TCAF Validation Report

Version 1.0

Based on GHG Protocol – Policy and Action Standard and ISO 14064-3:2019 section 7.3.3 and TCAF Validation protocol

Title of the TCAF Program subject to validation	UZBEKISTAN: INNOVATIVE CARBON RESOURCE APPLICATION FOR ENERGY TRANSITION PROJECT
Addressee of the Validation Report	Transformative Carbon Asset Facility (TCAF)
Version number of the Validation Report	2.1
Completion date of the version	25/05/2023
Name and location of Validator	AENOR INTERNACIONAL S.A.U. (AENOR) Génova, 6. 28004 Madrid Spain Telephone +34 914326000 larribas@aenor.com; medioambiente@aenor.com www.aenor.com
Statement that the Host Country is responsible for the preparation and fair presentation of the CPDD in accordance with the criteria	The Government of Uzbekistan has submitted the CPDD for validation.
Statement that the validator is responsible for expressing an opinion on the CPDD based on the validation	AENOR is responsible for expressing the opinion on the CPDD based on the validation process described in this validation report. AENOR has validated that the "Uzbekistan-Innovative Carbon Resource Application for Energy Transition Project" is in compliance with the TCAF requirements. The methodology developed for the program (Methodology and Model for ex-post quantification of CO2 emissions impact of end-user energy pricing) was applied to determine the GHG net anthropogenic reductions. The GHG net anthropogenic reductions attributable to the program are additional to any that would occur in the absence of the program. The review of the C-PDD (version 5) and additional documents (Spreadsheet "Uzbekistan MRV data requirements" version 2 and the spreadsheet "UZB_NewEnegyPolicyMRV v23updated"), and the subsequent background investigation, follow-up interviews and review of comments by parties have provided AENOR with sufficient evidence to validate the fulfilment of the stated criteria.
Date of site visit (if applicable)	N/A
Signature (final version only)	Jose Luis Fuente Climate Change Unit Manager

Description of the TCAF Program	The Uzbekistan-Innovative Carbon Resource Application for Energy Transition Project (the program hereafter) will support the implementation of the next phase of more ambitious energy

	reforms undertaken by the Government of Uzbekistan (GoU) and thereby the transformation of Uzbekistan's energy sector into an efficient and low-carbon sector. Emission reductions will be generated due to the change in end-user energy demand resulting from the increase in electricity and natural gas tariffs. The program will use the "Methodology and Model for ex-post quantification of CO2 emissions impact of end-user energy pricing" to examine the effects of tariff reform on end-user energy demand and to quantify the emission reductions that can be achieved through the adoption of energy pricing policies by comparing emissions from the observed scenario ("with policy" scenario) with the counterfactual baseline scenario ("without policy" scenario). The "without policy" scenario is generated to simulate what would have happened in the absence of energy pricing policies. Two baseline options have been considered by the program, i.e., under business-as-usual scenario and under NDC-implied scenario, and once the two baseline options were compared with the policy scenario and the differences in emissions were calculated, the tariff following historical trend based on 5-year average increase rate is proposed to be the TCAF crediting baseline for its conservativeness and reflecting more ambitious policy actions The Ministry of Economy and Finance (MoEF) and the Ministry of Energy (MoE) will serve as lead institutions in the program, with the following responsibilities: The MoE is: - The central executive authority responsible for implementing state policy and the various regulations, orders and decrees issued by the government for the energy sector. - The responsible for regulating the production, transmission, distribution and consumption of electric and thermal energy and coal, as well as the production, processing, transportation, distribution, sale and use of oil and gas, and their products. The MOEF will take the responsibilities of: (i) coordinating body of the project, (ii) signatory of the term sheets (later agreements on ERPA, MOPA and HCA) and (iii) decision maker on international transfer of carbon emissions, and (iv) focal point on conducting measurements and reporting of carbon emissions along with Agency for Hydrometerological services under the Ministry of Natural Resources. MoEF will be supported by inter-ministerial working group consisting of representatives of relevant ministries and agencies to ensure effective implementation of the project. The Crediting Program Design Document (CPDD) prepared for the program provides a background on host country's GHG emission trends and climate strategy, as well as explains the overall crediting program proposed, determination of baseline, the methodology applied for the estimation of emission reductions, and the institutional arrangement for implementation and monitoring of emission reductions.

Objective of validation	The objective of the Validation is to assess: A. The GHG methodology as an integral part of the program design; B. The correct application of the GHG methodology as presented in the CPDD to the TCAF Program and supporting documentation, such as Monitoring Plan (excel), and other GHG calculations developed as part of the CPDD; C. The robustness of GHG, Transformational Change (TC) and sustainable development (SD) monitoring plan presented in the CPDD in line with TCAF Core Parameter requirements and best practice. The purpose of the validation was to conduct an independent assessment of the program in order to determine its conformance with respect to the TCAF requirements defined in the different documentation reviewed, mainly the validation protocol on February 2023 and the TCAF Core Parameters, and that the GHG emission reductions estimated ex-ante in the CREDITING PROGRAM DESIGN DOCUMENT (C-PDD) and spreadsheets associated are materially accurate.
Summary of the work performed / evidence-gathering procedures used to assess the CPDD in line with the Validation Criteria	The process for identifying the types of potential material misstatements and their likelihood of occurrence, and selecting the evidence-gathering procedures necessary to enable the validation assessment and conclusions was performed through a combination of the following activities: • Document desk review; • Follow-up actions, including interviews, cross checks of information provided; • Reference to available information relating to similar programs and technologies; • Review, based on the selected methodology, the appropriateness of the applied formulae and accuracy of calculations; • Any other appropriate auditing techniques and professional judgement, as appropriate Previously to the desk review, a specific Validation and Sampling Plan was developed to guide the validation auditing process to ensure efficiency and effectiveness. The purpose of the Validation and Sampling Plan was to present a risk assessment for determining the nature and extent of validation procedures necessary to ensure the risk of auditing error was reduced to a reasonable level. The Validation & Sampling Plan methodology was derived from all items in our validation process stated above. Specifically, the sampling plan utilized the guidance of ISO 14064-3:2019 “Greenhouse Gases. Part 3: Specification with guidance for validation and verification on gases”. Any modifications applied to the Validation and Sampling plan were made based upon the conditions observed for monitoring in order to detect the processes with highest risk of material discrepancy. A detailed review of all documentation was conducted to ensure consistency with and identify any deviation from the validation criteria, including the methodology (Ex-post quantification of CO2e emission impact of end-user energy pricing: a methodology and model). All documents received from the client and assessed for this validation are listed in **Appendix 1** of this report**.**

	AENOR carried out a deep and meticulous review of the excel-based MRV model in order to verify the correct application of the methodology (formulae, equations) and checked that data required calculating the GHG reductions were appropriately provided. Based on the assessment carried out, AENOR cross-checked the collected information through interviews reproducing calculations. Hence, AENOR confirms that the stated figures in the C-PDD and supporting documentation are correct and confirms that is able to certify the ex-ante net anthropogenic GHG reductions based on verifiable and reliable evidence
Overview of the findings of the Validation on how the Program meets the Validation Criteria, including information on how any non-conformities were addressed	During the validation, different findings were raised, 12 NCR (Non-conformity Request), 12 CR (Clarification request), 9 NIR (New information request), 3 FAR (Forward action request) and 9 OBS (Observations). All of them, except to FARs and some OBS, were duly closed through corrections, clearer explanations and provision of additional supporting evidence and FARs were raised to verify the correct implementation of some issues during the first verification. Updated versions of the documentation were submitted, and the audit team reassessed them against the validation criteria. This process was repeated iteratively until all findings were fully closed. All findings issued during the validation process and the inputs for their closure are described in **Appendix 2** of this report
Validation Opinion	Once all issues detected in the different findings were appropriate resolved or readdressed as FARs, AENOR carried out this final validation report and deems with reasonable level of assurance that: • The applied GHG Methodology is consistent and adequate. • The GHG-MRV methodology has been correctly applied to the TCAF Program, through conformance of the CPDD and supporting documentation, in accordance with the Validation Criteria defined in the TCAF Validation protocol. • The GHG/TC/SD monitoring plan is robust and complete in accordance with the GHG monitoring plan criteria defined in the TCAF validation protocol and the requirements stated in the applied GHG Methodology and TCAF Core Parameters. The audit team has no restrictions or uncertainties with respect to the compliance of the program with the validation criteria. Hence, the audit team concludes that it complies with respect to the TCAF requirements. The cumulative estimated ex-ante net GHG emissions reductions or removals of 86.7 MtCO2e over the crediting period (01-January-2021 to 31-December-2027) have been quantified in accordance with the methodology developed for the program (Methodology and Model for ex-post quantification of CO2 emissions impact of end-user energy pricing), and, based on the assumptions used by the Program Proponent (PP), are accurate and free of material error.

Description of the validation scope	The scope was defined as follows: • Mitigation activities. • Boundaries. • validation criteria. • Baseline scenario. • Additionality. • Ex-ante estimation of GHG emission reductions. • Double claiming. • Monitoring plan. • Sustainable development contributions. The scope of the validation audit was to validate the design and emissions reductions of the proposed project in Uzbekistan against the TCAF requirements, the identified methodology and associated tools.
Description of the level of assurance achieved, or a statement as to why an opinion cannot be expressed	The assessment was conducted to provide a reasonable level of assurance of conformance against the defined validation criteria and materiality thresholds within the audit scope. AENOR confirms with a reasonable level of assurance the accuracy of all data and that the claimed ex-ante emission reductions are free from material errors, omissions, or misstatements. AENOR confirms that enough evidence was presented for the ex-ante estimated net anthropogenic GHG emission reductions and that there is a clear audit trail that contains the evidence and records that validate the stated figure in this validation report since: • Sufficient evidence available: the PP has provided the data sources or evidence of all data used in the calculations to achieve the final estimated amount of GHG emission reductions and to enable others to locate the same data easily. • Nature of evidence: the raw data were collected from reliable sources (official sources and regularly published reports over ad-hoc studies, and to publicly available data). They are detailed in the program documents and have been provided to the validation team and were checked during the interviews. Data collection and estimation has been implemented in line with the methodological requirements
Description of the materiality threshold, if set	The materiality thresholds were considered as follows: • Quantitative: Any error, omission, and/or misrepresentation relative to the total reported GHG emission and removals or emissions reductions. • Qualitative: Any issues related to poorly managed data or documentation, any non-compliance with the applicable validation criteria; and any error in reporting of factual information in the C-PDD.
Additional details regarding the validation opinion, including details on any discrepancies noted or issues encountered in performing validation, and FARs, if applicable	As it is explained before, during the validation, different findings were raised. All of them were duly closed, except to some OBS and the FARs that were raised to verify the correct implementation of some issues during the first verification. All findings issued during the validation process and the inputs for their closure are described in **Appendix 2** of this report

Appendix 1. Documents reviewed or referenced

No.	Title	Version/date
1	CPDD_TCAF_UZB_draft V1	21/02/2023
2	CPDD_TCAF_UZB_draft V5	19/05/2023
3	Spreadsheet “UZB_NewEnegyPolicyMRV”	Version 21
4	Spreadsheet “UZB_NewEnegyPolicyMRV v23updated”	Version 23
5	Spreadsheet “Uzbekistan MRV data requirements”	Version 1
6	Spreadsheet “Uzbekistan MRV data requirementsV2”	Version 2
7	TCAF_Core parameters	November 2020
8	TCAF_Core parameters	December 2022
9	TCAF_Core parameters	December 2023
310	TCAF_Validation Protocol	22/02/2023
11	TCAF_Validation Protocol	Version 2; May 2023
12	TCAF Guidebook	November 2021
13	UZB_Pres Decree_436	December 2022
14	Concept on Environmental Protection Uzb up tp 2030	30/10/2019
15	Renewable Energy Law	16/04/2023
16	Solid Waste Management Strategy	18/04/2019
17	Strategy on the Transition to green economy by 2030Uzb	04/10/2019
18	Uzbekistan PPP Law 2019	11/05/2019
19	TCAF_Summary and decisions_Conf call_March 23 2021_FINAL	23/03/2021
20	Email with the “energy data used for MRV model for TCAF funded iCRAFT model, and approved by relevant departments (cc) of MoEF”	10/05/2023
21	Inputs for a Communication Strategy on Tariff Reforms in the Energy Sector of Uzbekistan	2022

Appendix 2. Validation findings

Non Conformity Request (NCR)

NCR ID:	**01**	**Date:** 13/03/2023
Description of NCR		
Table 5 included in the C-PDD is not identical to the table included in Tab “Demand and Pricing Data of the spreadsheet “MRV data requirements”.		
Project Participant response		**Date:** 12/04/2023
The following footnote was added to Table 5 to clarify data requirements. If the model is using one elasticity number for all sectors, an annual consumption-weighted average end-user price is needed for each energy source, across all tariff groups and sectors. If the model is using a different elasticity number for each sector, an annual consumption-weighted average end-user price is needed for each energy source, across all tariff groups for each sector.		
Documentation provided by the Project Participant		
CPDD		
VVB Assessment		**Date:** 22/05/2023
The food note included in the final version of the C-PDD, version 5, clarifies properly that the table included in Tab “Demand and Pricing Data” of the spreadsheet “MRV data requirements” is consistent with the table 5 of the C-PDD. Therefore, the NCR is closed.		

NCR ID:	**02**	**Date:** 13/03/2023
Description of NCR		
The values of the “Difference” from 2021 to 2027 of table 12 of the C-PDD is 37.2 instead of 37.3, as is indicated in section 11.4 and table 13. On the other hand, indicator of criteria “Size” in table 14 indicates 31.2 million tons of emissions reductions for the crediting period (2017-2021) when the sum of the values of table 12 is 36.		
Project Participant response		**Date:** 12/04/2023
All the values have been updated to the reflect the value as per latest model.		

Documentation provided by the Project Participant	
CPDD V3	
VVB Assessment	**Date:** 28/04/2023
The emission reductions Without Policy in the table 12 have changed respect to the values of the previous version of the C-PDD. Clarify the reason.	
Project Participant response	**Date:** 02/05/2023
As part of the model update to the current V23, historical data was updated from forecasts to actual data. In the previous versions, historical data was until 2019 and forecasts were used for future years. In the most recent update, all historical forecasts were updated with actual numbers for 2020 and 2021. Additionally, forecasted future data (2022 beyond) were also updated. In addition, the Energy Balances changed as we took this data from Uzbekistan whereas it was from IEA previously. This results in the changes to ERs in the WithoutPolicy scenario.	
Documentation provided by the Project Participant	
This can be substantiated by comparing the data from 2020 and 2021 across versions 21 and 23 which are both located in the shared folder.	
VVB Assessment	**Date:** 22/05/2023
The information of table 12, 13 and 14 of the C-PDD version 5 is now consistent between them and with the final version of the "Energy Policy MRV model" provided in the spreadsheet "UZB_NewEnegyPolicyMRV v23updated". Therefore, NCR is closed.	

NCR ID:	**03**	**Date:** 13/03/2023
Description of NCR		
The monitoring plan does not contain information related the following issues: o Methods for generating, storing, collating, and reporting data on monitored parameters o Databases, tools, or software systems to be used for collecting and managing		
Project Participant response		**Date:** 12/04/2023
The data necessary for verification consists of tariffs, energy balances, and other economic data, which are published by Uzbekistan National Statistics Agency. As such, collection procedures consist of desk review of the published data ex-post, and enter them into a template provided to the GoU for inclusion in the model to calculate the emission reductions.		

Documentation provided by the Project Participant	
VVB Assessment	**Date:** 28/04/2023
This important role of the Uzbekistan National Statistics Agency shall be documented in section 7.1, 8.1, or 10.3 of the C-PDD.	
Project Participant response	**Date:** 02/05/2023
Noted, it has been provided in the mentioned sections 7.1, 8.1 and 10.3 of the updated CPDD.	
Documentation provided by the Project Participant	
CPDD V4.	
VVB Assessment	**Date:** 22/05/2023
The C-PDD version 5 contain all required information regarding the methods for generating, storing, collating, and reporting data on monitored parameters, as well as databases, tools, or software systems to be used for collecting and managing. The key roles to carried out the different activities defined in the program are also defined. Therefore, the NCR is closed.	

NCR ID:	**04**	**Date:** 13/03/2023
Description of NCR		
The implementation targets identified in page 8 of the C-PDD are not the main goals approved by the decree approved in December 2022, that are the following ones: - Reduction of specific greenhouse gas emissions per unit of gross domestic product by 35 percent from the 2010 level; - Increasing the production capacity of renewable energy sources up to 15 GW and bringing their share in the total volume of electricity production to more than 30 percent; - Increasing energy efficiency in industry by at least 20 percent; - Reduction of energy intensity per unit of gross domestic product by 30 percent, including through the expansion of the use of renewable energy sources; - Significant increase in the efficiency of water use in all sectors of the economy, the introduction of water-saving irrigation technologies on an area of up to 1 million hectares; - Expanding green spaces in cities to over 30 percent by planting 200 million seedlings a year and bringing the total number of seedlings to over 1 billion; - Bringing the index of the reserves of the forest fund of the republic to more than 90 million cubic meters;		

- Increasing the level of processing of generated household waste to more than 65 percent;

Project Participant response	**Date:** 12/04/2023
The CPDD V3 has been revised to reflect the discrepancy identified.	
Documentation provided by the Project Participant	
Updated CPDD V3	
VVB Assessment	**Date:** 22/05/2023
The implementation targets identified in the final version of the C-PDD are consistent with the main goals included in the decree approved in December 2022. Therefore, the NCR is closed.	

NCR ID:	**05**	**Date:** 22/03/2023
Description of NCR		
Section 3.3 of the C-PDD indicates that the proposed program is fully aligned with climate change and sector policies of Uzbekistan, but it is not explained how the program is aligned and supports national/regional climate change policy objectives.		
Project Participant response		**Date:** 12/04/2023
The C-PDD now provides an explanation on how it is aligned.		
Documentation provided by the Project Participant		
Updated CPDD V3		
VVB Assessment		**Date:** 22/05/2023
Section 3.3 of the final version of the C-PDD explains with more detail how the program is aligned and supports national/regional climate change policy objectives. Therefore, the NCR is closed.		

NCR ID:	**06**	**Date:** 22/03/2023
Description of NCR		
Section 7.2 of the C-PDD indicates the same information as section 10.7, and indicates the indicators monitored but it does not provide a description of them.		
Project Participant response		**Date:** 12/04/2023

These are high-level indicators monitored as part of the WB approval and supervision process. The names of the indicators seem explanatory, however if needed we can add a short description. They are not part of the Monitoring Plan-MRV data requirement.
Documentation provided by the Project Participant

VVB Assessment	**Date:** 28/04/2023
These indicators are identified in section 7.2 and 10.7 (section 10 "MRV arrangements") to monitor the progress made/success of the program implementation, therefore, some additional information shall be included on them (monitoring frequency, objective to consider the correct implementation of the program, collected data role, etc).	

Project Participant response	**Date:** 02/05/2023
Updates have been made to Sections 7.2 and 10.7 of the CPDD which provide additional information for the three indicators listed.	
Documentation provided by the Project Participant	
Updated CPDD V4	

VVB Assessment	**Date:** 22/05/2023
The indicators identified in section 7.2 and 10.7 of the final version of the C-PDD to monitor the progress made/success of the program implementation have been detailed with additional information on them (monitoring frequency, objective to consider the correct implementation of the program, collected data role, etc), although it would be convenient to include information on the criteria applied to consider positive or negative the progress of the program. Therefore, the NCR is closed.	

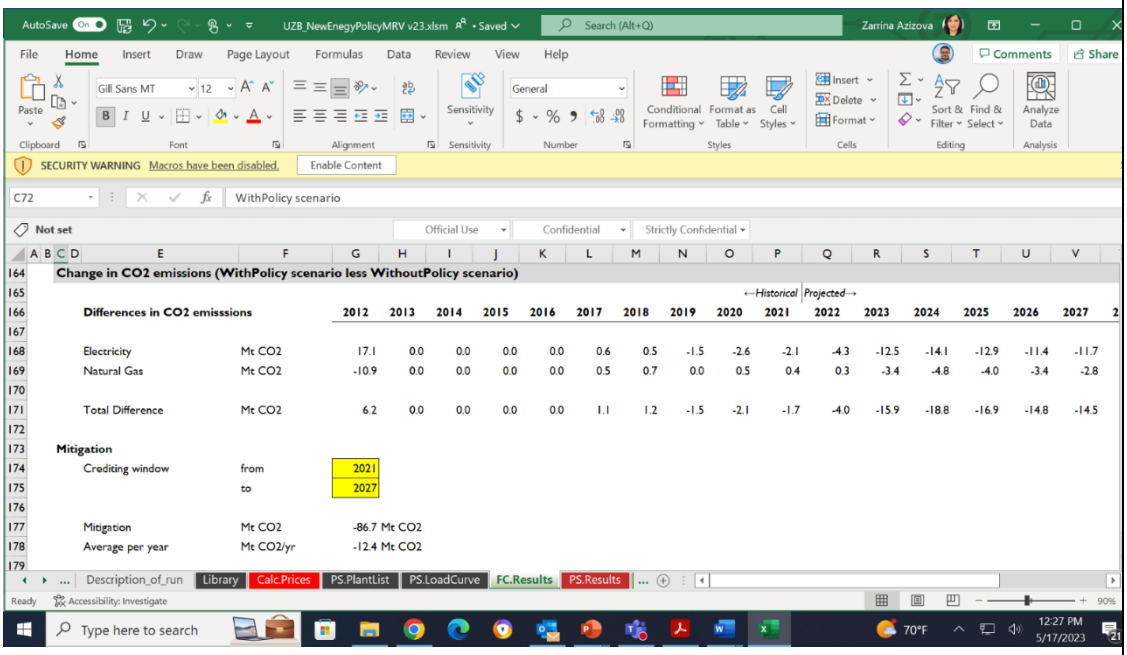
NCR ID:	**07**	**Date:** 22/03/2023
Description of NCR		
The value of 133.1 indicated in table 13 of section 11.4 of the C-PDD correspond to the period from 2017 to 2030 instead of the period from 2021 to 2027.		

Project Participant response	**Date:** 12/04/2023
Noted, corrected.	
Documentation provided by the Project Participant	

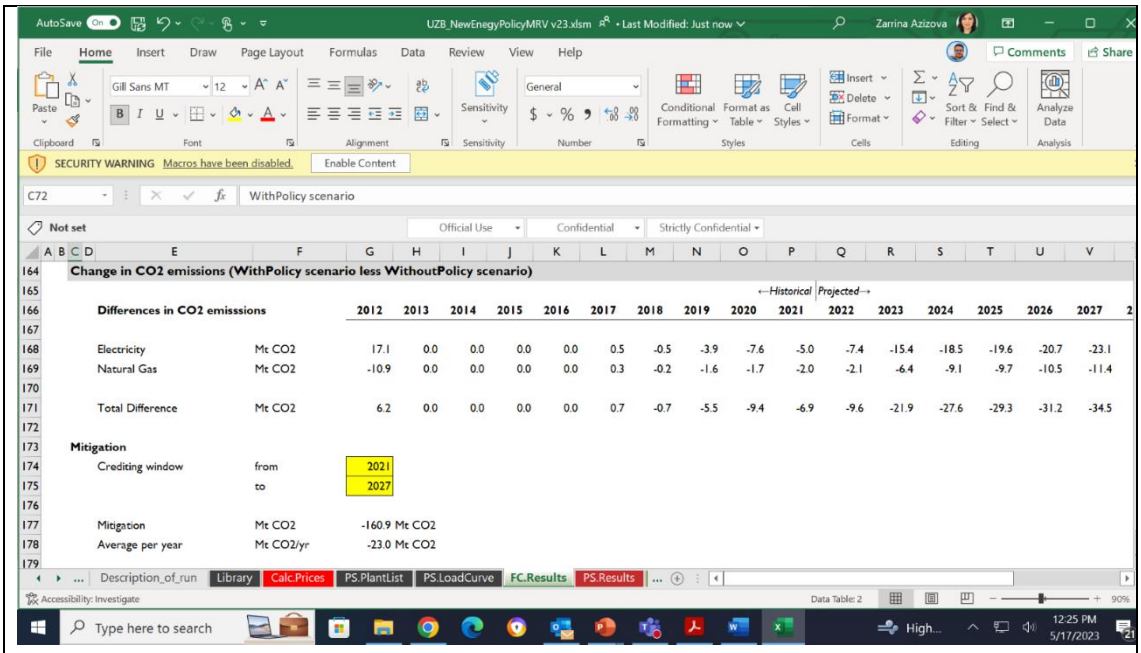
Updated CPDD V3	
VVB Assessment	**Date:** 28/04/2023
Provide evidence with the calculation of the estimated emissions reductions and the average annual indicated in the table 13 of the C-PDD for the BAU baseline, and clarify how are the different scenarios identified in the spreadsheet.	
Project Participant response	**Date:** 02/05/2023

The emission reductions for BAU (without policy scenario 2 (CPI) and NDC implied scenario (without policy I (5 year average) can be viewed by switching between options 1 and 2 in the UZNewEnergyPolicyMRV-V23, tab Calc. Prices sheet, the screenshot provided below. The results of ERs are then provided in the tab FC Results.

Without policy scenario 1: 5 year average -NDC implied



Without policy scenario 2: CPI- Business as usual scenario



Documentation provided by the Project Participant	
Please refer to UzbNewEnergyPolicyMRV V23updated	
VVB Assessment	**Date:** 22/5/2023
The table 13 of the final version of the C-PDD, version 5, includes the correct values of the estimated emissions reductions and the average annual for the BAU baseline, consistent with the values calculated in the final version of the spreadsheet “UZB_NewEnegyPolicyMRV v23updated”, and the different scenarios have been identified clearly in the spreadsheet. Therefore, the NCR is closed.	

NCR ID:	**08**	**Date:** 22/03/2023
Description of NCR		
Annex 1 is not completed.		
Project Participant response		**Date:** 12/04/2023
Noted, completed.		
Documentation provided by the Project Participant		
Updated CPDD V3		
VVB Assessment		**Date:** 22/05/2023

The final version of the C-PDD, version 5, has included the annex completed. Therefore, the NCR is closed.

NCR ID:	**09**	**Date:** 22/03/2023
Description of NCR		
There are inconsistent values of the emission reductions that the project is expected to generate: - Section 3.1. indicates that the project would generate around 30 MtCO2e over the 2023-2027 project period. - Table 14 in Annex 2 indicates 31.2 million tons of emission reductions over the crediting period (2017-2030). - Section 11.4 indicates that the estimated emission reductions from the program are 94.3 million tCO2 over the proposed purchase period of 2021-2027		
Project Participant response		**Date:** 12/04/2023
The numbers across the PDD have been corrected as per results of the latest model update. Different volumes could be noted for different time periods, depending on the relevance in that part of the PDD e.g., TCAF lifetime (2021 -2027), Paris implementation period (2021-2030) etc. If there is a preference, please let us know and we are happy to adjust.		
Documentation provided by the Project Participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023
The updated C-PDD included two different values, 88 Mt CO2 from 2017 to 2027 and 86.7 Mt CO2 from 2021 to 2027, and both are correct, although I consider that the scope of the C-PDD is the crediting period and therefore, the important value is 86.7 Mt CO2. Sheet “Transformational Change” of spreadsheet with the MRV data requirements refers to the generation over 31.2 Mt CO2 from 2017 to 2030 as indicator to monitor		
Project Participant response		**Date:** 02/05/23
Noted, the value has been updated to the latest modelling results of 86.7 MtCO2 for the period of 2021-2027.		
Documentation provided by the Project Participant		
Spreadsheet Uzbekistan MRV Data Requirements V2.		
VVB Assessment		**Date:** 22/05/2023

The values of the final version of the C-PDD, version 5 are correct in all sections and tables, and consistent with the values identified in the final version of the spreadsheet “UZB_NewEnegyPolicyMRV v23updated”. Sheet “Transformational Change” of the final version of the spreadsheet with the MRV data requirements includes the correct values. Therefore, the NCR is closed.

NCR ID:	**10**	**Date:** 22/03/2023
Description of NCR		
Table 14 of Annex 2 of the C-PDD indicates that the TCAF crediting period is from 2017 to 2030 whereas section 9.2 indicates that the crediting period of the program is from 2021 up to 2030. On the other hand, table 14 does not defined indicators for “Carbon pricing” in all cases required in the table A2 of the Validation protocol.		
Project Participant response		**Date:** 12/04/2023
The crediting period and the lifetime of the program has been clarified in all relevant parts of the CPDD V3. TCAF Crediting period is 2021-2027, Lifetime of the program is from 2021 to 2030. The indicators for the Carbon Pricing have been added in the Table 14.		
Documentation provided by the Project Participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023
The updated table 14 defines two of the five indicators identified in the table A2 of the Validation protocol for “Carbon pricing”. We suppose that it is not a requirement to consider all of them. However, “Transformational Change” sheet of the spreadsheet has not been updated in accordance with the updated table 14 of Annex 2 of the C-PDD.		
Project Participant response		**Date:** 02/05/23
The two indicators have now been updated in the MRV data requirements spreadsheet.		
Documentation provided by the Project Participant		
Spreadsheet Uzbekistan MRV Data Requirements V2.		
VVB Assessment		**Date:** 22/05/2023

The information of the crediting period indicated in the table 14 of Annex 2 of the C-PDD version 5 is now consistent with the information provided in section 9.2. Some indicators for the “Carbon Pricing” have been added in the Table 14 of the final version of the C-PDD and in the spreadsheet “Uzbekistan MRV data requirementsV2” Although three of the five indicators identified in the table A2 of the Validation protocol for “Carbon pricing” have not been considered, the audit team understands that it is not a requirement to consider all of them. Therefore, the NCR is closed.

NCR ID:	**11**	**Date:** 22/03/2023
Description of NCR		
Footnotes of methodology are not included at the bottom of the pages.		
Project Participant response		**Date:** 12/04/2023
Few of the missing footnotes have been now included.		
Documentation provided by the Project Participant		
CPDD V3		
VVB Assessment		**Date:** 22/05/2023
All footnotes are included correctly in the final version of the C-PDD, version 5. Therefore, the NCR is closed.		

NCR ID:	**12**	**Date:** 22/03/2023
Description of NCR		
Information included in section 10. “MRV ARRANGEMENTS” of the C-PDD on the data collected for the “Current operation of the electricity-supply system for all sectors and client classes” does not considered all data required by the methodology, such as some unit characteristics data (Sub-type, Technology , Grid-connect or off-grid, Captive unit (Yes/No) , …), Transmission and distribution (T&D) losses (MWh) [system-level] and operational Constraints on the historical and current operation.		
Project Participant response		**Date:** 12/04/2023
The section 10 of the CPDD V3 provides the type of data required to be monitored as per the methodology, the breakdown of data requirements under each type is further provided in the “MRV data requirement” excel document.		

Documentation provided by the Project Participant	
MRV data requirement document	
VVB Assessment	**Date:** 22/05/2023
The section 10 of the final version of the C_PDD version 5 provides the type of data required to be monitored as per the methodology and the breakdown of data requirements under each type is provided in the “Uzbekistan MRV Data Requirements V2” excel document. Therefore, the NCR is closed.	

Clarifications Request (CR)

CR ID	**01**	**Date:** 13/03/2023
Description of the CR		
We have received the following supporting documentation: - Spreadsheet “Uzbekistan MRV data requirements” - Spreadsheet “UZB_NewEnegyPolicyMRV v21”. Clarify if they are all supporting documentation comprised in the integrated Crediting Program Document (CPDD) as is described in section 3 of the validation protocol.		
Project Participant response		**Date:** 12/04/2023
The Spreadsheet “Uzbekistan MRV data requirements” represents a document that lists all parameters that have to be monitored and will serve as input data for the second Spreadsheet “UZB_NewEnegyPolicyMRV v23, which is a model that calculates the ERs and where all input data will feed. Both are supporting documents to the CPDD V3.		
Documentation provided by the Project participant		
- “Uzbekistan MRV data requirements” - “UZB_NewEnegyPolicyMRV v23”.		
VVB Assessment		**Date:** 28/04/2023
The TCAF Host Country has provided all supporting documentation considered in the integrated Crediting Program Document (CPDD) as is described in section 3 of the validation protocol. Therefore, the CR is closed.		

CR ID	**02**	**Date:** 13/03/2023
Description of the CR		
Please, clarify the differences between the document “TCAF Core Parameter requirements” (latest version dated December 2022) indicated in section 3 of the validation protocol and the “TCAF Core Parameters” indicated in section 5 and included in Annex II with the title “TCAF Core Parameter methodologies” (dated February 2023, version of the validation protocol where it is included).		
Project Participant response		**Date:** 12/04/2023
Both are the same documents, except the one indicated in the section 5 and included in Annex II are the latest version of the TCAF Core Parameters. Additionally, the Core Parameters note was updated for the last time in December 2022, but not updated on the website until February 2023.		

Documentation provided by the Project participant	
TCAF Core Parameters (https://tcafwb.org/sites/tcaf/files/2023-03/TCAF_Core%20parameters_Updated%20Dec%202022.pdf)	
VVB Assessment	**Date:** 28/04/2023
The TCAF Host Country has clarified and provided the latest version of the TCAF Core Parameters and the Core Parameters note. Therefore, the CR is closed.	

CR ID	**03**	**Date:** 13/03/2023
Description of the CR		
Clarify how the GHG Methodology criteria related to the aspect "Quantification approach and scope modeling" identified in table 2 of the validation protocol are applied correctly in the C-PDD (section 8.2), specially the following criteria: - Inclusion of all significant GHG effects from all identified source/sink. - Identification of all source/sink. - The direction and quantification of the impact on GHG emission for each impact channel. - Quantification of non-CO2 GHG emission is done applying the IPCC 100-year global warming potential (GWP) values in line with the national GHG accounting and reporting (ensure consistency on baseline setting)		
Project Participant response		**Date:** 12/04/2023
1. On the inclusion of all significant GHG effects from all identified sources/sink and identification of all sources/sink please refer to the section 8.3 Boundary of the CPDD V3. 2. The direction and quantification of the impact on GHG emissions for each impact channel please refer to the last chapter of section 8.1 and the UZNewEnergyPolicyMRV V23 spreadsheet- cell Impact Pathway *3.* On Quantification of non-CO2 GHG emission is done applying the IPCC 100-year global warming potential (GWP) values in line with the national GHG accounting and reporting (ensure consistency on baseline setting)- the program does not include a non-CO2 emission source.		
Documentation provided by the Project participant		
UZNewEnergyPolicyMRV V23 and CPDD V3		
VVB Assessment		**Date:** 28/04/2023
The information updated is adequate, but we think that the C-PDD shall identified the baseline emissions sources and the project emissions sources, because the		

estimated emission reductions are the emissions of the baseline scenario (without policy) minus the emissions of the project scenario (with policy).
Project Participant response **Date:** 02/05/2023
The sources of emissions are the same for both the with and without policy scenario. Given that this is a policy-based crediting where emission reductions are a direct result of reduced electricity demand, there are no associated project emissions and thus emission reductions are the difference between with policy and without policy scenarios.
Documentation provided by the Project Participant
N/A
VVB Assessment **Date:** 22/05/2023
TCAF Host Country has clarified how the GHG Methodology criteria related to the aspect “Quantification approach and scope modeling” identified in table 2 of the validation protocol are applied correctly, and more information on the boundaries of the program and its sources of emissions has been included in the final version of the C-PDD and the spreadsheet “UZB_NewEnegyPolicyMRV v23updated”. Therefore, the CR is closed.

CR ID	**04**	**Date:** 13/03/2023
Description of the CR		
Clarify the reason because different impact channels are identified in different sections of the C-PDD, such as section 8.1, impact channels section of the methodology in pages 50-51 and section “Chapter 2: Impact Channels” in pages 61-62.		
Project Participant response		**Date:** 12/04/2023
They are essentially the same but different language is used to express the same concept. The language can be revised if necessary.		
Documentation provided by the Project participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023
Section 8.1 refers only five impact channels, page 53 refers eight and chapter 2 refers nine. Therefore, the reason is not only the use of different language, and the impact channels identified shall be clarified in the different sections of the document.		
Project Participant response		**Date:** 02/05/2023

In total, the methodology takes into account 9 impact channels: As provided in the page 65 of the methodology, channels one to four focus on the final consumption of energy (by the end-user) which is the case for this proposed program**,** channel 5 is included too because it covers the impact of an increase in fuel prices for all on- and off-grid generating units when grid-supplied electricity price does not change and end-user prices of other fuels do not change. Channels six to nine are exclusively for looking at the impacts of price changes on grid-based electricity generation which is not the case for the program and therefore those channels are not applicable. The 8 impact channels on page 53, the language have been edited to reflect the remaining 4 channels relevant to power sector.
Documentation provided by the Project Participant
Updated CPDD V5

VVB Assessment	**Date:** 22/05/2023
TCAF Host Country has clarified that the program has five impact channels of all possible impacts channels identified by the methodology. Therefore, the CR is closed.	

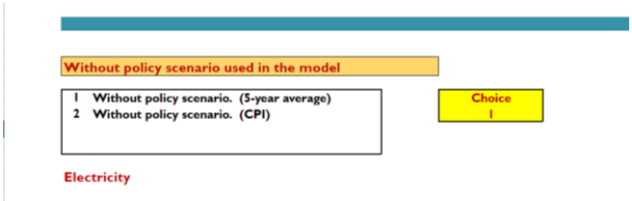
CR ID	**05**	**Date:** 13/03/2023
Description of the CR		
Clarify how the criteria of "The baseline selection process adequately and transparently accounts for conservativeness, uncertainty, common practice, and operating environment considerations" of the aspect "Quantification approach baseline" include in table 2 of the validation protocol is documented in the C-PDD.		
Project Participant response		**Date:** 12/04/2023
In general, TCAF follows the practice of conservativeness. This is done through the baseline selection process following the approach described in the TCAF core parameters where TCAF will credit against a crediting threshold or ("TCAF-baseline") that is well below the BAU emissions trajectory and typically also well below the target emission trajectory. The details of the baseline selection is provided in the section 8.4 Baseline setting.		
Documentation provided by the Project participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023
TCAF Host Country has clarified the information requested.		

Therefore, the CR is closed.

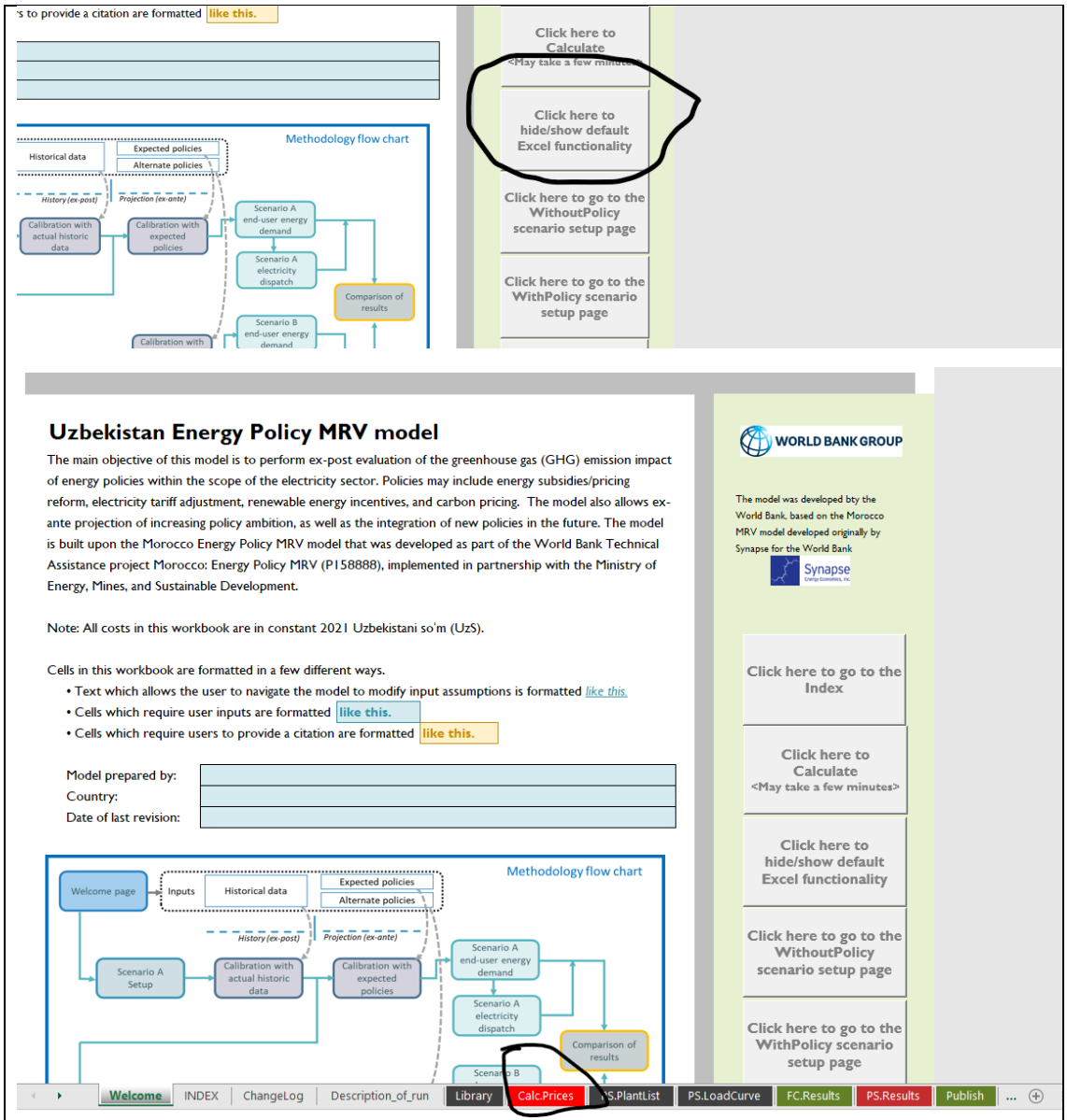
CR ID	**06**	**Date:** 13/03/2023
Description of the CR		
Clarify how the C-PDD assesses the criteria of “CPDD assesses and reports uncertainty through quantitative estimate or qualitative description, as well as a range of result from sensitivity analysis of key parameters and assumptions” of the aspect “ Plausibility of results ” include in table 2 of the validation protocol.		
Project Participant response		**Date:** 12/04/2023
Sensitivity analysis was not deemed necessary due to the fact that all the input data used comes from official national statistics agency or where not available from trusted sources such as IEA and WB and as such any variation has limited impact on the results. In addition, TCAF will credit against the most conservative baseline which is way below the BAU.		
Documentation provided by the Project participant		
N/A		
VVB Assessment		**Date:** 28/04/2023
TCAF Host Country has clarified the information requested. Therefore, the CR is closed.		

CR ID	**07**	**Date:** 13/03/2023
Description of the CR		
Section 10.9 of the C-PDD indicates that the reviewer will verify the emission reductions achieved by the program, but it does not indicate the frequency of the verification and the verification procedures used, as is required by the validation protocol.		
Project Participant response		**Date:** 12/04/2023
The verification is planned to be done annually and the verification protocol will be shared with the independent reviewer prior to the verification.		
Documentation provided by the Project participant		
VVB Assessment		**Date:** 28/04/2023

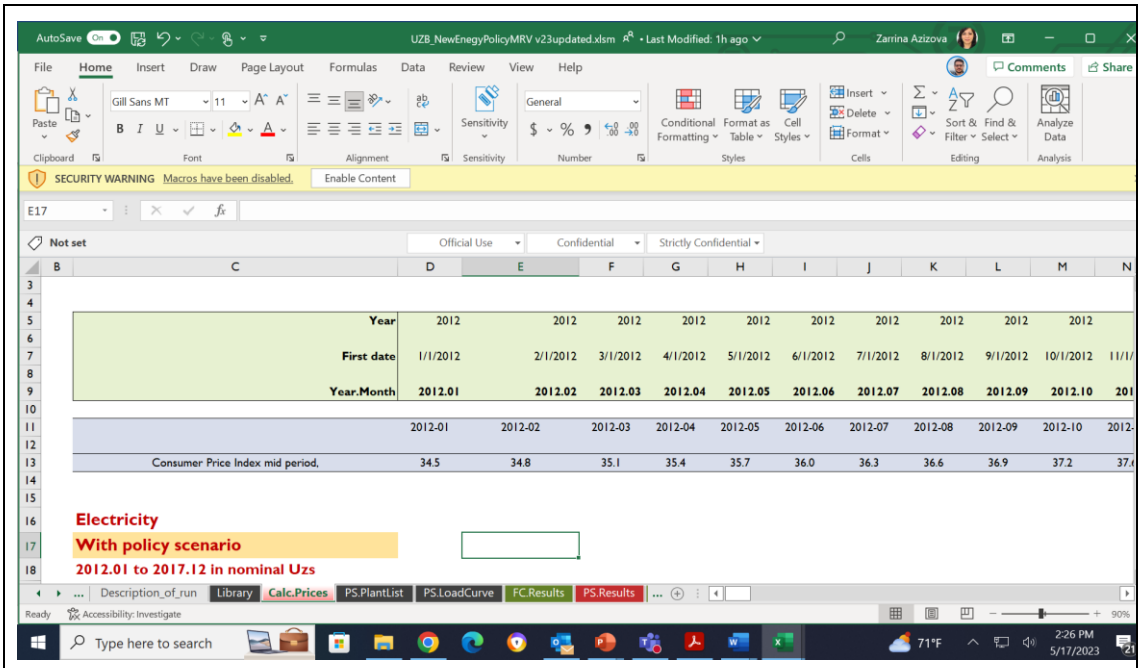
CR is closed and a FAR is open regarding this issue.

CR ID	**08**	**Date:** 22/03/2023
Description of the CR		
Clarify where the following issues are determined in the spreadsheet Energy Policy MRV Model: 1. The value of 30 MtCO2e emission reductions generated over the 2023-2027 project period, in accordance with the six steps described in section 8.1 of the C-PDD. 2. The differences in emissions calculated for the two baseline options considered (under business-as-usual scenario and under NDC-implied scenario) and compared with the policy scenario, to demonstrate that the second option (NDC-implied scenario) is more ambitious in the policy effort and generates more conservative ER results, as is indicated in section 8.4 of the C-PDD. 3. Information included in tables 7, 8 and 9 of section 11.1 of the C-PDD, tables 10 and 11 of section 11.2, tables 12 and 13 of section 11.4.		
Project Participant response		**Date:** 12/04/2023
1. The value of 30 MtCO2e has changed as per latest model update and it can be found in the spreadsheet UzNewEnergyPolicy MRV-V23, cell Uzbekistan 2. The difference of BAU and NDC implied scenario can be viewed by switching between options 1 and 2 in the UZNewEnergyPolicyMRV-V23, cell Calc. Prices sheet, the screenshot provided below.  3. The data provided in the Table 8 can be found in the spreadsheet UzNewEnergyPolicyMRV-V23, sheet Publish cell 16 to 17 Table 7 is provided by the government and 9 can be found in the sheet Calc.Prices Table 10 can be found in the spreadsheet UzNewEnergyPolicyMRV-V23 in sheet FC Results cells 38 to 52 Table 11 in the same spreadsheet, sheet PS Results. Table 12 in the same spreadsheet, sheet Uzbekistan cells 82-85 Table 13: Same spreadsheet as mentioned in the answer to the question 2 above.		
Documentation provided by the Project participant		
UzNewEnergyPolicyMRV-V23		

VVB Assessment	**Date:** 28/04/2023
The change of the value from 30 MtCO2e to 86.7 MtCO2e is very significative. Please, clarify the reasons of the change. We cannot find the “Calc. Prices” sheet into the spreadsheet.	
Project Participant response	**Date:** 05/08/2023
The most recent adjustment to the model was to base the calculations on data sourced from Uzbekistan wherever possible instead of international agencies (such as the IEA). Part of this change was to use the ex-ante pricing forecasts from the Ministry which show more aggressive tariff increases than those previously supplied by the World Bank Energy GP. The results will be monitored and verified ex-post based on the acutal tariffs. To see all the tabs, the user must click on the “hide/show default Excel functionality” button. Once the tabs are shown, the “Calc.Prices table is the 6th sheet in the file. Additionally, to see the data and run the file properly, Macros must be enabled.	



Documentation provided by the Project Participant



VVB Assessment	**Date:** 22/05/2023
The different information included in the final version of the C-PDD is now consistent between them and with the final version of the "Energy Policy MRV model" provided in the spreadsheet "UZB_NewEnegyPolicyMRV v23updated". Therefore, CR is closed.	

CR ID	**09**	**Date:** 22/03/2023
Description of the CR		
The boundary of the program shall be detailed more in section 8.3, including as appropriate, the grid connected power plants of the power sector, and other different stakeholders and development partners in the energy sector.		
Project Participant response		**Date:** 12/04/2023
The boundary of the Project is defined as emission reductions that are achieved solely from end-user demand side induced energy consumption changes. Data on all electricity generating Units will be provided as part of the Monitoring Plan. Table has also been included in the CPDD V3 Boundary section justifying inclusions and exclusions of GHG.		
Documentation provided by the Project participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023

The boundary of the program has been detailed more in section 8.3of the final version of the C-PDD. Therefore, the CR is closed.

CR ID	**10**	**Date:** 22/03/2023
Description of the CR		
Provide detailed information on the barrier evaluation (local practice, social, technological, financial, …) carried out to prove the additionality of the Policy scenario defined in section 8.4 of the C-PDD as it is required in the methodology (chapter 1) and in the TCAF core parameters.		
Project Participant response		**Date:** 12/04/2023
Social barriers and how the program helps overcome this barrier has been added in section 8.4		
Documentation provided by the Project participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023
Evidence of the social barriers shall be provided (stakeholder consultation, surveys, statistics, official reports, etc).		
Project Participant response		**Date:** 08/05/2023
Results from Listening to Citizens of Uzbekistan (L2CU)(https://www.worldbank.org/en/country/uzbekistan/brief/l2cu) surveys conducted as part of the World Bank engagement in energy sector reforms, have suggested that implementing energy tariff increases is challenging as reform is unpopular (66% voted against in 2022). Tariff reforms are also very sensitive with a potential risk of policy reversal. The project is well help mitigate such risks and will continue to support the GoU in broader electricity sector reforms, including on cost recovery initiatives, through implementing new methodologies and undertaking tariff adjustments on a regular basis to be accompanied by social mitigation measures to protect the vulnerable people as well as communication campaigns.		
Documentation provided by the Project Participant		
https://www.worldbank.org/en/country/uzbekistan/brief/l2cu Communication Strategy Uzbekistan report		
VVB Assessment		**Date:** 22/05/2023

Proper evidence of the social barriers has been provided (surveys, statistics, official reports, etc). Therefore, the CR is closed.

CR ID	**11**	**Date:** 22/03/2023
Description of the CR		
Clarify where the C-PDD substantiates if electricity generation does not respond to variable costs, and then changes to the grid emissions factor due to changes in the price of fuels for generation cannot be included, and if this results in a more conservative ER, as is required by the methodology (scenario calculation of chapter 1).		
Project Participant response		**Date:** 12/04/2023
See Chapter 4 of the methodology: Determining the applicability of this methodology for the methodology that is used.		
Documentation provided by the Project participant		
CPDD V3		
VVB Assessment		**Date:** 28/04/2023
Chapter 4 details the initial screening that **must be carried out** to demonstrate that economic dispatch is followed for grid-based electricity generation and that the methodology may be applied to changes in the pricing of the fuels used for generation, but not the final conclusion. The methodology describes a method to calculate the emission reductions and other values, but the C-PDD or the spreadsheet with the calculations shall include the results and conclusion of the application of the methodology to this specific program/activity.		
Project Participant response		**Date:** 02/05/2023
The methodology covers the following types of policies: 1. policies influencing end-user energy prices (if end-user demand is affected by energy prices) 2. policies influencing the merit order / dispatching of power generation (if the dispatch order is affected by end-user demand) 3. policies influencing variable costs in power generation (if the electricity tariff is affected by fuel costs) The proposed program falls under the first option where the methodology estimates the emission reductions from policies influencing the end-user energy demand, in this case tariff increases for natural gas and electricity for end-users. The methodology develops a counterfactual level of emissions—all other things being equal—without		

the adopted energy pricing policy, thereby singling out the emission impact of the policy. The proposed program does not account for emission reductions due to changes in the energy system in response to changes in variable cost.
Documentation provided by the Project Participant
CPDD V5

VVB Assessment	**Date:** 22/05/2023
The final version of the C-PDD describes the specific information of the methodology applicable to the program, including the specific assumptions, options and equations applied to the specific program defined in the chapter 5 of the methodology. Therefore, the CR is closed.	

CR ID	**12**	**Date:** 22/03/2023
Description of the CR		
Clarify where the supply limitations or bottlenecks, that can constrain energy supply to the end-user from meeting the demand in future years in the Withoutpolicy scenario, have been identified, as requires the methodology (scenario calculation of chapter 1).		
Project Participant response		**Date:** 12/04/2023
Constraints are identified in “Establishing CO2e emissions from counterfactual Withoutpolicy operation” on page 76.		
Documentation provided by the Project participant		
CPDD V3		
VVB Assessment		**Date:** 22/05/2023
The information included in the final version of the C-PDD version 5 is considered enough and correct. Therefore, the CR is closed.		

Forward Action Request (FAR)

FAR ID	**01**	**Date:** 22/03/2023
Description of the FAR		
Provide the letter of Approval of the program before the first verification, as is indicated in sections 14 and 15 of the C-PDD.		
Project Participant response		**Date:** 12/04/2023
The Letter of Approval will be submitted prior to the verification and is required by the TCAF legal agreements, which will not become effective if the Letter is not provided.		
Documentation provided by the Project Participant		
VVB assessment		**Date:** DD/MM/YYYY

FAR ID	**02**	**Date:** 28/04/2023
Description of the FAR		
Stakeholders consultation process has not been carried out at the validation date.		
Project Participant response		**Date:** 01/05/2023
The impacts will be managed by ensuring qualified staff and resources are retained to support management of the social and environmental risks and impacts of the Project, including a social specialist for managing the planned communication campaign, broader stakeholder engagement including a feedback mechanism and grievance redress mechanism (FGRM). An Environmental and Social Commitment Plan (ESCP) and Stakeholder Engagement Plan (SEP) including FGRM are being prepared and will be disclosed and consulted on. **Citizen Engagement.** Understanding the views of citizens about the energy reforms in the country will be key in building support for those reforms and managing expectations. The Project will ensure continuous and effective participation of stakeholders throughout the implementation. The GoU has confirmed to leverage the Project funds to finance strategic communication campaign to inform citizens and address stakeholders' views on proposed reforms. In addition, the Project will be utilizing perception survey which collects beneficiary views on energy tariffs adjustments and citizens' views on the options provided by the GoU to support vulnerable people. This survey will be used to measure the perceptions of citizens, how they evolve over the time, and asses the level of satisfaction of beneficiaries with the reforms. The results will help to determine options for level of tariffs for vulnerable people and inform outreach and communication activities under the Project. Finally, the Stakeholder Engagement Plan (SEP), which also outlines mechanisms and actions to foster a two-way dialogue with beneficiaries and ensures their participation		

throughout the Project's life cycle will detail the activities. The SEP also includes a Grievance Mechanism, through which citizen and/or beneficiary feedback (complaints, queries, recommendations) will be received and responded to within a stipulated timeline.
Documentation provided by the Project Participant
Both the SEP and ESCP will be disclosed after the World Bank's Decision Meeting. Upon that disclosure, the TCAF Trustee will share the link with the independent reviewer.

VVB assessment	**Date:** DD/MM/YYYY

FAR ID	**03**	**Date:** 28/04/2023
Description of the FAR		
The verification protocol will be shared with the independent reviewer prior to the verification that shall be done annually.		

Project Participant response	**Date:** 01/05/2023
Yes. The TCAF Trustee will develop the verification protocol to be utilized for the annual verifications and share with the independent review before the verification commences.	
Documentation provided by the Project Participant	
Protocol to be shared.	

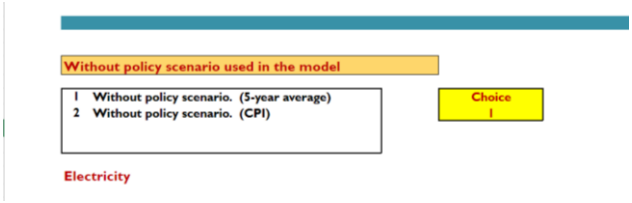
VVB assessment	**Date:** DD/MM/YYYY

New Information Request (NIR)

NIR ID	**01**	**Date:** 13/03/2023
Description of the NIR		
The letter of Approval emitted by the Host country shall be provided.		
Project Participant response		**Date:** 12/04/2023
The Letter of Approval can be included in the FAR as it is not requirement as part of the validation process.		
Documentation provided by the Project Participant		
VVB assessment		**Date:** 28/04/2023
NIR is closed and a FAR is open.		

NIR ID	**02**	**Date:** 13/03/2023
Description of the NIR		
Theory of change (ToC) shall be provided.		
Project Participant response		**Date:** 12/04/2023
Theory of Change is described in Transformational indicators in Table 14.		
Documentation provided by the Project Participant		
CPDD V3		
VVB assessment		**Date:** 22/05/2023
Final version of the C-PDD version 5 describes correctly the information of ToC. Therefore, NIR is closed.		

NIR ID	**03**	**Date:** 13/03/2023
Description of the NIR		
The calculation of the values included in table 12 and 13 of the C-PDD.		
Project Participant response		**Date:** 12/04/2023

The values provided in the Table 12 and 13 can be found in the excel file UZB_NewEnergyPolicy MRV-V23.- sheet FC result
Documentation provided by the Project Participant
UZB-NewEnergyPolicyMRV-V23
VVB assessment | **Date:** 28/04/2023
The values of the emission reductions estimated for the Business-as-usual baseline and provided in the Table 13 cannot be found in the excel file UZB_NewEnergyPolicy MRV-V23.- sheet FC result
Project Participant response | **Date:** 02/05/2023
Business as usual scenario is defined as Without Policy Scenario option 2, by changing the number to 2 in the tab Calc.prices as provided in the below screenshot, you will be able to see the ERs in the tab FC results. 
Documentation provided by the Project Participant
UZB-NewEnergyPolicyMRV-V23
VVB Assessment | **Date:** 22/05/2023
The different information included in the final version of the C-PDD is now consistent between them and with the final version of the “Energy Policy MRV model” provided in the spreadsheet “UZB_NewEnegyPolicyMRV v23updated”. Therefore, NIR is closed.

NIR ID	**04**	**Date:** 13/03/2023
Description of the NIR		
Clarify if the different roles and responsibilities of relevant personnel identified for monitoring activities will have to be trained and if the new competencies required have been defined in some document and provide evidence of the scheduled trainings and defined competencies.		
Project Participant response		**Date:** 12/04/2023
The coordinating role will be played by the Ministry of Economy and Finance, with the Ministry of Energy and Uzhydroment as implementers. The primary role will be to		

collect the necessary data to update the model. See table below on the data categories, source, frequency, and responsibility. Further detail will be established during implementation in coordination with the GoU and defined in the Program Operations Manual.

Type of Data	Source	Frequency	Responsible/Coordinating
End User Tariff data (Electricity / Natural Gas)	Ministry of Energy	monthly	Ministry of Economy and Finance
End User Consumption data (Electricity / Natural Gas)	Ministry of Energy	monthly	Ministry of Economy and Finance
Energy Balance Data (Total Final Consumption)	Ministry of Energy	Yearly	Ministry of Economy and Finance
Price-Demand Elasticity (Electricity / Natural Gas)	Ministry of Energy	Yearly	Ministry of Economy and Finance
Electricity System-level Data	Ministry of Energy	Yearly	Ministry of Economy and Finance
Electricity Plant-level Data (changes in utilized capacity)	Ministry of Energy	Yearly	Ministry of Economy and Finance
Gross Domestic Product	Ministry of Economy and Finance	Yearly	Ministry of Economy and Finance
Consumer Price Index	Ministry of Economy and Finance	monthly	Ministry of Economy and Finance
Exchange Rate (Ave nominal UzS/USD)	Ministry of Economy and Finance	Yearly	Ministry of Economy and Finance
Fuel Import/Export Trade Flow data	Ministry of Economy and Finance	Yearly	Ministry of Economy and Finance
Sustainable Development Co-benefits monitoring parameters	Ministry of Economy and Finance	Yearly	Ministry of Economy and Finance

Documentation provided by the Project Participant

VVB assessment	**Date:** 28/04/2023
NIR is closed.	

NIR ID	**05**	**Date:** 13/03/2023
Description of the NIR		
Provide evidence (energy balance reports, official statistics, etc) of the current electricity mix of Uzbekistan and the current energy consumption, the total generation capacity of the country, the generation by type of plants (thermal, hydropower, solar, etc) and the consumption per sector.		
Project Participant response		**Date:** 12/04/2023
All official statistics are available from the national statistics agency https://stat.uz/en/official-statistics/industry		
Documentation provided by the Project Participant		
Link to the statistics agency		
VVB assessment		**Date:** 28/04/2023
NIR is closed.		

NIR ID	06	**Date:** 13/03/2023
Description of the NIR		
Provide the following documentation: - Carbon Neutrality Action Plan for the electricity sector developed by the GoU, with support from the EBRD (the link provided in the C-PDD does not work). - The Law of the Republic of Uzbekistan "On Use of Renewable Energy Sources" (2019); - Presidential Decree "On Approval of the Concept of Environmental Protection of the Republic of Uzbekistan until 2030" (2019); - Presidential Decree "On Approval of the Strategy for Transition of the Republic of Uzbekistan to Green Economy for the Period 2019-2030" (2019); - Ministerial Decree "On Measures for Implementation of National Sustainable Development Goals and Targets for the period until 2030" (2018); - Strategy on Solid Waste Management (2019) - Decree of the CMRU on the Measures to Further Improve the Tariff Policy in the Power Sector No. 310 dated 13.04.2019. - Green economy transition strategy for 2019-2030 - Security of electricity supply concept for 2020-2030 - PPP law approved in 2019.		
Project Participant response		**Date:** 12/04/2023
Links some of documents were provided through the footnote in the CPDD V3. Some might not be available in English. All documents were also uploaded in the AENOR shared folder except for the “Decree of the CMRU on the Measures to Further Improve the Tariff Policy in the Power Sector No. 310 dated 13.04.2019” this one that is not available online but the summary of the law is available in this link https://cis-legislation.com/document.fwx?rgn=115144		
Documentation provided by the Project Participant		
- Carbon Neutrality Action Plan for the electricity sector developed by the GoU, with support from the EBRD (the link provided in the C-PDD does not work). - The Law of the Republic of Uzbekistan "On Use of Renewable Energy Sources" (2019); - Presidential Decree "On Approval of the Concept of Environmental Protection of the Republic of Uzbekistan until 2030" (2019); - Presidential Decree "On Approval of the Strategy for Transition of the Republic of Uzbekistan to Green Economy for the Period 2019-2030" (2019); - Ministerial Decree "On Measures for Implementation of National Sustainable Development Goals and Targets for the period until 2030" (2018); - Strategy on Solid Waste Management (2019) - Decree of the CMRU on the Measures to Further Improve the Tariff Policy in the Power Sector No. 310 dated 13.04.2019. - Green economy transition strategy for 2019-2030 - Security of electricity supply concept for 2020-2030		

- PPP law approved in 2019.
VVB assessment **Date:** 28/04/2023
NIR is closed

NIR ID	**07**	**Date:** 22/03/2023
Description of the NIR		
Is there a timetable with the different implementation dates of the key areas included in table 2 of section 6.1 of the C-PDD?. In affirmative case, provide it.		
Project Participant response		**Date:** 12/04/2023
There is no timetable for the Table 2.		
Documentation provided by the Project Participant		
VVB assessment		**Date:** 28/04/2023
Provide other evidence of real commitment to program implementation. Please, clarify which is the milestone that determines the start date of the program and provide evidence of it.		
Project Participant response		**Date:** 01/05/2023
Regarding the start date, the GoU submitted a pre-PIN to the TCAF Facility Board in February 2021. The pre-PIN was given a no-objection by the TCAF Facility Board on March 23, 2021. This was noted and confirmed in the summary and decisions from the conference call. This is the standard procedure TCAF follows to record decisions etc.		
Documentation provided by the Project Participant		
See “TCAF Summary and decisions_conf call_March 23 2021_FINAL” saved on the shared folder.		
VVB Assessment		**Date:** 22/02/2023
NIR is closed		

NIR ID	**08**	**Date:** 22/03/2023
Description of the NIR		

Provide evidence of the information included in table 3 of section 8.4 of the C-PDD, such as: - Timeline for implementation of the policy goal. - The policy implementation result from 2017-2021 - Inflation rate of 10.4% during 2012-2016

Project Participant response	**Date:** 12/04/2023
The GoU provided the Trustee with the tariff forecasts and the timeline for doing so which is what is used in the model for forecasting. Similarly, the historical tariffs were taken from the GoU. It should be noted, that the MRV will be done ex-post so only actual results (from tariff changes, leading to changes in energy demand) will be paid for. The forecasts are utilized to allow the TCAF to make a determination if there will be sufficient volumes of emission reductions (if the tariffs change) for it to be worthwhile to develop a program. The inflation rate was taken from the statistical agency.	
Documentation provided by the Project Participant	
VVB assessment	**Date:** 28/04/2023
Please, provide evidence that the GoU provided the Trustee with the tariff forecasts and the timeline and the historical tariffs.	
Project Participant response	**Date:** 19/05/2023
Email transmitted by MOEF with the tariff forecasts and the historical tariffs has been provided.	
Documentation provided by the Project Participant	
VVB Assessment	**Date:** 22/05/2023
Evidence of the information included in table 3 of section 8.4 of the C-PDD has been provided. Therefore, the NIR is closed.	

NIR ID	**09**	**Date:** 22/03/2023
Description of the NIR		
Provide information on the “scenario inputs” (figure 3 “Modeling Diagram”) have been considered (data and assumptions, sources, type of input, …) to determinate the ex-ante emissions reductions generated by the program during the crediting period.		

Project Participant response	**Date:** 12/04/2023
The data and input for ex-ante estimation of emission reductions is provided in the excel document UzbNewEnergyPolicyMRV-V23.	
Documentation provided by the Project Participant	
UzbNewEnergyPolicyMRV-V23	
VVB assessment	**Date:** 28/04/2023
NIR is closed.	

Observations (OBS)

OBS ID	**01**	**Date:** 13/03/2023
Description of the OBS		
TCAF CPDD template does not have identified the version and approval date of the document.		
Project Participant response		**Date:** 12/04/2023
The template now includes the version of the document.		
Documentation provided by the Project Participant		
CPDD V3		
VVB assessment		**Date:** 28/04/2023
The version and approval date of the template TCAF C-PDD shall be identified, as well as the edition control of the different versions.		

OBS ID	**02**	**Date:** 13/03/2023
Description of the OBS		
TCAF Core parameter requirements do not have identified the version and approval date of the document		
Project Participant response		**Date:** 12/04/2023
TCAF Core parameters provided is the latest version updated in December 2022 and posted to the TCAF website in February 2023. The TCAF Core parameters note now provides the last update date as requested and it is uploaded in the shared folder.		
Documentation provided by the Project Participant		
TCAF Core Parameter Note		
VVB assessment		**Date:** 28/04/2023
The version and approval date of the document/file shall be identified in the document, as well as the edition control of the different versions.		

OBS ID	03	Date: 13/03/2023
Description of the OBS		
Page 6 of the validation protocol refers to the ISO 164064-3:2019 instead of ISO 14064-3:2019. Some references to pages of ISO 14064-3:2019 included in the validation protocol are not correct.		
Project Participant response		**Date:** 12/04/2023
The typo in the VP will be corrected to ISO14064-3:2019		
Documentation provided by the Project Participant		
The updated VP-V2 has been uploaded in the shared folder 02/05/23		
VVB assessment		**Date:** 17/05/2023
The updated version of the VP has the correct reference to ISO 14064-3:2019. OBS is closed.		

OBS ID	04	Date: 13/03/2023
Description of the OBS		
Clarify if the following expressions used in the validation protocol have the same meaning: - Sustainable Development contributions. - Sustainable Development aspects. - Sustainable Development goals. - Sustainable Development benefits.		
Project Participant response		**Date:** 12/04/2023
Yes, all have same meaning.		
Documentation provided by the Project Participant		
VVB assessment		**Date:** 28/04/2023
OBS is closed.		

OBS ID	05	Date: 13/03/2023
Description of the OBS		
In general, the C-PDD shall provide links or references for the different information included in it, such as: - 36 million population as of 1 January 2023 - It is the most populous of Central Asian countries - Uzbekistan ranks among top 25 countries with highest fossil fuel subsidies - Domestic natural gas prices are under-priced standing at about half of its prevailing cost. - Electricity tariffs stand at around 70% of its cost - Uzbekistan remains one of the most energy intensive economies in Europe and Central Asia region with GDP energy intensity about 50% higher than neighbouring Kazakhstan, and around three times that of Turkey. - The demand for electricity is expected to grow from 61.2 TWh to over 100.0 TWh		
Project Participant response		**Date:** 12/04/2023
Most of these data are publicly available information and can be cross-checked with relevant sources. Links to some of them has been provided in the footnote in the CPDD V3.		
Documentation provided by the Project Participant		
VVB assessment		**Date:** 28/04/2023
OBS is closed.		

OBS ID	06	Date: 13/03/2023
Description of the OBS		
The source indicated in the C-PDD for the information of the figure 1 and table 1 is not correct, and the graphic and table are not included in the “First Biennial Update Report of the Republic of Uzbekistan, 2021”.		
Project Participant response		**Date:** 12/04/2023
Please refer to page 38, Figure 2.2 of the BUR and page 94 Table 3.11		
Documentation provided by the Project Participant		
BUR available from this link https://unfccc.int/documents/283216		

VVB assessment	**Date:** 28/04/2023
OBS is closed.	

OBS ID	**07**	**Date:** 22/03/2023
Description of the OBS		
Improve the structure of the methodology, for example, including an index of content to better search for different information, using different format for the title of the different sections and subsections (numbering or bullets)		
Project Participant response		**Date:** 02/05/2023
This is good advice to help the methodology follow best practices. Upon a successful pilot for this project, the methodology will be further refined and expanded in collaboration with other World Bank Global Practices. As part of that process, professional editing etc. will be done to strengthen the document per your suggestion.		
Documentation provided by the Project Participant		
VVB assessment		**Date:** 22/05/2023
Th structure of the methodology has been improved including an index of content and using different format for the title of the different sections and subsections. Therefore, the OBS is closed		

OBS ID	**08**	**Date:** 22/03/2023
Description of the OBS		
The time lag of the analysis (e.g., 2020 evaluation carried out in 2021 or 2022), depending on the availability of data, shall be documented in the C-PDD.		
Project Participant response		**Date:** 12/04/2023
It is documented on page 55 of the CPDD V3.		
Documentation provided by the Project Participant		
CPDD V3.		
VVB assessment		**Date:** 28/04/2023
OBS is closed.		

OBS ID	**09**	**Date:** 22/03/2023
Description of the OBS		
The C-PDD could include a list of abbreviatures and acronyms used.		
Project Participant response		**Date:** 12/04/2023
It has been now included in the CPDD V3.		
Documentation provided by the Project Participant		
CPDD V3.		
VVB assessment		**Date:** 28/04/2023
OBS is closed.		