TEMPLATE

DEVIATION REQUEST FORM

PUBLICATION DATE **11.04.2021**

Version **5.0**

A. To be completed by Gold Standard

1| Decision

1.1 | Date – 16/09/2022

1.2 | Decision

The Gold Standard's Technical Advisory Committee reached the following decision:

The deviation request to re-validate the additionality assessment is approved, under the following conditions:

- The Project Developer may present a new additionality assessment for re-validation, based on parameters that were standard in the market before the date of taking the investment decision.
- the PDD shall be updated following the relevant provisions of Design change requirements – Gold Standard for the Global Goals.
- The Project Developer shall perform a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions. In particular, in order to

demonstrate the validity of the proposed +/-10% sensitivity range, the PD shall demonstrate:

  - At what level of increase of each relevant parameter the benchmark is crossed
  - The feasibility of the parameters reaching such levels based on:
    - Historic data from the market/project's context before taking the investment decision
    - Historic data from the implementation of the project.

- A VVB shall perform the re-validation of the additionality assessment and shall provide a detailed validation report based on the applicable CDM Tool for demonstration and assessment of additionality and the CDM Guidance on the Assessment of Investment Analysis.
- The re-validation shall specifically look at the feasibility of the relevant parameters reaching a level where the resulting IRR would cross the benchmark and thoroughness of the sensitivity analysis and the additionality assessment.
- The re-validation shall specifically address the validity of the proposed changes based on additionality assessments common for similar projects in the Host Country at the time of taking the investment decision.
- The VVB shall provide an opinion on which version/approach is more appropriate for each of the proposed changes in parameters: the one in the original validated additionality assessment, or the one proposed for re-validation.
- The re-validation may be combined with a verification.
- The verification may take into account the Rule Clarification: Assessment approach for reporting higher ex-post emission reductions.
- The project developer shall document the deviation request, its implications, and GS' decision in the appropriate section of the PDD/Monitoring Report (for the relevant MP).

1.3 | Is this decision applicable to other project activities under similar circumstances?

No

B. To be completed by the Project Developer/Coordinating and Managing Entity and/or VVB requesting deviation (Submit deviation request form in Microsoft Word format)

2| Background information

Deviation Reference Number	DEV_302	
Date of decision	16/09/2022	
Precedent (YES/NO)	No	
Precedent details	NA	
Date of submission	05/09/2022	
Project/PoA/VPA	Project	ID – GS3409
	☐ PoA	ID – GSXXXX
	☐ VPA	ID – GSXXXX
Project/PoA/VPA title	Saritepe Wind Power Plant	
Date of listing	20/10/2015	
GS Standard version applicable	N/A	
Date of transition to GS4GG (if applicable)	N/A	
Date of transition to Gold Standard from another standard (e.g. CDM) (if applicable)	N/A	
Date of design certification/inclusion (if applicable)	28/10/2015	
Location of project/PoA/VPA	Turkiye	
Scale of the project/PoA/VPA	☐ Microscale ☐ Small scale ☒ Large scale	
Gold Standard Impact Registry link of the project/PoA/VPA	https://registry.goldstandard.org/projects/details/583	
Status of the project/PoA/VPA	☐ New ☐ Listed ☐ Certified design ☒ Certified project	
Title/subject of deviation	Revisiting the additionality assessment for Saritepe WPP	
Specify applicable rule/requirements/methodology, with exact paragraph reference and version number	Assessment approach for reporting higher ex-post emission reductions Section 2, Para. 2.1.5	

Specify the monitoring period for which the request is valid (if applicable)	Start date End date
Submitted by	Contact person name: Ramazan Aslan Email ID: ramazan.aslan@lifeenerji.com
	Organisation: Life İklim ve Enerji Ltd. Şti.
	Project participant: Yes ☐ No ☒
Validation and Verification body (VVB opinion shall be included, where required by the applicable rules/requirements or request is submitted by the VVB).	Yes ☐ No ☒ If yes; VVB name: VVB Staff name(s):
Any previous deviations approved for the same project activity/PoA/VPA(s)?	Yes ☐ No ☒

3| Deviation detail

3.1 | Description of the deviation:

3.1.1 | Deviation detail (to be completed by Project developer):

This deviation is requested with regards to Saritepe Wind Power Project's (GS3409) additionality. The project was registered under the GS in 2015. The project's validation process and the following verifications were carried out by the previous project owner and their consultant. During the second verification, annual electricity generation was realized to have surpassed the initially declared generation in the PDD. At the first review document of this verification period, it has been concluded by the project consultant that "the project is not additional" anymore, because the actual electricity generation was about 160,000 MWh, which is significantly more than estimated 110,973 MWh generation in the PDD. The project was then prohibited from generating any carbon credits for said verification period.

When the new project owner took over the project in 2019, they were left with a wrongly executed investment analysis with incorrect estimations and practices, which are provided in detail in the sections below. At this point, the new owner wants to do everything they can to salvage the project and is prepared to do what should be done for the remaining monitoring periods of the first crediting period. After contacting the GS, the project owner was informed that they can conduct a new investment analysis

and explain what had been done incorrectly in the first analysis. Thus, for this deviation request, the investment analysis for Saritepe WPP has been revised and justifications has been provided. All data used for the revised investment analysis was available at the time of the investment decision date, except for electricity generation data. The data has been retrieved from the plant's generation for the last five years and an average of this value has been utilized. The real-time generation data has been included in the analysis to show that even with overarching electricity production, the project still remains additional.

3.1.2 | VVB opinion (to be completed by VVB, if applicable):

N/A

3.2 | Assessment of the deviation:

3.2.1 | Deviation assessment (to be completed by Project developer):

As mentioned above, the deviation pertains of the revised investment analysis. This is carried out as higher electricity generation leads to higher emission reductions, which essentially brings forth the question of project's additionality. Nevertheless, it should be noted that the revised investment analysis not only demonstrates that the project is still additional, but also points out the wrongdoings of the validation process.

For the revised investment analysis, the capital costs (commercial and ECA loans and the equity amount) remained the same. The repayment periods and interest rates of these loans were also maintained. The rate of corporate tax, EURIBOR and electricity sale price for the first 10 years of operation were not changed as well. The number of parameters changed are provided below with their justifications:

1) Depreciation: At the beginning of every year, Turkey's Revenue Administration publishes depreciation rates for the corresponding year. At the investment decision date, the rate of depreciation determined by Revenue Administration was 10 years with 10%. However, the initial analysis used 20 years with 5%. Thus, depreciation has been revised in line with the laws, regulations and practices available at the investment decision date, to reflect the investment climate.

2) Exchange Rates: In the previous analysis, the cross rate for EUR/USD has been taken as 1.2938 for the investment decision date. However, this is simply not correct. Central Bank of Turkey has an extensive archive of FX rates for every day. When checked for 11.09.2014, it was seen that the rates were as the following: USD/TL 2.1924, EUR/USD 1.2923, EUR/TL 2.8333. The correct rates were utilized for the revised analysis.
3) Electricity Generation: Since the electricity generation data used for the initial investment analysis is now deemed to be unfit, average of real-time data for the last five years has been used for consistency. The data is available in the public to reach at the EXIST Transparency Platform. As the real generation data has been included in the financial analysis, no sensitivity analysis has been conducted as maximum output already exists. Anything more than that is below the wind farm's capacity.
4) Transmission Loss: Transmission loss is not taken into account as the generation data in EXIST platform already pertains the amount supplied to the grid with the loss.
5) Prices after 2026: The feed-in-tariff Turkey provides an incentive to increase investment in electricity generation from renewable sources, as the high investment costs for installing and operating a renewable power plant generally dissuades businesspeople from pursuing such endeavors. The state provides electricity sale prices to act as a ceiling price that essentially help plant owners to work out their high investment costs at the earliest. For this reason, it is neither feasible nor realistic for the market to continue providing these high prices to renewable energy plants, without any state intervention. No decision maker of such a high investment would assume that the feed-in-tariff would continue after the end of the scheme. To bring the analysis to the line of reality, and to demonstrate the decision-making process of the investors, the average of 5-year spot prices have been used for electricity sale after year 10.
6) VAT: Value added tax from electricity sales has been completely eliminated. For an investment analysis, if one side of the balance will include VATs, the other side should include it as well. For consistency, VAT has been removed from the analysis.
7) Operation Life: Initially, the operation life of the power plant was selected as 25 years based on the tool applied. However, it should be noted that industry standards of the time of the investment decision date must be taken into consideration. After meticulous research and literature review, we have reached

the conclusion that at the time of the investment decision date, the general consensus for wind turbines' lifetime was 20 years. The general literature stipulates that 25 years of life can be achieved through repairs that would elongate the turbines' lifetime. This has been also utilized for the analysis, as Para. 3 of "Guidelines on the Assessment of Investment Analysis" Version 5 states: "In general a minimum period of 10 years and a maximum of 20 years will be appropriate."

8) Operation Costs: The operation costs taken for the initial investment analysis did not include any cost items. This is not a correct method of projecting the cost of operating a wind farm for the next decade. For this reason, the new investment analysis includes an in-depth analysis of the operation costs that the project owner is expected to face at the investment decision date. IEA's "Technology Roadmap: Wind Energy" Report was utilized for consistency with world trends and the consensus in Turkish economy in 2014. The per MWh operation and maintenance cost found for Saritepe WPP is within the range of the IEA report.

When all of these changes were carried out, the equity IRR for the project became 11.14%, which is actually higher than the result of the initial IRR. All parameters were revised in the context of conservativeness. The resulting IRR is consequently conservative and still below the benchmark value.

3.2.2 | VVB opinion (to be completed by VVB, if applicable):

N/A

3.3 | Impact of the deviation:

**Guidance* Use the space below to describe the impact of the deviation on project design, safeguarding principles assessment, SDG assessment, emissions reductions, monitoring frequency, data quality, potential risk or any other relevant aspect of the project. Please substantiate the impact assessment with relevant and verifiable data/information.*

3.3.1 | Impact assessment (to be completed by Project developer):

As explained above, the incorrect estimations and analyses carried out by the former project owner and consultant led to problems during the verification processes. The following table demonstrates the parameters changed, with references provided in the last column.

Parameters	Former Value	Correction	References
Depreciation			
Years	20	10	https://www.gib.gov.tr/fileadmin/user_upload/Yararli_Bilgiler/amortisman_oranlari_2014.htm
Rate (%)	5%	10%	
Exchange Rates			
USD/TL	N/A	2.1924	https://www.tcmb.gov.tr/kurlar/kurlar_tr.html#
EUR/USD	1.2938	1.2923	https://tcmb.gov.tr/kurlar/201409/11092014.xml
EUR/TL	N/A	2.8333	Both pages are the same, the second link is sent for convenience. The first link is for cross checking the data.
Electricity Generation (MWh)*	110,973	159,470	https://seffaflik.epias.com.tr/transparency/uretim/gerceklesen-uretim/gercek-zamanli-uretim.xhtml
Transmission Loss (%)	N/A	0	Transmission loss is not taken into account as the generation data in EXIST platform already pertains the amount supplied to the grid with the loss.
Prices after 2026 (EUR)	5.64	4.85	https://rapor.epias.com.tr/rapor/xhtml/ptfSmfGunluk.xhtml#
VAT (EUR)	3,080,340	0	N/A
Operation Life (years)	25	20	1) Global Wind Energy Council and Greenpeace. (2014), Global Wind Energy Outlook 2014 (published 10/2014)

			https://www.gwec.net/wp-content/uploads/2014/10/GWEO2014_WEB.pdf
			2) Haapala, K.R. and Prempreeda, P. (2014), "Comparative life cycle assessment of 2.0 MW wind turbines", Int. J. Sustainable Manufacturing, Vol. 3, No. 2, pp.170-185. https://www.ourenergypolicy.org/wp-content/uploads/2014/06/turbines.pdf
			3)United States Environmental Protection Agency (2013), Renewable Energy Fact Sheet: Wind Turbines https://www.epa.gov/sites/default/files/2019-08/documents/wind_turbines_fact_sheet_p100il8k.pdf
Operation Costs per MWh (USD)	12	21	https://iea.blob.core.windows.net/assets/259e726a-348b-4a3c-9580-286eb365c098/Wind_2013_Roadmap.pdf

With the revised parameters, the conducted investment analysis has increased the equity IRR to 11.14% and yielded the following results for the sensitivity analysis:

Parameters	**Variance**		
	-10%	**0%**	**10%**
Power Price	9.96%	11.14%	12.13%
Investment Cost	12.74%	11.14%	9.78%
Operating Cost	13.05%	11.14%	9.05%

Even though the initial investment analysis provided a lower equity IRR, the corrected version provides a more accurate result. This analysis is not only conservative, but it

includes the correct values for certain parameters and in general, assumptions made are in line with the situation of Turkish economy in 2014 and industry standards and common practices carried out around the world. In all cases regarding the sensitivity analysis, the resulting IRR does not surpass the benchmark. Thus, it can be concluded that even with higher electricity generation values, the project still remains additional.

3.3.2 | VVB opinion (to be completed by VVB, if applicable):

N/A

3.4 | Documents:

Revised IRR Sheet

Version number	Release date	Description
5	11.04.2022	Additional information added: - date of listing, design certification, transition - standard version - specific reference to a requirement deviated from - any previous deviations/design changes approved Guidance on VVB opinion
4	14.01.2021	
3	16.07.2020	
2	03.05.2018	
1	01.07.2017	Initial adoption