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MONITORING AND EVALUATION SUPPORT ACTIVITY II (MEASURE II)

PERFORMANCE EVALUATION OF THE ENERGY POLICY ACTIVITY (EPA)

FINAL REPORT

September 15, 2023

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ABSTRACT

The midterm performance evaluation of the $8.65 million, 5-year Energy Policy Activity (EPA), funded by the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) and implemented by DT Global, reviewed the Activity's progress toward contractual objectives in its first three-and-a-half years of implementation. The evaluation yielded the following conclusions. First, EPA's technical assistance (TA) is uniformly very highly rated by stakeholders. Second, the transformation of the BiH energy sector and its harmonization with the European Union (EU) *acquis* continue to encounter political obstacles, most notably in connection with the regulatory arrangements in the natural gas sector, continuation of the work on the Southern Gas Interconnection, and establishment of an electricity exchange in BiH. Third, recognizing their capacity limitations, the key informants, without exception, asked for continued TA to fill knowledge and capacity gaps on a broad and diverse range of topics, including unbundling of public (gas and electricity) utilities, functioning of distribution grids in the condition of increased capacity of producers from renewable energy sources (RES), and cybersecurity. Fourth, BiH also needs TA to enable investment into emergent energy technologies, such as hydrogen, biogas, biomass, and batteries. Fifth, the common approach to energy sector reform makes both the U.S. Government and the EU more effective when engaging with the Governments in BiH. Closer donor coordination will be beneficial with the entry of a major new EU TA project. Sixth, EPA's cooperation with other USAID Activities has so far been fruitful but limited, and Diaspora Invest 2, E-Governance, and Local Governance Assistance Activity offer potential for joint action to support RES investors. Seventh, EPA's public information interventions helped raise the visibility of the energy sector in the media, but the general public is still poorly informed about energy issues and barely aware of the opportunities and risks of the green transition, which allows local politicians to perpetuate the political impasse and retain control of the sector's resources.

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ACKNOWLEDGMENTS

United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) commissioned the American Institutes for Research® (AIR®), through USAID/BiH Monitoring and Evaluation Support Activity II (MEASURE II), to design and conduct a performance evaluation of USAID/BiH's Energy Policy Activity (EPA). This report presents the results of that evaluation. Using a rigorous research design and methodological approach, the evaluation team examined EPA's achievements in assisting the BiH energy sector stakeholders to create an investor-friendly legislative framework in accordance with the Energy Community Treaty obligations and in continuing integration of the BiH energy sector into the regional and European Union (EU) energy markets.

The members of MEASURE II who worked on this evaluation and prepared this report include Edis Brkić, Evaluation Lead and MEASURE II Chief of Party; Đulizara Hadžimustafić, External Subject Matter Expert; Anela Kadić Abaz, USAID/BiH Development Assistance Specialist, Selma Omerbegović, Analyst at MEASURE II; Haris Mešinović, Senior Research Analyst at MEASURE II; and Erol Barina, Senior Research Analyst at MEASURE II.

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LIST OF ABBREVIATIONS

AIR®	American Institutes for Research®
BAM	Bosnia-Herzegovina Convertible Mark (Currency)
BD	Brčko District
BiH	Bosnia and Herzegovina
CBAM	EU Carbon Border Adjustment Mechanism
CERT	computer emergency response team
COVID-19	coronavirus disease
CPG	Customized Permitting Guide
DI2	USAID Diaspora Invest 2
EBRD	European Bank for Reconstruction and Development
EI	New Eastern (Gas) Interconnection
EnC	Energy Community
EPA	USAID Energy Policy Activity
EPBiH	Electric Utility Company (Javno preduzeće Elektroprivreda Bosne i Hercegovine)
EPHZHB	Electric Utility Company (Javno preduzeće Elektroprivreda Hrvatske Zajednice Herceg Bosne)
EQ	evaluation question
ERS	Electric Utility Company "Mixed holding Elektroprivreda Republike Srpske"
ET	evaluation team
ETS	EU Emission Trading System
EU	European Union
EV	electric vehicle
FBiH	Federation of Bosnia and Herzegovina
FERC	Regulatory Commission for Energy of Federation of Bosnia and Herzegovina
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GW	gigawatt
GWh	gigawatt hour
IRI	International Republican Institute
ISO	Independent System Operator (Nezavisni operator sistema u BiH)
IT	information technology
KI	key informant
KII	key informant interview
kW	kilowatt
kWh	kilowatt hour
LGAA	USAID's Local Government Assistance Activity
LGU	Local Governance Unit
LSI	Law on Southern (Gas) Interconnection
MEASURE II	USAID Monitoring and Evaluation Support Activity II

MOFTER	Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina
MP	Member of Parliament
MW	megawatt
MWh	megawatt hour
NARUC	National Association of Regulatory Utility Commissioners
NECP	National Energy and Climate Plan
NIS	Network and Information Security
NSCP	National Survey of Citizens' Perceptions
ODS	operator of the distribution system
OSCE	Organization for Security and Co-operation in Europe
PPP	public–private partnership
PR	public relations
PVGIS	Photovoltaic Geographical Information System
RERS	Regulatory Commission for Energy of Republika Srpska
RES	renewable energy sources
RS	Republika Srpska
SERC	State Electricity Regulatory Commission of Bosnia and Herzegovina
SI	Southern (Gas) Interconnection
TA	technical assistance
TRANSCO	BiH Electricity Transmission Company (Elektroprenos)
TV	television
TW	terawatt
TWh	terawatt hour
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USG	United States Government

EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

Upon request of the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH), the Monitoring and Evaluation Support Activity II (MEASURE II) conducted a performance evaluation of the Energy Policy Activity (EPA) to produce an evidence-based and independent review of the Activity's implementation to date. EPA is an $8.65 million USAID/BiH-funded Activity implemented by DT Global that was launched in September 2019 and is scheduled to close in September 2024. EPA assists BiH energy sector stakeholders in creating an investor-friendly legislative framework in accordance with Energy Community (EnC) Treaty obligations (and thus European Union [EU] Energy Directives) and continuing the integration of its energy sector into the regional and EU energy markets. The performance evaluation focused on the Activity's design and progress toward expected results. The Mission and the implementing partner will use the evaluation results to make informed programmatic decisions and take corrective actions in the Activity design and/or implementation practices. This document is a product of rigorous evaluation design and implementation, ensuring that the evaluation findings, conclusions, and recommendations are credible and useful.

METHODOLOGY

The EPA evaluation took place between late April and early July 2023. The evaluation team (ET) applied the mixed method data collection approach and triangulated data to develop credible findings, which were then used to develop conclusions and recommendations. The techniques used by the ET included document review (including Activity documents and secondary documentation), administrative data review (from official reports of stakeholders in the energy sector), interviews with 33 key informant interviews (KIIs), and observation of EPA events.

FINDINGS AND CONCLUSIONS

USAID has an unassailable reputation and credibility among local energy sector stakeholders. All evaluation key informants rated USAID's EPA technical assistance (TA) in the energy sector very highly. No unsuccessful EPA intervention was identified.

> ***"We are very grateful for all these years of assistance, and we hope that EPA is not the end, because USAID's assistance is invaluable."***
>
> *Key informant from a public enterprise*

Key informants stated that EPA's support was reliably delivered in a high-quality, timely fashion on demand in response to current and often unforeseen needs of local beneficiaries. They considered EPA's staff to be professionals with relevant expertise and extensive experience in the energy sector. In addition, the continuity of USAID's presence in the energy sector and involvement of local stakeholders in consultations during the design process of USAID's Activities were highlighted as key factors for the overall success of USAID's interventions.

However, it was generally recognized that EPA faced numerous challenges that could be broadly grouped as local contextual issues, extraordinary global events and processes, and inconsistencies in the EnC's approach to ensuring BiH's compliance with EU directives.

Local contextual challenges include political issues (*i.e.*, jurisdictional disputes between the state and the two constituent entities of BiH or delays in constituting the Federation of Bosnia and Herzegovina [FBiH] government), legislative/institutional failures that are outside EPA's purview but affect the implementability of EPA's interventions (*i.e.*, provisions of the law on value-added tax [VAT] imposing double taxation for prosumers), and the resistance to change by government officials and managers of public utilities. Although it once was a regional leader, BiH now ranks last in the region in energy sector reforms, primarily because of a decade-long lack of political will for undertaking reforms in the

energy sector. One key informant assessed the current political situation as the most complex since the war.

EPA implementation coincided with some extraordinary external events and processes: a major global energy crisis, a sweeping global transition toward a more sustainable and climate-friendly energy system, and a brain drain from the BiH energy sector caused by emigration. The COVID-19 pandemic affected the energy sector just as it did all other segments of the economy and society. In addition, the unexpected volatility in the EnC's approach to the exercise of its mandate complicated the local context for EPA's work. The EnC Secretariat advocates only limited reforms through legal amendments solely in the electricity sector, without a clear plan for BiH's full compliance in both electricity and natural gas. EnC's actions confused local stakeholders and sowed doubts about whose guidance should be followed in developing the solutions for the BiH energy sector.

Consequently, EPA exercised remarkable flexibility in navigating its changed implementation environment and succeeded in delivering TA in line with its contract, guided by the needs of beneficiaries and within the constraints imposed by the evolving country context. Because some essential laws have been delayed, EPA has provided TA to ensure that drafts of important secondary legislation and implementing acts are ready immediately when the key laws pass.

During its implementation period, EPA contributed to the organization of the BiH gas sector by providing TA to meet the specific needs of the entities. EPA assisted with developing the Draft Law on Gas and the Law on the Southern Interconnection (LSI) in the FBiH and with improving secondary gas regulation in the Republika Srpska (RS) on licensing and tariffs. TA was also provided to facilitate the unbundling process of distribution and supply activities in public gas utility companies.

EPA contributed to further development in the electricity sector by delivering targeted TA for development of the FBiH Law on Energy and Regulation of Energy Activities and Law on Electricity as well as the Brčko District Law on Electricity and Law on Renewable Energy Sources (RES). EPA also helped to improve the RS Law on Electricity and Law on RES as well as numerous subordinated and implementing regulations (*e.g.,* unbundling of power utilities, which allowed RES producers to participate in the market, created preconditions to establish the electricity exchange, and amended BiH-level market and procedural rules). EPA's Customized Permitting Guide (CPG) has been recognized as a very useful tool for investors.

Other segments of the BiH energy sector also benefited from EPA's support. EPA substantially contributed to the final draft of the National Energy and Climate Plan (NECP). EPA is recognized as a leader in cybersecurity issues in the energy sector. Highly praised annual Energy Summits are the crown of EPA's work on raising awareness of issues in the energy sector.

In addition to commenting on EPA itself, key informants offered insights and perspective that merit consideration in the process of designing future USAID interventions in the BiH energy sector. According to key informants, the U.S. Government (USG) remains an influential and respected actor in the energy sector, recognized for its support in achieving progress in the face of political blockages. USG/USAID's vision of the desired direction of reform in the BiH energy sector is shared by all other international organizations and most local stakeholders. The policy positions of the USG and the EU on energy reforms are aligned, which provides a sound basis for further joint engagement with the governments in BiH.

Several international donors provide TA in the BiH energy sector, and, with the EU taking the lead, donor coordination has been mostly satisfactory. After a long period when USAID was the leading provider, the EU has now entered the sector with considerable resources and a range of interventions that would be implemented under the umbrella of its EU4Energy projects. To successfully align its ongoing and future interventions and avoid overlap with the EU4Energy projects, USAID/EPA will need to take a proactive role in coordination and joint planning of donor efforts in the sector.

The potential for EPA's cooperation with USAID's Diaspora Invest 2 (DI2), E-Governance, and Local Governance Assistance Activity (LGAA) is considerable. DI2 could identify and support investors in the RES sector, whereas the LGAA and E-Governance could help committed, reform-minded Local Governance Units (LGUs) simplify the administrative burden for RES investors on their territory. The joint work of EPA and the International Republican Institute (IRI) is an example of good practice in the current USAID/BiH's portfolio, and their cooperation on engaging Members of Parliament (MPs) and other decision-makers on energy sector topics can be expanded to include the efforts of both activities in the area of cybersecurity. EPA also cooperates effectively with the National Association of Regulatory Utility Commissioners (NARUC) on strengthening cybersecurity, promoting energy efficiency, and raising gender awareness in the energy sector.

Although satisfied with EPA's work in all segments of the energy sector, the beneficiaries were aware of the enormity of the challenges they faced in the reform process and uniformly expressed their expectations and hopes for continuation of USAID's TA in the BiH energy sector.

In the gas sector, the identified TA needs include additional work on (i) adoption and implementation of laws (BiH/FBiH gas laws harmonized with EU directives, (ii) adoption and implementation of the LSI, (iii) strengthening of cybersecurity in the gas sector, and (iv) regulation of alternatives to natural gas (hydrogen, biogas).

In the electricity sector, TA needs include (i) continuation of support with drafting of legislation and regulations and meeting future EU compliance requirements, (ii) introduction of the EU Emission Trading System (ETS), (iii) establishment of an electricity exchange, (iv) assistance to the operators of the distribution system to address the issues they face in the process of unbundling as well as in connection with the intensified addition of RES producers to distribution grids, (v) assistance in stock-taking of available and missing e-registers in the energy sector as the basis for obtaining reliable data for reporting purposes, (vi) assistance in creating the conditions for issuance of "green certificates" valid in the EU, and (vii) regulation of e-charging stations and sale of battery-accumulated electricity through the grid.

In cross-cutting segments, TA is needed for (i) continuation of public relations (PR) and educational activities for stakeholders participating or with an interest in the energy sector (*e.g.*, general public, MPs, journalists, investors); (ii) implementation of the NECP (once adopted), including assistance in conducting related analyses, writing studies and reports, and drafting new and amending existing laws and regulations; (iii) substantially increased efforts in improving cybersecurity in the energy sector; and (iv) regulation of emergent technologies/energy sources, such as production, storage, trading, and utilization of green hydrogen and bioenergy.

RECOMMENDATIONS

On the basis of the findings and conclusions of the EPA evaluation, MEASURE II's ET submits the following recommendations for USAID/USG's consideration.

1. USAID/EPA going forward:

1.a. USAID should continue its interventions in the energy sector, which are in the best interests of BiH citizens and investors (see Findings 1, 2, 4, 5, 8, 12, and 17).

1.b. EPA should continue all of its planned activities in the remaining Activity implementation period without any modifications while maintaining a flexible approach and accounting for other recommendations of this evaluation (see Findings 1, 2, 7, 8, 10, 12, 14, 17, 18, 19, and 20).

2. USG/EU partnership:

2.a. High level: The USG and the EU should ensure that local stakeholders understand that the USG and the EU have the same approach and identical objectives in the energy sector, and the EnC should be aligned with this high-level consensus (see Findings 5, 21, and 22).

2.b. Operational level: USAID's Activities (EPA and any follow-on Activity) should plan and coordinate with the EU4Energy projects to generate a common approach to local stakeholders. EPA should actively participate in the EU donor coordination meetings (see Finding 5).

3. Synergies between USAID's Activities:

3.a. EPA, DI2, LGAA, and E-Governance (and any other USAID activities with relevant programming) should establish a standing joint forum to reinforce a focus on selected pilot LGUs with the objective of launching the green transformation in BiH from the local level (see Finding 6).

3.b. Cooperation between EPA and IRI should continue and, if possible, extend to issues that are emerging on the local levels as a result of the cooperation among USAID's Activities participating in the standing forum (see Finding 6).

3.c. Cooperation between EPA and NARUC on raising awareness about gender equality, energy efficiency, cybersecurity, and public outreach in the energy sector should continue, and this type of support should be included in EPA and any follow-on Activity (see Finding 6).

3.d. EPA could provide valuable insights to USAID in the sectors other than energy, and when designing new activities, USAID should consult EPA in connection with certain topics, *e.g.*, the VAT law, development of registers of vulnerable groups, and draft legislation on cybersecurity and critical infrastructure on the BiH level (see Finding 3).

4. EPA (and future USAID interventions) specific:

4.a. EPA should retain its adaptive approach to dealing with obstacles and delays caused by external changes and the lack of political consensus in order to maximize the effects of joint interventions with the EU4Energy projects. The design of EPA (to the extent possible) and particularly of future USAID's Activities should incorporate a degree of flexibility to permit on-demand support to unforeseen needs of local beneficiaries (see Findings 7, 10, and 14).

4.b. EPA and potential future USAID Activities should continue TA to support harmonization with the EU directives in the energy sector. A high degree of coordination with the EU4Energy projects is needed to avoid overlap and maximize effects of both donors' interventions (see Findings 8, 12, 17, 19, 20, and 21).

4.c. USAID should consider supporting analytical work (see Findings 15, 19, and 21). Illustrative topics include the following:

- Taking stock of missing registers, registers that have been created but are not regularly updated, and fully functional registers in the energy sector, with an analysis of their interoperability.
- Analyzing technical and legal challenges facing operators of the distribution system during and after the completion of the unbundling process.
- Studying technical issues arising from the increasing number of RES producers connecting to the grid.
- Studying underused balancing potential of the BiH electricity system.

Depending on the outcomes of these studies, USAID may offer additional TA to address identified challenges.

4.d. Cybersecurity should be USAID's (and EPA's) first priority when follow-on activities are designed (using EPA's ongoing analysis of the state of cybersecurity and its related recommendations) (see Findings 8 and 20).

4.e. Informational, educational, and PR activities:

4.e.1. USAID should capitalize on its ongoing PR efforts by expanding the interventions that inform and educate citizens about the green transition, as well as their benefits and risks. This would help generate bottom-up public pressure on governments in BiH to take concrete steps to avert adverse scenarios that are increasingly likely if stagnation in the energy sector persists. USAID should consider expanding its PR interventions by working regularly with selected media (*e.g.*, by supporting biweekly TV programs in regular time slots) and possibly with relevant civil society organizations. Such cooperation with the media should create space for independent and recognized experts to convey complete and accurate information and enhance public understanding about the energy sector (see Finding 18).

4.e.2. USAID should assess whether to expand relevant sections of the National Survey of Citizens Perceptions in Bosnia and Herzegovina (NSCP-BiH) to systematically track public opinion regarding the energy sector and the green transition (see Finding 18).

4.e.3. EPA (and future USAID Activities) should continue to regularly upgrade and enhance the CPG, guided primarily by the needs of investors. Conducting surveys and studies on the challenges that RES investors face would further inform CPG upgrades (see Finding 16).

4.e.4. EPA should continuously track individual advances in the energy sector and share these experiences and best practices, either through its existing working groups or by creating a new dedicated forum (see Findings 1 and 8).

4.f. New technologies:

4.f.1. In the process of designing new activities, USAID should consider incorporating the regulatory work related to introduction and use of hydrogen, biogas, biomass, and e-charging stations (particularly from the standpoint of required permits and cooperation with the LGAA and E-Governance) and creating preconditions to allow citizens to sell electricity from their own accumulation sources (*e.g.*, electric vehicles/batteries) (see Finding 21).

4.f.2. In future interventions, USAID should consider providing TA for the introduction of the ETS and of valid EU green energy certificates to avoid potential heavy consequences that the introduction of the EU Carbon Border Adjustment Mechanism in 2026 could have for the BiH economy (see Findings 1, 8, 17, 19, and 21).

4.g. Training: In future Activities, all interventions should be complemented with training and capacity building for local beneficiaries that closely tracks and matches progress achieved in legislative and regulatory interventions (see Findings 8, 12, and 17).

PERFORMANCE EVALUATION OF THE ENERGY POLICY ACTIVITY (EPA)

PURPOSE

Upon request of the United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH), the Monitoring and Evaluation Support Activity II (MEASURE II) conducted a performance evaluation of the Energy Policy Activity (EPA) to produce an evidence-based, independent review of the Activity's implementation to date and qualitative and quantitative analyses of the EPA's performance. This report reflects data collected by the evaluation team (ET) between April 26, 2023, and June 16, 2023.

BACKGROUND INFORMATION ON EPA

EPA is an $8.65 million USAID/BiH-funded Activity. EPA is implemented by DT Global; it launched in September 2019 and is scheduled to close in September 2024. The purpose of EPA is to help BiH energy sector stakeholders create an investor-friendly legislative framework in accordance with Energy Community (EnC) Treaty obligations (and thus European Union [EU] Energy Directives) and to continue integrating BiH's energy sector into the regional and EU energy markets.[1]

EPA's development hypothesis assumes that

"**IF** BiH reforms the energy sector to meet its EnC Treaty obligations and harmonizes it with EU directives and best practices, **THEN** its energy sector will be more readily integrated into the EU market and yield a higher degree of energy security for the country and the region."

EPA's work is organized around four components:

1. Natural gas technical assistance (TA)
2. Electricity TA
3. Cross-cutting assistance on EU accession requirements in the BiH energy sector
4. Cross-cutting assistance and activities in public outreach

EVALUATION QUESTIONS

MEASURE II conducted this evaluation using a mixed methods design and methodological approach aimed at addressing the specified evaluation questions (EQs) while providing insights into EPA's TA and ensuring that the evaluation's findings, conclusions, and recommendations are both credible and useful. The performance evaluation focused on answering the EQs:

1. To what extent has TA contributed to the organization of the gas sector(s) in BiH in accordance with transparent market principles and the EnC Treaty?
2. To what extent has EPA TA contributed to developing an investment-friendly and fully functional internal electricity market in BiH and supported the country's progress in joining the regional electricity market, and how?
3. How did EPA beneficiaries rate the EPA TA under its cross-cutting components?
4. What challenges has EPA encountered in the implementation of its activities thus far, and how did the EPA team address these challenges?

DESIGN AND DATA SOURCES

The ET used a mixed methods approach to explore qualitative and quantitative aspects of the EQs. Specifically, the ET relied on the following data sources and techniques to produce relevant findings,

[1] An overview of the activity logframe, including the results the activity aims to achieve and a list of indicators it uses to track progress toward meeting these results, is presented in Annex XI.

conclusions, and recommendations: (i) review of EPA documents (including the Activity Award; Monitoring, Evaluation, and Learning Plan; work, annual, and quarterly progress reports; Activity reports; and other documents produced by the Activity); (ii) energy sector administrative data and survey data from MEASURE II BiH's National Survey of Citizens' Perceptions (NSCP) covering key aspects of the energy sector that are relevant for EPA interventions and perceptions of citizens related to the evaluation of EPA TA; (iii) observation of one EPA-organized event (the 2023 Energy Summit, held April 26–28 in Neum) and the Sarajevo Energy Forum (held June 21–23 in Sarajevo); and (iv) key informant interviews (KIIs) with 33 participants. The full list of beneficiaries and stakeholders is provided in Annex IV.

The ET applied a mixed method data collection approach to address the EQs and develop credible findings, which the team then used to determine conclusions and recommendations. Additional information on the evaluation methodology is provided in Annex II.

LIMITATIONS

The main limitations of the evaluation include the possibility of recall bias, possible data contamination, a lack of complete information, and interview bias.

Recall bias: Some EPA beneficiaries/stakeholders had difficulty recalling interventions from two or three years ago. The ET reviewed Activity documents identified knowledgeable key informants (KIs) and summarized relevant interventions to help KIs remember their experiences.

Data contamination: Given the support provided by various donor interventions and international organizations to the energy sector in similar areas, respondents may have difficulty distinguishing the specific contribution of the EPA.

Lack of complete information: In certain instances during the interview, some respondents were unwilling to provide an answer or had no detailed knowledge about the Activity because of their tasks and roles.

Interview bias: Although the interviewers asked non-leading questions, their behavior and reactions may have led KIs to respond in a certain way. The ET made sure that respondents understood that their true opinions were highly appreciated and that their responses were confidential.

To counter biases, the ET interviewed a wide range of stakeholders, including EPA beneficiaries and other energy sector actors in BiH. The ET cross-referenced their responses with administrative data, records from the implementing partner, and secondary documentation. More information on the evaluation's purpose, design, and limitations is presented in Annex II.

EVALUATION FINDINGS AND CONCLUSIONS

This section of the report is divided into five subsections that cover the overall evaluation findings and conclusions as well as findings and conclusions specific to each of the four EQs. We first present the overarching evaluation findings that relate to all of the individual EQs.

OVERALL FINDINGS

These findings apply equally to all EQs.

Finding 1: Beneficiaries of EPA's TA mostly cooperated with EPA on single or limited sets of tasks, with very few being aware of all EPA interventions. However, all beneficiaries rated EPA's assistance highly in all areas in which they worked together.

Although very few KIs could speak to the full range of EPA's interventions, all of them assessed the interventions they were familiar with very positively. In cases where KIs rated EPA's interventions on a scale from 1 (lowest) to 10 (highest), most KIs gave EPA interventions a 10. Two KIs even rated EPA's TA as 10+, and only two KIs rated it lower than 10 (both gave it a 9).

The following interventions were mentioned most frequently as being successful (for a specific level of jurisdiction or generally applicable for the whole country):

- **Federation of Bosnia and Herzegovina (FBiH):** The drafting of the energy sector laws in the FBiH: Law on Energy, Law on Electric Energy, Law on Southern (Gas) Interconnection (LSI), and the FBiH Law on Gas, which had been submitted to the relevant ministry for consideration by the FBiH Government, with prior support of all stakeholders in the FBiH. KIs also acknowledged EPA's work on writing amendments to the draft Law on Renewable Energy and Efficient Cogeneration.

> ***"We cannot praise them enough. I do not know about others, but I personally used EPA's documents in my work. We are fortunate to have access to such a team. They are a treasure trove of expertise and extremely useful for us."***
>
> *KI from a power utility*
>
> ***"I don't know how we would be able to achieve anything without EPA."***
>
> *KI from a government institution*

- **Republika Srpska (RS):** The most highly praised interventions in the RS were (i) providing comments on secondary legislation for the implementation of the RS Law on Gas at the request of the Regulatory Commission for Energy of RS (RERS), (ii) EPA's prepared secondary legislation used in the processes of unbundling of the RS power utility enterprise (Elektroprivreda Republike Srpske [ERS]), notably to separate the supplier function from operators of the distribution system (ODSs), and (iii) the ongoing work on the Register of Renewable Energy Source Projects.

- **Brčko District (BD):** EPA helped BD draft the set of energy laws (Law on Energy, Law on Renewable Energy Sources [RES], and Law on Energy Efficiency), but the work continues on related legislation (*e.g.*, Law on Environmental Protection).

- **Bosnia and Herzegovina (BiH):** On the BiH level, EPA worked with the BiH Independent System Operator (ISO), BiH Electricity Transmission Company (TRANSCO), and BiH State Electricity Regulatory Commission (SERC) on the transposition and implementation of new EU directives. EPA's TA was pivotal in the overall process of drafting the BiH National Energy and Climate Plan (NECP)—resulting in a draft NECP that is expected to be submitted soon to the EnC for review.

Applicable for the whole country:

- In the field of energy efficiency, EPA supports the development of a modeling tool that should facilitate assessment of various possible models for introduction of energy efficiency obligation schemes and assist in further development of energy efficiency legislation.

- Various KIs noted EPA's efforts to educate the general public about energy issues and the Activity's work with parliaments in BiH to explain proposed legislative solutions and advocate for their adoption. For numerous KIs, the annual Energy Summit in Neum was an important success for EPA because it increased the visibility and raising awareness of pressing issues in the energy sector.

- A number of KIs commended EPA for introducing the Customized Permitting Guide (CPG), a Web-based application intended to help RES investors deal with complex administrative requirements on multiple jurisdictional levels in BiH.

- KIs from international organizations reported that EPA alone focused on the BiH law on gas and electricity and helped keep the international community aware of the issue.

- In addition, KIs praised EPA for maintaining an ongoing discussion about the need for the BiH law on gas and electricity and on the agenda of international organizations.

Because of EPA's TA, some locales/institutions are ahead of the remaining parts of the country or institutions with similar jurisdictions. For example, the RERS now has experience implementing the entity law on gas and developing related secondary legislation, whereas the ERS power utility has taken initial steps in the unbundling process. The FBiH has commenced working on the E-Application system for implementation of energy efficiency measures, and RS is developing a register of RES. Moreover, KIs from these institutions said they were willing to share their lessons learned from processes they went through with their counterparts operating in different locales or institutions.

Finding 2: As reasons that EPA's interventions were successful, KIs most often mentioned the quality and timeliness of TA, the professionalism and expertise of EPA's staff, EPA's ability to offer on-demand TA, involving stakeholders in the Activity design process, and the continuity of USAID's presence in the energy sector.

KIs noted that EPA's staff were very professional and had strong expertise and experience in the sector. Some KIs linked the success of EPA interventions to USAID's involvement in the energy sector in BiH, which has lasted for more than a decade. Without exception, KIs praised EPA's TA for its technical quality, which ensured that EPA's drafts and comments were highly valued and taken into consideration so that, for example, EPA-supported legislative energy proposals were adopted without opposition in the FBiH parliamentary procedure. KIs also appreciated that EPA brought experts with relevant experience in the tasks facing the stakeholders in the energy sector.

> ***"EPA is successful because of the quality of its TA; it is quite detailed; beneficiaries get what they need, and they get recommendations and concrete examples about next steps."***
>
> *KI from a public institution*

> ***"[EPA] always employed high-quality consultants, they always took into account our requests and needs, recognized what was unacceptable for us. USAID recognized the needs of both entities."***
>
> *KI from a government institution*

KIs recognized the value of EPA's involvement in the development process of various legislative and regulatory proposals, as the Activity proactively tracked and monitored their progress through governmental and parliamentary procedures and took an active part in public debates and bilateral and multilateral meetings to disseminate information and provide stakeholders with explanations. KIs also appreciated that EPA drives the major initiatives in the energy sector and systematically involves local stakeholders through working groups and workshops. For some KIs, EPA's particular contribution is its ability to act as an honest broker, an independent party that takes a neutral approach to addressing technical challenges that the energy sector institutions and organizations face in the EU harmonization process.

Finding 3: No EPA intervention was deemed unsuccessful. However, KIs generally recognized that EPA faced numerous contextual challenges, including political issues, legislative/institutional failures that are outside EPA's purview but affect the implementability of EPA's interventions, resistance to change by government officials on all levels, and management of public utilities.

No KI characterized any of EPA's intervention as unsuccessful. However, most KIs emphasized that EPA's interventions were implemented in an environment fraught with problems and obstacles. Broad political challenges related to disagreements concerning the division of powers and disputes about jurisdiction between the BiH State and the entities (*e.g.*, avoidance of adopting the BiH law on gas and electricity, different views on the jurisdiction over the gas sector) delayed legal reform at the state level and compliance with EU directives. At the FBiH level, the dysfunctionality of the FBiH Government, which operated in a technical mandate in 2018–2022,[2] followed by the protracted formation of the new government after the 2022 elections, also negatively affected legislative action, not only in the energy sector.

> ***"They [EPA] have the bad luck to operate at the time of (reform) fatigue and in the politically most complex period since the war."***
>
> *KI from a private company*
>
> ***"As far as the work on amending the legislation is concerned, the end results have not been achieved due to political infighting and the situation in the country."***
>
> *KI from a private company*
>
> ***"The current political situation in the country interferes with the achievement of EPA's indicators – this is beyond EPA's influence."***
>
> *KI from a donor project*

The effectiveness and implementability of some EPA interventions were affected by legislative and institutional issues outside the Activity's purview. For example, KIs stated that the current BiH Law on Indirect Taxation does not exempt prosumers[3] from double taxation, which is an important obstacle for the proper implementation of the prosumer-concept introduction as foreseen by the new energy laws. The absence of a comprehensive register of socially vulnerable groups is an obstacle to introducing the category of vulnerable electricity customers, making it harder to fully implement the internal electricity market. Absence of BiH cross-sector laws on cybersecurity and on critical infrastructure hinder any attempts to address cybersecurity issues in the energy sector.

Various KIs also indicated that EPA's reforms are opposed by certain politicians, government officials, and power utility managers, all of whom are concerned that progress in the harmonization of the sector legislation with the EU *acquis* and increased transparency will undermine their current positions and reduce the influence they currently wield in the energy sector (*e.g.*, unbundling is associated with losing power over budget, property, and employment policies).

Finding 4: In the process of energy sector reform, BiH lags behind other countries in the region. According to the 2022 EnC Secretariat Report, BiH has made limited progress in the process of harmonization with the EU *acquis*. Once a regional leader, BiH is now ranked last among the EnC signatories.

In 2022, the total amount of electricity generated in the BiH power sector was approximately 15 TWh, whereas the electricity consumption in the country was approximately 12 TWh. Coal still constitutes the bulk of BiH's energy potential and accounts for more than 65 percent of the country's

[2] After the 2018 general elections in BiH, it was not possible to form a parliamentary majority, which meant that the previous FBiH Government continued to function in a caretaker capacity but was unable to promulgate legislation for the entire four-year mandate.

[3] "Prosumer" is a term in the renewable energy field used to describe an active consumer of energy, who both produces and consumes energy (see U.S. Department of Energy, Consumer vs Prosumer: What's the Difference? https://www.energy.gov/eere/articles/consumer-vs-prosumer-whats-difference).

primary energy consumption. The contribution of large hydropower plants to the total BiH electricity output in 2022 was 4.6 TWh, or approximately 30 percent.[4]

> ***"BiH is a net exporter of electricity. Instead of being a regional leader, we are the worst because of politics. In 2006 we were leaders, now we are the laggards of the region."***
>
> *KI from the private sector*

Although BiH remains a net exporter of energy, this performance should be viewed against the backdrop of the massive global expansion of RES, motivated by the decarbonization imperative, which is driving both an investment boom and the need for fast and radical regulatory changes. KIs recognized that BiH fell behind other countries in the region when it comes to implementing energy reforms. BiH is the only country in Europe without an organized electricity exchange, which precludes the development of the intra-day and day-ahead markets and prevents the coupling of the BiH market with other regional and EU markets. In contrast, most other EnC member countries are moving ahead with energy reforms.

> ***"To prevent further delays in the opening and unbundling of energy markets, BiH needs to adopt gas and electricity legal frameworks compliant with the third energy package. The entity-level laws would need to be fully harmonised with this legal framework."***
>
> *EC Bosnia and Herzegovina 2022 Report*

The EnC assessed that BiH made only limited progress in the energy sector, noting that the legal framework remained fragmented between the entities, which obstructed key reforms. The absence of compliant legislation in the gas sector blocks much-needed development of the gas infrastructure. There was some progress in the field of renewable energy and limited improvement in compliance with the energy efficiency *acquis*. Annex IX presents the ET's compiled EnC 2019–2022[5] assessments of BiH's progress in various energy sector reforms.

> ***"USAID's support is unwavering, and people appreciate it."***
>
> *KI from a private company*
>
> ***"Involvement of the U.S. Embassy adds weight to EPA's recommendations."***
>
> *KI from a donor organization*

Finding 5: The U.S. Government (USG) is perceived as a key actor in the energy sector that can facilitate progress in the face of political blockages. USAID and EPA are recognized as leaders in the provision of TA in the energy sector. USG/USAID's vision of BiH's energy sector is shared by all other donors and international organizations, including the EU Delegation, which takes the lead in donor coordination in the energy sector. However, with the launch of the EU's EU4Energy projects, which will work in some of the areas in which EPA is already present, the coordination might become more complex.

Most KIs agree that energy sector reforms should be directed toward full alignment with EU directives, which include the reorganization of the BiH gas sector along the lines of the current arrangements in the electricity sector. It is particularly important that the perspectives of USG and USAID are fully aligned with the views of the EU. KIs equally recognize USAID's role as a leading donor in the energy sector in BiH. Some KIs noted that the support of the USG is important for overcoming political obstacles to energy reform.

[4] SERC 2022 Annual Report: https://www.derk.ba/DocumentsPDFs/DERK-Izvjestaj-o-radu-2022-b.pdf
[5] EnC Annual Reports 2019–2022: https://www.energy-community.org/dam/jcr:a915b89b-bf31-4d8b-9e63-4c47dfcd1479/EnC_IR2019.pdf, https://www.energy-community.org/dam/jcr:93722964-1ab1-404f-85b7-45cd7da1ffd0/EnC_IR2021.pdf, https://www.energy-community.org/dam/jcr:3706068e-9a3d-47d5-ae22-f7af0bbd1097/EnC_IR2022.pdf

> ***"Among all the donors [in the energy sector], EPA is most highly esteemed in the professional community."***
>
> *KI from a private company*
>
> ***"EPA is the only donor that resists the influence and demands of different parties."***
>
> *KI from a donor project*

In addition to EPA, KIs recognize the support provided by the EU, German Gesellschaft für Internationale Zusammenarbeit (GIZ), and the United Nations Development Programme (UNDP) to the BiH energy sector, and some KIs were also aware of or receiving assistance from the United Kingdom, Organization for Security and Co-operation in Europe (OSCE), The Swedish International Development Cooperation Agency, Governments of the Czech Republic and Norway, European Bank for Reconstruction and Development (EBRD), and the World Bank Group. Most KIs believe that donor coordination in the energy sector is effective, but some believe that donor efforts are occasionally duplicated. According to KIs, overlaps happen because donors design their projects in isolation rather than collaboratively. However, donor coordination meetings, led by the EU, as well as bilateral cooperation between donors, help resolve these overlaps. As assessed by the ET, the coordination among international organizations on energy is much more advanced than in other sectors.

Whereas the majority of KIs perceive EPA to be the lead and most important donor project addressing energy sector issues, they also noted the increasing presence of EU's support through the recently launched EU4Energy project. The project consists of four components, two of which started with the implementation (reform of the energy sector and alignment with the EU *acquis*, and knowledge transfer and awareness raising) and two of which will start soon (implementation and monitoring of adopted energy laws and building institutional capacities for the energy sector transition). Because areas of EU4Energy interventions partially conform with those that EPA works on, more focused attention and investment in donor coordination is expected to be necessary.

Finding 6: EPA recognizes the potential for cooperation with other USAID activities, notably DI2, E-Governance, and the LGAA. However, only initial contacts with these activities have been made to date, whereas no synchronized joint activities are taking place at commonly targeted locations. On the other hand, EPA and the International Republican Institute (IRI) have been cooperating for years on concrete interventions, and their cooperation is an example of good practice in the current USAID/BiH portfolio. In addition, EPA cooperates effectively with the National Association of Regulatory Utility Commissioners (NARUC) on strengthening cybersecurity and raising gender awareness in the energy sector.

So far, EPA had only initial contacts/meetings with DI2, E-governance, and LGAA and has the impression that collaborating with these Activities has the potential to drive more comprehensive energy-related reforms in BiH. Yet cooperation between the Activities is only in its initial stage.

The ET drew on its regular monitoring work of the E-Governance, DI2, and LGAA Activities, as well as on earlier assessments, to identify where each of them might cooperate with EPA to mutual benefit. The potential for collaborative work is identified in the following:

- DI2 works with potential diaspora investors in RES who would ultimately benefit from EPA's high-level interventions to adopt or amend the legislation that would be more conducive to investment in the energy sector.

- The LGAA targets improvements of administrative processes on the Local Governance Unit (LGU) level that currently represent bottlenecks for investment.

- The E-Governance Activity directs some of its interventions to promote simplified issuance of the local-level construction permits and registers of social benefits, which both have the potential to mitigate some of the problems that affect the implementability of various EPA interventions (*e.g.*, getting construction permits for building power plants from RES, introducing the concept of and identifying vulnerable electricity consumers).

Although collaboration on complementary interventions of the aforementioned activities has not happened yet, a potential for cooperation is evident, particularly because EPA is already working with Tuzla, Bosnian Podrinje, and Una-Sana cantons to improve their regulations that govern investment in RES. EPA, LGAA, and DI2 could act together to identify LGUs willing to attract investment in RES and work with these LGUs to minimize administrative difficulties for such (diaspora) investment. The LGAA might also explore the prospects of establishing public-private partnerships (PPPs) between investors and interested LGUs.

On the other hand, as noted by relevant KIs, the existing cooperation between EPA and IRI provides an example of benefits that the synergies between existing USAID activities can bring. IRI and EPA worked together to provide an informational session on the energy sector to Members of Parliaments (MPs), to involve MPs in the proceedings of successive Energy Summits, and to deliver preparatory meetings to parliamentary speakers in the process of adopting laws, as well as on cybersecurity matters. The ET independently observed that MPs of both BiH Parliamentary Assembly and FBiH Parliament took active part in the sessions of the 2022 Energy Summit.

Most KIs were aware of at least some of the interventions connected with enhancing gender equality in the energy sector. They were supportive of these efforts and want them to continue. The initiative itself came from NARUC. Although EPA allocated no funding for interventions of this kind, it offered assistance to NARUC and provided organizational support to NARUC's activities in BiH. In addition to gender-related concerns, EPA and NARUC also collaborate on cybersecurity, public outreach, and energy efficiency in the energy sector in BiH.

Finding 7: EPA's operational environment is additionally challenging because it serves a wide range of beneficiaries from different levels of government who have different roles and capacity levels and whose needs and demands occasionally vary greatly. EPA has acted flexibly because a one-size-fits-all approach simply would not work.

> ***"We have learnt a great deal from EPA. We communicate on the daily basis, when I have a question, I get a response in 5 minutes."***
>
> *KI from a public institution*

One of the challenges faced by EPA in engaging with a plethora of institutions and organizations on the level of BiH, the entities, and even cantons was that the beneficiaries' TA needs and their capacity to incorporate TA varied, which was further complicated by different and occasionally contrary political preferences and priorities.

> ***"Maybe they [EPA] should be more aggressive and more determined."***
>
> *KI from a private company*

One example that KIs mentioned was the unbundling in the RS gas sector, which had commenced. EPA continues to provide support for developing the implementing regulations. Some KIs mentioned that they asked for more advanced TA for their organization but that EPA adapted to the needs of less advanced beneficiaries to avoid further widening of the regulatory gap between energy sector stakeholders.

Other KIs expressed concerns about the effects of unbundling and the impending closure of coal mines, asking for "more tolerance" in the harmonization with the EU directives. However, even these KIs broadly recognized that their organizations benefitted from EPA's TA and praised EPA's willingness to find ways to work with all stakeholders on needed regulatory acts even when essential legislation was

blocked by politics. For example, EPA transposed relevant EU directives into subordinated legislation (*e.g.*, on Grid Rules for the BiH ISO). In other cases, the drafts of the implementing regulations that would be needed on adoption of the key sector laws were developed to a high degree and would be available immediately when the necessary political agreements are reached.

Finding 8: Although KIs had the highest praise for EPA's interventions to date, the beneficiaries uniformly expressed their expectations and hopes for continuation of USAID's TA in the BiH energy sector.

In parallel with expressing favorable views about the support EPA provided to date, all KIs stated that USAID/EPA's continued TA remains needed across the spectrum of energy sector reforms.

KIs asked for continuation of TA in the legislative domain (legislative proposals under way) and regulatory domain (development of secondary legislation for laws that were enacted or are about to be adopted). KIs often stated that implementing laws is more difficult than drafting laws. The continuation of TA is also needed for implementing the NECP, improving cybersecurity, raising gender equality further, and educating all stakeholders (or people with interest) in the energy sector. KIs also expressed the need for conducting additional studies and analyses that would offer recommendations in areas in which local beneficiaries lack technical expertise, experience, or capacity (*e.g.*, stock-taking of e-registers in the energy sector, operation of the grid, a study of underused balancing potential of the BiH electricity system). The ET identified several clusters of legislation and regulations as well as institutional actions for possible future TA interventions. A comprehensive list of documents to work on is presented in Annex XI.

In addition to these identified needs, the ET observed some advances that the sector institutions and public companies made on their own, but the knowhow and skills developed in these situations are not systematically shared with other potential beneficiaries in the sectors despite the willingness some KIs expressed to do so. Some examples that the ET was able to identify are the introduction of the International Organization for Standardization 27001 standard by the Elektroprivreda Hrvatske Zajednice Herceg Bosne (EPHZHB) power utility (relevant for cybersecurity topics) or the high level of digitalization of metering systems and remote meter management reached by the Doboj ODS (relevant for digitalization, cybersecurity, and studies of the behavior of ODSs when RES are connected to the grid).

OVERALL CONCLUSIONS

USAID has an unassailable reputation and credibility among local energy sector stakeholders, who rated its EPA interventions to date quite favorably. In the coming period, which will inevitably see massive changes in the energy sector ("green transition"), USAID's prestige places it in a position to act with authority and in the best interests of citizens and investors to counter the narrow interests and political goals of ruling elites and their associates, whose actions or inactions prevented BiH from maintaining its status as the regional energy sector leader.

The USG and the EU share similar views about the direction of reforms that the BiH energy sector should follow. These shared views constitute a sound basis for joint engagement among the USG, EU, and Governments in BiH.

Following a long period when USAID was the leading provider of TA in the energy sector in BiH, the EU has now entered the sector with considerable resources and a range of interventions that will be implemented through its EU4Energy projects. Nevertheless, much remains to be done in the energy sector, and BiH needs all donor assistance. Entry of the EU4Energy projects will require increased USAID involvement in coordination and joint planning of donor efforts in the sector.

Concerning the coordination between existing USAID activities, EPA works on the "highest" regulatory level, and investors themselves encounter numerous challenges on the local levels (although some LGUs offer positive examples). Unfortunately, the entire permitting process, up to the point of putting power plants in operation, needs to be addressed. There is considerable potential for EPA's cooperation with USAID activities DI2, E-Governance, and the LGAA. Although DI2 might identify investors interested in the highly attractive RES sector, the LGAA and E-Governance could develop the preconditions for proactive LGUs to emerge as pioneers/promoters of diaspora (but also domestic) investors in RES on their territory. The cooperation between EPA and IRI should continue in all matters related to adoption of laws in parliaments, with a particular focus in the future on IRI's cybersecurity efforts and the passage of relevant laws. There is also a conducive environment for continued cooperation between EPA and NARUC on further awareness-raising efforts about gender equality in the energy sector, energy efficiency, cybersecurity, and public outreach.

EPA's experience with the challenges that transcend its mandate but create significant obstacles to completion of EPA's interventions might be applicable in the design process for potential new USAID activities. Examples include the need to amend the Law on Indirect Taxation to avoid double taxation for prosumers in net metering, to create a register for vulnerable categories in the context of the establishment of a fully operational and competitive internal electricity exchange, and to adopt (cross-sector) cybersecurity and critical infrastructure laws on the BiH/FBiH level as prerequisites for developing the related energy sector regulations.

In its work to date, EPA's flexibility helped find the best ways to continue delivering the requested TA to its beneficiaries, although it faced considerable delays in adoption of relevant legislative proposals. For example, in the regulatory segment, EPA did not stop its work because certain laws were not adopted; instead, EPA continued working with beneficiaries on drafting the secondary regulation to ensure that it becomes available at the same moment when the pending laws are adopted. Similarly, EPA worked considerably on cybersecurity in the energy sector and supported NARUC in promoting energy efficiency and in its initiatives to raise gender equality awareness. Both these efforts were demand driven and were very well received by beneficiaries, although they were not envisaged in the EPA's original design—another indication of the Activity's responsiveness to beneficiaries' needs and its promptness in acting when a window of opportunity is detected. Lastly, several KIs strongly insisted that USAID allows provisions for on-demand interventions in response to beneficiaries' requests as beneficiaries themselves are often uneducated or miss relevant experience about the requirements they will face in their work and their appropriate sequencing.

On the other hand, individual domestic institutions or public utilities already made progress in some areas (*e.g.*, the EPHZHB introduced the International Organization for Standardization 27001 standard, RERS implemented the entity law on gas and developed related secondary legislation, ERS engaged in the process of unbundling, the RS adopted the laws on cybersecurity and crisis infrastructure, Doboj ODS digitized metering systems and remote meter management, FBiH established a Register of EU Grants), which creates an opportunity for EPA to organize sharing of these best practices and experiences.

EVALUATION QUESTION 1

To what extent has EPA TA contributed to the organization of the gas sector(s) in BiH in accordance with transparent market principles and EnC Treaty?

Finding 9: Most KIs advocate the approach that the gas sector in BiH, including the pertinent regulations, should be organized along the same lines as the BiH electricity sector (one regulator, one transporter and system operator). EPA is perceived as a key contributor in efforts to structure the gas sector in this way. Although the state-level Law on Gas has not been adopted in the course of EPA's implementation to date, several KIs recognized EPA's legislative and regulatory interventions.

The natural gas sector in BiH is not regulated on the state level. Some KIs noted that the nonexistence of a state-level law on gas was one of the key issues that complicate the regulation of the BiH natural gas sector and that its adoption is a priority. The BiH Law on Gas, harmonized with EU's Third Energy Package, has remained in proposal form since 2014. Recent official statements from the RS oppose the creation of a natural gas sector regulator at the BiH level,[6] which is a departure from the concept of regulating natural gas at the state level, which is one of the principal requirements of the EU directives.

> ***"For certain, the state-level law on natural gas is a priority; it was held back, withdrawn and is being adapted to BiH circumstances, which we believe is not right. It should follow the same model as in all countries in the region."***
>
> *KI from a public utility company*

At present, the entities regulate natural gas, but both their levels of development of relevant primary and secondary legislation and their manners of regulation of the natural gas sector differ. Currently, the RS has made more progress than FBiH in regulating the natural gas sector. The RS adopted its Law on Natural Gas in 2018, which gives RERS jurisdiction over the natural gas sector. Moreover, RERS adopted a series of regulatory acts (*e.g.*, on licensing and tariffs) and decisions (*e.g.*, it issued a license to one transmission system operator and a number of traders), which represents a degree of regulation of the internal market in the RS but as an isolated system. In the FBiH, EPA provided assistance in the drafting of the entity law on natural gas, which is currently being considered by the authorized ministry. In the absence of a Law on Gas in the FBiH, the FBiH Government, by its decrees[7] selects the transporter, trader, and prices of natural gas, which gives these companies a monopoly.

Several KIs praised EPA as a key actor in the effort to organize the natural gas sector along the lines of the electricity sector and in a manner to ensure harmonization with all applicable EU directives. KIs also described EPA's work as essential to keep the attention of the international community on the status and development of the natural gas sector in BiH.

> ***"Without USAID, these laws would have been put away in drawers long ago, and with USAID they are still kept in focus. With support of USAID (and the Embassy), we can work. When we act on our own, politics immediately makes us stop. USAID helps overcome political obstacles."***
>
> *KI from a government institution*

Finding 10: In the absence of a state law on natural gas, EPA provided the entities with TA according to their requirements in the sector, and these requirements varied considerably, in line with the different levels of development of their respective legislative and regulatory frameworks.

EPA worked on legislation and on secondary legislation in the natural gas sector in both entities according to their needs and requirement.

In the RS, following the adoption of the Law on Gas in 2018,[8] further progress was made toward the regulation of the internal gas market during EPA's implementation period, which included the adoption of relevant secondary legislation. This regulatory framework introduced several key measures such as the unbundling of supply from transport, the participation of multiple market participants in both supply and transport, and the establishment of licensing and tariff-setting mechanisms under the oversight of the regulator. Relevant KIs stated that EPA provided TA in the form of comments on the

[6] "Answer from Srpska: No regulator for gas at the BiH level will be formed, energy is the responsibility of the entity": https://lat.rtrs.tv/vijesti/vijest.php?id=503619

[7] Decree on the Organization and Regulation of the Gas Industry Sector of FBiH: https://www.bh-gas.ba/wp-content/uploads/2023/04/Uredba-o-organizaciji-i-regulaciji-Sektora-gasne-privrede.pdf

[8] RS Law on Gas: https://reers.ba/wp-content/uploads/2019/05/Zakon_o_gasu_22_18.pdf;
RS Law on Amendments to the Law of Gas: https://reers.ba/wp-content/uploads/2021/03/Izmjene_zakona-o-gasu_15_21.pdf

secondary legislation. In addition, KIs noted that different analyses and guidelines produced by EPA provide high-quality recommendations that local beneficiaries may consider in informing their decisions and regulatory and legislative solutions. Some EPA products that were mentioned included the Manual on Licensing in the Natural Gas Sector, the Draft Report on Options for Sector Unbundling and the Roles of Companies and Necessary Legislative Amendments, and the Draft Overview of the Rules on Methodologies for Natural Gas Transport Tariffs.

In the FBiH, a considerable segment of EPA's contribution in the gas sector was its work on developing the LSI (see Finding 12). KIs also recognized EPA's part in the drafting of the FBiH Law on Natural Gas and in the sections of the final draft of the FBiH Energy Law, which includes general provisions related to the regulation of the natural gas sector.

> ***"Certainly that EPA helped the Southern Interconnection project. Until 2021, when they were held up because the urban planning permit was not issued, that project had progressed, and that segment of EPA's work is unquestionable and valuable. The promotion of the Southern Interconnection Project is very good, EPA supported the project."***
>
> *KI from a gas utility company*

On the level of public utilities for natural gas distribution (both in the FBiH and RS), EPA provided TA to two gas distributors, KJKP Sarajevogas and Sarajevo-gas a.d. East Sarajevo to plan unbundling of their different activities. For KJKP Sarajevogas, EPA formulated a comprehensive roadmap outlining the steps necessary for the company to separate its accounting functions from its distribution and supply operations, whereas the unbundling of Sarajevo-gas a.d. East Sarajevo was supported by drafting of the guidelines that clarify the application of natural gas transmission system operator unbundling rules to their particular situation.

Finding 11: EPA provided TA for the development of the LSI. RS advocates for building the Eastern Interconnection (EI).

Currently, natural gas is imported to BiH through the single gas pipeline connection located in Šepak near Zvornik, making BiH entirely dependent on Russian natural gas. The current pipeline is operated by three transporters (two in the RS, and one in the FBiH). The conflict in Ukraine resulted in a substantial reduction of the natural gas supply to Europe; however, a KI pointed out that the gas supply to BiH was not interrupted because the flow of gas was redirected through the TurkStream pipeline in 2021.

In terms of technical capacity, KIs highlighted that the existing gas infrastructure in BiH is outdated, deteriorating, and inadequate to meet peak demand. Furthermore, BiH has no natural gas storage facility, which makes it impossible to store gas for periods of increased consumption or to compensate for possible supply distortions. The Southern Interconnection (SI) between BiH and Croatia and the EI between BiH and Serbia, which are currently under consideration, might bring about an expansion and upgrades to gas infrastructure.

The SI project is at a technically more advanced stage. Feasibility studies and analyses have already been conducted, and fully developed legislation has been prepared with substantial contribution from EPA. KIs view the SI as crucial in ensuring greater gas supply security for BiH through the diversification of gas supply sources and the resulting reduction of the dependence on Russian gas. In addition, an extension of the existing pipeline from Zenica to Travnik (the

> ***"PLINACRO brought all its pipeline projects to completion, there is [a memorandum of understanding] between PLINACRO and BiH Gas. . . . The next step is to develop the main design for the project on the BiH/FBiH side, which got stuck because two Herzegovina cantons withheld their approval, because they want the project to be implemented by an operator with connections to them."***
>
> *KI from a private company*

connection point of the existing pipeline with the SI project) is almost finished, and one KI pointed out that PLINACRO, the Croatian gas transmission system operator, finalized the Croatian SI pipeline side and had already signed a memorandum of understanding for the SI with BH Gas.

However, the LSI is currently blocked in the FBiH Parliament, with amendments that introduce a new lead implementor, transporter, and distributor in Western Herzegovina. At the request of the authorized ministry, EPA provided a draft analysis of the comments and legal opinions on these amendments.

The delays in adoption of the law and start of construction made one KI express concern that the SI would not generate the return on investment because natural gas was designated as transitional fuel to be used only until 2050. KIs also mentioned that the deadline for applying for EBRD funds earmarked for gas sector projects (including infrastructure) was October 2023, and according to one KI, the FBiH Government has not yet applied for EBRD funding for the SI project.

> ***"With regard to natural gas, there is not much time there either. According to the EU directives, the gas was categorized as transition fuel. Some funding was earmarked for construction permits to be issued by 2030 . . . Therefore, whatever can be readied and whatever construction permits are obtained by 2030, that is it."***
>
> *KI from a private company*

According to KIs, the EI, the other possible interconnection, is still in the early stages of development. The planned entry point for the EI is in the Bijeljina area, more than 50 kilometers away from the existing gas pipeline entry point in Šepak near Zvornik. According to KIs, there is no project documentation available for the EI, and the whole project is currently managed by a company appointed by the RS Government and licensed solely as a natural gas trader. Some KIs worried that the EI would increase reliance on Russian gas.

Another natural gas development initiative in the RS is the construction of the pipeline connecting Bijeljina to Šepak (the current entry point for gas in BiH) and installation of the distribution network for gasification of the City of Bijeljina. The construction works on these projects are almost finalized, and the pipeline itself is currently in the testing stage. This project is implemented through a PPP between the City of Bijeljina and companies from Serbia.

The authorities in BiH do not have a unified position regarding these interconnections. Although the BiH Council of Ministers approved the construction of both interconnections,[9] two out of three members of the Presidency of BiH declared that they would oppose these projects until a gas law is adopted at the state level.[10]

Finding 12: KIs confirmed the need for further TA in the gas sector, emphasizing in particular the continuation of works on the adoption and implementation of the FBiH and BiH gas laws harmonized with EU directives, implementation of the LSI, strengthening of cybersecurity, and introduction of natural gas alternatives.

KIs confirmed that further work in the gas sector and continuous TA in transposing EU directives will still be needed, as well as efforts to establish an adequate legislative and regulative framework for the gas sector in BiH. For the majority of KIs, the adoption of a gas law and the establishment of a regulator and transporter at the national level in BiH are crucial. The KIs also highlighted the development of subsidiary regulations and support in the implementation of the gas laws once they are adopted.

[9] Conclusions from 11th Session of Council of Ministers of BiH: https://www.vijeceministara.gov.ba/saopstenja/sjednice/zakljucci_sa_sjednica/default.aspx?id=40570&langTag=hr-HR

[10] Bećirović supported Komšić: "Problems can only be solved by adopting the state law on gas!" https://radiosarajevo.ba/vijesti/bosna-i-hercegovina/becirovic-podrzao-komsica-probleme-je-moguce-rijesiti-samo-usvajanjem-drzavnog-zakona/495366

KIs emphasized the importance of continuing with the SI project because of its essential role in diversification of natural gas sources and security of gas supply for BiH. Looking ahead, KIs further indicated that the development of the SI would require continuous TA to prepare accompanying regulations after the law is adopted and construction starts.

Cybersecurity was identified by all KIs as one of the most critical aspects of the gas sector and one that requires intensive future work. KIs recognized that the lack of awareness in public gas utility companies of the risks and danger of cyberattacks is grave and that behavior and handling of information technology (IT) infrastructure must change to prevent cybersecurity issues.

> ***"We need a legal framework that would allow [us] to regulate cybersecurity properly—to create instruments, to ensure that each energy sector organization will procure necessary tools—and TA will be necessary even just for such procurement. We need to train people and we need the regulatory framework. Without these, everything is left to chance."***
>
> *KI from a government institution*

The KIs also emphasized the importance of working on regulations that would promote introduction of new technologies such as hydrogen and biogas. These new fuels have the potential to substitute a portion of the natural gas needs and are preferred alternatives according to EU directives.[11]

EVALUATION QUESTION 1: CONCLUSIONS

The natural gas sector in BiH lacks regulation at the state level. The adoption of a state gas law, aligned with the EU's Third Energy Package, has been a long-standing priority. However, because of a lack of political will and divergent views and actions among political elites, a proposed BiH gas law has not been adopted since 2014. The RS and FBiH have different positions, with the RS prioritizing entity-level regulations and the FBiH prioritizing state-level regulations. This disagreement hampers the establishment of a unified regulatory framework for the natural gas sector.

Despite the challenging political context, EPA has been recognized as a key contributor to the efforts to organize the natural gas sector in line with EU directives and follow a similar model as the one used for the BiH electricity sector. EPA's work has helped maintain the focus of the international community and local stakeholders on the status and development of the natural gas sector in BiH. In the absence of a state gas law, EPA provided TA to the entities, working closely with them to meet their specific needs. EPA assisted with the development of secondary regulation in the RS and legislation in the FBiH. From providing assistance in drafting laws and regulations to facilitating the unbundling of distribution and supply activities, EPA has worked continuously to overcome political challenges and advance the implementation of gas sector reforms.

There are differing opinions and challenges surrounding the implementation of possible future gas interconnections. The RS advocates for the construction of EI to expand the supply of Russian gas. The FBiH sees SI as crucial for enhancing gas security and reducing dependence on Russian gas. However, the LSI is currently blocked in the FBiH Parliament by the amendments requiring a new lead implementor, transporter, and distributor in Western Herzegovina.

Finally, USAID's support and TA in the gas sector should be continued, including additional work on the adoption and implementation of laws (BiH/FBiH gas laws harmonized with EU directives), implementation of the LSI, strengthening of cybersecurity, and regulation of alternatives to natural gas (hydrogen, biogas).

[11] Sarajevo Energy Forum, "Actions for conversion to green hydrogen and biomass—What should the state do and what preparations businesses need to make": Panel Discussion, Sarajevo, June 21–23, 2023.

EVALUATION QUESTION 2

To what extent has EPA TA contributed to developing an investment-friendly and fully functional internal electricity market in BiH and supported the country's progress in joining the regional electricity market, and how?

Finding 13: EPA's interventions in the electricity sector have been designed to support electricity sector stakeholders in meeting the EnC requirements and progressing toward harmonization with EU directives. However, persistent challenges to EPA interventions were caused by the political stalemates in BiH and additional extraordinary external changes, including a major global energy crisis, a sweeping green transition toward a more sustainable and climate-friendly energy system, and a brain drain in the energy sector caused by emigration.

For nearly all KIs, the EnC Treaty and the goal of ultimate harmonization with the EU *acquis* were the governing framework that determined the direction of developments in the electricity sector in BiH, despite recognized slow progress, resistance, and different interpretation. However, KIs recognized and often mentioned several other important forces, factors, and events that have affected the sector during the EPA implementation period.

> ***"Electricity prices offered by public power utilities are far below the prices in the regional markets."***
>
> *KI from a private company*

The first challenge was the global energy crisis in 2021, triggered by the economic recovery following the COVID-19 pandemic, adverse weather and reduced fossil fuel supplies, further exacerbated in early 2022 because of the war in Ukraine. The rapid rise in energy prices affected countries around the world and created declines in energy supplies to Europe, particularly of Russian natural gas. The resulting high prices affected households and businesses across Europe. Responding to the crisis, governments introduced measures to address supply shortages and control price increases. Many such measures relied on demand reduction and faster RES deployment, but still others invoked additional fossil fuel investments or other steps to postpone the energy transition.[12] In BiH, the FBiH responded to the crisis by limiting prices of electricity,[13,14,15] whereas the RS also managed electricity price increases by adjusting tariffs for various categories of consumers.[16] Several KIs pointed out that these price controls effectively ended the ability of any private electricity suppliers to compete in the BiH market.

> ***"We keep seeing that many interested potential investors are applying. At the moment, no one could assess how certain the implementation of so many investment project[s] is."***
>
> *KI from a public enterprise*

The second major factor was the green energy transition—a global energy transformation that seeks to simultaneously address environmental concerns, ensure energy security, and promote economic growth in an affordable and inclusive

[12] IRENA, World Energy Transitions Outlook 2023 (Volume 1), p. 47: https://mc-cd8320d4-36a1-40ac-83cc-3389-cdn-endpoint.azureedge.net/-/media/Files/IRENA/Agency/Publication/2023/Jun/IRENA_World_energy_transitions_outlook_v1_2023.pdf?rev=cc4522ff897a4e26a47906447c74bca6

[13] FBiH Parliament, Amendment to the Law on Electricity in the FBiH, January 6, 2022: https://www.ferk.ba/_ba/images/stories/2022/Zakon%20o%20dopuni%20Zakona%20o%20elektri%C4%8Dnoj%20energiji%20u%20Federaciji%20Bosne%20i%20Hercegovine.pdf

[14] FBiH Government, Decree on Restriction of Electricity Price Increases, January 7, 2022: https://fbihvlada.gov.ba/bs/11-odluka-o-ogranicavanju-povecanja-cijena-snabdijevanja-elektricnom-energijom

[15] FBiH Government, Decree on Restriction of Electricity Price Increases, January 7, 2022: https://fbihvlada.gov.ba/bs/11-odluka-o-ogranicavanju-povecanja-cijena-snabdijevanja-elektricnom-energijom

[16] Mondo.ba, "From today a new modality of charging for electricity in the Srpska," January 1, 2023: https://mondo.ba/info/Ekonomija/a1190977/Nove-cijene-struje-u-RS.html

manner.[17] Swift progress on RES technologies has resulted in steep declines in the cost of RES plants, creating a global investment boom that has spread to BiH.[18] Investor interest in RES projects in the country has grown fast. According to the BiH SERC data, the installed capacity of wind and solar power plants grew from 51 MW in 2018 to 135 MW in 2022 and from 18 MW in 2018 to 102 MW in 2022, respectively,[19] with many experiencing difficulties through their investments because of lack of regulation. Nevertheless, KIs pointed out that plants that successfully invested (because of the increasing global energy prices) motivated RES producers to abandon the incentivized prices offered by the public power utilities and seek to profit from the rising international electricity prices. With its work on developing the regulations for creation of aggregators ("virtual power plants"), EPA substantially supported small independent producers' access to international markets.

Finally, KIs also raised BiH-specific issues that emerged during EPA's implementation period. In addition to slow adoption of legislation and an effective collapse of the internal electricity market in BiH caused by the entity governments' administrative decisions, KIs broadly recognized the limited capacity of public institutions for impending energy sector reforms. A couple of them highlighted the loss of trained staff in the sector caused by long-standing trends of emigration from BiH. Power utility companies face serious difficulties in replacing engineers who left and particularly in attracting IT staff because they are not in a position to offer market-competitive salaries.

> ***"Amendments to the FBiH Law on Electricity, specifically regarding the introduction of price limits, effectively shut down the internal market."***
>
> *KI from a government organization*
>
> ***"An irreversible drain of trained cadres is a huge problem. Even the little knowhow we had is dissipating. We have no instruments to retain our people."***
>
> *KI from a public enterprise*

Finding 14: Despite numerous global and local political challenges, EPA's TA and support were essential in the preparation of the laws on energy and electricity in the FBiH and BD. The Activity also provided comments on the new RS energy laws. EPA was also instrumental in drafting secondary legislation in the electricity sector and providing TA to help create the preconditions for the introduction of the electricity exchange and support improvements in proposed energy efficiency financing mechanisms.

According to most KIs, at no point since the EPA started was it possible to reach a political agreement about the state-level law on electricity. Still, KIs generally recognized that EPA was instrumental in developing FBiH and BD energy laws and providing comments on RS laws and secondary legislation (see Finding 1).

Several KIs mentioned that EPA provided TA to the BiH ISO for the development of a range of implementing regulations: Amendments to the Grid Code, Categorization of Generators, Amendments to the Market Rules, and Procedural Rules to Enable Wholesale Market Access for Power Producers Connected to the Distribution Network, as well as the Rulebook on Categorization of Generators. For several KIs, the gap analysis of the preconditions for creation of virtual power plants/aggregators was another highlight of EPA's work, and its recommendations were incorporated

> ***"I doubt that EPA had 'aggregators' in its Scope of Work, but they were willing to offer support when that issue arose."***
>
> *KI from a public institution*

[17] World Economic Forum, Energy Transition 101: Getting back to basics for transitioning to a low-carbon economy, July 2020, pp. 1–2: https://www3.weforum.org/docs/WEF_Energy_Transition_101_2020.pdf

[18] International Renewable Energy Agency (IRENA), Global Energy Transformation, pp. 3–4: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Apr/IRENA_Global_Energy_Transformation_2019.pdf

[19] DERK 2022 Annual Report, p. 89: https://www.derk.ba/DocumentsPDFs/DERK-Izvjestaj-o-radu-2022-b.pdf

into the new Market Rules approved by the BiH SERC in November 2021, which enabled RES power plants to participate in the balancing and wholesale markets.

KIs emphasized EPA's TA to regulators and power utilities in the form of drafting the rules to support the continuation of the process of unbundling. Although slow adoption of the BiH and FBiH sectoral legislation delayed the creation of the BiH electricity exchange, EPA developed the Gap Analysis of Market Rules and Procedures and Technical Preconditions to determine which legislation needs to be changed or developed to enable market coupling with other electricity markets and the market model options for the day-ahead and intra-day markets.

Because of limited space, the ET mentioned only some of the TA products that EPA delivered. A comprehensive list of EPA's legislative/regulatory TA results is provided in Annex VI.

Finding 15: At the current stage of reforms in the BiH electricity sector, the ODSs face major technical and administrative/financial challenges. Technical challenges include unknowns about the operation of distribution grids when RES producers are connected and a projected shortage of distribution grid capacity. Administrative/financial challenges involve issues related to grid ownership, determining the final payer of network fees, and irregularity of payments to the ODSs.

KIs noted that the existing distribution grids were designed on the basis of the assumption that the electricity will flow only to the buyers. With the emergence of RES plants and prosumers, the electricity will need to flow in both directions. Many KIs worried about the unknown effects this change would have on the grid and the implications in terms of losses and quality of electricity. Currently, there are no studies of the effects on the distribution grid. In terms of grid capacity, KIs believe that RES producers expect to be able to connect to the grid and sell their output without limitations. However, they are unaware of the limited capacity and the bottlenecks in the distribution grid that would increasingly hamper the ability of RES producers to sell their output at will.

Some KIs were also concerned that the increasing demand for installation of e-charging stations for EVs might exceed the grid's technical capabilities, as such consumers were not envisaged when the grid was designed (*i.e.*, an e-charging station cannot be installed within a current petrol station plot if the available grid capacity at its location is not sufficient).

> ***"Currently, the network fee is calculated on the consumption basis. Producers do not pay the network fee and prosumers will also pay the network fee at lower rates. This will create funding shortfalls in ODSs for intrastructural investment and grid maintenance works."***
>
> *KI from a public utility company*

Even mere current maintenance of the distribution grid is problematic because of the low level of collection of network fees. In combination with unresolved issues of the ownership of the distribution grid, which have emerged following the start of the unbundling of the public power utilities, this failure of the ODSs to collect sufficient revenues effectively prevents investment in new distribution grid infrastructure, which will in turn create bottlenecks for construction of RES facilities in the regions where grid infrastructure is inadequate. The ET did not identify any initiatives to offer private investors (or PPPs) opportunities to invest in grid infrastructure.

Finding 16: Although EPA's mandate does not include direct support to investors, they are the ultimate beneficiaries of EPA's efforts to promote creation of an investment-friendly regulatory environment. EPA's CPG is perceived as a breakthrough in disseminating information to investors. However, there is room to upgrade this interactive tool.

> ***"The Investor Guide is a game-changer, particularly in its digital form."***
>
> *KI from a power utility company*

For several KIs, the CPG developed by EPA was a prime example of successful intervention that brought all relevant information together in one place and that allows for changes and updates. A KI pointed out that the Guide would need to be continuously updated even after EPA ends. Nevertheless, EPA recognizes that the CPG could be developed further and is working on developing its version "for dummies."

The ET also identified that there is room to upgrade this interactive tool by adding new features and integrating relevant content available elsewhere on the Internet.

The CPG[20] shows times needed to obtain various permits in the investment process (see Annex VIII). Still, some KIs worried that the CPG provides only statutory deadlines for some processes but that it does not clarify that real-time waiting periods can take much longer. KIs who tried to get these licenses for their projects stated that for the Preliminary Electric Power Permit, it takes between three and nine months (vs. 30 days stated in the CPG), and one KI waited 9 months for the Energy Permit (vs. three months in the CPG). Case studies that would establish more realistic expected times would be very beneficial for investors on one hand, and on the other hand, they would show local governments how slow and ineffective their bureaucratic apparatus is.

> ***"Regarding the procedure to open a solar plant, from one municipality to another it seems as if you are moving from one country to another, and when you go to from one canton to another it is as if you are on a different continent."***
>
> *Energy Summit participant*

Investors would also benefit if they could access templates for use in the permitting procedures in different localities. Collecting all those templates would be a work-intensive activity, but as no government can be relied on to implement such an effort, EPA can consider upgrading the CPG with a set of these templates. The process of collecting these templates will clearly show huge variations in permitting requirements in different localities. For example, KIs pointed out that to install a solar panel power plant of 23 kW, the Sarajevo Canton requires 26 different documents. In addition to slowing investment processes, such numerous, protracted, and unstandardized administrative requirements on lower levels of government also create opportunities for corrupt behavior by local officials. However, a KI cited the example of a municipality with highly simplified and efficient permitting procedures.

Through KIIs and online research, the ET found several other online tools and registers that investors might find useful if the corresponding Internet links could be added to EPA's existing CPG. Some examples include Photovoltaic Geographical Information System (PVGIS)[21] (the EU website for assessing the potential output of solar power plants at highly specific locations in BiH; see Annex VIII), RS RES Register (EPA's own intervention being developed in the RS), UNDP's upcoming Energy Atlas, and different government websites, such as the list of certified RES installation engineers on the website of the RS Ministry of Energy and Mining.

Finding 17: Most KIs urged that TA be continued in the electricity sector. The most urgent problem to address is preventing the negative effects of the upcoming introduction of the EU Carbon Border Adjustment Mechanism (CBAM) in 2026, which will create major issues for BiH producers of electricity and important export industries. In parallel with legislative work, local partners will need extensive training and capacity development for implementation of new legislative and regulative solutions being introduced.

[20] USAID EPA, Investor Guide: https://vodic.usaidepa.ba/

[21] Photovoltaic Geographical Information System (PVGIS): https://re.jrc.ec.europa.eu/pvg_tools/en/tools.html#PVP

Regardless of their affiliation, KIs uniformly expressed their expectations and hopes for continuation of USAID's TA in the electricity sector to deal with new tasks and requirements they will face in the course of the energy transition.

The EU is working toward a gradual introduction of the CBAM, which will enforce a price for embedded carbon emissions generated in the production of certain goods imported[22] into the EU. For many KIs, the impending introduction of the EU CBAM is a major concern because the added cost not only would undermine the ability of BiH to export electricity but also would spill over into other major sectors of the BiH industry and weaken their export potential. One way that companies could avoid CBAM is to provide green certificates to prove their goods are produced using RES and will be exempted from the payments under the CBAM.[23] A more comprehensive way for BiH to avoid payments under the CBAM would be to introduce the Emission Trading System (ETS), a system for greenhouse gas emission allowance trading. However, as explained by KIs, establishing the electricity exchange is the prerequisite for introducing ETS, and the necessary legal basis for the electricity exchange still needs to be created.

Several KIs noted that BiH was the only country in the Western Balkans without an electricity exchange and that continued TA will be indispensable to successfully establish this exchange. KIs also remarked that the unbundling of public power utilities was not completed (it did not even commence in the FBiH) and that numerous issues related to unbundling (including in public enterprises that already initiated that process) would need to be addressed. Similarly, although RES producers (solar, wind) are already being integrated into the electricity market in BiH, KIs warned that many challenges remain; RES producers have yet to begin integrating new technologies (batteries, hydrogen, bioenergy). KIs praised EPA's contribution to the process of introducing energy efficiency obligation schemes in the form of a tool to model various possible scenarios but also emphasized that further support would be needed once a preferred model of the energy efficiency obligation scheme is selected. Moreover, KIs listed more than 50 individual regulations and acts they would need TA for; this list is provided in Annex XI.

EVALUATION QUESTION 2: CONCLUSIONS

The worldwide energy crisis, extended and worsened by the war in Ukraine, and related price increases on the global market, ultimately led to government-imposed limitation of BiH domestic prices that practically shut down the internal electricity market in BiH. The green energy transition, which drove the transformation of the electricity sector globally, brought an explosive development of RES technologies and a related investment boom to BiH. On the country level, in addition to political disagreements and difficulties, the sector was also adversely affected by a persistent brain drain, which is depleting its already limited pool of trained engineers.

Responding flexibly to the needs and assistance requests, EPA provided targeted TA for drafting or improving various entity and lower-level laws and numerous subordinated and implementing regulations. Even when faced with delays and obstacles, EPA continued working with other sector stakeholders and prepared for follow-on activities while persistently advocating for adoption of essential power sector legislation.

EPA's CPG is a widely appreciated online tool that compiles, organizes, and makes interactively available a large set of pertinent information about administrative requirements facing RES investors. The guide could be expanded by adding the links for already available information and Web tools of interest to investors.

[22] The first phase of the CBAM will cover the most carbon-intensive sectors, including cement, iron and steel, aluminium, fertilisers, electricity, and hydrogen.

[23] RERS signed an agreement with Grexel Systems, a Finnish company certified by the EnC to establish registries for guarantees of origin (currenly valid only among EnC signatories) while the FBiH Operator for Renewable Energy Sources and Efficient Cogeneration has not made any progress toward introducing the licensed certificates of origin.

Although EPA has delivered considerable TA in the electricity sector, and its support will continue to be needed to complete the ongoing legislative and regulatory drafting work and meet future EU compliance requirements as well as to provide relevant training and capacity building. To avert the potentially large negative impact of the impending introduction of the EU CBAM, the most important task before the electricity sector in BiH is the introduction of the ETS, which has hardly begun and which will require extensive support. Additional technical and advisory work will also be needed, notably (i) to establish an electricity exchange; (ii) to help ODSs address the issues they will encounter in the process of unbundling, as well as in connection with the intensified addition of RES producers to distribution grids; (iii) to assist in creating the conditions for issuance of "green certificates" that would allow the electricity generated from RES to be exported to the EU; and (iv) to deal with the looming challenge of creating a network of e-charging stations to satisfy the projected increasing demand (by visitors and tourists driving EVs).

EVALUATION QUESTION 3

How did EPA beneficiaries rate the EPA TA under its cross-cutting components?

Finding 18: The BiH public and MPs are poorly informed about the energy sector concerns and challenges that the country will face in the process of harmonization with the EU directives in the sector. On the other hand, experts who can offer valuable insights receive very little attention in the media.

The general population of BiH has limited understanding and knowledge of the country's energy system, its organization and operations, the challenges facing the sector, and how these challenges relate to the broader country. For example, according to the 2022 wave of the NSCP-BiH, 59 percent of respondents believe that BiH's current capacity to satisfy the country's electricity needs is good or excellent,[24] which corresponds to the administrative data on BiH's current power generation. However, it is worrisome that almost half of respondents (44 percent) believe that BiH will maintain enough capacity to supply the country with electricity in the next 10 years (with an additional 16 percent not knowing how to answer that question),[25] which ignores the projections that most major BiH coal-fired thermal power plants will need to be decommissioned over this period, both because these plants are past their useful life span and because of the need to transition to clean energy. This mistaken expectation further implies that at least half of BiH citizens are not aware that the current power supply system in the country, characterized by artificially low prices for households and heavy reliance on coal-fired thermal power plants, is unsustainable in the long term.

EPA recognized that the media is the main source of information on the energy sector for citizens and collaborated with media representatives to develop their capacity to report on energy-related matters. Still, many KIs perceive that the media often lacks objective and realistic coverage, which leaves room for widespread misinformation that citizens are unable to detect because of their limited understanding of the sector. On the other hand, according to some KIs, energy experts do not get enough opportunities to convey the facts and share their independent professional insights with the broader audiences.

[24] Preliminary findings of the USAID/BiH's 2022 National Survey of Citizens' Perceptions in BiH.
[25] Ibid.

Moreover, KIs recognized the need to work on strengthening the knowledge and understanding of MPs, at all levels of governance in BiH, to create an environment more conducive to effective work on legislative and regulatory energy reforms. Although EPA implemented some interventions of this kind in the FBiH with the support of IRI, KIs identified a need for continuous engagement with decision-makers because their terms are limited and elected officials change every four years.

> ***"The public . . . could have more opportunities, but the problem is that we have this multitude of portals which are churning out poor-quality information."***
>
> *KI from a private company*

> ***"In the local media, energy issues are discussed by self-proclaimed experts who either do not know enough or are promoting their own agendas in the background."***
>
> *KI from a private company*

When asked about EPA's activities or deliverables that contributed the most to strengthening public perception and understanding of the energy sector, KIs most frequently mentioned the Energy Summit and CPG. The Energy Summit is recognized as the key event organized by EPA that spotlights the importance of the energy sector, the challenges it faces, and the opportunities it offers. Still, a KI noted that although it attracts considerable media and public attention, the Summit has limited capacity to educate the general public.

> ***"EPA managed to engage all stakeholders and boost the visibility of the summit, they made members of parliaments, politicians and the media pay attention to energy issues."***
>
> *KI from a private company*

Finding 19: KIs involved in the development of the BiH NECP uniformly recognized that EPA and its lead NECP consultant were key to the NECP drafting process and also noted that the implementation of the NECP will continue to require USAID's support.

An NECP is a country's medium-term plan for achieving net zero greenhouse gas emissions by 2050. Support to development of the BiH NECP was an aim of the EPA award. Specifically, EPA helped the Ministry of Foreign Trade and Economic Relations (MOFTER), the lead institution in the NECP preparation process, draft three of its five components: Energy Security, Energy Market, and Energy Efficiency and Renewable Energy Sources. The other two sections of the NECP (Decarbonization of the Entire Economy and Research, Innovation, and Competitiveness) were prepared with the support of GIZ and UNDP, respectively. That multiple donor organizations could work simultaneously on different NECP components is a positive example of cooperation and synchronization.

> ***"EPA made every effort to ensure that the NECP, and everything else that was needed, is adopted. Nothing was beneath them: they organized meetings, kept minutes, sent invitations, provided interpretation—anything that was needed."***
>
> *KI from a public company*

Relevant KIs recognized and acknowledged EPA's contribution to preparing parts of the NECP. They also identified a consultant provided by EPA as a key person who led the NECP preparation process. EPA presented the draft NECP during the 2023 Energy Summit to the wider energy community and the public. According to KIs, the draft document was expected to be submitted for e-consultation and presented for public debate, and once public comments are addressed, the document will be submitted to the EnC for a final review. The final adoption of the document by BiH is expected during the 2024 calendar year.

> ***"Implementation requires human and financial resources: this is where some external support would be essential. The NECP is one thing, adopting the document, then the established goals need to be achieved. A study of carbon neutrality would be needed . . . The bulk of the work will be in the implementation stage."***
>
> *KI from a public company*

Although KIs recognized the development of the draft NECP as a key milestone in the progress toward decarbonization of the BiH economy, they expressed concerns about readiness and ability of the BiH institutions to implement the Plan once adopted. KIs believed that USAID's support in the implementation process would be crucial and needed to ensure that BiH successfully achieves harmonization with EU directives and moves forward with reducing greenhouse gas emissions to net zero by 2050. The assistance that KIs mentioned includes (i) conducting research and studies that would inform the next steps following the adoption of the NECP, (ii) providing TA for the preparation of new and amending of existing legal and regulatory acts to enable implementation of measures envisaged by the NECP and achievement of its objectives, and (iii) assisting with preparation of the mandatory reports.

Finding 20: Most organizations in the energy sector do not take systematic cybersecurity measures. EPA is the only donor project that focuses on strengthening cybersecurity in the energy sector.

Cybersecurity is a relatively new aspect of the global security landscape. BiH is considered highly vulnerable to cyberattacks given that several issues hinder the country's preparedness to mitigate potential cyber threats.[26] For example, long-lasting political turmoil has obstructed efforts to develop and/or adopt the key legislative, strategic, and regulatory framework at the state and FBiH levels. On the other hand, the RS adopted its Law on Critical Infrastructure and Information Security in 2019 and established a computer emergency response team (CERT). Still, the lack of a comprehensive approach to cybersecurity is amplifying BiH's vulnerability to cyberattacks.

Because of a lack of common understanding and definition of critical digital infrastructure, the need for adequate protection of critical infrastructure in the energy sector is not formally recognized at the BiH level. On the other hand, energy is identified as a key sector that requires a high level of cybersecurity in relevant EU legislation, including the Network and Information Security (NIS) Directive 2. Given that energy systems are the backbone of all economic activity, disruptions to energy infrastructure that may be caused by cyberattacks could potentially lead to colossal damages and catastrophic consequences, including loss of life and damage to property and the environment.[27] Unfortunately, there has been no comprehensive study of the BiH energy sector's preparedness to mitigate and respond to potential cyber threats. Several KIs described their experiences with cyberattacks, and one KI reported that such attacks were frequent. The biggest attack to date targeted a public gas distribution and trading company in the summer of 2022, when the company's IT system was inoperable for two days.

Although several donors have been providing support around cybersecurity in BiH, the interviewed KIs recognized EPA as a pioneer and a leading organization that focuses on strengthening cybersecurity in the energy sector. Specifically, KIs praised EPA's engagement and leadership in the informal energy sector cybersecurity working group, which is a subgroup of the OSCE-led Neretva Working Group on Cybersecurity. KIs also noted EPA's efforts to prepare the Roadmap for Security of Network and Information Systems in the BiH energy sector, which outlined the necessary steps to achieve the security of network and information systems and offered guidelines for transposition of the NIS Directive in accordance with the EnC and EU regulations. EPA convened a panel discussion on

[26] USAID. (2022). Digital Ecosystem Country Assessment (DECA). https://pdf.usaid.gov/pdf_docs/PA0211H1.pdf
[27] DNV. (2023). *Energy Cyber Priority 2023: Closing the gap between awareness and action*. https://www.dnv.com/cybersecurity/cyber-insights/energy-cyber-priority-2023.html

the importance of cybersecurity in the energy sector as part of the 2023 Energy Summit in BiH, which many KIs described as eye-opening and awareness-raising experiences. The Activity is currently surveying relevant stakeholders to assess current threats and possibly provide additional recommendations for further steps in strengthening the energy sector cybersecurity.

Still, KIs perceive that the awareness of the importance of cybersecurity and potential consequences that cyberattacks may cause needs to be raised further, especially among the managers of energy sector organizations. In the meantime, investment in cyber-protection remains modest at best. Only one KI reported that their organization complies with International Organization for Standardization/International Electrotechnical Commission 27001, the international standard of information security, whereas several other KIs reported using internal cybersecurity rules and guidelines (such as frequently changing passwords) and holding employee trainings every few months. Whereas KIs disagreed whether measures deployed so far are sufficient to protect their organizations' systems from potential attacks, all of them agreed that they would benefit from further USAID support in enhancing their own and overall energy system cybersecurity. KIs suggested that this support may take the form of strengthening the legislative and regulatory framework for cybersecurity in the energy sector, establishing a CERT in the energy sector, enabling energy sector organizations to comply with relevant regulations and standards, and raising awareness and capacities of their staff to mitigate and respond to cyber threats.

Finding 21: In addition to the challenges faced by investors in solar and wind energy plants, BiH has no regulation for a range of emerging technologies, such as batteries/storage, hydrogen, and bioenergy.

BiH has significant renewable energy potential with an estimated renewable energy capacity of 2,451 MW in 2021, most of which (65 percent) comes from hydropower plants.[28] However, the unfinished legislative, strategic, and regulatory framework for RES hinders exploitation of emerging opportunities for a range of emerging technologies. The following are some examples of such opportunities:

> ***"We are witnessing an explosive development boom in the electricity sector, which equals the times when Nikola Tesla invented alternat[ing] current. This is a direct consequence of a vast expansion in the RES field in the last 2-3 years."***
>
> *KI from a private company*

- **EV charging stations.** Electric mobility in BiH is in its infancy. Charging EVs is addressed by the legislation adopted in the RS and the BD, whereas FBiH awaits adoption of the package of three energy laws. In the meantime, the EU plans to cease sales of new petrol and diesel cars as of 2035. If building the necessary infrastructure for charging EVs is not addressed in the near future, BiH will not be able to support charging of growing numbers of EVs across the country, which may have adverse effects on the BiH economy (notably because it may lead to a marked and sustained drop of tourist and diaspora visits to BiH and related losses for all business sectors). A connected issue is that the absence of regulation (and infrastructure) makes it impossible to return and sell the energy accumulated in personal EVs/batteries back to the grid.

- **Green hydrogen.** Harnessing the potential of hydrogen is a key part of the EU strategy to achieve climate neutrality by 2050. The neighboring countries of BiH have already started exploring or preparing for the production of green hydrogen. For example, in early 2022, Croatia adopted its first ever Hydrogen Strategy (effective until 2050), which describes the advantages of developing a hydrogen economy. In BiH, however, no progress has been made to regulate the production of and use of hydrogen. Currently, hydrogen is a key ingredient in the production of ammonia (the second

[28] Energy Community Secretariat. (2022). Bosnia and Herzegovina: Annual Implementation Report. https://www.energy-community.org/dam/jcr:90f246f0-0e7e-469e-8895-d2bc4538ec58/IR2022_Bosnia_Herzegovina.pdf

most produced chemical globally), and its current production processes are overwhelmingly based on the use of fossil fuels.[29] One way for BiH's solar and wind power plants to sidestep the problem of unpredictability of solar/wind power output would be to convert electricity produced during sunny or windy days into hydrogen, store it, and sell it at premium prices.[30]

- **Bioenergy.** According to a 2019 study on biomass potential in BiH, the biomass potential in BiH in 2015 was between 10.3 and 10.4 million tons of dry matter (mostly wood) and could in theory meet up to 24 per cent of the total primary energy needs of the country.[31] Currently, there are only four biomass and bio-oil power plants in the country, which generated 13 GWh of electricity in 2022.[32] Unfortunately, biomass is poorly regulated in BiH. In particular, cantonal laws of forestry in no way stimulate collection of biomass.[33] An initiative of the Sarajevo Canton to introduce heat and electricity generation from wastewater/sewage might be a bright spot on the horizon in this field, although this is a BAM 100 million project, and international financing for it needs to be secured.[34] Still, this initiative deserves attention, and if successful, it could be replicated.

- **Infrastructural challenges for connecting RES producers to the existing electrical power grid.** The BiH solar-energy sector started growing recently. Still, many KIs note that the sustainability of the current growth in solar power plants is questionable because of limited capacities of the existing power distribution grid and underdeveloped transmission grid infrastructure in some parts of the country. Currently, there are no plans for an expansion of the existing power grid because of high costs involved, nor are there any PPPs or other forms of investment being considered for these purposes.[35] In the face of the prospect that grid capacity will become increasingly insufficient, many KIs believe that the current system of allocating grid capacity to investors even before construction starts should be modified to permit allocation of grid capacity only when the construction of a given power plant is nearing completion.

EVALUATION QUESTION 3: CONCLUSIONS

Because citizens are poorly informed about energy sector reforms, it is hard to muster the bottom-up support necessary for them. Citizens, either individually or as a whole, have an untapped potential to ally with the international community and demand accountability from political and government leaders and pressure them for greater effectiveness in the implementation of energy sector reforms. A scarcity of factual and objective reporting and inadequate presence in the media of impartial energy experts who can provide reliable information and offer relevant insights, combined with MPs' limited understanding of priority issues in the sector, helps create an environment in which politicians have all the maneuvering space to exploit the existing energy resources for their own (or their political parties') purposes, at the expense of the general public.

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[29] Congressional Research Service, December 7, 2022, "Ammonia's Potential Role in a Low-Carbon Economy": https://crsreports.congress.gov/product/pdf/IF/IF12273

[30] Sarajevo Energy Forum, "Actions for conversion to green hydrogen and biomass—What should the state do and what preparations businesses need to make": Panel Discussion, Sarajevo, June 21–23, 2023.

[31] GIZ, Czech Republic Development Cooperation, UNDP, MOFTER, RS Ministry of Agriculture, Forestry and Water Management, FBiH Ministry of Agriculture, Water Management and Forestry, Government of Brcko District. (2019). Report on Biomass Potential Monitoring in BiH. https://www.giz.de/en/downloads_els/Biomasa_ENG.pdf

[32] SERC. 2023. 2022 SERC Work Report. https://www.derk.ba/DocumentsPDFs/DERK-Izvjestaj-o-radu-2022-b.pdf

[33] Sarajevo Energy Forum, "Actions for conversion to green hydrogen and biomass—What should the state do and what preparations businesses need to make": Panel Discussion, Sarajevo, June 21–23, 2023

[34] Sarajevo Times. (2023, June 14). *Production of heat energy from wastewater in the Sarajevo Canton*. Retrieved July 4, 2023, from https://sarajevotimes.com/production-of-heat-energy-from-waste-water-in-canton-sarajevo/

[35] Sarajevo Energy Forum, "Using the grid for transmission of electricity from renewable sources and challenges of cross-border capacities and joint operations" Panel Discussion, Sarajevo, June 21–23, 2023

Although the country has considerable potential for generating electricity from RES, the opportunities offered by the green transition are only imperfectly recognized, and this potential remains largely untapped. Specifically, there is a need to regulate emergent technologies/energy sources, such as production, storage, trading, and utilization of green hydrogen, biogas, biomass, and battery-accumulated electricity.

One of the key areas for improvement in the next period will be the implementation of the NECP, when it is adopted. Numerous KIs recognized EPA's assistance in the development of the Plan as pivotal. Still, the BiH institutions lack the capacity to implement the NECP, and USAID's technical support in this process would be invaluable. Such TA could involve conducting analyses and studies to inform transposition of EU directives into legal, regulatory, and strategic framework at all levels of governance in BiH and drafting new and amending existing laws/regulation.

EPA is the only donor project that supports cybersecurity in the energy sector, and many KIs acknowledge the assistance that the Activity has provided so far. However, the cybersecurity of the BiH energy system remains in need of urgent and intensive support. Challenges identified by the ET range from poor awareness to the absence of a legal, strategic, and regulatory framework that would help prepare the BiH energy system to better mitigate and respond to potential cyber threats.

EVALUATION QUESTION 4

What challenges has EPA encountered in the implementation of its activities thus far and how did the EPA team address these challenges?

The overall findings and findings for Evaluation Questions 1 to 3 already explained most of the contextual factors affecting EPA's work and the ways EPA addressed those challenges. To avoid duplication, we address only the remaining findings and conclusions for Evaluation Question 4 here.

Finding 22: The BiH electricity sector is a generator of high and reliable cash revenues. The entity governments (ruled by political parties) exploit the country's infrastructural legacy to buy social peace and election votes by keeping domestic electricity prices below production costs and maintaining excess employment in public enterprises.

> ***"BiH citizens pay the lowest price of electricity in Europe. Or we are at least among the five countries with the lowest price of electricity."***
>
> *KI from a private company*

As mentioned in Finding 4, in 2022, BiH generated 15 TWh of electricity, whereas BiH consumption was 12 TWh, making the balance surplus of 3 TWh, which puts BiH alongside Bulgaria as the only two countries in Southeastern Europe with electricity surpluses. Average electricity prices by category from 2004 to 2022[36] (see Annex VII) reveal that the 2022 price was somewhat under 0.15 KM/kWh (*i.e.*, €7.52 per 100 kWh). On the other hand, the electricity and gas pricing trends in the EU in the 2008–2022 period (see Annex VII) show that the price of electricity in the EU in 2022 was €28.4 per 100 kWh,[37] which means that the price of electricity for BiH citizens was approximately 4 times lower than for EU citizens. The total value of the BiH electricity exports in 2022 was BAM 1,074,645,000 (€550 million).[38]

Several KIs discussed how relying on the bountiful revenues from electricity exports (all power utilities are publicly owned), the entity governments could limit electricity price increases to secure social peace, "buy" votes in elections, and ensure that they would remain in power. The side effects of

[36] SERC, 2022 Annual Report, p. 49: https://www.derk.ba/DocumentsPDFs/DERK-Izvjestaj-o-radu-2022-b.pdf
[37] EUROSTAT: https://ec.europa.eu/eurostat/web/products-eurostat-news/w/DDN-20230426-2
[38] BiH Statistics Agency, BiH in Numbers, p. 67: https://bhas.gov.ba/data/Publikacije/Bilteni/2023/NUM_00_2022_TB_1_BS.pdf

these decisions included undermining market economy principles and eliminating competition in the internal electricity market (three public power utilities continued to supply most of the electricity in the local market). Although unprofitable, loss-making coal mines were kept in operation, and the level of employment in the mines remained unchanged. Consequences of years of such mismanagement are increasingly becoming clear. Several KIs pointed out that certain energy sector public enterprises face liquidity problems because of overemployment in the past.

> ***"The public is sensitive to miners' problems, which is a nostalgic legacy of the past, because today's miners are overpaid and mainly used as a voting machine."***
>
> ***"According to any realistic financial estimate, half the mines should be closed immediately because their costs exceed the price of coal."***
>
> *KI from a private company*

Finding 23: Although the USG and EU policy positions for the BiH energy sector are aligned, the EnC Secretariat, although claiming to adhere to the EU line, occasionally departs from the expected common views.

The EnC was created to support the signatories in harmonization of their legal and regulatory frameworks with the requirements of EU directives in the energy sector,[39] and the EnC Secretariat has been established to track their progress. However, KIs noted that the EnC does not appear to have a clear strategy for ensuring complete and swift harmonization of BiH with EU directives. For example, the EnC Secretariat abandoned the original approach to adoption of a BiH-level law on electricity and gas and switched to proposing limited amendments to the current BiH Law on Energy (enacted back in 2003) to address only the creation of the electricity exchange, leaving most other issues in the energy sector unaddressed.

According to the statements of relevant KIs, the EnC Secretariat took this step to achieve what partial progress is possible in BiH at the moment. In the opinion of several KIs, the EnC's attempt to address at least some electricity-related issues through these amendments is unacceptable for two reasons.

The first reason is that these amendments address only some requirements for harmonization with EU directives. They believe that such partial solutions will require a new parliamentary procedure for the remaining amendments, but they also might fall victim to shifts in parliamentary attitudes or changing positions when new parliaments are elected. On the other hand, one KI stated that it is preferable to work on the changes that the present political parties agree on and that "something is better than nothing."

The second reason, mentioned by several relevant KIs, was that the amendments proposed by the EnC cannot pass for multiple formal reasons, one being that the proposed number of amendments means that more than 60 percent of the existing law would be modified, which, in accordance with the BiH rules, requires the drafting of a completely new piece of legislation. Besides, the existing BiH Law on Electricity had already been amended by the Office of the High Representative, but domestic parliaments never adopted those amendments, so the BiH Parliamentary Assembly currently does not have any basis to amend this law.

The position of the EnC regarding the noncompliance of BiH in the gas sector is particularly interesting. BiH has not adopted the BiH primary gas legislation. In 2014, EnC filed its own case against BiH for noncompliance in the gas

> ***"Every year the EU issues a recommendation that legislation must be adopted on the state level (the state law on gas is a priority)."***
>
> *KI from an international organization*

[39] Energy Community – Who we are: https://www.energy-community.org/aboutus/whoweare.html

sector[40] declaring that "despite the Secretariat providing all the necessary assistance, in drafting a Third Energy Package-compliant Gas Law and numerous meetings and working groups, no tangible results were achieved."

On the other hand, BiH has three natural gas transmission system operators (one in the FBiH and two in the RS). As pointed out by one KI and confirmed through an official documentation review, the EnC Secretariat provided a positive opinion on the certification of a transmission system operator in the RS (Opinion 2/20[41] in September 2020, which states, "Against this background, the Secretariat supports certification of *Gas Promet*, subject to the following conditions to be reflected by RERS in the final decision: explicitly specify that the certification of *Gas Promet* does only comprise transmission system operation of the pipeline sections Šepak-Karakaj and Karakaj-Zvornik," p. 10).[42]

EVALUATION QUESTION 4: CONCLUSIONS

Reforms in the BiH energy sector happen very slowly. The remaining energy sector infrastructure generates the resources that make it possible to make political decisions that keep electricity prices below production cost levels and maintain unprofitable coal mines on life support. In clearer terms, public power utilities (and all of them are controlled by local governments, *i.e.*, by political parties in power) again hold a de facto monopoly on the market and have at their disposal hundreds of millions of euros from electricity export revenues every year.

In the next 10 years, with the disappearance of the existing thermal-power generation capacities and under the threat of losing the ability to purchase social peace with low prices, politicians will need to abandon their current agendas and either expedite construction of new RES power plants or create an investment-friendly environment, which will require full compliance with EU directives. Unfortunately, the time to take proactive steps has passed, and the costs of delayed harmonization will be considerable.

The EnC Secretariat, as a key international stakeholder in the energy sector, while broadly taking the identical stance as the EU and USG concerning the need for BiH to be fully compliant with EU directives, advocates that only limited reforms be implemented through legislative amendments solely in the electricity sector, without a clear plan for BiH's full compliance in both electricity and natural gas. The EnC's actions confused local stakeholders and sowed doubts about whose guidance should be followed in developing the solutions for the BiH energy sector.

RECOMMENDATIONS

On the basis of the findings and conclusions of the EPA evaluation, MEASURE II's ET submits the following recommendations for USAID/USG's consideration.

1. USAID/EPA going forward:

1.a. USAID should continue its interventions in the energy sector, which are in the best interests of BiH citizens and investors (see Findings 1, 2, 4, 5, 8, 12, and 17).

1.b. EPA should continue all of its planned activities in the remaining Activity implementation period without any modifications while maintaining a flexible approach and accounting for other recommendations of this evaluation (see Findings 1, 2, 7, 8, 10, 12, 14, 17, 18, 19, and 20).

[40] EnC Case ECS-08/11S: Bosnia and Herzegovina/gas: https://www.energy-community.org/legal/cases/2011/case0811SBH.html

[41] EnC Secretariat, Opinion 2/20: https://www.energy-community.org/dam/jcr:7919b566-b1a1-4a20-a125-5497a1dcd9d0/ECS_Opinion_02_2020.pdf

[42] The RERS issued the final certification decision in November 2020, with the validity period of 15 years in performing transport activities and managing the transport system. This transmission system operator operates only a part of the existing gas pipeline (total of 24 km), but it also claims ownership of this part of the pipeline

2. USG/EU partnership:

2.a. High level: The USG and the EU should ensure that local stakeholders understand that the USG and the EU have the same approach and identical objectives in the energy sector, and the EnC should be aligned with this high-level consensus (see Findings 5, 21, and 22).

2.b. Operational level: USAID's Activities (EPA and any follow-on Activity) should plan and coordinate with the EU4Energy projects to generate a common approach to local stakeholders. EPA should actively participate in the EU donor coordination meetings (see Finding 5).

3. Synergies between USAID's Activities:

3.a. EPA, DI2, LGAA, and E-Governance (and any other USAID activities with relevant programming) should establish a standing joint forum to reinforce a focus on selected pilot LGUs with the objective of launching the green transformation in BiH from the local level (see Finding 6).

3.b. Cooperation between EPA and IRI should continue and, if possible, extend to issues that are emerging on the local levels as a result of the cooperation among USAID's Activities participating in the standing forum (see Finding 6).

3.c. Cooperation between EPA and NARUC on raising awareness about gender equality, energy efficiency, cybersecurity, and public outreach in the energy sector should continue, and this type of support should be included in EPA and any follow-on Activity (see Finding 6).

3.d. EPA could provide valuable insights to USAID in the sectors other than energy, and when designing new activities, USAID should consult EPA in connection with certain topics, *e.g.*, the VAT law, development of registers of vulnerable groups, and draft legislation on cybersecurity and critical infrastructure on the BiH level (see Finding 3).

4. EPA (and future USAID interventions) specific:

4.a. EPA should retain its adaptive approach to dealing with obstacles and delays caused by external changes and the lack of political consensus in order to maximize the effects of joint interventions with the EU4Energy projects. The design of EPA (to the extent possible) and particularly of future USAID's Activities should incorporate a degree of flexibility to permit on-demand support to unforeseen needs of local beneficiaries (see Findings 7, 10, and 14).

4.b. EPA and potential future USAID Activities should continue TA to support harmonization with the EU directives in the energy sector. A high degree of coordination with the EU4Energy projects is needed to avoid overlap and maximize effects of both donors' interventions (see Findings 8, 12, 17, 19, 20, and 21).

4.c. USAID should consider supporting analytical work (see Findings 15, 19, and 21). Illustrative topics include the following:

- Taking stock of missing registers, registers that have been created but are not regularly updated, and fully functional registers in the energy sector, with an analysis of their interoperability.
- Analyzing technical and legal challenges facing ODSs during and after the completion of the unbundling process.
- Studying technical issues arising from the increasing number of RES producers connecting to the grid.
- Studying underused balancing potential of the BiH electricity system.

Depending on the outcomes of these studies, USAID may offer additional TA to address identified challenges.

4.d. Cybersecurity should be USAID's (and EPA's) first priority when follow-on activities are designed (using EPA's ongoing analysis of the state of cybersecurity and its related recommendations) (see Findings 8 and 20).

4.e. Informational, educational, and PR activities:

4.e.1. USAID should capitalize on its ongoing PR efforts by expanding the interventions that inform and educate citizens about the green transition, as well as their benefits and risks. This would help generate bottom-up public pressure on governments in BiH to take concrete steps to avert adverse scenarios that are increasingly likely if stagnation in the energy sector persists. USAID should consider expanding its PR interventions by working regularly with selected media (*e.g.*, by supporting biweekly TV programs in regular time slots) and possibly with relevant civil society organizations. Such cooperation with the media should create space for independent and recognized experts to convey complete and accurate information and enhance public understanding about the energy sector (see Finding 18).

4.e.2. USAID should assess whether to expand relevant sections of the NSCP-BiH to systematically track public opinion regarding the energy sector and the green transition (see Finding 18).

4.e.3. EPA (and future USAID Activities) should continue to regularly upgrade and enhance the CPG, guided primarily by the needs of investors. Conducting surveys and studies on the challenges that RES investors face would further inform CPG upgrades (see Finding16).

4.e.4. EPA should continuously track individual advances in the energy sector and share these experiences and best practices, either through its existing working groups or by creating a new dedicated forum (see Findings 1 and 8).

4.f. New technologies:

4.f.1. In the process of designing new activities, USAID should consider incorporating the regulatory work related to introduction and use of hydrogen, biogas, biomass, and e-charging stations (particularly from the standpoint of required permits and cooperation with the LGAA and E-Governance) and creating preconditions to allow citizens to sell electricity from their own accumulation sources (*e.g.*, electric vehicles/batteries) (see Finding 21).

4.f.2. In future interventions, USAID should consider providing TA for the introduction of the ETS and of valid EU green energy certificates as measures to avoid potential heavy consequences that the introduction of the EU CBAM in 2026 could have for the BiH economy (see Findings 1, 8, 17, 19, and 21).

4.g. Training: In future Activities, all interventions should be complemented with training and capacity building for local beneficiaries that closely tracks and matches progress achieved in legislative and regulatory interventions (see Findings 8, 12, and 17).

CONCLUSIONS

USAID has an unassailable reputation and credibility among local energy sector stakeholders. TA provided by USAID's EPA is very highly praised. EPA's support to beneficiaries was reliably delivered in a high-quality, timely, and professional manner. No KIs could name an unsuccessful EPA intervention.

However, during its implementation, EPA faced numerous challenges, from (i) local issues (*i.e.*, consistent political disputes that delayed the legal reforms) to (ii) major global events (*i.e.*, global energy crisis, the war in Ukraine, COVID-19), and inconsistencies in the EnC's approach to ensuring BiH's compliance with EU directives. All these substantially altered the assumptions underlining the Activity's design. Consequently, EPA exercised remarkable flexibility in navigating its changed implementation environment and succeeded in delivering TA in line with its contract, guided by the needs of beneficiaries and within the constraints imposed by the evolving country context. Because the essential laws have been delayed, EPA has provided TA to ensure that drafts of important secondary legislation and implementing acts are ready immediately when the key laws pass. Beyond its contractual provisions, EPA worked successfully on several very important tasks (*i.e.*, the FBiH/BD energy laws).

EPA contributed to the organization of the BiH gas sector by providing TA to meet the specific needs of the entities. EPA assisted with the development of the Draft Law on Gas and the LSI in the FBiH, with secondary regulation in the RS (*i.e.*, tariffs, licensing). TA was also provided to facilitate the unbundling process of distribution and supply activities in public gas utility companies.

EPA has contributed to further development in the electricity sector by delivering targeted TA for development of several FBiH and BD laws, or to improve RS laws (*e.g.*, energy, electricity, RES) as well as for numerous subordinated and implementing regulations (*e.g.*, unbundling power utilities, enabling RES producers' participation in the market, creating preconditions to establish the electricity exchange, amending BiH-level market and procedural rules). EPA's CPG has been recognized as very useful tool for investors.

EPA also supported other segments of the BiH energy sector. EPA substantially contributed to the development of the final NECP draft. EPA is recognized as a leader in addressing cybersecurity issues in the energy sector. EPA's work on raising awareness of issues in the energy sector is highlighted by highly regarded annual Energy Summits.

Although EPA's work is highly rated in all segments, the beneficiaries uniformly expressed their expectations and hopes for continuation of USAID's TA in the BiH energy sector.

ANNEXES

ANNEX I: STATEMENT OF WORK

PURPOSE OF THE ASSIGNMENT

The United States Agency for International Development in Bosnia and Herzegovina (USAID/BiH) has requested its Monitoring and Evaluation Support Activity (MEASURE II) to conduct a performance evaluation of the Energy Policy Activity (EPA) in BiH with the objective of producing an evidence-based and independent review of its EPA Activity since the start of its implementation until the launch of this evaluation. This performance evaluation will provide credible and practical insights to USAID/BiH about the current course and potential adjustments for the remaining period of the Activity implementation, maximizing the likelihood of achieving the intended results. The Mission and the implementing partner will use the evaluation findings, conclusions, and recommendations to take corrective actions (if needed) in the Activity design and/or implementation.

SUMMARY INFORMATION

EPA is an $8.65 million USAID/BiH-funded Activity implemented by DT Global. The Activity contributes to both Development Objective (DOs) outlined in USAID/BiH's 2020–2025 CDCS: DO1. Accountability of Government to Citizens Strengthened and DO2. Socio-Economic Conditions Improved. Within DO1, EPA supports strengthening of governance effectiveness in targeted areas (IR 1.2) by contributing to reducing corruption (Sub-IR 1.2.1) and advancing adoption and implementation of key reforms (Sub-IR 1.2.2). Within DO2, EPA strives to support private sector growth (IR 2.2) by enhancing the competitiveness of targeted industries and SMEs (Sub-IR 2.2.1). The performance evaluation will analyze the effectiveness of the Activity's design and implementation arrangements in ensuring progress toward expected results. The evaluation shall apply rigorous methodology to gather high-quality data and generate credible findings, conclusions, and recommendations. Activity details are presented in Exhibit 1.

Exhibit 1. Basic Information About the EPA Activity

Activity Name	Energy Policy Activity (EPA)
Implementing Partner	DT Global
Contract Number	72016819C00002
Total Estimated Cost	$8,650,615
Life of Activity	September 19, 2019, to September 18, 2024 (5 years)
Active Geographic Region	Bosnia and Herzegovina

BACKGROUND

COUNTRY AND SECTOR CONTEXT

BiH has a complicated government structure that was created through the Dayton Peace Agreement that ended the war in 1995, with two constituent entities of BiH, the Federation of BiH (FBiH) and Republika Srpska (RS), and the self-governing Brčko District. The entities have primary authority over the energy sector, which in practice results in a very fragmented regulatory structure and increases the complexity of governance in the energy system.

Electric power generation is a key sector of economic activity in BiH, which is currently the only net exporter of electricity in the Western Balkans, with the generating capacity of approximately

17,000 GWh.[43] Most of the electricity is generated by the coal plants, particularly in dry years: generation levels hover around two-thirds coal to one-third hydropower. The leading coal plants are Tuzla, Kakanj, Gacko, Ugljevik, and Stanari. Coal-fired thermal power plants mainly use domestic lignite from several mines located throughout the country.[44] The electricity sector is organized into three vertically integrated public utilities, of which two (Elektroprivreda BiH and Elektroprivreda HZHB) owned and operated by the FBiH, and one (Elektroprivreda RS) by the RS, and overseen by three electricity regulators (one each at the level of BiH, FBiH, and RS).[45]

BiH has significant renewable energy potential, particularly in hydropower and wind power capacity. Hydropower provided 37 percent of the country's total electricity production in 2021, and there is room for additional growth. Solar and wind are expanding slowly and remain a small percentage of the overall energy mix at about 5 percent[46] even though investment costs have come down.[47] While BiH could generate up to 2 GWh of wind energy per year, this emerging subsector still faces regulatory obstacles and financial challenges.[48]

BiH is fully dependent on gas imports from Russia via Ukraine, Hungary, and Serbia. The gas distribution network in the country still only reaches Sarajevo, Zenica, Visoko, and Zvornik.[49]

As a signatory to the Energy Community (EnC) Treaty, BiH is committed to adopting the relevant regulations and to harmonizing its energy market framework with that of the EU. While BiH made some progress toward the liberalization of the electricity market, including establishment of independent regulator, market opening, and introduction of competitive market processes, BiH continues to lag behind the other Contracting Parties in adoption of European energy rules, and this lag is growing, with the Second and Third Energy Package still not being transposed. BiH has been slow to implement power sector reforms to enhance efficiency and transparency, strengthen independent regulation, and combat corruption. The FBiH and RS governments remain unable to agree on a unified strategy to address structural problems, which include complicated permit and contract processes, archaic incentive systems, and weaknesses in the transmission system. With unbundling in the electricity sector and the establishment of an organized electricity market remaining blocked because of the failure to ensure regulatory harmonization,[50] the country loses out on potential investment that could contribute to meeting the needs for infrastructure modernization, life extension, and new generation facilities, which the World Bank estimates at more than $6 billion.[51]

EPA DESCRIPTION AND THEORY OF CHANGE

The purpose of the Energy Policy Activity in BiH is to assist the BiH energy sector stakeholders to create an investor-friendly legislative framework in accordance with EnC Treaty obligations (and thus EU Energy Directives) and to continue the integration of its energy sector into the regional and EU energy markets. The objectives are to achieve better coordination, management, and transparency at all levels of BiH's regulatory framework, create a simplified energy policy environment, and provide targeted technical assistance to integrate BiH's energy sector into regional and EU markets. The

[43] U.S. International Trade Administration, Bosnia and Herzegovina - Energy: https://www.trade.gov/country-commercial-guides/bosnia-and-herzegovina-energy
[44] Friedrich Ebert Stiftung (FES): The Political Economy of Energy Transition in Southeast Europe: https://library.fes.de/pdf-files/bueros/sarajevo/18313.pdf, p. 39
[45] CMS, Electricity Law and Regulation in Bosnia and Herzegovina: https://cms.law/en/int/expert-guides/cms-expert-guide-to-electricity/bosnia-and-herzegovina
[46] ITA, Overview
[47] FES, p. 39
[48] ITA, Overview
[49] FES, p. 40
[50] EnC Secretariat, Bosnia and Herzegovina Annual Implementation Report, 1 November 2022: https://www.energy-community.org/dam/jcr:90f246f0-0e7e-469e-8895-d2bc4538ec58/IR2021_Bosnia_Herzegovina.pdf, p. 3
[51] ITA: https://www.trade.gov/country-commercial-guides/bosnia-and-herzegovina-energy

hierarchy of EPA's expected results based on EPA's Monitoring, Evaluation, and Learning plan is shown below:

Activity Goal: Governance effectiveness in targeted areas strengthened

Purpose: Compliance with EU accession requirements in the energy sector supported

- **Sub-Purpose 1**: Preconditions for the development of a BiH natural gas internal market created
  - Outcome 1.1: Improved legislative framework for gas sector functioning
- **Sub-Purpose 2**: A fully functional BiH internal electricity market equipped with all the features necessary to join the regional market created
  - Outcome 2.1: Preconditions created for a fully functional BiH internal electricity market
- **Sub-Purpose 3**: Ministry of Foreign Trade and Economic Relations (MOFTER) and other relevant ministries supported
- **Sub-Purpose 4**: Market-based energy sector promoted and supported by BiH regulatory commissions

EPA's development hypothesis assumes that if BiH reforms the energy sector to meet its EnC Treaty obligations and harmonizes it with EU directives and best practices, its energy sector will be more readily integrated into the EU market and yield a higher degree of energy security for the country and the region. For this hypothesis to hold, the Mission will operate under the assumption that BiH authorities will remain committed to the EnC Treaty and adopt the relevant legislative and regulatory changes.

EPA MONITORING, EVALUATION, AND LEARNING PLAN

EPA is tracking 19 indicators to measure progress in meeting Annual and Life of Activity targets (see Exhibit 2).

Exhibit 2. Activity Indicators, With Relevant Baseline Values, Targets, and Actuals

	Narrative Summary	Indicators	Baseline FY 2019	Targets (actuals) FY 2020	FY 2021	FY 2022	LOA Targets
Activity Goal	Governance effectiveness in targeted areas strengthened						
Activity Purpose	Compliance with EU accession requirements in the energy sector supported	Number of laws, policies, regulations, or standards to enhance energy sector governance formally proposed, adopted, or implemented as supported by USG	0	2	3	3	13
		Number of laws, policies, regulations, or standards addressing clean energy formally proposed, adopted, or implemented as supported by USG	0	2	3	3	13
		CBLD-9 percentage of USG-assisted organizations with improved performance	0	30%	40%	50%	81%
Activity Sub-Purpose 1	Preconditions for the development of a BiH natural gas internal market created	Number of EU Directive and EnC Treaty gas sector requirements with annual progress toward compliance achieved with EPA assistance	0	2	4	2	12
		Number of alternative gas supply options enabled	0	0	0	0	3
Activity Outcome/ Output 1.1.	Improved legislative framework for gas sector functioning	Number of rules and regulations that lead to a more open and competitive natural gas market developed and submitted to relevant institutions	0	3	7	4	15
		Number of gas sector stakeholders trained on functioning of the gas market in compliance with the EnC Treaty requirements	0	40 (M:30, F:10)	40 (M:30, F:10)	40 (M:30, F:10)	200 (M:150; F: 50)

	Narrative Summary	Indicators	Baseline FY 2019	Targets (actuals) FY 2020	FY 2021	FY 2022	LOA Targets
Activity Sub-Purpose 2	A fully functional BiH internal market equipped with all the features necessary to join the regional market created	Number of EU Directive and EnC Treaty electricity sector requirements with annual progress toward compliance achieved with EPA assistance	0	2	7	10	37
		Amount of electricity traded through market processes (in USD)	0	35 million	45 million	50 million	300 million
		Number of private investors that generate electricity from renewable energy sources	0	N/A	359	390	450
Activity Outcome Output 2.1	Preconditions created for a fully functional BiH internal market	Number of rules and regulations that lead to a fully functional BiH electricity sector developed and submitted to relevant institutions	0	4	6	5	27
		Number of electricity sector stakeholders trained	0	60 (M:40, F:20)	95 (M:65, F:30)	95 (M:65, F:30)	440 (M:300, F:140)
Activity Sub-Purpose 3	MOFTER and other relevant ministries supported	Number of strategies/road maps/guidelines pertaining to the areas specified in the contract SoW developed and submitted to MOFTER and other relevant ministries	0	1	1	1	5
Activity Sub-Purpose 4	Market-based energy sector promoted and supported by BiH regulatory commissions	Number of events organized to promote market-based energy sector	0	0	4	4	15
		Number of energy sector educational materials developed by the Activity and utilized by the regulatory commissions, stakeholders or media	0	1	3	3	12
Other	Other required PPR indicators	Mobilized investment (in USD) for energy projects supported by USG assistance	0	0	50 million	50 million	290 million
		2.2.4-2 Amount of investment mobilized (in USD) for clean energy supported by USG assistance.	0	25 million	35 million	80 million	410 million
		Greenhouse gas (GHG) emissions, estimated in metric tons of CO2 equivalent, reduced, sequestered, or avoided through clean energy activities supported by USG assistance	0	N/A	643,252	759,057	3,066,395
		Projected greenhouse gas emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to clean energy as supported by USG assistance	0	N/A	6,432,520	8,143,986	11,929,575

EVALUATION QUESTIONS

The following evaluation questions (EQs) will serve as the basis for an analysis of EPA's performance to date:

EQ1. To what extent has EPA technical assistance (TA) contributed to the organization of the gas sector(s) in BiH in accordance with the transparent market principles and EnC Treaty?

EQ 2. To what extent has EPA TA contributed to developing an investment-friendly and fully functional internal electricity market in BiH and supported the country's progress in joining the regional electricity market, and how?

EQ 3. How did EPA beneficiaries rate the EPA TA under its cross-cutting components?

EQ 4. What challenges has EPA encountered in the implementation of its activities thus far, and how did the EPA team address these challenges?

EVALUATION DESIGN AND METHODOLOGY

In assessing the efficiency of EPA interventions and activities, the evaluation team (ET) will apply a mixed method approach using the data sources listed below, which will be combined with data triangulation to enhance analytical rigor:

1. **Activity documents,** including the Activity Award; Monitoring, Evaluation, and Learning Plan; work plans; annual and quarterly progress reports; Activity reports; documents (draft laws and by-laws, studies, strategies, models, guidelines) produced by the Activity, and lists of trainers, experts, and other stakeholders involved in Activity implementation.
2. **Secondary documentation,** including official reports of domestic and international energy sector institutions; official reports of national decision-making institutions, such as governments, parliaments, and the Council of Ministers; official reports of the Energy Community; relevant EU reports; the evaluation report of former USAID's energy-related intervention (Energy Investment Activity [EIA]) and available sector assessments; reports, studies, and documents produced by other government bodies, international organizations, private and non-governmental organizations (NGOs) active in the energy sector that are relevant to EPA interventions.
3. **Key informant interviews (KIIs)** with USAID/BiH and EPA implementing partner and subcontractors, U.S. Embassy, BiH Ministry of Foreign Trade and Economic Relations, RS Ministry of Industry, Energy, and Mining, and FBiH Ministry of Energy, Mining, and Industry, state and entity regulators, power and gas utility companies, other EPA beneficiaries and stakeholders, international donors and representatives of international organizations involved in the energy sector, and independent energy experts. The full list of key informants will be presented in the Evaluation Work Plan and subject to USAID/BiH approval.
4. **Data** from the official reports of energy sector institutions, the EnC and other relevant international/donor institutions/organizations, and EPA survey data covering progress of the working groups in the gas and electricity subsectors in reaching compliance with the EnC requirements, contextual factors, and performance in attracting investment into the energy sector.
5. **Observation of EPA-organized events** will provide the ET with direct insights into participants/beneficiaries' willingness and ability to absorb EPA's TA, relevance of events' topics for participants/beneficiaries, and EPA's capacity to identify and satisfy the TA needs of its participants/beneficiaries. ET members will attend and observe EPA-organized events as they occur during the evaluation implementation period.

For data collection, the ET will apply the mixed method approach. The ET will collect data by conducting a desk review of the Activity and secondary documents, holding KIIs, reviewing available data, observing EPA organized events and coding relevant notes. The evaluation matrix showing the data sources for addressing each EQ is found below in Exhibit 3. The team will triangulate findings from all sources and explore any discrepancies that emerge. Those will be further explored to ensure that the evaluation will produce high-quality, valid, credible, and reliable findings, conclusions, and recommendations.

Exhibit 3. Evaluation Matrix

EVALUATION QUESTION (EQ)	DATA SOURCES/ DATA COLLECTION METHODS
EQ1. To what extent has EPA technical assistance (TA) contributed to the organization of the gas sector(s) in BiH in accordance with the transparent market principles and EnC Treaty?	Activity and secondary documents on the BiH natural gas sector, KIIs with relevant beneficiaries/stakeholders, official administrative data, EPA survey data, and notes from observation of EPA-organized events.
EQ 2. To what extent has EPA TA contributed to developing an investment-friendly and fully functional internal electricity market in BiH and supported the country's progress in joining the regional electricity market, and how?	Activity and secondary documents on the BiH electricity sector, KIIs with relevant beneficiaries/stakeholders, official administrative data, EPA survey data, and notes from observation of EPA-organized events.
EQ 3. How did EPA beneficiaries rate the EPA TA under its cross-cutting components?	Activity and secondary documents on the BiH energy sector compliance with the EnC requirement, KIIs with relevant beneficiaries/stakeholders, official administrative data, review of relevant websites, EPA survey data, and notes from observation of EPA-organized training events.
EQ 4. What challenges has EPA encountered in the implementation of its activities thus far and how did the EPA team address these challenges?	Activity and secondary documents on the BiH energy sector, KIIs with relevant beneficiaries/stakeholders, EPA survey data, and notes from observation of EPA-organized training events.

EVALUATION LIMITATIONS

The ET has identified several potential limitations that may affect its work. These limitations and core approaches intended to address them are detailed below:

- **Recall bias.** Remembering the interventions may prove to be difficult for some EPA beneficiaries/stakeholders who participated in interventions that occurred two or three years ago. The ET members will review all Activity documents and prepare themselves for the interviews, identify KIs who had continuous or repeated exposure to EPA's TA, and recap the relevant interventions to help KIIs remember their related experiences and impressions.

- **Response bias**. Implementers may overstate the outcomes of EPA's interventions that they worked on. To account for this bias, the ET will compare implementer inputs with information obtained from beneficiaries/stakeholders, from secondary data and other sources to validate the credibility of the findings. The ET will take care that KIs understand that their sincere opinions are valued and that confidentiality of any information they provide is assured.

- **Interview bias.** Interviewers' behavior and reactions may lead KIs to respond in a certain way. Therefore, the interviewers will be instructed and coached to ask questions in a non-leading way. Besides avoiding any potentially leading questions, the ET will make sure that respondents understand that their true opinions are the most appreciated and that their responses are confidential.

DELIVERABLES AND REPORTING REQUIREMENTs

All deliverables will be submitted electronically and in English. The deliverables will include the following:

1. **Detailed evaluation work plan and data collection instrument(s)**
   The evaluation work plan will include (1) a detailed evaluation design matrix (including the key questions, data sources, data collection methods, and the data analysis plan for each question), (2) draft data collection instruments (KII guides), (3) a list of potential interviewees (without personal information), (4) identified limitations to the evaluation design, (5) the anticipated schedule and logistical arrangements, and (6) a list of the ET members, with proposed roles and responsibilities.
2. **Presentation of preliminary findings/Briefing for the Mission**
   This presentation will inform the Mission about the ET's preliminary findings and recommendations.
3. **Draft evaluation report**
   The draft evaluation report will be consistent with the USAID Evaluation Report Requirements: ADS REFERENCE 201MAH[52] and USAID's evaluation policy[53] and take into account the criteria to ensure the quality of the evaluation report specified in ADS REFERENCE 201MAA,[54] and ADS Chapter 201: Operational Policy for the Program Cycle.[55]
4. **Final evaluation report**
   Once USAID's comments on the initial draft are received, the ET will address the comments and submit a revised final report within ten calendar days. The final report will be up to 30 pages long, excluding any annexes.
5. **Evaluation follow-up workshop**
   Following the Mission's approval of the final report, MEASURE II will organize a follow-up workshop to discuss the utilization of evaluation findings and conclusions, as well as the application of recommendations to ongoing and/or future USAID/BiH development programming. The workshop will strengthen the use of evidence and facilitate improved collaborating, learning, and adapting (CLA) practices for USAID/BiH.

TEAM COMPOSITION

The ET is expected to include five members. All tasks will be coordinated by the Team Co-Leads and team members. The tentative key staff and their qualifications are listed in Exhibit 4. Additional MEASURE II staff research analysts will also support this evaluation as team members.

Exhibit 4. Key Team Members and Their Qualifications

POSITION	KEY QUALIFICATIONS
Team Lead (MEASURE II staff member)	Project management skills; expertise in evaluation methodologies and USAID's evaluation requirements; conversance with the EPA Activity.
Team members – subject matter expert(s) (Local Consultant(s))	Subject matter expertise, experience and in-depth conversance with ongoing activities and reforms in the BiH energy sector.
Team members – evaluation specialists (MEASURE II senior/research analysts)	High level of technical expertise in research and ability to adapt rigorous methodologies to evaluation research.

[52] https://www.usaid.gov/sites/default/files/2023-06/201mah.pdf, https://www.usaid.gov/ads/policy/200/201mah
[53] https://www.usaid.gov/sites/default/files/2022-05/Evaluation_Policy_Update_OCT2020_Final.pdf
[54] https://www.usaid.gov/sites/default/files/2022-12/201maa.pdf
[55] https://www.usaid.gov/sites/default/files/2023-05/201_1.pdf

The ET will also be in a position to call on the following:

- The Home Office (HO) and Field Office (FO) for support in reviewing evaluation deliverables and conducting general oversight of the evaluation process
- MEASURE II's CLA experts, who will contribute to the application of CLA principles throughout the evaluation process
- An Office Manager, who will provide logistical support to contracting, payments, and field work.

The team composition and level of effort will be finalized in the Evaluation Work Plan.

SCHEDULE

The overview of the tentative evaluation timeline is provided in Exhibit 5.

Exhibit 5. Tentative Evaluation Timeline

Tentative dates	Tasks and deliverables
April 18, 2023	Submit draft evaluation work plan to USAID/BiH
April 19–21, 2023	Logistical preparation, scheduling KIIs interviews, online survey preparation, piloting data collection instruments
April 24–May31, 2023	Data collection through KIIs and online survey Interview transcription Initial data analysis Review of Activity documentation Review of secondary data
June 1–23, 2023	Continue and finalize transcribing interviews Continue and finalize data analysis Report drafting
June 26, 2023	Presentation to USAID/BiH to discuss the preliminary findings and recommendations
July 7, 2023	Submit Draft Evaluation Report to USAID
10 days after receiving USAID/BiH comments on the draft report	Submit Final Evaluation Report to USAID
September 2023	Evaluation Follow-Up Workshop

ANNEX II: ADDITIONAL INFORMATION ON METHODOLOGY

On request of the United States Agency for International Development Mission (USAID) in Bosnia and Herzegovina (BiH), the Monitoring and Evaluation Support Activity (MEASURE II) conducted a performance evaluation of the Energy Policy Activity (EPA) in BiH. The aim of the performance evaluation was to produce an evidence-based and independent review of the Activity's implementation to date. MEASURE II conducted an evaluation of the EPA, which has been implemented by DT Global. The Activity launched in September 2019 and is scheduled to close in September 2024.

MEASURE II applied a rigorous methodology to address the evaluation questions and gather high-quality data and generate credible findings, conclusions, and recommendations. The performance evaluation focused on the Activity's design and progress toward the expected results and provides the Mission and the implementing partner with recommendations for making informed programmatic decisions and taking corrective actions in the Activity design and/or implementation practices. USAID/BiH is the primary intended audience for this evaluation.

The EPA performance evaluation addressed the following evaluation questions:

1. To what extent has EPA technical assistance (TA) contributed to the organization of the gas sector(s) in BiH in accordance with the transparent market principles and EnC Treaty?
2. To what extent has EPA TA contributed to developing an investment-friendly and fully functional internal electricity market in BiH and supported the country's progress in joining the regional electricity market, and how?
3. How did EPA beneficiaries rate the EPA TA under its cross-cutting components?
4. What challenges has EPA encountered in the implementation of its activities thus far and how did the EPA team address these challenges?

The ET used a mixed methods approach to triangulate data across sources to explore qualitative and quantitative aspects of the evaluation questions. Specifically, the ET relied on the following data sources and techniques to produce relevant findings, conclusions, and recommendations: (1) review of EPA documents; (2) energy sector administrative data and survey data from MEASURE II BiH's National Survey of Citizen Perceptions (NSCP) covering key aspects of the energy sector of relevance for EPA interventions and perceptions of citizens related to the evaluation of EPA TA; (3) observation of one EPA-organized event; and (4) key informant interviews (KIIs) with 33 participants.

The desk review of the Activity documentation included relevant parts of the Activity Award; EPA's Monitoring, Evaluation, and Learning Plan; EPA's work, annual, and quarterly progress reports; Activity reports; documents provided by EPA (including draft laws, secondary legislation, models, guidelines produced by the Activity), lists of trainers, experts, and other stakeholders involved in Activity implementation, and secondary documentation relevant to the BiH energy sector interventions (including the EU/EnC relevant reports; the evaluation report of USAID's earlier energy-related interventions and sector assessments; documents developed by government institutions, and international organizations/donors of relevance for the implementation of EPA). MEASURE II also reviewed documents by local and international stakeholders relating to issues in the energy sector and relevant to EPA activities, including: the Energy Community Secretariat Annual Implementation reports for BiH 2020-2022; the USAID Digital Ecosystem Country Report for 2022; the Report on Activities of the State Electricity Regulatory Commission in 2022; the Draft Law on Energy and Regulation of Energy Activities in the FBiH; the Draft Law on the Use of Renewable Energy Sources and Efficient Cogeneration; the Energy Community Secretariat Opinion; the Energy Community Legal Framework for 2022; the RS Laws on Gas and Renewable Energy Sources; the Law on Electricity of the Brcko District; and the proposed Law on Gas of FBiH. The extensive list of documentation reviewed is contained in Annex III.

The KIIs were conducted using a semi-structured approach. Out of 33 KIIs, three were conducted with power traders (ASA Energy, Gen-I Consulting, and ALFA Energy Group), one was conducted with an energy consulting company (NAVITA), three were conducted with state-level institutions in the energy sector (MOFTER, SERC, and TRANSCO), eight were conducted with entity-level institutions in the FBiH, the RS, and Brcko District (including regulatory commissions for both entities, environment funds in both entities, ministries in both entities, and the Brcko District Government), one cantonal institution, three power/utility companies (EP BH, EP HZHB, EP RS), three gas companies (BH Gas, Sarajevogas, Gas Promet), and the remainder with international donors and USAID relevant activities. KIIs were conducted with a minimum of two team members present during the data collection. The KII protocols can be found in Annex V and the list of KIs can be found in Annex IV.

The ET observed the EPA-organized event, the 2023 Energy Summit. The Energy Summit was a three-day event held in Neum that covered various relevant topics such as the energy transition in BiH, energy reforms, the future of sustainable energy, the establishment of energy-independent municipalities in BiH, carbon pricing, the transition from coal, cybersecurity, the potential of residential energy efficiency, and e-mobility. The Energy Summit provided the team with direct insight into the scope and results of EPA's TA.

The ET used survey data from the National Survey of Citizens' Perceptions (NSCP) conducted in 2022 by MEASURE II to provide insight into the perceived knowledge of citizens regarding the energy sector in BiH and the related external factors. Survey data, KII data, and secondary data were triangulated to ensure a holistic overview of the relevant issues and to provide a comprehensive answer to the EQs. The ET addressed all EQs using a mixed methods approach.

The main limitations of the evaluation include the possibility of recall bias, possible data contamination, a lack of complete information, and interview bias.

Recall bias: Some EPA beneficiaries/stakeholders had difficulty recalling interventions from two or three years ago. The ET reviewed Activity documents identified key informants (KIs) and summarized relevant interventions to aid KIs in remembering their experiences.

Data contamination: Given the support provided by various donor interventions and international organizations to the energy sector in similar areas, it could pose a difficulty for respondents to distinguish the specific contribution of the EPA.

Lack of complete information: In certain instances, during the interview session, some of the respondents were unwilling to provide an answer or had no detailed knowledge about the Activity due to their tasks and roles and therefore unable to provide an accurate answer.

Interview bias: Although the interviewers were asking questions in a non-leading way, their behavior and reactions may have led KIs to respond in a certain way. The ET made sure that respondents understood their true opinions are highly appreciated and that their responses are confidential.

To counter these limitations, the ET interviewed a wide range of stakeholders, including EPA beneficiaries and other energy sector actors in BiH. The ET cross-referenced their responses with historical data and records from the implementing partner.

ANNEX III: LIST OF ACTIVITY AND SECONDARY DOCUMENTATION REVIEWED

No.	Title
1	2022 National Survey of Citizens' Perceptions in Bosnia and Herzegovina, Preliminary Findings, USAID MEASURE II, May 2023
2	Conclusions from 11th Session of Council of Ministers of BiH, May 2023
3	Decree on the Organization and Regulation of the Gas Industry Sector of FBiH, Official Gazette of FBiH, no. 83/2007, 71/202, 91/2022
4	Draft Law on Energy and Regulation of Energy Activities in the Federation of Bosnia and Herzegovina, June 2022
5	Draft Law on the Use of Renewable Energy Sources and Efficient Cogeneration, 2022
6	EnC Case ECS-08/11S: Bosnia and Herzegovina/gas, 2014
7	EnC Secretariat, Opinion 2/20
8	Law on Electricity, Official Gazette of the Brčko District of BiH, no. 27/21, November 2021
9	Law on Gas of Republika Srpska, Official Gazette of RS, no. 22/18, 2018; including Amendments to the law published in Official Gazette of RS, no. 15/21, 2021
10	Law on Renewable Energy Sources of RS (Official Gazette of RS, No. 16/22, February 2022
11	Proposed Law on Gas of Federation of Bosnia and Herzegovina, 2014
12	Proposed Law on Natural Gas Pipeline "Southern Interconnection Bosnia and Herzegovina and Republic of Croatia" of FBiH, November 2021
13	RERS Decision on certification of the natural gas transport system operator, November 2020
14	Law on renewable energy sources and efficient cogeneration of Brčko District, Official Gazette of Brčko District, no. 22/22, July 2022
15	Law on Energy Efficiency of Brčko District, Official Gazette of Brčko District, no. 25/22, August 2022
16	Law on Environmental Protection of Brčko District
17	Energy Community Secretariat, 2020 Annual Implementation Report, November 2020
18	Energy Community Secretariat, 2021 Annual Implementation Report, November 2021
19	Energy Community Secretariat, 2022 Annual Implementation Report, November 2022
20	The Energy Community Legal Framework, edition 4.3, June 2022
21	Law on the System of Indirect Taxation of BiH, Official Gazette of BiH, no. 44/04, December 2003; including amendments to the law published in Official Gazette of BiH: no. 52/04, no. 34/07, no. 4/08, no. 49/09, no. 32/13, and no. 91/17
22	The European Natural Gas Network, Entsog, 2021
23	The Report on Activities of the State Electricity Regulatory Commission in 2022. December 2022
24	Regulatory Commission for Energy in FBiH, Activity Report 2021, May 2022
25	Law on Transmission of Electric Power, Regulator and System Operator of BiH, Official Gazette of BiH, no. 7/02, April 2002; including amendments to the law published in Official Gazette of BiH: no. 13/03, no. 76/09, and no. 1/11
26	Law Establishing an Independent System Operator for the Transmission System of Bosnia and Herzegovina, Official Gazette of BiH, no. 35/04, July 2004
27	International Renewable Energy Agency, World Energy Transitions Outlook 2023, (Volume 1)
28	FBiH Parliament, Amendment to the Law on Electricity in the FBiH, January 2022
29	FBiH Government, Decree on Restriction of Electricity Price Increases, January 2022
30	World Economic Forum, Energy Transition 101: Getting back to basics for transitioning to a low-carbon economy, July 2020
31	International Renewable Energy Agency, Global Energy Transformation, A Roadmap to 2050, 2019
32	Photovoltaic Geographical Information System: https://re.jrc.ec.europa.eu/pvg_tools/en/tools.html#PVP
33	USAID 2022 Digital Ecosystem Country Assessment, January 2023

No.	Title
34	DNV Energy Cyber Priority 2023: Closing the Gap Between Awareness and Action
35	Congressional Research Service, "Ammonia's Potential Role in a Low-Carbon Economy," December 2022
36	GIZ, Czech Republic Development Cooperation, UNDP, MOFTER, RS Ministry of Agriculture, Forestry and Water Management, FBiH Ministry of Agriculture, Water Management and Forestry, Government of Brcko District, Report on Biomass Potential Monitoring in BiH, 2019
37	USAID EPA 2020 Q1 Quarterly Report
38	USAID EPA 2020 Q2 Quarterly Report
39	USAID EPA 2020 Q3 Quarterly Report
40	USAID EPA 2020 Annual Report
41	USAID EPA 2020 Work Plan
42	USAID EPA 2021 Q1 Quarterly Report
43	USAID EPA 2021 Q2 Quarterly Report
44	USAID EPA 2021 Q3 Quarterly Report
45	USAID EPA 2021 Annual Report
46	USAID EPA 2021 Work Plan
47	USAID EPA 2022 Q1 Quarterly Report
48	USAID EPA 2022 Q2 Quarterly Report
49	USAID EPA 2022 Q3 Quarterly Report
50	USAID EPA 2022 Annual Report
51	USAID EPA 2022 Work Plan
52	USAID EPA 2023 Work Plan
53	USAID EPA 2023 Q1 Quarterly Report
54	USAID EPA Customized Permitting Guide, https://vodic.usaidepa.ba/introduction
55	USAID EPA Monitoring, Evaluation and Learning Plan

ANNEX IV: LIST OF KEY INFORMANTS

STAKEHOLDER GROUP	NAME of INSTITUTION/ORGANIZATION/ COMPANY	NUMBER OF INDIVIDUALS INTERVIEWED
EPA IMPLEMENTING PARTNER	DT GLOBAL	4
POWER TRADER	ASA ENERGY	1
POWER TRADER	GEN-I CONSULTING	1
POWER TRADER	ALFA ENERGY GROUP	1
ENERGY CONSULTING COMPANY	NAVITA	1
STATE-LEVEL INSTITUTION	MINISTRY OF FOREIGN TRADE AND ECONOMIC RELATIONS (MOFTER)	1
STATE-LEVEL INSTITUTION	STATE ELECTRICITY REGULATORY COMMISSION	2
STATE-LEVEL INSTITUTION	ELEKTROPRENOS-ELEKTROPRIJENOS BIH (TRANSCO)	1
ENTITY-LEVEL INSTITUTION	FBIH MINISTRY OF ENERGY, MINING, AND INDUSTRY	1
ENTITY-LEVEL INSTITUTION	REGULATORY COMMISSION FOR ENERGY IN FBIH (FERC)	1
ENTITY-LEVEL INSTITUTION	FBIH ENVIRONMENT FUND	1
ENTITY-LEVEL INSTITUTION	FBIH MINISTRY FOR ENVIRONMENT AND TOURISM	2
ENTITY-LEVEL INSTITUTION	RS MINISTRY OF ENERGY AND MINING	2
ENTITY-LEVEL INSTITUTION	REGULATORY COMMISSION FOR ENERGY OF REPUBLIKA SRPSKA (RSERC)	1
ENTITY-LEVEL INSTITUTION	RS ENVIRONMENT AND ENERGY EFFICIENCY FUND	1
ENTITY-LEVEL INSTITUTION	BRCKO DISTRICT GOVERNMENT	1
CANTONAL INSTITUTION	MINISTRY OF SPATIAL PLANNING AND ENVIRONMENTAL PROTECTION OF THE TUZLA CANTON	1
POWER/UTILITY COMPANY	ELEKTROPRIVREDA BIH	4
POWER/UTILITY COMPANY	ELEKTROPRIVREDA HZHB	1
POWER/UTILITY COMPANY	ELEKTROPRIVREDA RS	2
GAS COMPANY	BH GAS	4
GAS COMPANY	GAS PROMET A.D. PALE	1
GAS COMPANY	SARAJEVOGAS D.O.O	1
INTERNATIONAL DONORS	USAID	1
INTERNATIONAL DONORS	UK EMBASSY	1
INTERNATIONAL DONORS	CZECH EMBASSY	1
INTERNATIONAL DONORS	EUROPEAN UNION (EU)	1
INTERNATIONAL DONORS	ENERGY COMMUNITY SECRETARIAT (EnC) IN VIENNA	1
INTERNATIONAL DONORS	OFFICE OF THE HIGH REPRESENTATIVE (OHR)	1

STAKEHOLDER GROUP	NAME of INSTITUTION/ORGANIZATION/ COMPANY	NUMBER OF INDIVIDUALS INTERVIEWED
INTERNATIONAL DONORS	UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)	1
INTERNATIONAL DONORS	GERMAN DEVELOPMENT AGENCY (GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ))	1
USAID RELEVANT ACTIVITIES	USAID REGIONAL CONNECT FOR GROWTH PROJECT (C4G)	1
USAID RELEVANT ACTIVITIES	INTERNATIONAL REPUBLICAN INSTITUTE (IRI)	1
		TOTAL KIIs: 33

ANNEX V: INTERVIEW GUIDES

USAID

DO NOT READ: EQ1: To what extent has EPA technical assistance (TA) contributed to the organization of the gas sector(s) in BiH in accordance with the transparent market principles and the EnC Treaty?

1. *(Q1.1)* Which EPA interventions in the gas sector would you assess as well accepted by EPA beneficiaries (*i.e.*, ministries, regulatory bodies, agencies, gas utility companies)?
2. *(Q1.2)* Which among those were the best accepted, and what were the reasons for the success of those interventions?
3. *(Q1.3)* In your view, which EPA interventions were not as successful nor as willingly accepted and why?
4. *(Q1.4)* How would you assess EPA's overall assistance in the natural gas sector so far?
5. *(Q1.5 + relevant for EQ4)* What key changes, if any, marked the development of the natural gas sector in BiH from 2019 to the present?
6. *(Q1.6)* Can you associate any of such key changes with EPA's work, and how?
7. *(Q1.7 + relevant for EQ4)* How would you comment on the current state of the legal and institutional framework in the natural gas sector on the state, entity, and BD levels in terms of achieving full harmonization with the EU directives?
8. *(Q1.8 + relevant for EQ4)* Are there challenges in the harmonization of legislation/regulation among different levels of governance, and if yes, what are they and why?
9. *(Q1.9 + relevant for EQ4)* To what extent and in what segments are the internal natural gas market at the state, entity, and BD level developed?

   (Probing questions if the KI fails to mention them):
   - Unbundling
   - Free access to gas pipelines
   - Licensing
   - Tariffs
   - General terms of supply
   - Customers switching suppliers.
10. *(Q1.10 + relevant for EQ4)* Is there progress in linking the natural gas market with the regional markets and/or alternative sources, and what are those? OR, if there is no or only limited progress, why?

    PROBE: In your opinion, how important is the implementation of the South Natural Gas Interconnection and why?

DO NOT READ: EQ2: To what extent and how has EPA TA contributed to the development of an investment-friendly and fully functional internal electricity market in BiH and to the country's progress in joining the regional electricity market?

11. *(Q2.1)* Which EPA interventions in the electricity sector would you assess as well accepted by EPA beneficiaries (*i.e.*, ministries, regulatory bodies, agencies, public utilities)?

12. *(Q2.2)* Which among those were the best accepted, and what were the reasons for the success of those interventions?

13. *(Q2.3)* In your view, which EPA interventions were not as successful nor as willingly accepted and why?

14. *(Q2.4)* How would you assess EPA's overall assistance in the electricity sector so far?

15. *(Q2.5 + relevant for EQ4)* What key changes, if any, marked the development of the electricity sector in BiH from 2019 to the present?

16. *(Q2.6)* Can you associate any of such key changes with EPA's work, and how?

17. *(Q2.7 + relevant for EQ4)* How would you comment on the current state of the legal and institutional framework in the electricity sector on the state, entity, and BD levels in terms of achieving full harmonization with the EU directives?

18. *(Q2.8 + relevant for EQ4)* Are there challenges in the harmonization of legislation/regulation between different levels of governance and if yes, what are they and why?

19. *(Q2.9 + relevant for EQ4)* What is the level of development of the internal electricity market at the state, entity, and BD level developed, by relevant segments?

    (Probing questions if the KI fails to mention them):

    - Unbundling (restructuring) into production, distribution, supply, and trading)
    - Creation of the "smart grid"
    - Market-based supply to households and small enterprises
    - Customers switching suppliers
    - Aligning Network Rules with the EU Directive

    PROBE: intra-day, day ahead, quality of service?

20. *(Q2.10 + relevant for EQ4)* Is there any progress in the legal/regulatory framework for electricity generation from renewable sources, and, if yes, which ones? Also, which are the challenges that producers from renewable sources face?

21. *(Q2.11 + relevant for EQ4)* Is there any progress in the legal/regulatory framework for improving energy efficiency, and, if yes, which ones? Also, which are the ongoing challenges when it comes to improving energy efficiency?

22. *(Q2.12)* What is the current situation when it comes to linking the electric power system of BiH with regional markets? Are there any problems, and what are they?

DO NOT READ: EQ3: How did EPA beneficiaries rate the EPA TA under its cross-cutting components?

23. *(Q3.1)* (NECP): Has there been any progress in developing. adopting or implementing the National Energy and Climate Plans, what is the current status and your forecasts of the next steps/events?

24. *(Q3.2)* (EEO): Has there been any progress in developing, adopting or implementing of the legal framework for the Energy Efficiency Obligation Scheme, what is the current status, and your forecasts of the next steps/events?

25. *(Q3.3)* (NIS) Has there been any progress in the implementation of the NIS Cybersecurity Directive in the BiH energy sector, what is the current status and your forecasts of next steps/events?

26. *(Q3.4)* (Cyber-security): How would you describe the effects of workshops and trainings organized as part of the EPA Activity on cybersecurity in the energy sector?

27. *(Q3.5)* (Gender) Have you heard about the establishment of the Women in Energy Association and if yes, what its role in the energy sector should be?

28. *(Q3.6)* (Public outreach) In your view, to what extent are the public and investors informed about the opening of electricity markets? Which are the main channels/tools of raising public awareness about this topic?

29. *(Q3.7 + relevant for EQ4)* Are there challenges or obstacles encountered in the development/implementation of any of previous topics we just discussed (NECP, EEO, NIS, Cyber, Gender, Public Outreach), and if yes, which are these challenges?

30. *(Q3.9)* How do you assess EPA's assistance?

DO NOT READ: CQ: CLOSING QUESTIONS

31. *(CQ1 + relevant for EQ4)* Are you aware of any other donors active in this sector, and if yes, which ones, what do they do and what is the state of donor coordination and synchronization?

32. *(CQ2)* Has EPA been in contact with any other USAID Activity and, if yes, which ones and for which questions did you have contact with?

33. *(CQ3)* In your opinion, what are the general needs of the sector EPA operates in?

    PROBE: How do you see the continuation of the reform in the energy sector after the new set of laws is adopted?

    PROBE: Once the National Energy and Climate Plan (NECP) is adopted, what are the next steps in its implementation?

34. *(CQ5)* Is there anything else you wish to add about these topics about which we have not talked?

EPA

DO NOT READ: EQ1: To what extent has EPA technical assistance (TA) contributed to the organization of the gas sector(s) in BiH in accordance with the transparent market principles and the EnC Treaty?

1. *(Q1.1)* Which EPA interventions in the gas sector would you assess as well accepted by EPA beneficiaries (*i.e.*, ministries, regulatory bodies, agencies, gas utility companies)?

2. *(Q1.2)* Which among those were the best accepted, and what were the reasons for the success of those interventions?

3. *(Q1.3)* In your view, which EPA interventions were not as successful nor as willingly accepted and why?

4. *(Q1.4)* How would you assess EPA's overall assistance in the natural gas sector so far?

5. *(Q1.5 + relevant for EQ4)* What key changes, if any, marked the development of the natural gas sector in BiH from 2019 to the present?

6. *(Q1.6)* Can you associate any of such key changes with EPA's work, and how?

7. *(Q1.7 + relevant for EQ4)* How would you comment on the current state of the legal and institutional framework in the natural gas sector on the state, entity, and BD levels in terms of achieving full harmonization with the EU directives?

8. *(Q1.8 + relevant for EQ4)* Are there challenges in the harmonization of legislation/regulation among different levels of governance, and if yes, what are they and why?

9. *(Q1.9 + relevant for EQ4)* To what extent and in what segments are the internal natural gas market at the state, entity, and BD level developed?

   (Probing questions if the KI fails to mention them):

   - Unbundling
   - Free access to gas pipelines
   - Licensing
   - Tariffs
   - General terms of supply
   - Customers switching suppliers.

10. *(Q1.10 + relevant for EQ4)* Is there progress in linking the natural gas market with the regional markets and/or alternative sources, and what are those? OR, if there is no or only limited progress, why?

    PROBE: In your opinion, how important is the implementation of the South Natural Gas Interconnection and why?

DO NOT READ: EQ2: To what extent and how has EPA TA contributed to the development of an investment-friendly and fully functional internal electricity market in BiH and to the country's progress in joining the regional electricity market?

11. *(Q2.1)* Which EPA interventions in the electricity sector would you assess as well accepted by EPA beneficiaries (*i.e.*, ministries, regulatory bodies, agencies, public utilities)?

12. *(Q2.2)* Which among those were the best accepted, and what were the reasons for the success of those interventions?

13. *(Q2.3)* In your view, which EPA interventions were not as successful nor as willingly accepted and why?

14. *(Q2.4)* How would you assess EPA's overall assistance in the electricity sector so far?

15. *(Q2.5 + relevant for EQ4)* What key changes, if any, marked the development of the electricity sector in BiH from 2019 to the present?

16. *(Q2.6)* Can you associate any of such key changes with EPA's work, and how?

17. *(Q2.7 + relevant for EQ4)* How would you comment on the current state of the legal and institutional framework in the electricity sector on the state, entity, and BD levels in terms of achieving full harmonization with the EU directives?

18. *(Q2.8 + relevant for EQ4)* Are there challenges in the harmonization of legislation/regulation between different levels of governance and if yes, what are they and why?

19. *(Q2.9 + relevant for EQ4)* What is the level of development of the internal electricity market at the state, entity, and BD level developed, by relevant segments?

    (Probing questions if the KI fails to mention them):

    - Unbundling (restructuring) into production, distribution, supply, and trading)
    - Creation of the "smart grid"
    - Market-based supply to households and small enterprises
    - Customers switching suppliers
    - Aligning Network Rules with the EU Directive

    PROBE: intra-day, day ahead, quality of service?

20. *(Q2.10 + relevant for EQ4)* Is there any progress in the legal/regulatory framework for electricity generation from renewable sources, and, if yes, which ones? Also, which are the challenges that producers from renewable sources face?

21. *(Q2.11 + relevant for EQ4)* Is there any progress in the legal/regulatory framework for improving energy efficiency, and, if yes, which ones? Also, which are the ongoing challenges when it comes to improving energy efficiency?

22. *(Q2.12)* What is the current situation when it comes to linking the electric power system of BiH with regional markets? Are there any problems, and what are they?

    DO NOT READ: EQ3: How did EPA beneficiaries rate the EPA TA under its cross-cutting components?

23. *(Q3.1)* (NECP): Has there been any progress in developing. adopting or implementing the National Energy and Climate Plans, what is the current status and your forecasts of the next steps/events?

24. *(Q3.2)* (EEO): Has there been any progress in developing, adopting or implementing of the legal framework for the Energy Efficiency Obligation Scheme, what is the current status, and your forecasts of the next steps/events?

25. *(Q3.3)* (NIS) Has there been any progress in the implementation of the NIS Cybersecurity Directive in the BiH energy sector, what is the current status and your forecasts of next steps/events?

26. *(Q3.4)* (Cyber-security): How would you describe the effects of workshops and trainings organized as part of the EPA Activity on cybersecurity in the energy sector?

27. *(Q3.5)* (Gender) Have you heard about the establishment of the Women in Energy Association and if yes, what its role in the energy sector should be?

28. *(Q3.6)* (Public outreach) In your view, to what extent the public and investors informed about the opening of electricity markets? Which are the main channels/tools of raising public awareness about this topic?

29. *(Q3.7 + relevant for EQ4)* Are there challenges or obstacles encountered in the development/implementation of any of previous topics we just discussed (NECP, EEO, NIS, Cyber, Gender, Public Outreach), and if yes, which are these challenges?

30. *(Q3.9)* How do you assess EPA's assistance?

DO NOT READ: CQ: CLOSING QUESTIONS

31. *(CQ1 + relevant for EQ4)* Are you aware of any other donors active in this sector, and if yes, which ones, what do they do and what is the state of donor coordination and synchronization?

32. *(CQ2)* Have you been in contact with any other USAID Activity and, if yes, which ones and for which questions did you have contact?

33. *(CQ3)* In your opinion, what are the general needs of the sector EPA operates in?

    PROBE: How do you see the continuation of the reform in the energy sector after the new set of laws is adopted?

    PROBE: Once the National Energy and Climate Plan (NECP) is adopted, what are the next steps in its implementation?

34. *(CQ5)* Is there anything else you wish to add about these topics about which we have not talked?

GENERAL PROTOCOL

DO NOT READ: SQ: STARTING QUESTIONS

1. *(SQ1)* How long have you been involved/cooperating with EPA?

2. *(SQ2)* Please tell us something about the types of interactions/cooperation with EPA without going into details, as we will cover the details in the following questions.

   PROBE: did you hear or participate in any of the following EPA activities:

   - any form of training (*i.e.*, gas, electricity, RES, NECP, EEO, NIS, cybersecurity, PR, gender equality)
   - any workgroup (*i.e.*, gas, electricity, RES, NECP, EEO, NIS, cybersecurity PR, gender equality)
   - any other legislative/regulatory/strategic work related to compliance with the EU directives or EnC requirements
   - Energy Summit, Green Deal, or other important public events
   - development of online tools: Digital Guide for Investors, Price Comparison Tool, web pages
   - anything else you might recall?

DO NOT READ: EQ1: To what extent has EPA technical assistance (TA) contributed to the organization of the gas sector(s) in BiH in accordance with the transparent market principles and the EnC Treaty?

DO NOT READ: NOTE: INTERVIEWER will consider answers provided by the KI on Question SQ2, and if needed ask: Are you familiar with developments in the gas sector and EPA's interventions in that sector? If the answer is "No", the interviewer will skip to the next EQ section. If "Yes", proceed to ask all questions. If the answer is "Partly", the interviewer will proceed with the questions, but skip the questions not relevant for the particular KI.

3. *(Q1.1)* Which EPA interventions in the gas sector would you assess as well accepted by EPA beneficiaries (*i.e.*, ministries, regulatory bodies, agencies, gas utility companies)?

4. *(Q1.2)* Which among those were the best accepted, and what were the reasons for the success of those interventions?

5. *(Q1.3)* In your view, which EPA interventions were not as successful nor as willingly accepted and why?

6. *(Q1.4)* How would you assess EPA's overall assistance in the natural gas sector so far?

***Let us talk about the whole sector and beyond EPA itself.**

7. *(Q1.5 + relevant for EQ4)* What key changes, if any, marked the development of the natural gas sector in BiH from 2019 to the present?

8. *(Q1.6)* Can you associate any of such key changes with EPA's work, and how?

***Let us move to the present.**

9. *(Q1.7 + relevant for EQ4)* How would you comment on the current state of the legal and institutional framework in the natural gas sector on the state, entity, and BD levels in terms of achieving full harmonization with the EU directives?

10. *(Q1.8 + relevant for EQ4)* Are there challenges in the harmonization of legislation/regulation among different levels of governance, and if yes, what are they and why?

11. *(Q1.9 + relevant for EQ4)* To what extent and in what segments are the internal natural gas market at the state, entity, and BD level developed?

    (Probing questions if the KI fails to mention them):

    - Unbundling
    - Free access to gas pipelines
    - Licensing
    - Tariffs
    - General terms of supply
    - Customers switching suppliers.

12. *(Q1.10 + relevant for EQ4)* Is there progress in linking the natural gas market with the regional markets and/or alternative sources, and what are those? OR, if there is no or only limited progress, why?

    PROBE: In your opinion, how important is the implementation of the South Natural Gas Interconnection and why?

<u>DO NOT READ</u>: EQ2: To what extent and how has EPA TA contributed to the development of an investment-friendly and fully functional internal electricity market in BiH and to the country's progress in joining the regional electricity market?

<u>DO NOT READ</u>: NOTE: INTERVIEWER will consider answers provided by the KI on Question SQ2, and if needed ask: Are you familiar with developments in the gas sector and EPA's interventions in that sector? If the answer is "No", the interviewer will skip to the next EQ section. If "Yes", proceed to ask all questions. If the answer is "Partly", the interviewer will proceed with the questions, but skip the questions not relevant for the particular KI.

13. *(Q2.1)* Which EPA interventions in the electricity sector would you assess as well accepted by EPA beneficiaries (*i.e.*, ministries, regulatory bodies, agencies, public utilities)?

14. *(Q2.2)* Which among those were the best accepted, and what were the reasons for the success of those interventions?

15. *(Q2.3)* In your view, which EPA interventions were not as successful nor as willingly accepted and why?

16. *(Q2.4)* How would you assess EPA's overall assistance in the electricity sector so far?

***Let us talk about the whole sector and beyond EPA itself.**

17. *(Q2.5 + relevant for EQ4)* What key changes, if any, marked the development of the electricity sector in BiH from 2019 to the present?

18. *(Q2.6)* Can you associate any of such key changes with EPA's work, and how?

***Let us move to the present.**

19. *(Q2.7 + relevant for EQ4)* How would you comment on the current state of the legal and institutional framework in the electricity sector on the state, entity, and BD levels in terms of achieving full harmonization with the EU directives?

20. *(Q2.8 + relevant for EQ4)* Are there challenges in the harmonization of legislation/regulation between different levels of governance and if yes, what are they and why?

21. *(Q2.9 + relevant for EQ4)* What is the level of development of the internal electricity market at the state, entity, and BD level developed, by relevant segments?

    (Probing questions if the KI fails to mention them):

    - Unbundling (restructuring) into production, distribution, supply, and trading)
    - Creation of the "smart grid"
    - Market-based supply to households and small enterprises
    - Customers switching suppliers
    - Aligning Network Rules with the EU Directive

    PROBE: intra-day, day ahead, quality of service?

22. *(Q2.10 + relevant for EQ4)* Is there any progress in the legal/regulatory framework for electricity generation from renewable sources, and, if yes, which ones? Also, which are the challenges that producers from renewable sources face?

23. *(Q2.11 + relevant for EQ4)* Is there any progress in the legal/regulatory framework for improving energy efficiency, and, if yes, which ones? Also, which are the ongoing challenges when it comes to improving energy efficiency?

24. *(Q2.12)* What is the current situation when it comes to linking the electric power system of BiH with regional markets? Are there any problems, and what are they?

<u>DO NOT READ</u>: EQ3: How did EPA beneficiaries rate the EPA TA under its cross-cutting components?

DO NOT READ: NOTE: KIs to respond only after confirming that they are familiar with the topic of the questions (given at the beginning of each question in capital letters):

25. *(Q3.1)* (NECP): Has there been any progress in developing. adopting or implementing the National Energy and Climate Plans, what is the current status and your forecasts of the next steps/events?

26. *(Q3.2)* (EEO): Has there been any progress in developing, adopting or implementing the legal framework for the Energy Efficiency Obligation Scheme, what is the current status, and your forecasts of the next steps/events?

27. *(Q3.3)* (NIS) Has there been any progress in the implementation of the NIS Cybersecurity Directive in the BiH energy sector, what is the current status and your forecasts of next steps/events?

28. *(Q3.4)* (Cyber-security): How would you describe the effects of workshops and trainings organized as part of the EPA Activity on cybersecurity in the energy sector?

29. *(Q3.5)* (Gender) Have you heard about the establishment of the Women in Energy Association and if yes, what its role in the energy sector should be?

30. *(Q3.6)* (Public outreach) In your view, to what extent are the public and investors informed about the opening of electricity markets? Which are the main channels/tools of raising public awareness about this topic?

DO NOT READ: NOTE: (IF RESPONDED TO ANY OF THE PREVIOUS 6 QUESTIONS)

31. *(Q3.7 + relevant for EQ4)* Are there challenges or obstacles encountered in the development/implementation of any of previous topics we just discussed (NECP, EEO, NIS, Cyber, Gender, Public Outreach), and if yes, which are these challenges?

32. *(Q3.8)* Do you know if EPA provide any assistance in relation to topics we just discussed (same as above.) and if yes, in what way?

33. *(Q3.9)* How do you assess EPA's assistance?

DO NOT READ: CQ: CLOSING QUESTIONS

34. *(CQ1 + relevant for EQ4)* Are you aware of any other donors active in this sector, and if yes, which ones, what do they do and what is the state of donor coordination and synchronization?

35. *(CQ2)* Have you been in contact with any other USAID Activity and, if yes, which ones and for which questions did you have contact?

36. *(CQ3)* In your opinion, what are the general needs of the sector you operate in and the needs of your organization today?

    PROBE: How do you see the continuation of the reform in the energy sector after the new set of laws is adopted?

    PROBE: Once the National Energy and Climate Plan (NECP) is adopted, what are the next steps in its implementation?

Let us look forward.

37. *(CQ4)* If you were in a position to provide recommendations to USAID about the aspects of work in the energy sector where technical assistance would be most welcome in the coming period, in your opinion, which aspects would that be and why?

PROBE: what about cybersecurity; how important is it, is it adequately regulated and is there a need to work on those issues in the upcoming period?

PROBE: Is there a need to strengthen the public outreach in the energy sector, and if yes, what are the next steps needed in strengthening public outreach in the energy sector?

38. *(CQ5)* Is there anything else you wish to add about these topics about which we have not talked?

ANNEX VI: LIST OF EPA-REPORTED ACCOMPLISHMENTS FOR THE EPA LEGISLATIVE AND REGULATORY INDICATORS

INDICATOR	YEAR 1	YEAR 2	YEAR 3
	List of items under actuals	List of items under actuals	List of items under actuals
Number of laws, policies, regulations, or standards to enhance energy sector governance formally proposed, adopted, or implemented as supported by USG assistance	PROPOSED (1): - Draft Brcko District Law on Electricity ADOPTED (1): - New Republika Srpska Law on Electricity **Total: 2**	PROPOSED (3): - Amendments to the Grid Code (formally proposed by the ISO BiH to SERC) – ISO BiH sent the amended/new Grid Code to the State Regulatory Commission for approval. - Categorization of Generators (formally proposed by the ISO BiH to SERC) - Amendments to the Market Rules (formally proposed by the ISO BiH to SERC) **Total: 3**	IMPLEMENTED (3): - Amendments to the Grid Code (Implemented) - Categorization of Generators (Implemented) - Amendments to the Market Rules (Implemented) **Total: 3**
Number of laws, policies, regulations, or standards addressing clean energy formally proposed, adopted, or implemented as supported by USG	PROPOSED (1): - Draft Law on the South Natural Gas Interconnection ADOPTED (1): - USAID EPA comments on FERC Licensing Rulebook **Total: 2**	PROPOSED (1): - Simplified Connection Procedure of Micro-generating Units for Self-consumption Purposes (Formally proposed by RS Power Utility to the RSERC through Amendments of the Rule on Distributed Generators Connection) ADOPTED (2): - Draft Law on South Interconnection (adopted by both houses of FBiH Parliament) - Draft Law on Renewable Energy Sources in RS (formally adopted by the RS National Assembly in September 2021) **Total: 3**	ADOPTED (7): - FBiH Law on Electricity (ADOPTED by FBiH Parliament) - FBiH Law on Energy (ADOPTED by FBiH Parliament) - Law on South-interconnection (ADOPTED by FBiH Parliament) - Brcko District Electricity Law (ADOPTED by BD Assembly) - Renewable Energy Sources Law of BD (ADOPTED by BD Assembly) - Una – Sana Canton Law on Construction (ADOPTED by Cantonal Assembly) - Procedural Rules to Enable Wholesale Market Access for Power Producers Connected to the Distribution Network (ADOPTED BY ISO BiH) **Total: 7**

INDICATOR	YEAR 1	YEAR 2	YEAR 3
	List of items under actuals	List of items under actuals	List of items under actuals
Number of EU Directive and EnC Treaty gas sector requirements with annual progress toward compliance achieved with EPA assistance	1. Development of the Draft Law on the South Interconnection between BiH and Croatia 2. Development of the Model Rulebook on Issuing Permits in the Natural Gas Sector 3. Development of the Draft Rule on Methodology for Natural Gas Transmission, Distribution and Supply Tariffs 4. Development of unbundling options in the natural gas sector	1. Development of the Draft Law on the South Interconnection between BiH and Croatia, 2. Development of the Model Rulebook on Issuing Permits in the Natural Gas Sector, 3. Development of the Draft FBiH Law on Natural Gas, 4. Development of unbundling options in the natural gas sector.	1. Development of the Draft Law on the South Interconnection between BiH and Croatia. *The deviation from the target can be explained by the non-adoption of the State-level Natural Gas Law, which has been pending for over 10 years now and has become a political problem between the entities.*
Number of rules and regulations that lead to a more open and competitive natural gas market developed and submitted to relevant institutions	1. EPA identified the key open issues in the gas portion of the State Electricity and Natural Gas Law and developed edits to the text of the Law in order to address all the identified issues and submitted them to all relevant stakeholders. 2. Outline of the Licensing Rulebook - EPA developed an outline of the Licensing Rulebook in the Natural Gas Sector and organized a workshop to present it to all three regulatory agencies in BiH. The outline of the rulebook was developed in line with the best international practice and the current practice of regulatory agencies. The regulators approved and agreed with the proposed outline that will serve as the basis for developing the full Licensing Rulebook in the Natural Gas Sector.	1. Upon request from Sarajevo-gas Istočno Sarajevo, a natural gas company from RS, EPA provided assistance for their unbundling process by developing a guideline that explains the application of transmission system operator unbundling rules to the company's specific situation. 2. EPA completed the final text of the FBiH Energy Law, which includes general provisions concerning regulation of the gas sector and submitted it to the FMERI and the working group. 3. EPA developed the draft Report - Gap Analysis and Recommendations for Amending Legal Framework and Strengthening the Independence of Energy Regulatory Commissions in BiH. This report contains an analysis of and recommendations for legislative and regulatory changes that will enhance the independence of BiH regulatory commissions.	1. Rulebook on Licensing - EPA finalized the development of the Model Rulebook on Licensing in the Natural Gas Sector 2. Report on Options for Sector Unbundling - EPA also finalized the Draft Report on Options for Sector Unbundling and the Roles of Companies and Necessary Legislative Amendments. 3. Analysis and Responses to Proposed Amendments for the South Natural Gas Interconnection Law: In the adoption process, the Croatian caucus of the FBiH Parliament's House of Peoples submitted a set of comments and amendments to the draft Law. Upon the request from FMERI, EPA drafted an analysis of these comments and provided accompanying legal opinions, which can be used once the legislative procedure continues.

INDICATOR	YEAR 1	YEAR 2	YEAR 3
	List of items under actuals	List of items under actuals	List of items under actuals
Number of rules and regulations that lead to a more open and competitive natural gas market developed and submitted to relevant institutions *(continued)*	3. Roadmap for Accounting Unbundling of Distribution and Supply Activities of Sarajevogas - EPA developed a roadmap for the accounting unbundling of the companies' distribution and supply activities. The roadmap contains a description of all the activities that Sarajevogas must complete in order to unbundle in line with the requirements of EU Directives.	4. Draft Outline of Rules on Methodologies for Gas Transmission Tariffs was prepared in this period and sent out to stakeholders for review and comments. 5. Final Report on Capacity Allocation Mechanisms and Congestion was prepared in this reporting period, that included stakeholders' comments. 6. A package of presentations and documents that explains to the local gas stakeholders how gas balancing works in practice, including recommendations for BiH. 7. Draft General Conditions of Natural Gas supply - The General Conditions of Gas Supply regulate the rights, obligations and contractual relations between the supplier and the final customer.	4. Draft FBiH Gas Law - EPA continued providing assistance to the Federation Ministry for Energy, Mining and Industry (FMERI) on development of the FBiH Natural Gas Law.
Number of EU Directive and EnC Treaty electricity sector requirements with annual progress toward compliance achieved with EPA assistance	PROGRESS BEYOND 0.4: 1. Development of the Compliance Program and appointment of Compliance Officers for the DSOs in BiH 2. Development of a Road Map for the implementation of the NIS Directive in the BiH energy sector (cybersecurity) 3. Improved public outreach and communication between energy sector stakeholders with customers 4. Harmonization of the BiH network codes with the EU network rules 5. Harmonization of the BiH distribution grid codes with the requirements of the Standard for Connection of distributed generators to medium voltage network	PROGRESS BEYOND 0.4: 1. Development of the Compliance Program and appointment of Compliance Officers for the DSOs in BiH, 2. Development of a Road Map for the implementation of the NIS Directive in the BiH energy sector (cybersecurity), 3. Improved public outreach and communication between energy sector stakeholders with customers, 4. Harmonization of the BiH network codes with the EU network rules, 5. Harmonization of the BiH distribution grid codes with the requirements of the Standard for Connection of distributed generators to medium voltage network,	PROGRESS BEYOND 0.4 1. Development of a Road Map for the implementation of the NIS Directive in the BiH energy sector (cybersecurity), 2. Harmonization of the BiH network codes with the EU network rules, 3. Harmonization of the BiH distribution grid codes with the requirements of the Standard for Connection of distributed generators to medium voltage network, 4. Harmonization of the BiH distribution grid codes with the requirements of EU Regulation on energy efficient transformers,

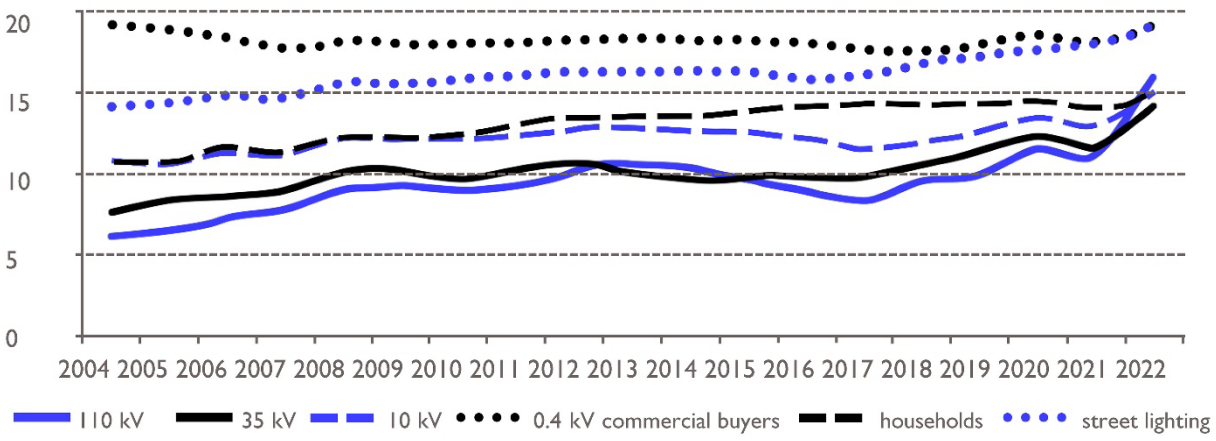
INDICATOR	YEAR 1	YEAR 2	YEAR 3
	List of items under actuals	List of items under actuals	List of items under actuals
Number of EU Directive and EnC Treaty electricity sector requirements with annual progress toward compliance achieved with EPA assistance *(continued)*	6. Harmonization of the BiH distribution grid codes with the requirements of the Standard for Connection of distributed generators to medium voltage network 7. Harmonization of the BiH distribution grid codes with the requirements of EU Regulation on energy efficient transformers 8. Simplified connection procedure for microgenerators 9. Defining preconditions for virtual power plants in BiH	6. Harmonization of the BiH distribution grid codes with the requirements of the Standard for Connection of distributed generators to medium voltage network, 7. Harmonization of the BiH distribution grid codes with the requirements of EU Regulation on energy efficient transformers, 8. Simplified connection procedure for microgenerators, 9. Defining preconditions for virtual power plants in BiH, 10. Harmonization of the distribution network rules with the requirements for network planning, 11. Harmonization of the distribution network rules with the requirements for quality of voltage, 12. Development of the legal framework for systematic approach to energy efficiency in BiH, 13. Development and adoption of the FBiH Energy Law and Law on Electricity (transposition of relevant EU Directive packages).	5. Development and adoption of the FBiH Energy Law and Law on Electricity (transposition of relevant EU Directive packages), 6. Creating preconditions for establishment of an organized wholesale electricity market in BiH. *The deviation from the target can be explained by the lack of progress in the areas that are pending political agreement and approval or adoption of necessary laws.*
Number of rules and regulations that lead to a fully functional BiH electricity sector developed and submitted to relevant institutions	1. Guidelines for DSOs to Establish a Compliance Program and Appoint a Compliance Officer in accordance with the applicable EU Directive. 2. Categorization of generators. 3. Simplified Connection Procedure for Microgenerators.	1. Amendments to the Law on Construction of West Herzegovina Canton were submitted to the Ministry of Spatial Planning, Construction and Environmental Protection of West Herzegovina Canton 2. Draft FBiH Law on Energy was submitted to FMERI	1. Technical assistance and reviewed the amendments of the Rules on Connection of Distributed Generation to the Distribution Network.

INDICATOR	YEAR 1	YEAR 2	YEAR 3
	List of items under actuals	List of items under actuals	List of items under actuals
Number of rules and regulations that lead to a fully functional BiH electricity sector developed and submitted to relevant institutions *(continued)*	4. Identified the key open issues in the electricity portion of the State Electricity and Natural Gas Law and then developed edits to the text of the Law.	3. Amendments on Energy Efficiency Laws and Decree on Implementation of Energy Efficiency Obligation Schemes to the Ministry of Foreign Trade and Economic Relations, Ministry of Energy Mining, and Industry of FBiH, and Ministry of Energy of RS 4. Amendments to the RS Law on Renewable Energy Sources submitted to the RS Ministry of Energy 5. Comments and proposals to the RS Power Utility Draft amendments of the Rulebook on Connection of Power Plants to the Distribution Network - EPA provided comments and recommendations for improvements 6. Comments and amendments on Law on Information Security were submitted to FBiH Ministry of Transport and Communications	2. Upon request of Regulatory Commission for Energy of the Republika Srpska (RSERC), EPA reviewed the draft Rule on Quality of Electricity Supply in RS and submitted its comments to the regulatory commission. 3. EPA prepared and submitted to RSERC comments on the draft of General Conditions of Delivery and Supply and the draft of Methodology for Setting of Distribution Network Tariffs. 4. Recommendations for Harmonization of Distribution Network Codes and Relevant Regulations. 5. EPA developed the Gap Analysis of the Local Legislation to determine which legislation needs to be changed/developed in order to create preconditions for the establishment of these markets and market model options for the day-ahead and intra-day markets. 6. Roadmap for Systematic EE Approaches. 7. BD Environmental Protection Law - EPA reviewed the draft law and concluded that it does not reflect the requirements of the EU Directives and best practices in terms of the organization of environmental impact assessment procedures and environmental permitting. EPA provided comments that address these issues, focusing on the implementation of directives on environmental impact assessment and strategic environmental impact assessment.

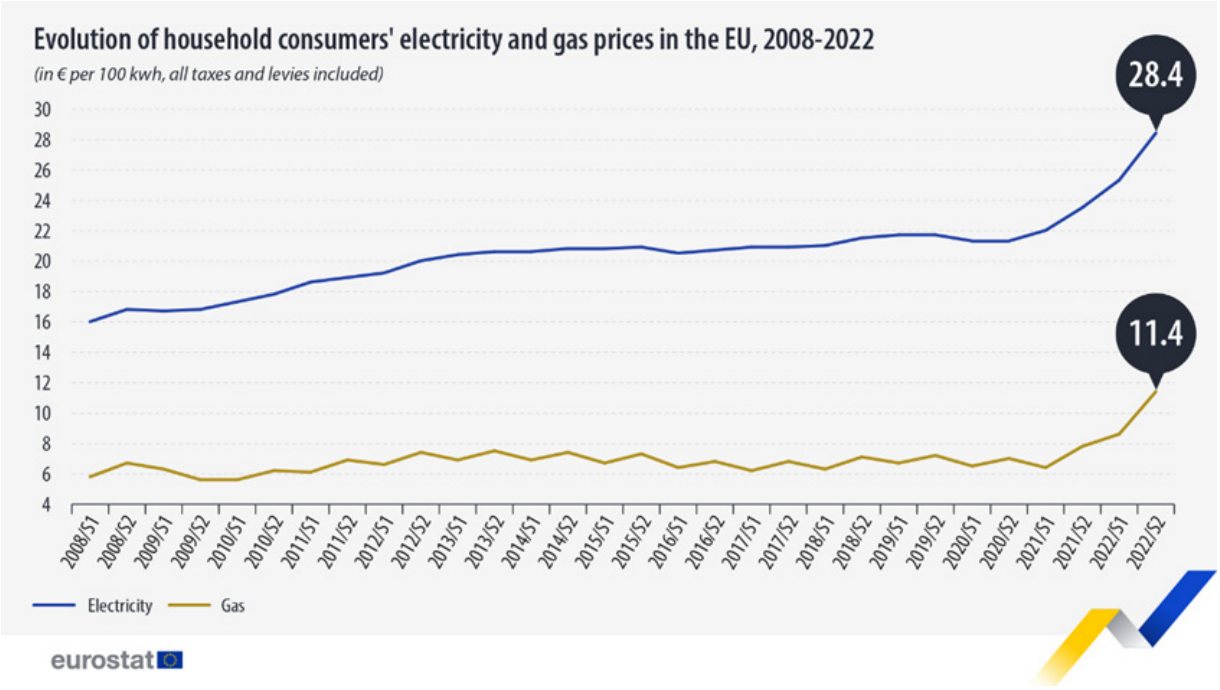
INDICATOR	YEAR 1	YEAR 2	YEAR 3
	List of items under actuals	List of items under actuals	List of items under actuals
Number of rules and regulations that lead to a fully functional BiH electricity sector developed and submitted to relevant institutions *(continued)*			8. Minister of Construction in the Bosansko-Podrinjski Canton asked for EPA's assistance in the process of simplifying cantonal construction legislation. EPA drafted the requested amendments and accompanying explanatory documents.
Number of strategies/road maps/guidelines pertaining to the areas specified in the contract SoW developed and submitted to MOFTER and other relevant ministries	Support for the preparation of the National Energy and Climate Plans (NECP). EPA representatives participated in meetings of the working groups for the NECP development and provided support, recommendations and information as required for the development of the above-mentioned three NECP components.	MOFTER submitted a draft NECP to the Energy Community Secretariat for review, and the Secretariat sent back its recommendations to improve the NECP substance and structure. Based on the comments received from the Energy Community Secretariat, starting in February 2021, a new version of the NECP is being prepared to complete the new draft by the end of 2021. In the BiH NECP development, EPA is responsible for developing two dimensions: Energy Security and Energy Market. In this reporting period EPA prepared and submitted to MOFTER input for the NECP Dimensions of Energy Security and Energy Market.	EPA continued providing assistance to the BiH Ministry of Foreign Trade and Economic Relations (MOFTER) on the implementation of Regulation (EU) 347/2013 into the BiH legislative framework. To that end, EPA developed an updated roadmap for implementation of this regulation in BiH, which provides an overview of the main requirements from the Regulation, a list of implementation activities with short explanations, competent authorities, as well as the current implementation status. EPA organized a meeting to present the roadmap to MOFTER and representatives of energy sector institutions, and after a successful presentation delivered the roadmap to MOFTER for further action.

ANNEX VII: COMPARATIVE PRICES OF ELECTRICITY IN BOSNIA AND HERZEGOVINA (BIH) AND THE EUROPEAN UNION (EU)

Average electricity prices, by buyer category excluding value-added tax (VAT) (Pfening/kWh) in BiH:

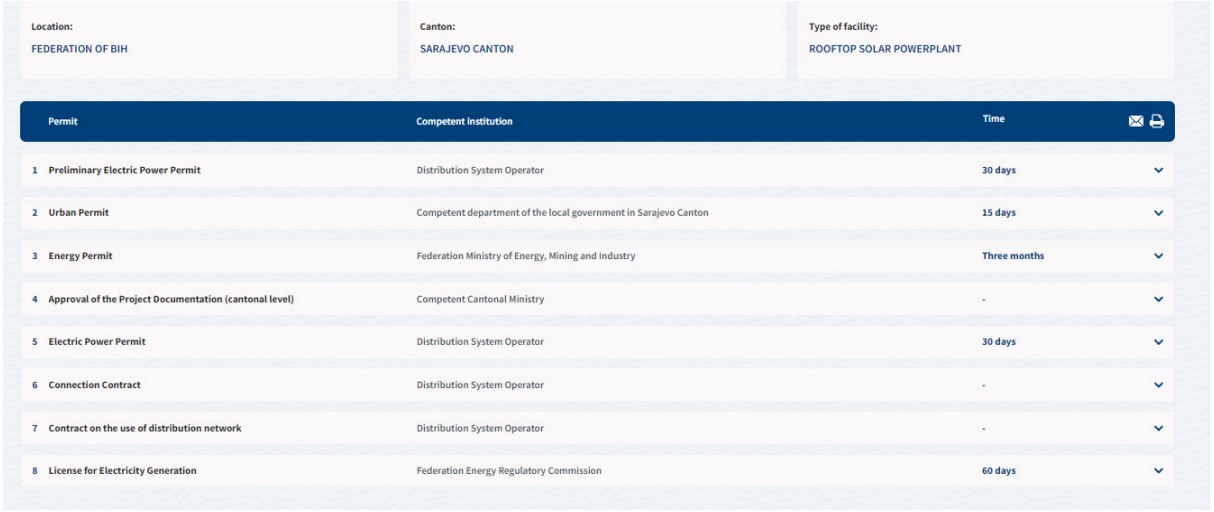


Trends of electricity and gas prices in the EU:



ANNEX VIII: SAMPLE SCREENSHOTS: CUSTOMIZED PERMITTING GUIDE (CPG) AND PHOTOVOLTAIC GEOGRAPHICAL INFORMATION SYSTEM (PVGIS)

CPG Sample Screenshot showing a list required permits and related statutory processing time limits for an investment in a typical small renewable energy sources (RES) power plant:



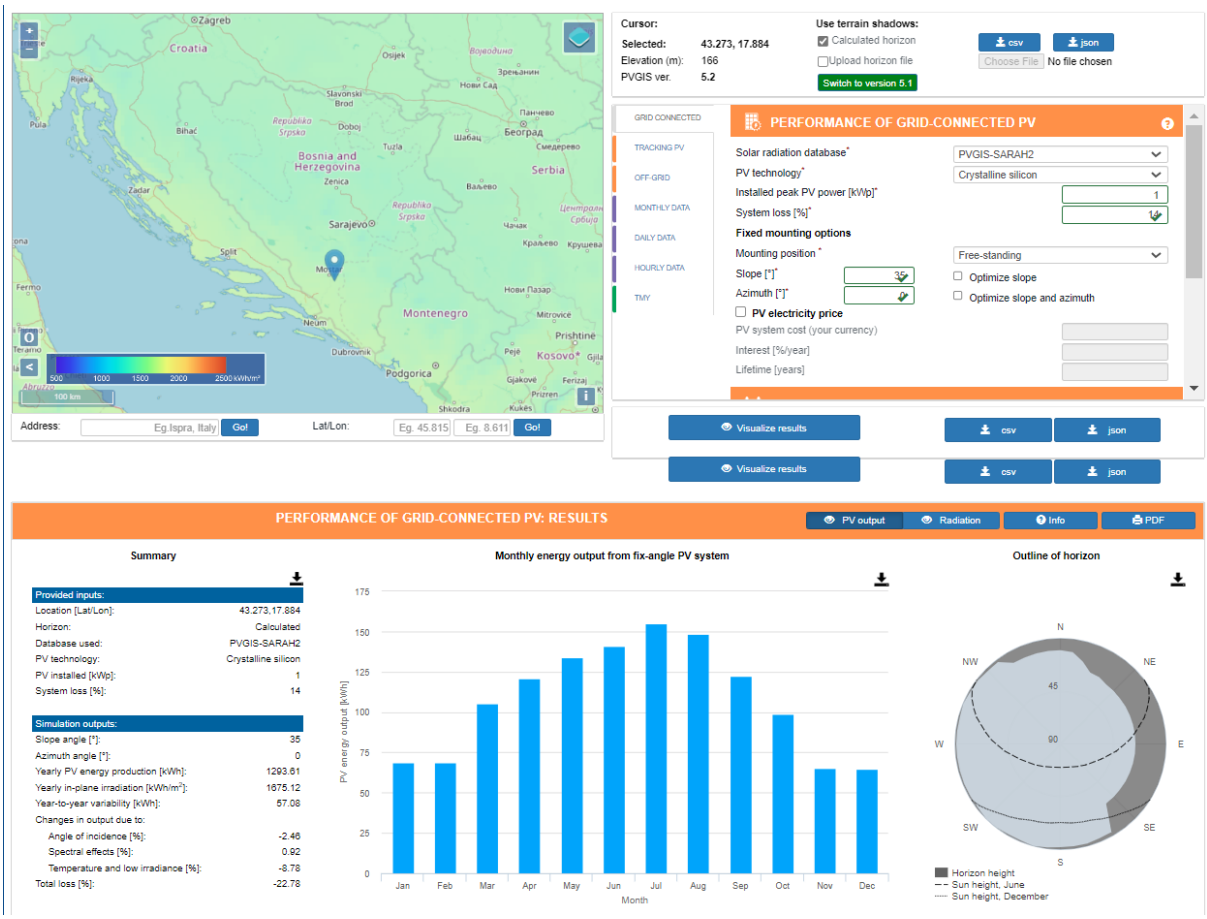
Location: FEDERATION OF BIH

Canton: SARAJEVO CANTON

Type of facility: ROOFTOP SOLAR POWERPLANT

	Permit	Competent institution	Time
1	Preliminary Electric Power Permit	Distribution System Operator	30 days
2	Urban Permit	Competent department of the local government in Sarajevo Canton	15 days
3	Energy Permit	Federation Ministry of Energy, Mining and Industry	Three months
4	Approval of the Project Documentation (cantonal level)	Competent Cantonal Ministry	-
5	Electric Power Permit	Distribution System Operator	30 days
6	Connection Contract	Distribution System Operator	-
7	Contract on the use of distribution network	Distribution System Operator	-
8	License for Electricity Generation	Federation Energy Regulatory Commission	60 days

EU PVGIS sample screenshot with an example of estimated production at a specific location in Bosnia and Herzegovina (BiH):



ANNEX IX: PROGRESS OF BOSNIA AND HERZEGOVINA (BIH) IN TRANSPOSITION OF THE ENERGY SECTOR REGULATIONS

	2020	2021	2022
Electricity	55%	60%	**61%**
Unbundling	3%	20%	20%
Access to the system	90%	93%	95%
Wholesale market	65%	70%	64%
Retail market	75%	78%	75%
Regional integration	42%	42%	40%
Security of supply	--	--	66%
Renewable energy	49%	48%	**55%**
National renewable energy action plan	60%	58%	58%
Quality of support scheme	40%	40%	65%
Grid integration	60%	60%	60%
Administrative procedures and guarantees of origin	59%	59%	59%
Renewable energy in transport	3%	3%	3%
Environment	48%	44%	**39%**
Environmental assessments	43%	49%	43%
Sulphur in fuels	30%	30%	27%
Large combustion plants	70%	57%	50%
Nature protection	47%	40%	33%
Environmental liability	--	n/a	20%
Climate	36%	47%	**48%**
National greenhouse gas emissions monitoring and reporting systems	32%	45%	45%
National energy and climate plans (NECPs)	41%	49%	51%
Statistics	89%	88%	**87%**
Annual statistics	100%	100%	93%
Monthly statistics	46%	40%	50%
Price statistics	100%	100%	100%
Gas	19%	25%	**24%**
Unbundling	18%	38%	35%
Access to the system	26%	29%	25%
Wholesale market	7%	7%	7%
Retail market	10%	10%	10%
Interconnectivity and regional integration	30%	30%	37%
Security of supply	--	--	25%
Energy efficiency	48%	46%	**49%**
Energy efficiency targets and policy measures	62%	47%	48%
Energy efficiency in buildings	63%	63%	65%
Energy efficiency financing	65%	65%	67%
Energy efficient products - labelling	27%	30%	38%
Efficiency in heating and cooling	24%	24%	26%
National authorities	41%	51%	**51%**
Regulatory authority	39%	39%	39%

	2020	2021	2022
Competition authority	55%	65%	60%
State aid authority	30%	50%	65%
Infrastructure - regulatory framework	8%	8%	--
National competent authority	20%	20%	--
Manual of procedures	0%	0%	--
National regulatory authority involvement	0%	0%	--
Cybersecurity	21%	25%	--
Institutions and legislation	20%	25%	--
Requirements for operators and energy regulatory authority	22%	25%	--

ANNEX X: ACTIVITY LOGFRAME

ACTIVITY LOGFRAME				
LEVEL OF RESULT	**NAME OF RESULT**	**INDICATORS**	**DATA SOURCE**	**ASSUMPTIONS**
Activity Goal	*Governance effectiveness in targeted areas strengthened*			
Activity Purpose	**Compliance with EU accession requirements in the energy sector supported**	**Number of laws, policies, regulations, or standards to enhance energy sector governance formally proposed, adopted, or implemented as supported by USG** **Number of laws, policies, regulations, or standards addressing clean energy formally proposed, adopted, or implemented as supported by USG** **CBLD-9 Percent of USG-assisted organizations with improved performance**	Activity Records based on official stakeholder documents Activity Records based on official stakeholder documents Survey of institutions	Favorable economic signals (energy prices, energy supply and demand balance) in the regional energy markets
Activity Sub-purpose 1	**Preconditions for the development of a BiH natural gas internal market created**	**Number of EU Directive and EnC Treaty gas sector requirements with annual progress toward compliance achieved with EPA assistance** **Number of alternative gas supply options enabled**	Survey of WG members Activity Records	Favorable political situation in the country that does not hinder economic progress
Activity Outcome/ Output 1.1	**Improved legislative framework for gas sector functioning**	**Number of rules and regulations that lead to a more open and competitive natural gas market developed and submitted to relevant institutions** **Number of gas sector stakeholders trained on functioning of the gas market in compliance with the EnC Treaty requirements**	Activity Records Activity Records	Decision-makers and the legislative bodies that are in charge of adoption of relevant legislation are willing to drive the sector reform forward and are not hindered by political blockades.

ACTIVITY LOGFRAME				
LEVEL OF RESULT	**NAME OF RESULT**	**INDICATORS**	**DATA SOURCE**	**ASSUMPTIONS**
Activity Goal	*Governance effectiveness in targeted areas strengthened*			
Activity Sub-purpose 2 (Component 2)	**A fully functional BiH internal market equipped with all the features necessary to join the regional market created**	**Number of EU Directive and EnC Treaty electricity sector requirements with annual progress toward compliance achieved with EPA assistance** **Amount of electricity traded through market processes (in USD)** **Number of private investors that generate electricity from renewable energy sources**	Survey of WG members Activity Records Registries of three regulatory commissions for energy in BiH and the RES and network operators	Favorable political situation in the country that does not hinder economic progress
Activity Outcome/ Output 2.1	**Preconditions created for a fully functional BiH internal electricity market**	**Number of rules and regulations that lead to a fully functional BiH electricity sector developed and submitted to relevant institutions** **Number of electricity sector stakeholders trained**	Activity Records Activity Records	Decision-makers and the legislative bodies that are in charge of adoption of relevant legislation are willing to drive the sector reform forward and are not hindered by political blockades.
Activity Sub-purpose 3 (Component 3)	**MOFTER and other relevant ministries supported**	**Number of strategies/road maps/guidelines pertaining to the areas developed and submitted to MOFTER and other relevant ministries**	Activity Records	Favorable political situation in the country that does not hinder economic progress
Activity Sub-purpose 4 (Component 4)	**Market-based energy sector promoted and supported by BiH regulatory commissions**	**Number of events organized to promote market-based energy sector** **Number of energy sector educational materials developed by the Activity and utilized by the regulatory commissions, stakeholders or media**	Activity Records	Stakeholders committed to support market-based energy sector

ACTIVITY LOGFRAME				
LEVEL OF RESULT	**NAME OF RESULT**	**INDICATORS**	**DATA SOURCE**	**ASSUMPTIONS**
Activity Goal	*Governance effectiveness in targeted areas strengthened*			
Other required PPR indicators		**Mobilized investment (in USD) for energy projects supported by USG assistance** **Amount of investment mobilized (in USD) for clean energy supported by USG assistance** **Greenhouse gas (GHG) emissions, estimated in metric tons of CO2 equivalent, reduced, sequestered, or avoided through clean energy activities supported by USG assistance** **Projected greenhouse gas emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to clean energy as supported by USG assistance**	**Activity Records** **Activity Records** **SERC Annual Report** **SERC Annual Report**	

ANNEX XI: LEGISLATION AND REGULATIONS THAT ENERGY POLICY ACTIVITY (EPA) HAS BEEN REQUESTED TO PROVIDE TECHNICAL ASSISTANCE FOR IN THE REMAINING ACTIVITY IMPLEMENTATION PERIOD

LEVEL	REGULATION/ACTIVITY	SECONDARY LEGISLATION	RELEVANT AUTHORITY
BiH	Law on the Regulator of Electricity and Natural Gas, Transmission and Market of Electricity in Bosnia and Herzegovina	-	-
FBiH	Law on Electricity	Regulation on the procedure for public tenders for the construction of new capacities (Article 39)	FBiH Government
FBiH	Law on Electricity	Rulebook on Issuance of Energetic Permits (Article 42)	Federal Ministry of Energy, Mining, and Industry
FBiH	Law on Electricity	Rulebook on the registry of power plants (Article 43)	Federal Ministry of Energy, Mining, and Industry
FBiH	Law on Electricity	Rulebook defining conditions and criteria for certification of installers of power plants (Article 140)	Federal Ministry of Energy, Mining, and Industry
FBiH	Law on Electricity	Compliance Program (Article 48)	Operator of the Distribution system
FBiH	Law on Electricity	Rulebook on the electronic exchange of data on the retail market (Article 68)	Operator of the Distribution system
FBiH	Law on Electricity	Rulebook on the connection of facilities of users of the distribution system to the distribution network (Article 81)	Operator of the Distribution system
FBiH	Law on Electricity	Rulebook on Issuing Permits – Article 25.	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Electricity	Methodology for determining tariffs for the use of the distribution - Article 56, paragraph (2)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Electricity	Methodologies for determining the fee for connection to the distribution system and connection to the closed distribution system - Article 58, paragraph (3)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Electricity	Rulebook on quality of supply - Article 66, paragraph (2)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Electricity	Methodology for determining tariffs for the use of a closed distribution system - Article 94, paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina

LEVEL	REGULATION/ACTIVITY	SECONDARY LEGISLATION	RELEVANT AUTHORITY
FBiH	Law on Electricity	Rulebook on changing suppliers - Article 105, paragraph (2)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Electricity	Rulebook on the methodology for determining prices for the supply of electricity to end customers at public and reserve suppliers - Article 109, paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Electricity	General conditions for the delivery and supply of electricity - Article 112.	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on energy balance (Article 10)	FBiH Ministry of Energy, Mining and Industry
FBiH	Law on Energy and Regulation of Energy Activities	Statute of the Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina - Article 30, paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Ethical code - article 31 paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on public discussions - Article 33, paragraph (4)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on regulatory fees - - Article 36, paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on reporting - Article 37, paragraph (4)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on the protection of confidential information - Article 38, paragraph (3)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on the resolution of complaints and disputes - Article 39, paragraph (2)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy and Regulation of Energy Activities	Rulebook on Regulatory Monitoring - Article 41, paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBIH	Law on the Use of Renewable Energy Sources and Efficient Cogeneration	Rulebook on acquiring the status of a qualified producer - Article 26, paragraph (3)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina

LEVEL	REGULATION/ACTIVITY	SECONDARY LEGISLATION	RELEVANT AUTHORITY
FBIH	Law on the Use of Renewable Energy Sources and Efficient Cogeneration	Rulebook on the methodology for determining the maximum values of guaranteed purchase prices, replacement market prices, and limit values of fixed premiums - Article 42, paragraph (1)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBIH	Law on the Use of Renewable Energy Sources and Efficient Cogeneration	Rulebook on the production of electricity for own needs - Article 50	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBIH	Law on the Use of Renewable Energy Sources and Efficient Cogeneration	Rulebook on the mandatory share and takeover of electricity produced from renewable energy sources - Article 59, paragraph (8)	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Gas Law	Regulation on the verification of professional qualifications (Article 137)	FBiH Ministry of Energy, Mining, and Industry
FBiH	Gas Law	Compliance Program (Article 41)	Operator of the Distribution system
FBiH	Gas Law	Rules on the work of the distributive system (Article 59)	Operator of the Distribution system
FBiH	Gas Law	Rules on the connection of facilities of system users to the distribution system (Article 71)	Operator of the Distribution system
FBiH	Gas Law	Compliance Program (Article 105)	Operator of Natural Gas Storage
FBiH	Gas Law	Rules on work and use warehouses natural gas (Article 107)	Operator of Natural Gas Storage
FBiH	Gas Law	Compliance program (Article 112)	Terminal Operator for Liquefied Natural Gas
FBiH	Gas Law	Rules on the work and use of terminals for liquefied natural gas (Article 114)	Terminal Operator for Liquefied Natural Gas
FBiH	Law on Energy efficiency	Regulation on the implementation of the energy efficiency obligation schemes	FBiH Government
FBiH	Law on Energy Efficiency	Rulebook on the supervision of obligated parties	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy Efficiency	Rulebook on the methodology for calculating fees for the obligation schemes	Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina
FBiH	Law on Energy Efficiency	Rulebook on selection of programs and beneficiaries of the obligation schemes program	FBiH Ministry of Energy, Mining, and Industry
FBiH	Law on Energy Efficiency	Rulebook on acceptable measures of the obligation schemes	FBiH Ministry of Energy, Mining, and Industry
FBiH	Protection Act of Critical Infrastructure	-	-

LEVEL	REGULATION/ACTIVITY	SECONDARY LEGISLATION	RELEVANT AUTHORITY
FBiH	Law on Information Security	-	-
FBiH	National Energy and Climate Plan	-	-
FBiH	All relevant laws to approve the construction of electric power facilities	-	-
FBiH	Relevant cantonal laws	-	-
RS	Law on the Use of Renewable Energy and Efficient Cogeneration	Rules of Operation of the Operator of the Incentive System	Operator of the Incentive System
RS	Law on the Use of Renewable Energy and Efficient Cogeneration	Register of projects renewable energy projects	Ministry of Energy and Mining
BD	Law on Electricity	Compliance Program (Article 27)	Operator of the Distribution system
BD	Law on Electricity	Rules on the connection of facilities of users of the distribution system to the distribution network (Article 77)	Operator of the Distribution system
BD	Law on Renewables Sources of Energy and Efficient Cogeneration	Instructions on the register of projects (Article 67)	Service for the System of Incentives
BD	A Guide for Investors	-	-
BD	All relevant laws to approve the construction of electric power facilities	-	-

ANNEX XII: SIGNED CONFLICT OF INTEREST FORMS

CONFLICT OF INTEREST FORM

Name	Đulizara Hadžimustafić
Title	Senior Research Analyst
Organization	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II)
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II), implemented by IMPAQ International, LLC, Contract Number: AID-167-I-17-00004
USAID Project(s) Evaluated	Energy Policy Activity (EPA) Contract Number: 72016819C00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: *Real or potential conflicts of interest may include, but are not limited to:* *1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.* *2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.* *3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.* *4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.* *5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.* *6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.*	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	Hadžimustafić Đulizara
Date	04/21/2023.god.

CONFLICT OF INTEREST FORM

Name	Edis Brkić
Title	Chief of Party
Organization	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II)
Evaluation Position?	☒ Team Leader ☐ Team member
Evaluation Award Number	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II), implemented by IMPAQ International, LLC, Contract Number: AID-167-I-17-00004
USAID Project(s) Evaluated	Energy Policy Activity (EPA) Contract Number: 72016819C00002
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Signature	
Date	4/19/2023

CONFLICT OF INTEREST FORM

Name	Erol Barina
Title	Senior Research Analyst
Organization	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II)
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II), implemented by IMPAQ International, LLC, Contract Number: AID-167-I-17-00004
USAID Project(s) Evaluated	Energy Policy Activity (EPA) Contract Number: 72016819C00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
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Signature	Barina
Date	4/19/2023

CONFLICT OF INTEREST FORM

Name	Haris Mešinović
Title	Senior Research Analyst
Organization	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II)
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II), implemented by IMPAQ International, LLC, Contract Number: AID-167-I-17-00004
USAID Project(s) Evaluated	Energy Policy Activity (EPA) Contract Number: 72016819C00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
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I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	H. Mešinović
Date	04/20/2023

CONFLICT OF INTEREST FORM

Name	Selma Omerbegović
Title	Senior Research Analyst
Organization	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II)
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II), implemented by IMPAQ International, LLC, Contract Number: AID-167-I-17-00004
USAID Project(s) Evaluated	Energy Policy Activity (EPA) Contract Number: 72016819C00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
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I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	Selma Omerbegović
Date	4/24/2021

CONFLICT OF INTEREST FORM

Name	Anela Kadić Abaz
Title	Development Assistance Specialist
Organization	USAID/Bosnia-Herzegovina
Evaluation Position?	☐ Team Leader ☒Team member
Evaluation Award Number	USAID/BiH Monitoring and Evaluation Support Activity (MEASURE II), implemented by IMPAQ International, LLC, Contract Number: AID-167-I-17-00004
USAID Project(s) Evaluated	Energy Policy Activity (EPA) Contract Number: 72016819C00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
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I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	Anela Kadic Abaz
Date	7/7/2023

ANNEX XIII: EVALUATION TEAM'S RESPONSES TO USAID/IP COMMENTS

Date: September 15, 2023

To: Elma Bukvić Jusić, Development Assistance Specialist/MEASURE II's COR, USAID/BiH

Subject: THE ET'S RESPONSE TO USAID/BiH AND IP COMMENTS ON THE EPA PERFORMANCE EVALUATION REPORT

Dear Ms. Bukvic Jusić,

The evaluation team would like to thank USAID/BiH and the IP for providing their comments on the Draft EPA Performance Evaluation Report, and for finding the Report to be very detailed, well done, and without anything requiring their technical comments.

The evaluation team carefully examined each comment and made changes in the Final Report where appropriate. Where multiple comments referred to the same data item or terminology unit in the report, they are combined in the same bullet in the following list.

1. The following comments were all accepted and corrected in the report:
   a. the total award amount ("8,650,615" on pp. 9, 14, 44(x2);
   b. terminology ("inconsistencies" on pp. 9 and 41, "EE obligation schemes" on pp. 16, 32(x2), 77(x4))
   c. reformulations ("E-Application system for implementation of EE measures" on p. 17)
   d. the full range of cooperation with NARUC: ("energy efficiency, cybersecurity, and public outreach**"** on pp. 11, 12, 23(x2), and 41).

2. Based on a KI's quote, a mention of "the current political situation as the most complex since the war" was added on p. 10.

3. In response to the comment on Recommendation IV.E.2 (on pp. 13 and 42): "This is feasible only for future activities with a very large budget for PO activities since reaching and explaining energy issues to the general public requires significant amounts of expensive media engagement over a long period of time," MEASURE II wishes to clarify that this recommendation refers to adding 2–4 additional questions to the NSCP, which is funded from MEASURE II's budget and does not require additional funding. The ET submits this recommendation for USAID's consideration.

MONITORING AND EVALUATION SUPPORT ACTIVITY (MEASURE II)

Fra Anđela Zvizdovića 1
UNITIC Tower B, Floor 13
71000 Sarajevo
Bosnia and Herzegovina

PHONE: + 387 33 941 676
contacts@measurebih.com
www.measurebih.com