo pengesë gjatë furnizimit me ngrohje;
- 1.5. Të informojë furnizuesin në rast të ndryshimit të pronarit, personit të autorizuar, adresës dhe pa pëlqimin e furnizuesit është e ndaluar puna e personave të pa autorizuar në instalimet e ngrohjes si dhe ndryshimi i sipërfaqes ngrohëse apo kyçjet ilegale, andaj çdo konsumator që bën veprime të tilla është i obliguar ta kompensojë dëmin komfor Ligjit për Ngrohje Qendrore dhe rregullave të Zyrës së Rregullatorit për Energji;
- 1.6. Të kompensojë shërbimet e mirëmbajtës së sistemit sekondar sipas "Çmimoreve për shërbimet e intervenimeve në sektorin sekondar të instalimeve të ngrohjes qendrore" të aprovuar nga ZRRE-ja;
- 1.7. Të siguroj qasje të lirë punëtorëve të furnizuesit për intervenim në sistemin sekondar dhe të siguroj hapësirë pa pengesë për instalimin e pajisjeve ngrohëse;
- 1.8. Të mos bëjë shkelje sipas nenit 5 të Rregullit për Shkycje dhe Rikycje të Konsumatorëve në Sektorin e Energjisë në Kosovë (shfrytëzimi i pa autorizuar i ngrohjes, vjedhja dhe dëmtimi i pajisjeve ngrohëse).



K O N T R A T Ë për furnizim me ngrohje qendrore

Furnizuesi:

N.P. "Termokos" SH.A.

Emri dhe mbiemri i konsumatorit: _____

Shifra: _____

Projekt ID e konsumatorit: _____

Adresa e konsumatorit: _____

Grupi i konsumatorëve:

Banesor / Afarist

☐ ☐(shëno ☒)

Data e fillimit të furnizimit me energji: _____

Lloji i tarifës:

I panjehësuar/ I njehësuar

Hapësira ngrohëse _____ m²

Nr. Tel: _____

N.P. "TERMOKOS" Sh.A. (tani e tutje "Furnizuesi") furnizon konsumatorin me shërbime të ngrohjes, në përputhje me dispozitat e kësaj kontrate, rregullave të Zyrës së Rregullatorit për Energji (ZRRE), ligjeve, dhe rregulloreve në fuqi në Kosovë.

Neni 1 Të drejtat dhe obligimet e konsumatorit

Pa cenuar dispozitat ligjore dhe rregulloret e aplikueshme, konsumatori ka të drejta dhe obligime si në vazhdim:

- a) Të pranojë ngrohjen në mënyrën e specifikuar me këtë kontratë dhe marrëveshjen për kyçe (nëse marrëveshja ekziston);
- b) të shfrytëzojë energjinë ngrohëse në përputhje me këtë kontratë dhe të mos shkaktojë pengesa apo devijim në rrjedhjen e energjisë;
- c) të paguajë faturën e ngrohjes në pajtim me tarifat e aplikueshme duke pasur për bazë matësit e energjisë apo sipërfaqen ngrohëse për m² nëse pajisjet matëse nuk janë të instaluar.

Annex 21.4: The databases of the new customers



	A	B	C	D	E	F	G	H	I	J	K	L
1	FORMULARI- HYRIA NË SISTEM TË FATURIMIT PËR KONSUMATORËT E RI											
2												
3	Shifra e konsumatorit	Subjekti	Artikulli	Extra2	Emërtimi	Sasia	Çmimi pa Tvsh	Rruga <Liferimi>	Kodi Postar <Liferimi>	Qyteti <Liferimi>	Aktiv	
4												
5												
6												
7												
8												
9												
10												
11												
12	[Extra2] = "KONAKU"											
	RR. "28 NENTORI" P.N. NLB 1700 2000 0003 1585											
	10000 Prishtinë, KosovëNr. Identifikues: 810514829 PCB 1110 0186 8700 0127											
	Tel: +383 44 966 150Email: info@termokos.org BKT 1902 6654 1104											
13	1138											

6.22 MARKET INTEGRATION WITH PAN EUROPEAN ELECTRICITY MARKET

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the development and implementation of support mechanisms which result in market integration with pan European electricity market.

Pan-European integration of the electricity market refers to the process of creating a harmonized and common electricity market at European level. This integration aims to enable efficient exchange of energy between the zones, eliminating technical, regulatory and trade barriers. It plays a key role in lowering costs for consumers and in achieving climate sustainability goals.

The creation of a single pan-European electricity market is realized through the Single Day-Ahead Coupling (SDAC) and Single Intraday Coupling (SIDC) mechanisms.

Single Day-Ahead Coupling SDAC provides a unified market for electricity exchange one day before the supply period. It increases market efficiency by optimizing the use of energy resources and ensuring a fair price determination across the region. SIDC (Single Intraday Coupling) complements SDAC by enabling near real-time energy trading to cover unexpected changes in demand and supply. It is particularly important for the integration of renewable resources, which are often characterized by high variability. This integrated market aims to increase overall trading efficiency by promoting effective competition, increasing liquidity and optimizing the utilization of generating resources across Europe.

The inclusion of pan-European integration of the electricity market foreseen in the Energy Strategy of the Republic of Kosovo is essential to ensure a sustainable, safe and competitive energy sector, while simultaneously contributing to economic development.

Kosovo has committed to implement all obligations of the Energy Community Treaty to create a free, integrated and competitive energy market. This contributes to security of supply through integration into the wider regional market, while supporting the goals of affordability and competitiveness, optimizing wholesale and reserve markets and making them more efficient.

The value of the indicator is defined as a binary measure (YES/NO analysis) which indicates whether the electricity market in Kosovo is integrated in the Pan-European electricity market.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The coupling of electricity markets is finalized through the functionalization of the Day Ahead and Intraday Market for the Kosovo Bidding Area and the creation of the joint electricity exchange between Kosovo and Albania.

3.2 The memorandum of understanding is signed by the Kosovo Chairman of ERO Board

together with the other chairmen from the boards of the regulators of Albania, Greece, North Macedonia, executive directors of transmission system operators (TSOs) and energy exchanges (PXs) of relevant countries, in relation to the Market Coupling Project.

3.3 All legal, regulatory, and administrative provisions in the Electricity Integration Package that need to be transposed at the national level specifically focusing on: Decision 2022/03/MC-EnC (Energy Community Ministerial Council) and Procedural Act 2022/01/MC-EnC for regional energy market integration will be identified.

3.4 The technical infrastructure required for both Single Day Ahead Coupling (SDAC) and Single Intraday Coupling (SIDC), ensuring cross-border market coupling will be established by KOSTT.

3.5 All legal, regulatory and, administrative provisions in the Electricity Integration Package are transposed by the Ministry of Economy and implemented in the national level.

3.6 Department for Market Operation at KOSTT is responsible to enter the data in the ESRK software using table 22.1.

3.7 The value analysis is carried out by the Department for Market Operation of KOSTT and Department of Energy at Ministry of Economy (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department for Market Operation of KOSTT and Department of Energy at Ministry of Economy (MoE), in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table 22.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.9 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is spot collected and reported in December

5. SOURCE OF VERIFICATION

KOSTT Data collection table.

Table 22.1: Data collection and presentation table (to be digitized by ESRK software)

	STATUS (Yes/No)	COMMENTS
MARKET INTEGRATION WITH PAN EUROPIAN ELECTRICITY MARKET		

6.23 OFFERED CROSS-BORDER CAPACITY/NOMINAL CROSS-BORDER CAPACITY

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the capacity of nominal cross-border taking into account the import and export energy aspects, in other word it is the ration between “offered cross-border capacity” and “nominal cross border capacity” express as percentage.

Nominal transmission capacity: reflects the physical capacity for which the interconnector (transmission line connecting two countries) was designed. It corresponds to the maximum power flow that the cross-border asset can transmit in accordance with the system security criteria. Nominal transmission capacity is not influenced by market design, mechanisms and rules. Its numerical value is not dependent on the cross-border capacity calculation rules, which will evolve in the future. It can also be applied at any geographical level, which is not possible for the net transfer capacity. This means that the Nominal transmission capacity is a set value once the lines are constructed see Annex 23.1 for indicative (maximum) NTC values at Kosovar border and Annex 23.2 for maximum NTC values and nominal transmission capacity of interconnector for the regional countries.

Offered cross-border capacity refers to the net transfer capacity (NTC), As numerical values, the NTCs constitute the maximum foreseen magnitudes of exchange program that can be operated between two areas respecting the N-1 security conditions (when one element of the transmission fails, the transmission continues uninterrupted) of the involved areas, considering the uncertainties on the assumptions of NTC assessment.

The cross-border capacity released to the market can differ from the NTC values, due to operational conditions different from the ones adopted within the assumptions of NTC assessment, in terms of **generation and load pattern and/or exchange programs on other borders**, and due to possible lines maintenance activities limiting the interconnection capacities.

Transmission System Operators (TSOs), evaluate system and network conditions for a given period, considering exchange program, both import and export aspects. Import capacity defines how much electricity can flow into a country, while export capacity determines how much can flow out, with the overall NTC reflecting the maximum transfer capacity for both directions.

This indicator has been selected in the ESRK 2022-2031 because the most important first step in the field of cooperation in the electricity market is the full functioning of a common power exchange with Albania (ALPEX) both on the day-ahead and intraday markets.

The longer-term target is to join the European couplings, the Single Day-Ahead Coupling (SDAC) and the Single Intraday Coupling (SIDC), by 2031 at the latest, which helps ensure economically optimal utilization of the cross-border grid capacity, and through that contributes to more effective market functioning. This will also enable lower energy prices to ensure affordability and also provide a level playing field and correct market signals to investors, thus increasing the share of renewable energy sources in the system.

The value of the indicator is calculated through two formulas, one for import and one for export:

$$D1 = (\text{NTC Import} / \text{Nominal Transmission Capacity}) * 100$$

$$D2 = (\text{NTC Export} / \text{Nominal Transmission Capacity}) * 100$$

While, NTC is calculated through the following formula

$$NTC = TTC - TRM$$

where:

TTC (The Total Transfer Capacity) - is the maximum exchange program between two areas compatible with operational security standards applicable at each system if future network conditions, generation and load patterns were perfectly known in advance.

TRM (The Transmission Reliability Margin) - is a security margin that copes with uncertainties on the computed TTC values arising from:

- a) Unintended deviations of physical flows during operation due to the physical functioning of load-frequency regulation.
- b) Emergency exchanges between TSOs to cope with unexpected unbalanced situations in real time.
- c) Inaccuracies, e. g. in data collection and measurements.

The Base Case Exchange (BCE) is the exchanges forecasted for a specific time horizon (e.g. one year, one month or one week) before the time stamp of a base-case that could be modified upon agreement of all TSOs involved. The BCE are neither typical values, nor the most probable, they only reflect a possible base-case situation. In this example (table 23.2 and 23.3) is the third Wednesday of the month at 10:30h.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analyzed and its value is disseminated through the following steps:

3.1 For every new transmission line that is constructed, a nominal cross border capacity is determined based on the different standards of the line (meaning the Nominal cross border capacity is a set value and does not change), (see table 23.1).

3.2 One of the regional TSOs takes the role of the coordinator and informs the other TSOs of the role and asks for forecasted data for BCE (base case exchange) and IGM (individual grid model) to be sent to them.

3.3 Two months in advance before the NTC value is decided, the regional TSOs exchange forecasted data for BCE (base case exchange) and IGM (individual grid model). (see table 23.2).

3.4 The TSO regional coordinator collects the BCE from each TSO and generates a table (table 23.3) with the values. Based on these data he/she creates the common grid model which contributes for creating the security system analyses.

3.5 Based on the security analysis of the TTC and TRM for each TSO, TSOs send proposals to each other (border per border) to agree on the proposed values of the NTC (export and import).

3.6 The sector for Medium-Term Planning and Analysis at KOSTT is responsible annually to enter in the data in the collection table (see table 23.4).

3.7 KOSTT is responsible for data entry (see table 23.5 - digitized using ESRK software).

3.8 The value analysis is carried out by the Sector for Medium-Term Planning and Analysis at KOSTT. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Medium-Term Planning and Analysis at KOSTT in liaison with other ESRK M&E working group members.

3.9 The value of the indicator based on table 23.5 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.10 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The data is collected annually and presented in January of the following year (year n+1).

5. SOURCE OF VERIFICATION

KOSTT report

Table 23. 1: Kosovar actual power interconnection line connected with neighboring countries

KOSOVAR EXISTING POWER INTERCONNECTION LINES						
Voltage level (KV)	Bus 1 (domestic)	Bus 2 (non-domestic)	From Kosovo to	I _{max} (A)	S _n (MVA)	Nominal trans. Capacity P _n (MW)
400	Kosova B	Komani	Albania	1900	1317	1185
400	Kosova B	Nis	Serbia	1900	1317	1185
400	Peja 3	Ribarevina	Montenegro	1900	1317	1185
400	Ferizaji 2	Skopje 5	N. Macedonia	1760	1218	1096
220	Prizreni 2	Fierze	Albania	790	300	270
220	Podujeva	Krusevac	Serbia	790	300	270
All (existing situation)					5769	5191

Table 23.2: Example of forecasted data for BCE (base case exchange) and IGM (individual grid model).

SE Europe: Base Case Exchanges in MW for 18.12.2024, 10h30 CET

from to	AL	AT	BA	BG	RS	ME	GR	HR	HU	KS	MK	RO	SI	TR	UA	IT	UCTE	TOTAL
AL										-200								200
AT																		0
BA																		0
BG																		0
RS																		0
ME										-200								200
GR																		0
HR																		0
HU																		0
KS	200					200					-50							-350
MK										50								-50
RO																		0
SI																		0
TR																		0
UA																		0
IT																		0
UCTE																		*****
TOTAL	200	0	0	0	0	200	0	0	0	-350	-50	0	0	0	0		*****	*****

(-) is for import, (+) is for export.

Table 23.3: Example of the BCE data from each TSOs:

SE Europe: Base Case Exchanges in MW for 18.12.2024, 10h30 CET

from to	AL	AT	BA	BG	RS	ME	GR	HR	HU	KS	MK	RO	SI	TR	UA	IT	UCTE	TOTAL
AL						-100	-140			-50								290
AT									-700				30					670
BA					-100	-350		-400										850
BG					-100		-360				-150	160		50				400
RS			100	100		-120		-30	300	-150	-300	100						0
ME	100		350		120					-100						-600		130
GR	140			360							50			100		50		-700
HR			400		30				240				-70					-600
HU		700			-300			-240				-660	110				2618	-2228
KS	50				150	100					50							-350
MK				150	300		-50			-50								-350
RO				-160	-100				660									-400
SI		-30						70	-110							-120		190
TR				-50			-100											150
UA									0			0						0
IT						600	-50						120					-670
UCTE									-2618									*****
TOTAL	290	670	850	400	0	130	-700	-600	-2228	-350	-350	-400	190	150	0		*****	*****

Table 23.4: Indicative (maximum) NTC values at Kosovar border, and the report between NTC and nominal capacity in percentage (KOSTT report)

INDICATIVE (MAXIMUM) NTC VALUES AT KOSOVAR BORDER					
Borders	1. NTC-Import (MW)	2. NTC- Export (MW)	3. Nominal transmission capacity of interconnection at the border (MW)	1/3 *100 (%)	2/3 *100 (%)
Kosova-Albania	400	400	1455	27.5	27.5
Kosova-Serbia	325	325	1455	22.3	22.3
Kosova-Montenegro	300	300	1185	25.3	25.3
Kosova-N.Macedonia	291	200	1096	26.6	18.2
Total	1316	1225	5191	25.4	23.3

Table 23.5: Data collection and presentation table (to be digitized though ESRK software)

BORDERS	1. NTC IM-PORT (MW)	2.NTC EXPORT (MW)	3.NOMINAL TRANSMIS-SION CAPACITY OF IN-TERCONNECTION AT THE BORDER	IMPORT (1/3 *100 (%))	EXPORT (2/3 *100 (%))
Kosova-Albania					
Kosova-Serbia					
Kosova-Monte-negro					
Kosova-N.Mace-donia					
AVERAGE					

Annex 23.1: Indicative (maximum) NTC values* at Kosovar border, and the report between NTC and nominal capacity in percentage

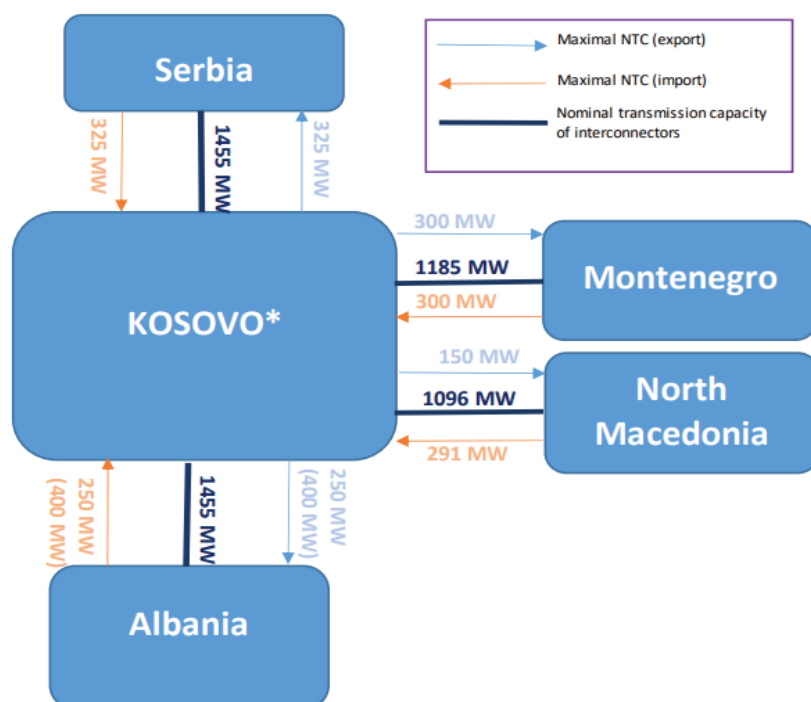


Figure 9: Nominal transmission capacity of the interconnectors at Kosovar borders and maximum NTC values

*The NTC with Serbia are not yet applicable.

Annex 23.2: The maximum NTC values and nominal transmission capacity of interconnector for the regional countries.

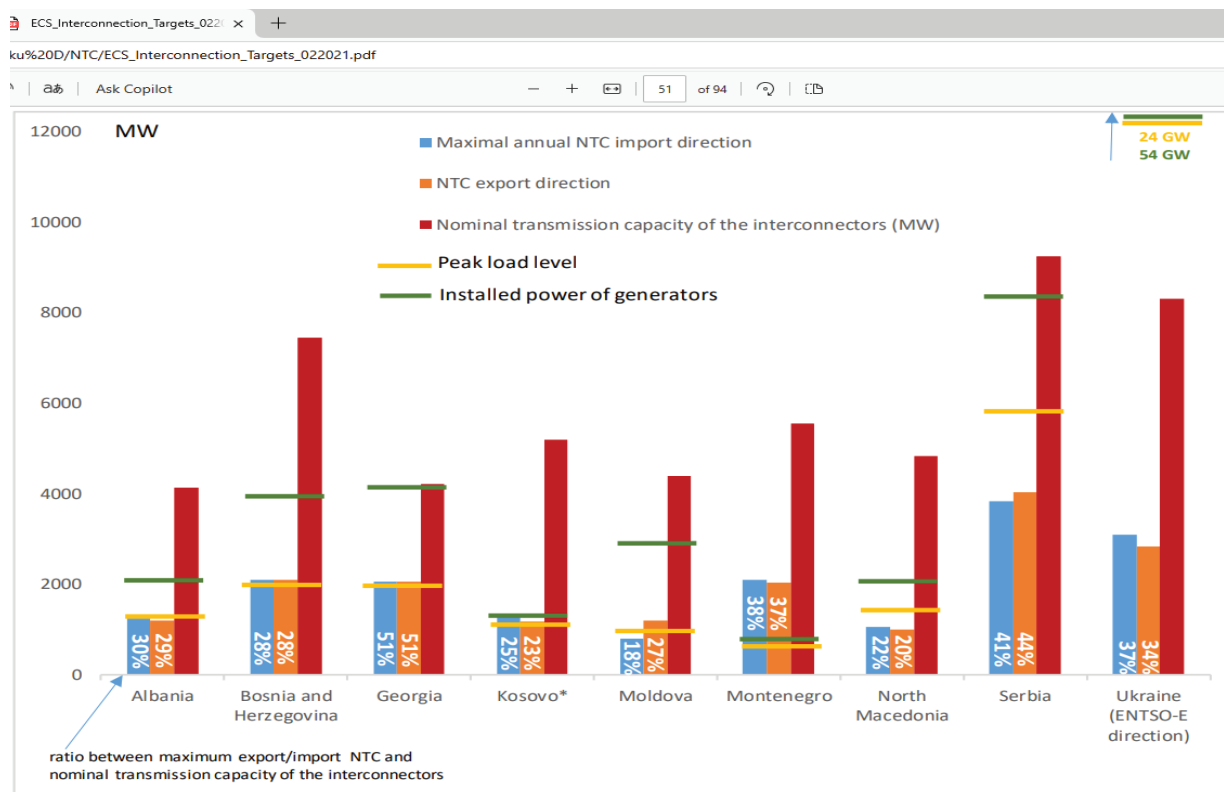


Figure 21: Maximum NTC values today and nominal transmission capacity of interconnectors in each CP

6.24 STATUS OF BULK SUPPLY AGREEMENT PHASE-OUT

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures whether the Bulk Supply Agreement (BSA) in Kosovo is in place. The Bulk Supply Agreement (BSA) is an agreement signed between Kosovo Energy Corporation **KEK** (state-owned company responsible for electricity generation) and Kosovo Electricity Distribution Company KEDS (the company responsible for the distribution and retail supply of electricity to consumers in Kosovo) by which KEK agrees to supply and KEDS agrees to receive and purchase electrical energy.

The Energy Strategy of Kosovo 2022-2031 foresees a gradual phase-out of the BSA by 2031. Phasing out the Bulk Supply Agreement (BSA) between KEK and KEDS is highly relevant for Kosovo's goal of liberalizing its electricity market. Market liberalization encourages competition, breaking the monopoly of state-owned companies and providing consumers with more choices. Ultimately, market liberalization supports a more dynamic and flexible electricity system, reduces the risks associated with relying on a single state-owned supplier, and aligns Kosovo with broader European energy market trends, fostering long-term sustainability and affordability for consumers.

The value of the indicator is defined as a binary measure (YES/NO analysis) which indicates whether the BSA is phased out. The value of the indicator is not disaggregated.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

- 3.1 The BSA was signed between KEK and KEDS by which KEK agrees to supply and KEDS agrees to receive and purchase electrical energy (Annex 1).
- 3.2 Kosovo intends to create a liberalized market for electrical energy for which the agreement needs to be terminated.
- 3.3 The Division of Energy Systems in MoE is responsible annually to enter in the data concerning the indicator (see table 24.1).
- 3.4 The data is automatically aggregated using ESRK software and the calculation of the data is done following the procedure proposed in table 24.1.
- 3.5 The value analysis is carried out by the Division of Energy Systems in MoE. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.
- 3.7 The value of the indicator based on table 24.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.8 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected in spot-collection and reported in December.

5. SOURCE OF VERIFICATION

BSA Data collection table.

Tableau 24.1: Data collection and presentation table (to be digitized through ESRK software)

	IN PLACE	NOT IN PLACE	COMMENTS
Status of BSA			

6.25 NUMBER OF OFFERS AVAILABLE FOR NON-HOUSEHOLD CUSTOMERS

Indicator Type: Output Indicator

1. DEFINITION

The indicator measures the total number of energy supply options or contracts available to non-household consumers, such as businesses, industries, and public institutions. It tracks the level of competition in the energy market by counting how many different suppliers are offering energy services to these customers.

This indicator provides an overview of the diversity and accessibility of energy suppliers in the market. With the gradual phase-out of the BSA, the share of non-household consumption to participate in the competitive market segment will increase, as electricity prices will reflect market prices, thus incentivizing them to voluntarily leave the Universal Service Supplier (USS).

This indicator is relevant because it reflects the degree of market competition, which is crucial for creating an efficient, transparent, and consumer-friendly energy market. A higher number of offers typically indicates a more competitive market, where businesses and other non-household consumers have the opportunity to choose from a variety of suppliers, potentially leading to better prices, services, and conditions. In addition, it highlights the success of energy market liberalization efforts, as Kosovo has been working to align its energy market with European Union standards, which prioritize competition and consumer choice. By monitoring this indicator, policymakers can assess whether the energy market is functioning effectively and if non-household consumers have the necessary options to make informed energy decisions, ultimately supporting the goal of energy sector reform and consumer empowerment. As a signatory party to the Energy Community Treaty, Kosovo will transpose its legal and regulatory framework to the EU Acquis Communautaire, which will create a transparent and non-discriminatory energy market based on the principles of a free, open and competitive market.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of offers available for non-household consumers

m = number of offers available for non-household consumers in year “n” of ESRK implementation period.

The value of the indicator is not disaggregated in any criteria.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The BSA (Bulk Supply Agreements) between KEK and KEDS by which KEK agrees to supply and KEDS agrees to receive and purchase electrical energy is terminated.

3.2 New registered suppliers will offer electrical supply to consumers.

3.3 Division for Energy Systems in MoE is responsible annually to enter in the data concerning offers available for non-household consumers collection table in the ESRK software (see table 25.1).

3.4 The value analysis is carried out by the DES in MoE. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.7 The value of the indicator based on table 25.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Energy Systems Division of Energy (MoE) through the ESRK software

3.8 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Data collection table.

Tableau 25.1: Data collection and presentation table (to be digitized through ESRK software)

	NUMBER	COMMENTS
Offers available for non-household consumers		

6.26 ANNUAL NUMBER OF NEW GRADUATES OBTAINING ACADEMIC DEGREES OR PROFESSIONAL QUALIFICATIONS IN THE FIELD OF ENERGY AND RELATED FIELDS

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator measures the number of students that obtained an academic degree (bachelor, masters, PhD) or obtained professional qualifications in the energy and adjacent sectors that are accredited by the National Qualification Authority (NQA).

Kosovo currently lacks workers with technical skills needed to meet current and future demand from employers in the energy and adjacent sectors. With a large portion of the employees in the sector nearing retirement, more skilled workers will be needed for the sector.

In Kosovo there are three modalities to obtain a professional qualification in the energy and adjacent sectors:

- Vocational Education and Training Institutions (VETIs); play a crucial role in preparing high-school students for the workforce by offering practical, career-focused education in various fields and are managed by the respective municipality.
- Centres of Competence (CoC); are specialized institutions that focus on providing high-quality, industry-relevant training in specific sectors and are managed by the Agency of Vocational Education and Training and Adult Education (AVETAE).
- Universities; either public or private.

A non-exhaustive list of universities offering professional qualifications in the energy and adjacent

To address this gap, the Energy Strategy of Kosovo 2022-2031 foresees close cooperation with academia/universities, industry and development partners organizations to develop and harmonize education and training programs with the needs of the energy sector. Training on integration of renewables, electricity markets, regional integration, energy trading and energy assessment of buildings are considered as key priorities. This cooperation will be carried out in such a way that it enables women's participation with equal opportunities in these education and training programs (including through scholarship schemes) and promoting inclusion of women in energy sector companies and institutions.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n (v + c + u)$$

where:

D = total number of graduates obtaining academic degrees or professional qualifications in the field of energy and related fields

v = number of graduates obtaining professional qualification from VETIs in the field of energy and related fields in year "n" of ESRK implementation period.

c = number of graduates obtaining professional qualification from CoCs in the field of

energy and related fields in year “n” of ESRK implementation period.

u = number of graduates obtaining academic degrees in the field of energy and related fields in year “n” of ESRK implementation period.

The value of the indicator is disaggregated by: type of institution (VETIs, CoCs and universities) gender (female, male).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF DATA COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 VET Department in the Ministry of Education, Science, Technology and Innovation (MESTI) reports on the number of professional qualifications obtained in COCs and VETIs in energy and related profiles (see table 26.1a).

3.2 Department of Higher Education, Science and Technology in MESTI reports on the number of academic degrees obtained in energy and related fields (see table 26.1b).

3.3 MESTI is responsible annually to enter in the data in the collection table in the ESRK software (see table 26.2).

3.4 The value analysis is carried out by MESTI. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by MESTI in liaison with other ESRK M&E working group members.

3.5 The value of the indicator based on table 26.2 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software.

3.6 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The data is collected annually and presented in January of the following year (year n+1).

5. SOURCE OF VERIFICATION

MESTI data collection table.

Table 26.1a. Data collection table for the pre-university level

Fields	Public VETIs		Private VETIs		CoCs	
	Male	Female	Male	Female	Male	Female
Renewable Energy Engineering						
Mechanical Engineering						
Field n						
....						

Table 26.1b. Data collection table for the university level

Fields	Gender	Public Universities			Private Universities			Total
		Bachelor	Master	PhD	Bachelor	Master	PhD	
Renewable Energy Engineering	Male							
	Female							
Mechanical Engineering	Male							
	Female							
Environmental Engineering	Male							
	Female							
Field n	Male							
	Female							

Table 26.2. Aggregation and presentation table (to be digitized through ESRK software)

	Universities		COCs	VETIs		Total
	Public	Private		Public	Private	
Male						
Female						
Total						

Annexe 26.1 Lists of Universities, VETIs; and CoC involved.

#	UNIVERSITIES	FIELDS
1	University of Prishtina "Hasan Prishtina"	Engineering
2	University of Mitrovica "Isa Boletini"	Engineering
N	UBT (University for Business and Technology)	Engineering
	Other Universities	
VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS (VETIs)		
1	Vocational Education and Training "Bahri Haxha" Vushtrri	
2		
N		
CENTRES OF COMPETENCE (COCs)		
1	Centre of Competence "11 Marsi" Prizren	
2		
N		

6.27 PERCENTAGE OF WOMEN EMPLOYED IN THE ENERGY SECTOR

Indicator Type: Outcome Indicator

1. DEFINITION

The percentage of women employed in the energy sector measures the proportion of female employees with core energy businesses registered in Kosovo, as defined by the Tax Administration of Kosovo. This indicator reflects efforts to promote gender equality and inclusion in the energy workforce.

The percentage of women employed in the energy sector is a crucial indicator of gender equality and inclusivity in an industry traditionally dominated by men. It highlights progress toward creating diverse and equitable workplaces, aligning with global and local commitments to gender mainstreaming and empowerment. The Energy Strategy of Kosovo 2022-2031 foresees an increase in women participating in energy sector from baseline 9% to 25% by 2031.

The value of this indicator is measured through the following formula:

$$D = \sum_{i=1}^n \left(\frac{Nf}{Nt} \right) \times 100$$

where:

D = percentage of women employed in the energy sector

Nf = number of female employees in the energy sector in year “n” of ESRK implementation

Nt= number of total employees in the energy sector in year “n” of ESRK implementation

The value of the indicator is disaggregated by:

-Economic Activity/ NACE Code (a code given by the Tax Administration of Kosovo).

Prodhimi i energjisë elektrike	3511
Transmetimi i energjisë elektrike	3512
Shpërndarja e energjisë elektrike	3513
Tregtia e energjisë elektrike	3514
Prodhimi i gazit	3521
Shpërndarja e lëndëve djegëse të gazta nëpërmjet tubacion	3522
Tregtia e gazit nëpërmjet tubacioneve	3523
Furnizimi me avull dhe ajër të kondicionuar	3530

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Tax Administration of Kosovo (TAK) maintains the database for all businesses in Kosovo structured through their business activities, number of employees, gender and wage (Table 27.1).

3.2 Division of the Strategic Planning and Regional Cooperation requests the data from Table 27.1 from the TAK.

3.3 DSPRC in MoE calculates the values as per Table 27.2.

3.4 The data is automatically aggregated by MoE using ESRK software and the calculation of the data is done following the procedure proposed in table 27.3.

3.5 The value analysis is carried out by the DSPRC of MoE. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.6 The value of the indicator based on table 27.3 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.7 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Human Resources Department of MoE Data collection table.

Tableau 27.1: Data collection table (TAK software)

Compa-ny_no	Ent ac-tivity_code	ENT_AC-TIVITY_NAME	Year_registration	TPER_YEAR	Qarkul-imi	Nr_employ-ees	Net_wage_employ-ees	Number male employees	Total_net_wage_male_employ-ees	Number_male_employees	Total_net_wage_female_employ-ees	Number_NULL_GENDER_employ-ees	Total_net_wage_NULL_GENDER_employees

Table 27.2: Format of the aggregation/calculation table of the indicator (automatically generated by ESRK software)

Core Energy													
Economic Ac-tivities	Row Labels	NACE Code	# of com-panies	Turn-over	# Employ-ees	Male em-ployees	Female employ-ees	Total Wages	Male wages	Female Wages	%female employed	% female wages	
Production of electricity	Prodhimi i energjisë elektrike	3511											
Transmission of electricity	Transmetimi i energjisë elektrike	3512											
Distribution of electricity	Shpërndarja e energjisë elektrike	3513											
Trade of electricity	Tregtia e energjisë elektrike	3514											
Manufacture of gas	Prodhimi i gazit	3521											
Distribution of gaseous fuels through mains	Shpërndarja e lëndëve djegëse të gazta nëpërmjet tubacioneve	3522											

6.28 NUMBER OF NEW SCHEMES DEDICATED TO VULNERABLE CONSUMERS

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the number of state-funded schemes and programs designed to support vulnerable consumers by subsidizing, promoting, and facilitating community investments in energy efficiency and self-consumption. The recognition and guarantee of special rights related to the supply of electricity for vulnerable consumers in the Republic of Kosovo is done through three laws, namely: Law No. 05/L-081 on Energy (Law on Energy), Law on Electrical Energy, and Law on the Energy Regulator. The three laws, the Law on Energy, the Law on Electricity and the Law on the Energy Regulator, define the consumer in need as a family consumer who, due to his social status, enjoys some special rights regarding the supply of electricity.

Normally a scheme is composed by the following key topic:

- i) application method (the platform/procedure where people can apply for the program),
- ii) beneficiary criteria (the criteria that applicants must fulfil to benefit from the program)
- iii) an expected time frame (timeline for the program to be implemented),
- iv) payment method (how beneficiaries will receive the payment),
- v) reporting system (system/sheets where the status of the program is reported).

Incentivizing vulnerable consumers is particularly crucial within the context of the European Union's broader energy goals, as these consumers often face financial challenges that hinder their access to affordable energy and energy-efficient solutions, exacerbating energy poverty.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of schemes dedicated to vulnerable consumers

m = number of schemes dedicated to vulnerable consumers in year "n" of ESRK implementation period.

The value of the indicator is disaggregated by measure (subsidize in the electricity bills and others)

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 A decision is taken by the relevant institution (i.e. MFTL) on the new support scheme dedicated to vulnerable consumers (this includes: application method, beneficiary criteria, timeframe, payment method and a reporting system) see annex 28.1.

3.2 The application is opened through the eKosova platform (Annex 28.2).

3.3 After the applications are accepted, evaluation and verification bodies are created to review and certify applications and report a list of beneficiaries to the finance department of the respective institution (Table 28.1).

3.4 Department for Social Schemes in the MFTL is responsible to enter in the data concerning the schemes they implement using collection table in the ESRK software (see table 28.2).

3.5 The number of “schemes supporting vulnerable consumers” is automatically aggregated using ESRK software (see same table 28.2).

3.6 The value analysis is carried out by the Department of Social Schemes in MFTL. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Social Schemes in MFTL.

3.7 The value of the indicator based on table 28.2 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software.

3.8 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Data aggregation/calculation table (ESRK software).

Table 28.1: List of the beneficiaries

1	Data e aplikimit	Emri dhe mbiemri	Numri personal	Numri i telefonit	Email	Komuna	Adresa e vendbanimit	Furnizuesi	Njësori/Elektri	Pronari i njësorisë elektrike	Banor me qira	Gjatësia mujore	Dëshmia e gjasës	Numri i personave që jetojnë në këtë shtëpi	Vlera e objekteve/pronave
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

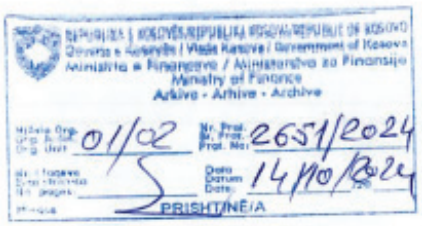
Table 28.2 Data collection /aggregation table (to be digitised through ESRK software)

[illegible]

Table 28.3: Format of data presentation table (automatically generated by ESRK software)

		SCHEME/PROGRAM KEY INFORMATION				
YEAR	TITLE	IMPLEMENTATION PERIOD	BUDGET	FINANCING SOURCE	TYPE OF MEASURE	
					Subsidy in electricity bill	Other
	TOT.					

Annex 28.1: Example of an approved decision by the respective institution for vulnerable consumers schemes





Republika e Kosovës
Republika Kosova - Republic of Kosovo
Qeveria - Vlada - Government
Ministria e Financave, Punës dhe Transfereve – Ministarstvo Finansija, Rada i Transfera – Ministry of Finance, Labour and Transfers

Nr. 60 2024
 Datë: 11.10.2024

Në zbatim të pikës 2 të Vendimit Nr. 06/224 të datës 11.10.2024 të Qeverisë së Republikës së Kosovës, në mbështetje të nenit 10 dhe nenit 11 të Ligjit Nr. 06/L-113 për Organizimin dhe Funksionimin e Administratës Shtetërore dhe të Agjencive të Pavarura, të nenit 4 paragrafit 1.2, nenit 5 dhe shtojcës 1 pika 2 të Rregullores Nr.14/2023 për Fushat e Përgjegjësisë Administrative të Zyrës së Kryeministrit dhe Ministrive, Ministri i Financave, Punës dhe Transfereve nxjerr këtë:

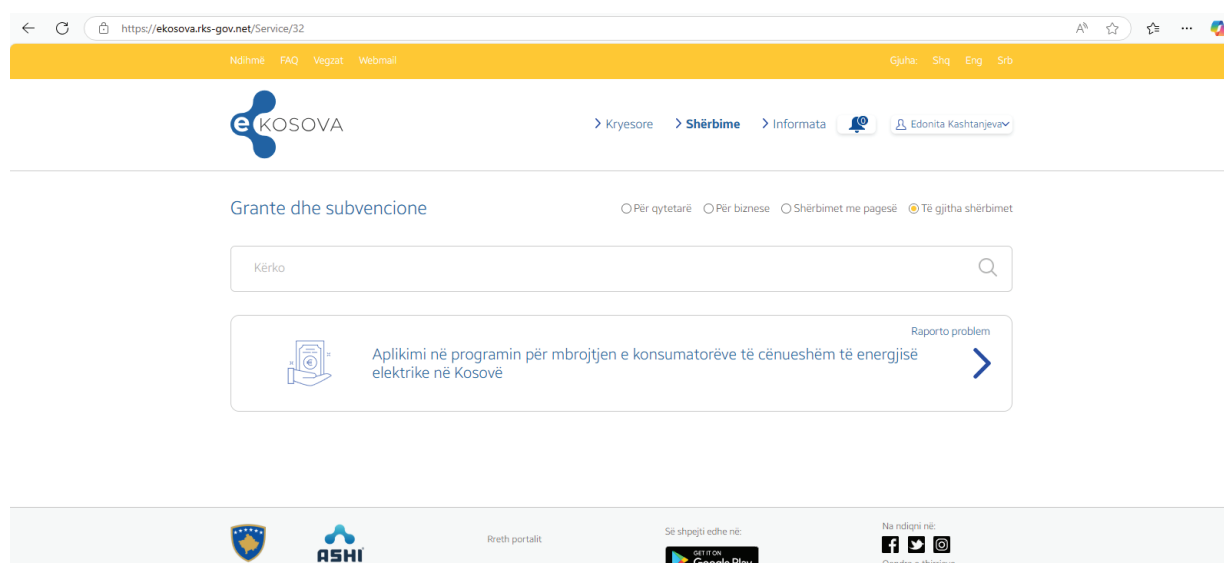
VENDIM

Mbi kushtet dhe kriteret për përfitim nga Programi për Mbrojtjen e Konsumatorëve të Cenueshëm të Energjisë Elektrike për vitin 2024-2025 sipas pikës 2 të Vendimit të Qeverisë Nr. 06/224 të datës 11.10.2024

A. FORMA E MBËSHTETJES

- Mbështetja në formë të subvencionimit të faturës së energjisë elektrike sipas Programit për Mbrojtjen e Konsumatorëve të Cenueshëm të Energjisë Elektrike për vitin 2024 – 2025 ofrohet për të gjitha Ekonomitë Familjare të cilat plotësojnë kriteret sipas seksionit D të këtij Vendimi.

Annex 28.2: Example of the application in eKosova



6.29 NUMBER OF PROGRAMS SUPPORTING COMMUNITY PROJECTS IN EFFICIENCY AND SELF-CONSUMPTION

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the number of state funded schemes and programs, addressing the need for subsidizing, supporting and promoting community investments in efficiency and self-consumption.

These schemes should involve but not only be limited to the promotion of renewable energy sources use, as defined in the Renewable energy law, as well as increasing energy efficiency by introducing schemes that are designed to promote renovation of residential buildings (building isolation, replacement of windows and doors, isolation of roof); energy efficiency appliances (heat appliances such as biomass stoves, individual stoves, thermal pumps, air conditioners, efficient electrical home appliances instalment of thermal and PV systems for energy self-consumption and energy storage technology). All these measures individually and collectively aim to reduce the final energy consumption and gas emissions.

Normally such programs/schemes are funded by external donors and/or government funds.

A program/scheme is considered “supporting community projects in efficiency, self-consumption” when the following five criteria are fulfilled:

- i) application method (the platform/procedure where people can apply for the program),
- ii) beneficiary criteria (the criteria that applicants must fulfil to benefit from the program)
- iii) an expected time frame (timeline for the program to be implemented),
- iv) payment method (how beneficiaries will receive the payment),
- v) reporting system (system/sheets where the status of the program is reported).

The household consumption has the biggest share of energy consumption in Kosovo. A huge portion of which is electricity used for heating. These schemes aim to raise efficiency in households by modernizing household appliances and shifting them to energy sensitive technology. This is done through subsidizing part of the appliances price reimbursed directly to the consumers (one of the schemes). Another dimension of the indicator is self-consumption, which is aimed to be achieved through subsidizing photovoltaic instalment technology which would contribute to the decentralization of energy generation and contribute to the overall Strategy target regarding prosumers (100 MW).

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of programs supporting community projects in efficiency and self-consumption

m = number of programs supporting community projects in efficiency and self-consumption in year “n” of ESRK implementation period.

The value of the indicator is disaggregated by municipality, type of measure (energy efficiency, renewable energy), and type of beneficiary (self-feeding parent, social scheme, and other).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 A decision is taken from the government or a respective institution, for supporting community projects in efficiency and self-consumption (Annex 29.1).

3.2 Prepared by key stakeholders, such as MoE and/or KEEF, the final approval of each programme/ scheme is approved by MoE (when all criteria mentioned in the definition are fulfilled).

3.3 KEEF and Division of Energy Efficiency within MoE are responsible annually to enter in the data concerning the programs they implement using collection table in the ESRK software (see table 29.1).

3.4 The number of “programmes supporting community projects in efficiency and self-consumption” is automatically aggregated by the software run by KEEF and MoE. Data presentation table is automatically generated by ESRK software (see same table 29.2)

3.5 The value analysis is carried out by the KEEF and DEE (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation

(positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.6 The value of the indicator based on table 29.2 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.7 The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Data aggregation/calculation table of the indicator (automatically generated by ESRK software).

Table 29.1: Data collection/aggregation table (to be digitized though ESRK software)

[illegible]

Table 29.2 Presentation table (to be digitised through ESRK software)

MUNICIPALITY	NUMBER OF BENEFICIARIES	Amount of subsidy (=Budget' per municipality)	Type of beneficiary		
			SELF FEED-ING PARENT	SOCIAL SCHEME	OTHER
TOTAL					

Annex 29.1 Example of the Governmental decision to launch supportive measures in energy



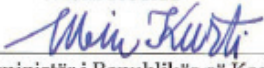
Republika e Kosovës
Republika Kosova - Republic of Kosovo
Qeveria - Vlada - Government

Nr. 03/128
 Datë: 16.02.2023

Në mbështetje të nenit 92 paragrafi 4. dhe të nenit 93 paragrafi 4 të Kushtetutës së Republikës së Kosovës, të nenit 8 të Ligjit Nr. 08/L-117 për Qeverinë e Republikës së Kosovës, nenit 25 të Ligjit Nr. 05/L-081 për Energjinë, të Ligjit Nr. 06/L-079 për Eficiencë të Energjisë, duke u bazuar në nenin 4 të Rregullores Nr. 02/2021 për Fushat e Përgjegjësisë Administrative të Zyrës së Kryeministrit dhe Ministrive e ndryshuar dhe e plotësuar me Rregulloren Nr. 04/2021 dhe me Rregulloren Nr. 03/2022, në pajtim me nenin 17 dhe 19 të Rregullores së Punës së Qeverisë së Republikës së Kosovës Nr. 09/2011, Qeveria e Republikës së Kosovës, në mbledhjen e mbajtur më 16 shkurt 2023, merr këtë:

V E N D I M

1. Ndryshohet dhe plotësohet Plani i Veprimit për Zbutjen e Ndikimit të Menjëhershëm Socio-Ekonomik të Krizës Energjetike, si pjesë përbërëse e Vendimit të Qeverisë Nr. 29/112 të datës 13 dhjetor 2022.
2. Pjesë përbërëse e këtij Vendimi është Plani i Veprimit për Zbutjen e Ndikimit të Menjëhershëm Socio-Ekonomik të Krizës Energjetike, me plotësimet/ndryshimet nga pika 1. e këtij Vendimi.
3. Pjesët tjera të Vendimit të Qeverisë Nr. 29/112 të datës 13 dhjetor 2022 mbesin të pandryshuara.
4. Vendimi hyn në fuqi ditën e publikimit në Gazetën Zyrtare të Republikës së Kosovës.

Albin KURTI

 Kryeministër i Republikës së Kosovës

Iu dërgohet:

- Zëvendëskryeministrave
- Të gjitha ministrave (ministrave)
- Sekretarit të Përgjithshëm të ZKM-së
- Arkivit të Qeverisë

6.30 PRICE SUPPORT SCHEME FOR VULNERABLE CONSUMERS

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the development and implementation of price support scheme mechanisms aimed at mitigating energy costs for vulnerable consumers. This includes financial or policy-based initiatives designed to reduce energy poverty by providing targeted assistance to individuals and households at risk.

Creating a price-support scheme that targets and covers all individuals or households at risk of energy poverty in Kosovo is essential to ensure equitable access to affordable energy, particularly for vulnerable populations like low-income families, the elderly, and people with disabilities. As energy poverty can lead to serious health risks, economic instability, and social inequalities, such a scheme would help mitigate these issues, improving overall well-being and economic resilience. Additionally, aligning Kosovo's energy policies with EU standards and practices is crucial, as the EU places a strong emphasis on social inclusion and energy accessibility for all.

The value of the indicator is defined as a binary measure which indicates whether the scheme was implemented or not and if the poverty test (means-test) was included in the design.

However, to reach the abovementioned results, the Ministry of Finance, Labour and Transfers has put in place the ***Program for the protection of vulnerable electricity consumers in Kosovo*** as foreseen in the ESRK to be established by 2024 and further be advanced to a price support scheme rather than a single program which is subject to periodic change.

For the current program, households that qualify for subsidies under the Program must pass specific poverty tests. Initially, households will be evaluated based on an asset test:

- The cumulative value of immovable properties owned by the members of the household must be equal to or less than one hundred thousand euros (100,000 €).

Households that pass the asset test will then undergo an income test:

- The average monthly income for the most recently defined period, as determined by a decision, must be equal to or less than one hundred and fifty euros (150 €) per household member.

As a result, a vulnerable household is defined as one that passes both tests.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Scheme Initiation and Design - The Scheme for Supporting Energy Prices for Vulnerable Consumers is designed and initiated by the Ministry of Finance, Labour, and Transfers (MFLT).

3.2 Application Platform and Evaluation - A date is set for launching the application through eKosova platform, which will be used to collect applications for the scheme (Annex 1). At the same time, a decision is made regarding the entity responsible for evaluating applications (e.g., a designated department or a newly established body).

3.3 The applications are aggregated in eKosova platform and downloaded using table 30.1 by the respective body.

3.4 The respective body reviews the applications to confirm if they meet the criteria.

3.5 The amount of energy that can be subsidized and the maximum level of subsidy are presented in table 30.2 calculated with the following formula:

$$\text{Subsidy} = (900\text{kwh} \times N_{fam}) \times C_{elec}$$

N_{fam} -- is the number of family members.

C_{elec} - is the price of electricity per kwh, which is currently 7.03 euro cents, including taxes.

3.6 A list with the beneficiaries and the amount of the subsidy is sent to KESCO by MFLT to apply the subsidy to the respective electricity bill (see table 30.3).

3.7 Department for Social Schemes in the MFLT is responsible to enter in the data concerning the price-support scheme using collection table in the ESRK software (see table 30.4).

3.8 The value analysis is carried out by the Department for Social Schemes in the MFLT. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department for Social Schemes in the MFLT) in liaison with other ESRK M&E working group members.

3.9 The value of the indicator based on table 30.4 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Division of the Strategic Planning and Regional Cooperation of the Department of Energy (MoE) through the ESRK software

3.10 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Data aggregation/calculation table of the indicator (automatically generated by ESRK software).

Table 30.1: Aggregated list of the applicants received from eKosova

Data e aplikimit	Emri dhe mbiemri	Numri personal	Numri i telefonit	Email	Komuna	Adresa e v	Furnizues	Njehsori	Ë Pronari i r	Barim me	Qiraja mu	Pëshmia	€ Numri per	Vlera e ot	Aplikimi ka ndryshin	Data e ndryshimit
31.12.2024 23:50:18	XX	xxx	YYYY		Prishtinë		KESCO	DPR xxxx	Unë	Jo				0	Jo	
	Anëtarët e familje: Emri dhe mbiemri	Numri personal	Gjinia		Komuna	Marrëdhënie	Vlera e objekteve/pronave në sistemin e tatimit në pronë									
	YY	xxx			Prishtinë	Nëna	0									
31.12.2024 23:18:04	XX	1244907497	YYYY		Kaçanik		KESCO	DFE xxxx	Vjehtëri/Vj	Jo				0	Jo	
	Anëtarët e familje: Emri dhe mbiemri	Numri personal	Gjinia		Komuna	Marrëdhënie	Vlera e objekteve/pronave në sistemin e tatimit në pronë									
	YY	xxx			Kaçanik	Babai	0									

Table 30.2: The calculation sheet for the amount of subsidies

Referenca	tehyrat_totale_per_familje	Vlera_tatimi_Qiraja_ne_prone_mujore	Household_size	Njehsori_Elektrik	email	Consum	BillAmount	AT_test	tehyrat_mesatare_mesatare_te_familjes	tehyrat_mesatare_mesatare_per_anetar	tehyrat_mesatare_per_anetar	MT_test	dy_perqind_e_të_ardhurave_subvencionit?	Sasia_e_energjië_maksimale_e_mundshme_per_subvencionim	subvencioni_maksimal_per_familje	subvencioni_maksimal_per_familje_capped	max_fatura_minus_2_perqind	Subvencioni_final	Subvencioni_final_capped
XXXX	0	21850	0	2	dmiXXX@eN	1002.91	79.4	1	0	0	0	1	0	0	150	21.09	79.4	21.09	21.09
XXXX	260	0	0	1	dpxX@eN	848	48.65	1	21.66666667	21.66666667	21.66666667	1	0.4333333333	0	150	10.545	10.545	48.21666667	10.545
XXXX	1554	34020	0	1	dgljXXX@eN	631	35.15	1	129.5	129.5	129.5	1	2.59	0	50	3.515	3.515	32.56	3.515

Table 30.3: The list sent to KESCO for applying subsidies to the electricity bills

Njehsori_Elektrik	SUBVENCIONI_FINAL_FINAL
dmixxx	2.16
dpzxx	2.16
dgljxxx	2.16
dglxxx	2.16
dgljxxx	2.16
dpexxxx	2.16

Table 30.4: Data collection and presentation table (to be digitized using the ESRK software)

KEY STEPS	STATUS OF PRO- CESS (in a process - ongoing, approved partially, approved)	MEANS-TESTED (YES/NO) (process achieved with 2 “yes”)	COMMENTS
Program for the protection of vulnerable electricity consumers in Kosovo			
Price support scheme for vulnerable consumers linked to the reformed so- cial assistance scheme			

Annex 30.1: Example of an open call through eKosova

The screenshot shows the eKosova website interface. At the top, there is a navigation bar with links for 'Ndihmë', 'FAQ', 'Vezat', and 'Webmail'. Below this, the eKosova logo is displayed. To the right of the logo, there are links for 'Kryesore', 'Shërbime', 'Informata', and a user profile for 'Edonita Kashtanjeva'. The main content area is titled 'Grante dhe subvencione' and includes a search bar with the placeholder text 'Kërko'. Below the search bar, there is a button labeled 'Aplikimi në programin për mbrojtjen e konsumatorëve të cënueshëm të energjisë elektrike në Kosovë'. To the right of this button is a link for 'Raporto problem'. The footer of the website contains logos for the Kosovo government and ASHI, along with social media links for Facebook, Twitter, and Instagram.

6.31 ENERGY-RELATED AWARENESS AND INFORMATION CAMPAIGNS IMPLEMENTED

Indicator Type: Output Indicator

1. DEFINITION

This indicator measures the number of awareness and information campaigns conducted to promote energy efficiency, conservation, and sustainable energy practices among citizens, businesses, and public institutions. These campaigns aim to improve understanding, encourage behavioral change, and foster participation in energy-saving initiatives. According to Kosovo's Energy Strategy 2022-2031, these campaigns are crucial for achieving national energy efficiency targets and aligning with EU energy objectives, particularly under the Energy Efficiency Directive (2012/27/EU).

The campaigns typically include educational workshops, public service announcements, media outreach, and informational materials on topics like renewable energy, energy-saving practices, and financial incentives for energy-efficient upgrades. Various ministries and institutions are responsible for planning, implementing, and collecting data on awareness campaigns and reporting them to the Ministry of Economy.

A list not exhaustive of possible organizations which normally organize such awareness and information campaigns could include:

- Public Institutions (Municipalities, Ministries etc.)
- Donors (GIZ, EU, USAID, UNDP)
- Non-governmental organizations

A list not exhaustive of possible type of awareness and information campaigns could include:

- Workshops
- Seminar
- TV informative messages about energy efficiency scheme programs available, short videos how to save energy etc.)
- Social Media Platforms (designs conveying message to save the energy, or callings for energy efficiency incentives, these are done through the website or the social media platforms.
- School lectures
- Conferences
- Panels
- Brochures

This indicator was chosen to:

- Increased public knowledge of energy-saving practices.
- Greater participation in energy efficiency programs.
- Improved adoption of renewable energy technologies and energy-efficient appliances.

Including indirect changes:

- Reduced energy consumption at the household and institutional levels.
- Long-term reductions in greenhouse gas emissions due to better energy practices.
- Economic savings for consumers and businesses through reduced utility costs.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total number of awareness and information campaigns for energy implemented

m = number of awareness and information campaigns for energy implemented in year “n” of ESRK implementation period.

The value of the indicator should be disaggregated by municipality and type of measure (energy efficiency, renewable energy, both)

The value of the indicator should be disaggregated by implementer (ministries, energy institutions, donors and other structures) and type of measure (energy efficiency, renewable energy, both)

2. SAMPLING METHOD

The indicator does not rely on sampling, as all campaigns conducted throughout the year are included in the calculation.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 Awareness and information campaigns are conducted to promote energy efficiency, conservation, and sustainable energy practices among citizens, businesses and public institutions by different organizations. Each campaign is documented with key metrics, including reach (number of participants) and outputs (e.g., materials distributed, media coverage).

3.2 Data is collected using different tools such as “list of attendees” for workshops/seminars or media analytics reports tracking “reach” and “engagement” for digital media campaigns (see table 31.1). Each institution promoting an awareness and information campaign is responsible for data collection (an example of data collection table is proposed in table 31.2).

3.3 The responsible structure for data aggregation is the Division of the Strategic Planning and Regional Cooperation of the Ministry of Economy which annually will contact the different institutions¹⁰ transmitting the data collection table and then aggregating the data (see table 31.3).

¹⁰ A not exhaustive list of organizations promoting awareness and information campaigns on energy is proposed in the definition

3.4. The value analysis is carried out by the DoE (MoE). Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by DoE (MoE) in liaison with other ESRK M&E working group members.

3.5. The value of the indicator based on table above is automatically archived in the S/E Matrix in electronic format through the ESRK software and presented in the Biannual ESRK Report prepared by the Strategic Planning Division of the Department of Energy (MoE).

3.6. The Indicator Analysis Sheet is presented and discussed in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

Data is collected continuously throughout the year and is then presented twice a year in July and January of the following year.

5. SOURCE OF VERIFICATION

awareness and information campaign data entry table

Table 31.1: Format of data entry form

Organisation responsible:

Type of organisation responsible (ministries, energy institutions, donors and other structures) :

ENERGY CAMPAIGN NAME	CAMPAIGN TYPE (tv, social media, workshop, billboards)	TYPE OF MEASURE			PERIOD OF IMPLEMENTATION (from ... to)
		ENERGY EFFICIENCY	RENEWABLE ENERGY	BOTH	

Table 31.2: Format of data aggregation table

# ENERGY CAMPAIGNS IMPLEMENT.	CAMPAIGN NAME	ORGANISATION RESPONSIBLE	TYPE OF ORGANISATION RESPONSIBLE			CAMPAIGN TYPE (tv, social media, workshop, billboards)	TYPE OF MEASURE			PERIOD OF IMPLEMENTATION (from ... to)
			MINISTRIES	ENERGY INSTITUTIONS	DONORS	OTHER STRUCTURES	ENERGY EFFICIENCY	RENEWABLE ENERGY	BOTH	
TOT.										

Table 31.3: Format of data presentation table (to be digitized through ESRK software)

# ENERGY CAMPAIGNS IMPLEMENT.	CAMPAIGN NAME	TYPE OF ORGANISATION RESPONSIBLE				TYPE OF MEASURE		
		MINISTRIES	ENERGY INSTITUTIONS	DONORS	OTHER STRUCTURES	ENERGY EFFICIENCY	RENEWABLE ENERGY	BOTH
TOT.								

6.32 DIVERSITY AND COMPARABILITY OF SERVICES OFFERED TO CONSUMERS

Indicator Type: Outcome Indicator

1. DEFINITION

The indicator measures the existence of diversity and comparable supply options or contracts available to consumers. It tracks indirectly the level of competition in the energy market by counting how many different suppliers are offering energy services to these customers. This indicator provides an overview of the diversity and accessibility of energy suppliers in the market. Strengthening the role of the consumers in the energy market raises their ability to properly use their rights in a liberalized energy market, i.e., make informed decisions while choosing a supplier or a tariff plan, or to make choices on their energy consumption and energy efficiency investments (renovation, installation of solar panels, etc.). The objective covers the issue of enhanced consumer protection capacities establishing energy performance criteria for energy-related products. The active participation of well-informed consumers also enhances the development of retail markets that contributes to efficient market functioning.

Diversity and comparability of services in the energy sector are critical for fostering competition, consumer choice, and market efficiency. Here's a breakdown of both aspects:- Diversity of Services in the Energy Sector

Diversity in energy services refers to the variety of products, pricing models, and technologies available to consumers. Key areas include:

a) Energy Sources

- Traditional energy: Coal, natural gas and nuclear power (in the future).
- Renewable energy: Solar, wind, hydro, and bioenergy options.

b) Pricing & Tariff Structures

- Fixed-rate plans: Consumers pay a consistent rate per unit.
- Variable-rate plans: Prices fluctuate based on market conditions.
- Time-of-use (ToU) pricing: Different rates based on peak and off-peak hours.
- Prepaid energy plans: Users pay in advance, avoiding unexpected bills.

c) Additional Consumer Services

- Energy efficiency consulting: Advice on reducing consumption and optimizing usage.
- Smart home integration: Smart meters and IoT-enabled devices for monitoring and controlling energy use.
- Green energy options: Consumers can choose plans that support renewable energy investment.

d) Business vs. Residential Services

- Tailored plans: Businesses often have demand-based pricing and specialized energy management solutions.

- Bulk purchasing options: Large organizations can negotiate better rates.

Comparability of Energy Services ensures that consumers can make informed choices by evaluating different providers and plans. Challenges and solutions include:

a) Standardization of Pricing Models

- Governments and regulators encourage transparency in tariff structures to facilitate comparisons.
- Online tools and comparison websites help consumers understand costs and benefits.

b) Clear Communication of Terms

- Hidden fees, contract lengths, and penalties should be clearly disclosed.
- Regulatory bodies often enforce standard billing formats for easy comparison.

c) Consumer Awareness & Digital Tools

- Comparison platforms: Websites that compare energy providers based on price, source, and contract terms.
- Mobile apps: Some utilities offer apps to compare real-time energy usage and alternative plans.
- Regulatory ratings: Agencies may rate suppliers based on reliability and customer satisfaction.

d) Market Competition & Accessibility

- Open markets encourage providers to offer competitive and innovative services.
- Deregulation in some regions allows consumers to switch providers, increasing comparability

As one of the main tools that helps creating a more competitive energy market is Energy Price Comparison Tool. Down below there are some features that are characteristic for an Energy Price Comparison Tool:

1. Real-time Price Comparison

- Displays rates from multiple providers.
- Filters for fixed, variable, and time-of-use plans.

2. Personalized Recommendations

- Users enter their energy consumption data for tailored results.
- Integration with smart meters for real-time usage tracking.

3. Renewable Energy Options

- Highlights plans that use renewable energy sources.
- Shows percentage of energy sourced from solar, wind, hydro, etc.

4. Contract Terms & Fees Breakdown

- Displays contract length, cancellation fees, and hidden charges.

- Alerts for introductory rates that may increase after a period.
- 5. Supplier Ratings & Reviews
 - User feedback and government ratings for reliability and service.
 - Complaint tracking and dispute resolution features.
- 6. Switching Assistance
 - Automated provider switching for hassle-free transitions.
 - Digital contract signing and notification services.
- 7. Mobile & Web Accessibility
 - App integration for monitoring usage and cost trends.
 - Location-based searches to find region-specific plans.

This indicator is relevant because it reflects the degree of market competition, which is crucial for creating an efficient, transparent, and consumer-friendly energy market. A higher number of offers typically indicates a more competitive market, where consumers have the opportunity to choose from a variety of suppliers, potentially leading to better prices, services, and conditions. In addition, it highlights the success of energy market liberalization efforts, as Kosovo has been working to align its energy market with European Union standards, which prioritize competition and consumer choice. By monitoring this indicator, policymakers can assess whether the energy market is functioning effectively and if consumers have the necessary options to make informed energy decisions, ultimately supporting the goal of energy sector reform and consumer empowerment. As a signatory party to the Energy Community Treaty, Kosovo will transpose its legal and regulatory framework to the EU Acquis Communautaire, which will create a transparent and non-discriminatory energy market based on the principles of a free, open and competitive market.

However, in Republic of Kosovo it is seen as quite challenging the full implementation of market decentralisation because of the energy poverty of consumers. The first step toward decentralisation of energy market is BSA (Bulk Supply Agreement) phasing out between Kosovo Electricity Corporation (KEK) and Kosovo Distribution Company (KEDS), with participation of Energy Regulatory Office (ERO). With phasing out of BSA, KEK will lose its monopoly of the supplier in Republic of Kosovo. The current price in Republic of Kosovo is around 7 cents per kWh (amongst the cheapest in Europe). With the market decentralisation the price is expected to grow and most likely the current prices won't be maintained since the subsidies will endanger the competitiveness. The price of electricity currently is fixed with many subsidies (and loans) to KEK meanwhile the renewable energy producers get a fixed price (which is a subsidised price from the Government in order to enhance more renewable energy production) and any growth of prices has to go for approval from the Government. With the decentralisation of the market, the electricity from renewable energy will have a much higher price than the electricity from fossil fuel (coal) because of the paying off of new assets (solar panels, wind turbines, connections, etc) meanwhile the price of electricity from fossil fuel will also grow because of the removal of subsidies. In this case, still the price of the electricity from coal power plants is going to be lower because of the already existing coal power plants (there is no need to pay for building them since they already paid itself off long time ago) and the inexistence of a carbon tax which will make an obstacle for renewable energy sources to compete and develop furthermore. One possible scenario is that the carbon pricing is introduced and the price of electricity coming from fossil fuels will be at the same range or even higher than the electricity coming from

renewable energy sources. This would allow the competition to run more smoothly and to be in favour of renewable energy sources.

The value of the indicator is calculated through fulfilling the criteria that a Price Comparison Tool is launched and that there are alternative offers (a platform) available for all consumers.

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The BSA (Bulk Supply Agreements) between KEK and KEDS by which KEK agrees to supply and KEDs agrees to receive and purchase electrical energy is terminated.

3.2 Legislative changes need to take place that will create a path for further decentralization of the energy market (changes and adaptations of the laws) by MoE, working groups which should consists of all stakeholders (ERO, KOSTT, KEDS, KESCO, all other licensed suppliers). After the public discussion, policy is adapted by the Council of Republic of Kosovo (by votes of the deputies).

3.3 New registered suppliers will become available for offering electrical supply to consumers.

3.4 New Price Comparison Tool will be created by ERO and MoE.

3.5 New platform will be created by ERO in cooperation with MoE and other stakeholders (KEDS, KESCO, KOSTT, other licensed suppliers of energy) where all consumers have the right of accessing it.

3.6 Division for Energy Systems in MoE is responsible to enter in the data concerning diversity and comparability of services offered to consumers in data collection/presentation table in the ESRK software (see table 32.1).

3.7 The value analysis is carried out by the Division for Energy Systems in MoE. Data analysis will focus on: i) comparison with expected target(s); ii) analysis of value of the indicators based on the criteria used for disaggregation (see the definition of this IIS); iii) reasons for any deviation (positive or negative) from expected targets; and iv) proposal of M&E recommendations to improve the performance of the targeted results. An Indicator Analysis Sheet (IAS) will take all these aspects into account and must be drawn up by the Department of Energy (MoE) in liaison with other ESRK M&E working group members.

3.8 The value of the indicator based on table 32.1 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.9 The Indicator Analysis Sheet is presented and discuss in the next annual meeting of the ESRK M&E working group. All M&E recommendations issued from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The information is collected annually throughout the year and presented in December.

5. SOURCE OF VERIFICATION

Data presentation table (to be digitised through ESRK software)

Table 32.1 Data presentation table (to be digitised through ESRK software)

KEY STEPS	STATUS OF PROCESS (in a process - ongoing, approved partially, ap- proved)	DIVERSITY AND COMPARABILITY OF SERVICES OFFERED TO CONSUMERS (YES/NO) (process achieved with 2 “yes”)	COMMENTS
Price Comparison Tool			
Platform of ser- vices available for all consumers			

6.33 DUST, NO_x AND SO₂ EMISSIONS OF LIGNITE POWER PLANTS

Indicator Type: Outcome Indicator

1. DEFINITION

This indicator represents the quantity of dust, NO_x and SO₂ emissions produced by two lignite power plants expressed in mg/Nm³.

Dust particles (PM) are solid or liquid particles suspended in the air, which vary in size and chemical composition. Emissions of dust, nitrogen oxides (NO_x), and sulphur dioxide (SO₂) constitute some of the largest pollutants generated by lignite power plants and they negatively affecting air quality.

This indicator is important for the energy sector, considering that emissions of dust, nitrogen oxides (NO_x), and sulphur dioxide (SO₂) have a direct impact on air pollution and therefore on the health of the population.

Kosovo currently operates two lignite-fired power plants:

- 1. Kosova A Power Plant:** Located in Obiliq, this plant began operations in 1962 with an installed capacity of 800 MW. It consists of 5 blocks:
 - A1 with 65 MW, started operating in 1962 and is not operating currently, without a definitive status, most likely to be decommissioned in the future
 - A2 with 125 MW started operating in 1965 and is not operating currently, without a definitive status, most likely to be decommissioned in the future
 - A3 with 200MW, started operating in 1970 and is currently in use.
 - A4 with 200 MW, started operating in 1971 and is currently in use but its usage is very low due to technological issues
 - A5 with 210 MW, started operating in 1975 and is currently in use.
- 2. Kosova B Power Plant:** Also situated in Obiliq, it started operating in 1983 with an installed capacity of 678 MW. It consists of two blocks:
 - B1 with 339 MW, started operating in 1983 and is currently in use
 - B2 with 339 MW, started operating in 1984 and is currently in use

These two plants are the primary sources of electricity in Kosovo, supplying approximately 90% of the country's electricity needs. The two plants use lignite as a main fuel for heating generation. Lignite, often referred as a brown coal with carbon content around 25-35% and is considered the lowest rank of coal due to its relatively low heat content. When lignite is removed from the ground it contains a very high amount of moisture, which partially explains its low carbon content. However, Republic of Kosovo ranks 9th in the world by lignite reserves with 7.112 billions of tons and it is the only kind of coal that can be found in Republic of Kosovo unfortunately.

However, both plants are too old and have been identified as significant sources of pollution. Kosova A, in particular, is considered the worst single-point source of pollution in Europe and has been proposed for shutdown.

Plans are underway to decommission Kosova A and rehabilitate Kosova B to meet EU environmental standards but since Kosovo did not get support (funds) to build a new coal power station (Kosova C) which would slightly reduce the impact on the environment because of the modern technology that was supposed to be used in that plant (there was already feasibility study and the project almost started with its implementation). After the failure of the project of Kosova C, Energy Strategy of Republic of Kosovo has shifted

towards renewable energy sources. The status of two coal power plants remains unclear since the demand for electricity is growing meanwhile the replacement with renewable energy sources does not cover the grid demand yet. Even with available capacities of these two coal power plants still Kosovo needs to import electricity from its neighbours. However, the status of Kosova A will be re-discussed once the Energy Strategy of Republic of Kosovo is implemented and the renewable energy sources can secure the electricity demand.

Measuring dust, NO_x, and SO₂ emissions from lignite power plants in Kosovo is crucial to address their significant contributions to air pollution, protect public health, and ensure compliance with EU environmental regulations, particularly the Industrial Emissions Directive (2010/75/EU), which sets strict limits on pollutant emissions from large combustion plants and is a key requirement for Kosovo's aspirations toward EU integration and also to measure the effectiveness of the Energy Strategy of the Republic of Kosovo in terms of enhancing more sustainable sources of energy, reduction of GHG emissions since the two coal power plants are one of the main GHG emitters and reducing of the impact on the environment (improvement of the air quality). Also this indicator measures clearly the effectiveness of the electro filters that are installed, for example European Commission has helped the installment of filters on the coal power plants since the plants exceed by far the Industrial Emissions Directive and with the installment of the filters it only made the situation a bit better because the technology of the power plants is very outdated and the quality of the coal (lignite) is very low.

The value of the indicator is calculated through the following formula:

$$D = \sum_{i=1}^n m$$

where:

D = total quantity of dust, NO_x and SO₂ emissions produced by two lignite power plants expressed in mg/Nm³

m = quantity of dust, NO_x and SO₂ emissions produced by two lignite power plants expressed in mg/Nm³ in year "n" of ESRK implementation period.

This indicator will be disaggregated according to the type of emission (dust, nitrogen oxides (NO_x), and sulphur dioxide (SO₂)) and type of lignite unit plant (Kosova A Power Plant, and Kosova B Power Plant).

2. SAMPLING METHOD

The indicator is not collected using sampling methods because all variables to establish its value are taken into account.

3. METHOD OF COLLECTION AND ANALYSIS

The indicator is collected, analysed and its value is disseminated through the following steps:

3.1 The Kosovo Environmental Protection Agency (KEPA), in MESPI, from the KEK's annual report on the state of the environment receives data on: Monthly production of electricity in the two power plants, monthly consumption of coal from Kosovo A and Kosovo B, The specific consumption of Kosovo A and Kosovo B. (Table 33.1).

3.2 The Kosovo Environmental Protection Agency (KEPA), in MESPI, processes the data according to the excel form prepared based on the EMEP/EEA Air Pollutant Emissions Inventory Guide 2016 (Table 33.2.).

3.3 Finally, the processing of the above data is presented by KEPA in tabular form through Excel format, where the amount of emissions of these pollutants in the air is presented (Table 33.3.).

3.4 KEPA is responsible for entering the data using the data (see table 33.4 – digitized using ESRK software).

3.5 The value analysis is done by the Kosovo Environmental Protection Agency (KEPA). Data analysis will focus on: i) comparison with expected targets; ii) the analysis of the value of the indicators based on the criteria used for decomposition (see the definition of this IIS); iii) the reasons for any deviation (positive or negative) from the expected targets; and iv) proposing M&V recommendations to improve the performance of the target results. All these aspects will be taken into account in the Indicator Analysis Sheet (IAS) and it should be drafted by the Kosovo Environmental Protection Agency (KEPA) in cooperation with other members of the working group for M&V ESRK.

3.6 The value of the indicator based on table 33.4 is archived in the S/E Matrix in electronic format by the M&E Specialist of the Strategic Planning Division of the Department of Energy (MoE) through the ESRK software

3.7 The Indicator Analysis Sheet is presented and discussed at the next annual meeting of the ESRK M&V working group. All M&V recommendations emerging from this meeting should be implemented in the following year to improve ESRK performance.

4. FREQUENCY AND PERIOD OF COLLECTION

The data is collected annually and presented in January of the following year (year n+1).

5. SOURCE OF VERIFICATION

KEPA report (Data collection table)

Table 33.1: Data from the KEK report necessary for reporting (Data collection table)

Input Data regarding KEK Thermal Power Plant

Monthly Production of Electricity in two TPPs

TPP Kosova A and Kosova B

Year 2016		TPP Kosova A			TPP Kosova B		Monthly Ratio on Electricity Generation				
Month	Unit	A3	A4	A5	B1	B2	A3	A4	A5	B1	B2
Jan.	MWh/month	48,729.12	0.00	67,744.95	164,718	183,391	7.29%	0%	9%	9%	9%
Feb	MWh/month	74,170.35	85,961.19	105.51	187,697	192,222	11.10%	10%	0%	10%	10%
Mar	MWh/month	103,844.10	108,551.91	0.00	195,968	202,016	15.54%	12%	0%	10%	10%
Apr	MWh/month	86,788.83	75,414.87	27,368.91	122,751	137,895	12.99%	9%	4%	6%	7%
May	MWh/month	39,516.33	66,070.50	112,185.93	198,063	203,117	5.91%	8%	15%	10%	10%
Jun	MWh/month	22,935.30	101,943.18	82,369.35	188,207	193,156	3.43%	12%	11%	10%	10%
Jul	MWh/month	102,507.30	25,674.81	14,915.35	194,260	8,513	15.34%	3%	2%	10%	0%
Aug	MWh/month	42,327.54	100,892.19	62,699.31	26,029	117,337	6.33%	11%	8%	1%	6%
Sep	MWh/month	52,401.72	103,006.62	104,266.62	107,274	200,994	7.84%	12%	14%	6%	10%
Oct	MWh/month	345.69	104,166.27	105,034.74	201,365	210,842	0.05%	12%	14%	10%	10%
Nov	MWh/month	71,718.33	26,454.39	80,654.52	128,507	154,552	10.73%	3%	11%	7%	8%
Dec	MWh/month	22,947.09	81,734.07	109,362.03	205,111	209,974	3.43%	9%	14%	11%	10%
Total	MWh/year	668,231.70	879,870.00	766,707.22	1,919,950	2,014,009	100.00%	100%	100%	100%	100%

105.51 8,513 dhe 345.69 it is the same as in the KEK report but is it well written

Coal Monthly Consumption

TPP Kosova A and Kosova B

Year 2016		TPP Kosova A			TPP Kosova B	
Month	Unit	A3	A4	A5	B1	B2
Jan.	ton/month	71,928.48	0.00	99,997.52	214,838	227,848
Feb	ton/month	82,577.13	95,704.40	117.47	240,431	244,955
Mar	ton/month	134,985.69	141,105.31	0.00	251,138	257,375
Apr	ton/month	117,102.65	101,755.96	36,928.39	155,269	174,220
May	ton/month	59,576.23	99,610.25	169,135.50	249,746	256,888

Table 33.2: Excel processing presentation prepared by JICA based on the EMEP/EEA Air Pollutant Emission Inventory Guide 2016 together with all pages marked at the end of this table. (Data aggregation table)

Stack Gas Measurement Data by JICA Project												
Kosovo A TPP		Operation Condition				Emission Concentration			Other Data			
Date	Time	Boiler No.	Duct No.	Power Generation	Lignite Consumption	SO ₂	NO _X	DUST	Exhaust Gas Flow Rate	Moisture	Exhaust Gas Temperature	
D/M/Y		All Outlet		MWh/hr	ton/hr	mg/Nm ³ at O ₂ 6%	mg/Nm ³ at O ₂ 6%	mg/Nm ³ at O ₂ 6%	Nm ³ /h	Nm ³ /h	%	deg. C
19-Apr-18	12:43-15:00	A-4	B	150	231	137	465					1
20-Apr-18	11:51-15:00	A-4	B	152	234	407	534					
23-Apr-18	11:41-15:00	A-4	B	152	234	797	687	58	766,300	604,000	21.3	1
24-Apr-18	13:38-15:00	A-4	A	145	223	597	591	103	620,000	533,000	14.1	1
25-Apr-18	13:38-15:00	A-4	C	145	223	915	535	448	745,000	497,000	33.4	1
			A	154	237	1142	549	106	722,000	614,000	15	1
30-Apr-18	14:07-17:48	A-4	A	154	237	1142	549	171	701,000	596,000	15	1
			A	154	237	1142	549	74	611,000	520,000	15	1
26-Apr-19		A-5	C			1858	641	739	727,020	611,000	16	1
30-Apr-19		A-5	C			754	679	391	611,651	551,000	10	1
6-Nov-19		A-4	C	146	280	214	604	332	572,900	498,000	13.1	1
8-Nov-19		A-4	C	143.25	280	3	692	1351	727,600	652,000	10.5	2

Table 33.3: The final form presenting the amount of air pollutant emissions for the energy sector (Data presentation table)

	A	B	C	D	E	F	G	H
1	Air Pollutant Emission Inventory in Energy Sector							
2	SO ₂							
3	Sector	Category	Sub-Category	Unit	Year 2020	Year 2021	Year 2022	Year 2023
4	1. Energy							
5	1.A Combustion							
6	1.A.1 Energy Industries							
7	1.A.1.a Public Electricity and Heat Production				39,093.19	37,835.67	36,006.87	31,785.01
8			Thermal Power Plants	ton SO ₂ /year	39,093.19	37,835.67	36,006.87	31,785.01
9			Heat Production	ton SO ₂ /year	0.00	0.00	0.00	0.00
10								
11	NO _x							
12	Sector	Category	Sub-Category	Unit	Year 2020	Year 2021	Year 2022	Year 2023
13	1. Energy							
14	1.A Combustion							
15	1.A.1 Energy Industries							
16	1.A.1.a Public Electricity and Heat Production				28,060.19	27,169.01	25,896.55	22,898.31
17			Thermal Power Plants	ton NO _x /year	28,060.19	27,169.01	25,896.55	22,898.31
18			Heat Production	ton NO _x /year	0.00	0.00	0.00	0.00
19								
20	TSP							
21	Sector	Category	Sub-Category	Unit	Year 2020	Year 2021	Year 2022	Year 2023
22	1. Energy							
23	1.A Combustion							
24	1.A.1 Energy Industries							
25	1.A.1.a Public Electricity and Heat Production				15,689.07	15,189.91	14,481.45	12,782.34
26			Thermal Power Plants	ton TSP/year	15,689.07	15,189.91	14,481.45	12,782.34
27			Heat Production	ton TSP/year	0.00	0.00	0.00	0.00
28								
29	PM ₁₀							
30	Sector	Category	Sub-Category	Unit	Year 2020	Year 2021	Year 2022	Year 2023
31	1. Energy							

Table 33.4: data presentation table (to be digitized through ESRK software)

TYPE OF EMISSION	Kosova A Power Plant	Kosova B Power Plant
dust		
NO _x		
SO ₂		

7. ANNEXES

ANNEX 7.1	Monitoring/Evaluation Matrix
ANNEX 7.2	Terms of Reference of the ESRK M&E Working Group

ANNEX 7.1 Monitoring and Evaluation Matrix

#	Indicators	UoM	Baseline values	Cumulative target value											
				2022		2023		2024		2025		2026		2027	
				P	A	P	A	P	A	P	A	P	A	P	A
	Strategic objective 1: Improving system resilience														
1	System Average Interruption Duration Index (SAIDI)		SAIDI: 80.83 hours/year					SAIDI: 68.9 hours/year							SAIDI: 51.84 hours/year
2	System Average Interruption Frequency Index (SAIFI)		SAIFI: 58.27					SAIFI: 49							SAIFI: 40.86
3	Level of flexible regulation capacity		5 MW					5 MW							170 MW
4	Distribution losses		18.48%, of which 15.1% allowed and 3.38% not allowed [2021]					14.5%							0,09
5	Amount of vRES capacity that the network is able to handle/ integrate		147 MW [2021]					500 MW							2000 MW
6	Number of refurbished lignite units		0 [2021]					2							3 or 4
7	Number of phased out lignite units		0 [2021]					0							2 or 1
8	Cyber response capabilities (identify, detect, respond, and recover) in the energy sector		Not in place												In place

Cumulative target value																							
#	Indicators	UoM	Baseline values																				
				2022		2023		2024		2025		2026		2027		2028		2029		2030		2031	
				P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A
	Strategic objective 2: Decarbonization and promoting renewable energy																						
9	GHG reduction in the power sector compared to 2019		0% [2019] (6316 ktCO2)					0														-0.32	
10	Renewable share in the electricity sector consumption (RES-E share)		6.3% [2021]					Minimum 13%														Minimum 35%	
11	Gradual introduction of carbon Pricing		Not introduced [2021]						Preparation for a carbon pricing system completed													Integration into the EU ETS	
12	RES capacity in the electricity sector (including prosumers)		279 MW						490 MW													1600 MW	
13	Prosumer capacity		2 MW [2021]						30 MW													Minimum 100 MW	
14	Installed RES capacity in district heating systems		15 MWth						Minimum 65 MWth													To be determined by the Feasibility Study	
	Strategic objective 3: Increasing energy efficiency																						
15	Final energy consumption level		1516 ktoe [2017]					1709 ktoe														1877 ktoe	

#	Indicators	UoM	Baseline values	Cumulative target value											
				2022		2023		2024		2025		2026		2027	
				P	A	P	A	P	A	P	A	P	A	P	A
				2028		2029		2030		2031					
16	Cumulative energy savings achieved in the building sector		2.7 ktoe [2021]					17.76 ktoe							266.4 ktoe
17	Total cumulative energy savings of public buildings		2.6 ktoe [2021]					3.3 ktoe							33.9 ktoe
18	Total cumulative energy savings of residential & commercial buildings		0.1 ktoe [2021]					14.46 ktoe							232.5 ktoe
19	Number of near zero energy buildings		0					10							150
20	Increased capacity of cogeneration at Termokos (Prishtina)		140 MWth					140 MWth							280 MWth
21	Number of customers connected to the district heating systems (Prishtina & Gjakova)		17,791					24,56							38,240 in Prishtina and Gjakova. For other municipalities, TBD based on feasibility study
	Strategic objective 4: Strengthening regional cooperation and market functioning														
22	Market integration with pan European electricity markets		Not in place					Market integration with Albania (2023)							Joining Pan-European Market area

#	Indicators	UoM	Baseline values	Cumulative target value																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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23	Offered cross-border capacity/ Nominal cross-border capacity		Export: 22-24%, Import: 24-26%				Minimum each direction 28-30%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</

#	Indicators	UoM	Baseline values	Cumulative target value																			
				2022		2023		2024		2025		2026		2027		2028		2029		2030		2031	
				P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A	P	A
	Strategic objective 5: Protecting and empowering consumers																						
28	Number of new schemes dedicated to vulnerable consumers		NA			2															4		
29	Number of programs supporting community projects in efficiency and self-consumption		1			>2															>5		
30	Price support scheme for vulnerable consumers		Existing support scheme (not well targeted) [2021]			New vulnerable consumers program in place established															Means-tested vulnerable consumers scheme linked to the reformed social assistance scheme		
31	Energy-related awareness and information campaigns implemented		6 [2021]			9 annually															9 annually		
32	Diversity and comparability of services offered to consumers		No offers available			Launch of the Price Comparison Tool															Alternative offers available for all consumers		

ANNEX 7.2 Terms of Reference of the ESRK M&E Working Group

1.1 Background

The energy sector is among the priority areas in the framework of sustainable and inclusive growth, with a particular focus on Kosovo's Green Agenda which is a key priority area in the framework of Kosovo's Energy Strategy for 2022-2031, the Energy Strategy Implementation Program 2022-2025 and the draft NECP 2025-2030.

The Green Agenda is a manifesto for Kosovo's transformation to address the growing environmental and climate challenges by placing sustainable development, diversification of the energy sources, resource efficiency, nature protection and climate action at the centre of all economic activities and turning these challenges into opportunities.

The Western Balkans is one of the regions in Europe most heavily affected by the impact of climate change, and this trend is projected to continue, with estimates suggesting that temperatures will increase by 1.7 – 4.0°C, and even exceeding 5.0°C¹¹ by the end of the century, depending on the global effort to reduce greenhouse gasses emissions. Kosovo, in particular, has been experiencing more frequent and severe droughts and floods.

Electricity production that is highly reliant on fossil fuels and lignite-based generation capacities high energy consumption in relation to GDP contribute to severe air pollution and environmental degradation and negatively impacts the health of the country's citizens, risking Kosovo's long-term development prospects.

As a contracting party of the Energy Community and with a clear prospect of joining the legal framework. Kosovo also signed the Sofia Declaration on the Green Agenda for the Western Balkans in 2020, committing to achieve net-zero emissions by 2050.

The vision of the GoK is to develop a sustainable energy sector, integrated in the Pan-European market, ensuring security of electricity supply and affordability for citizens. The Energy Strategy of the Republic of Kosovo (ESRK) 2022-2031 aims to achieve sustainable and affordable energy supply by: improving system resilience, increasing EE, diversifying energy sources, flexibility, strengthening regional cooperation and market functioning and protecting and empowering consumers.

The strategy envisages a dynamic and progressive increase of RES generation capacities, mainly in wind and photovoltaic (PV) technologies supported by renewable actions, public investment and active participation of prosumers in this process. It foresees refurbishment of lignite units and the phasing out of one or two Kosovo A units, improving the EE of building and promotion of efficient cogeneration and efficient district heating systems

The energy crisis showed that Kosovo's energy system needs to undergo a profound transformation to become more resilient, flexible and diversified so that it can compete with neighbouring systems. In order to boost employment, increase growth, reduce poverty, and improve people's lives, Kosovo needs affordable and reliable energy.

The country's current electricity system is outdated, inadequate and undependable – posing significant challenges to economic growth and development. Frequent power outages hinder investment and disrupt manufacturing, education, and health services.

The energy sector in Kosovo faces many challenges. It continues to heavily rely on very old inefficient and polluting coal-fired power plants with limited generation capacity. The demand for energy is constantly on the rise, while the use of energy is often inefficient. Consecutive Kosovo governments have faced significant challenges in making meaningful

¹¹ "Climate change in the Western Balkans and EU Green Deal: status, mitigation and challenges Report" 2022

investments in diversifying energy sources, curbing consumption, or improving the grid, while dealing with other needs in building up Kosovo. Furthermore, despite its commitment to a greener future as part of the EU integration process, the country continues to struggle with air pollution (also a direct result of the aging fossil-based power base), waste management issues, and overall incomplete energy reforms.

1.2 Current State of Affairs in the energy M&E sector

The M&E system for the energy sector in Kosovo will be centred around the Strategy of the Republic of Kosovo (ESRK) 2022-2031, the Energy Strategy Implementation Programs, a description of the strategy is provided below. Energy Strategy of the Republic of Kosovo (ESRK) 2022-2031 was developed with the aim of defining a clear vision and strategic approach within the continuity of reforms through which the energy sector in Kosovo is undergoing. Initiation of the process of reform is intended to enable the energy transition in line with Kosovo's targets, as well as in the framework of compliance with EU rules and directions of the energy sector.

The ESRK has defined four overall goals of Kosovo in the energy sector, which comprise of the following:

Goal 1: Ensuring security of supply;

Goal 2: Achieving sustainability and climate neutrality;

Goal 3: Improving competitiveness;

Goal 4: Maintaining affordability.

The ESRK has further defined five Strategic objectives, through which the MoE will guide the sector towards achieving its vision and goals.

Strategic Objective I: Improving system resilience;

Strategic Objective II: Decarbonization and promoting renewable energy;

Strategic Objective III: Increasing energy efficiency;

Strategic Objective IV: Strengthening regional cooperation and market functioning;

Strategic Objective V: Protecting and empowering consumers, and workforce development.

In order to ensure that the four goals of Kosovo in the energy sector are achieved, the ESRK 2022-2031 has tried to spread the contribution into five strategic objectives. Further, each strategic objective contains a number of specific objectives.

Figure 1: Inter-connectedness of ESRK goals and strategic objectives



1.3 Scope of the ESRK M&E working group

The ESRK M&E Working Group is responsible for the collection, synthesise and analysis of the 33 ESRK indicators tracking the achievement of the five strategic objectives and related specific objectives (see figure 1). It will integrate information from various sources such as MoE, KEEF, MESPI and KOST data to determine “if” and “how” the majors changes expected before the end of its implementation period are really achieved. To detects and analyses the major challenges/bottlenecks and to promote best practices and successful strategies implemented.

The monitoring shall be carried out pursuant to the monitoring system adopted by MoE and which applies the model of result-based management.

This M&E working group, is based on the following member institutions:

- 1 Department of Energy / Ministry of Economy (ME) Chair
- 2 Advisor from the ME cabinet Member
- 3 Department of Finance and General Services Member
- 4 Strategic Planning office/PMO Member
- 5 Ministry of Finance, Labour and Transfer (MFLT) Member
- 6 Ministry of Environment, Spatial Planning and Infrastructure Member
- 7 Ministry of Interior/ Department for Standards and Policies of Engineering and Management of Government Buildings
- 8 Ministry of Industry, Entrepreneurship and Trade Member

- 9 Ministry of Agriculture, Forestry and Rural Development Member
- 10 Ministry of Education, Science, Technology and Innovation Member
- 11 Kosovo Municipalities Association Member
- 12 Energy Regulatory Office (ERO) Member
- 13 Kosovo Transmission System and Market Operator (KOSTT) Member
- 14 Kosovo Energy Efficiency Fund Member
- 15 Kosovo Energy Corporation/KEK Member
- 16 Kosovo Electricity Distribution Company/KEDS Member
- 17 Representative of district heating companies
- 18 Representative of KESCO

The list of members may vary depending on the topics discussed in the ESRK M&E Working Group meetings.

See below the long terms changes (overall objectives), the key objectives to achieve (specific objective), the major results to deliver and some of the key activities to be annually carried out by this working group.

2.1 Global Objectives of the ESRK M&E working group

- To contribute to strengthen national capacity to address energy issues in Kosovo.
- To contribute to enhance the collaboration between Government, private sector companies, and other stakeholders in the monitoring and implementation of ESRK.
- To contribute to harmonise the project to the line Ministries procedures and strategy, in virtue of the selection of common indicators.
- To contribute to promote the Result-based Management Approach within the ESRK stakeholders.

2.2 Specific Objectives of the ESRK M&E working group

- To report the process of ESRK data collation and facilitate analysis and synthesis of findings and recommendations during ESRK M&E Working group sessions.
- To standardize Monitoring and Evaluation procedures and tools in the MoE, MESPI, KOST, KEEF and other ESRK institutions in the sector.
- To digitize the data collection, aggregation and presentation of ESRK indicators for key institutions such as Department of Energy (MoE), MEPSI, KOST and KEEF¹².
- To promote the use of the recommendations generated by the ESRK M&E working group to improve the performance of the energy sector.

2.3 Results delivered

- Organise on annual bases at least one data analysis workshop to discuss about the performance of ESRK indicators;

¹² All data generated will be should be publicly available in the website of the Ministry. of Economy

- Update the biannual ESRK implementation report improving the analysis of ESRK indicators and proposing consequently applicable M&E recommendations to improve (if the targets are not achieved) or maintain (if the targets are achieved) the performance of the strategy;
- Support the design of an ESRK software user manual;
- Update at least biannually the ESRK M&E Matrix.

2.4 Activities of the ESRK M&E working group

The activities to be undertaken as part of this assignment shall include the following:

- Organize an annual/biannual "data analysis workshops".
- Produce indicator data analysis sheets based to clarify for each ESRK indicator: a) data trends, b) data disaggregation c) list of activities linked to the performance of the indicator d) problems encountered e) data analysis f) M&E recommendations and g) follow up of the previous M&E recommendations.
- Contribute to the preparation of the annual and six months ESRK implementation reports
- Facilitate ad hoc reports and/or workshop of ESRK information sharing and analysis.
- Share all improved M&E knowledge and skills among the institution staff they are appointed.
- Facilitate the dissemination of ESRK data collected and analysed.

