

Bogotá, August 10<sup>th</sup>/2018

**CDM Team**  
**UNFCCC Secretariat**  
Bonn

Reference: **Issuance request for review for CDM project 2554: Dona Juana landfill gas-to-energy project**

Dear CDM team,

In the following lines, we allow to response your inquires regarding to the request for issuance of CERS claimed for monitoring period between 01/04/2017 and 30/09/2017 for CDM project activity 2554:

**First issue:**

The DOE is requested to explain how the temporary deviation from the registered monitoring plan, has been properly applied, in particular:

- (a) The application of the proposed temporary deviation from the monitoring plan, i.e. “for LFG total, m, the lower limit of the confidentiality tolerance is applied, while for LFG flare 1, m, LFG flare 2, m, LFG flare 3, m and LFG engine 1, m the upper limit of the confidentiality tolerance is applied”, as the submitted spreadsheets do not show the application of this approach.

**Response:**

An updated version of the spreadsheet used for calculated emission reduction calculation is attached.

Likewise, the audit team assessed that for LFG<sub>total,m</sub>, the lower limit of the confidentiality tolerance is applied, while for LFG<sub>flare1,m</sub>, LFG<sub>flare2,m</sub>, LFG<sub>flare3,m</sub> and LFG<sub>engine1,m</sub> the upper limit of the confidentiality tolerance is applied. For the new calculation there is a decrease in the CER's claimed by the LFG engine # 2. The assessment opinion of the audit team was added in the updated version of the verification and certification report.

- (b) The temporary deviation is not submitted as PRC with the relevant documents, in line with paragraph 134 of the CDM project cycle procedure for project activities (version 01.0). Please refer to section 8.2 of VVS-PA (version 01.0).

**Response:**

Since the temporary deviation do not modify permanently the approved PDD, the audit team includes the assessment regarding the temporary deviation from the registered monitored plan in Section E.4.1 of the verification and certification report. At the moment to submit the documentation related with the verification for monitoring period between 01/04/2017 and 30/09/2017 for CDM project activity 2554, the audit team and technical reviewer team considered that documentation as adequate and sufficient.

On the other hand, it is worth to drawn attention in the fact that paragraph 222(a) of CDM project cycle procedure for project activities, version 01.0, there are not listed between the documentation allowed to response this request for review: a duly completed Post-

registration changes request/notification form (CDM-PRC-FORM) nor a validation opinion on the changes, in accordance with paragraph 134 of CDM project cycle procedure for project activities, version 01.0

However, due to the enhance opportunities raised from this request for review; ICONTEC has decided to carry out a training session for the verifiers and technical reviewers in order to share the outcome considerations related to this issue.

**Second issue:**

The DOE is requested to explain how it verified the parameter  $V_{tdb,m}$  (Volumetric flow of the LFG stream in time interval  $t$  on a dry basis in the hour  $h$  for each power generator) as the verification and certification report does not include such information.

Please refer to paragraph 367 of VVS-PA (version 01.0).

**Response:**

An assessment opinion was included in Section E.4.1 of the updated verification and certification report regarding to how the audit team verified parameter  $V_{tdb,m}$  (Volumetric flow of the LFG stream in time interval  $t$  on a dry basis in the hour  $h$  for each power generator), for engine generator #2.

Regarding to engine generator #1, ICONTEC considered that with verified monitored parameters: Tf, TEG, THG and Pf, PEG, PHG on section E.6.2, the verification of monitoring equipment's for these parameters on section E.7 and the verification of the data obtained on the spreadsheet BDJ - CDM Raw Data - YYYY MM.xlsx, were enough information to verify the parameter  $V_{tdb,m}$  on dry condition, since the tool to determine the mass flow of a greenhouse gas in a gaseous stream indicate that the PP shall demonstrate that the temperature of the gaseous stream (Tt) is less than 60°C (333.15 K) at the flow measurement point and this was verified by ICONTEC. However, on the Verification and certification report version 3, it is being included the table for this parameter on section E.6.2. Also, ICONTEC include the reference No.36 with the technical information for the condensate tramp equipment.

**Third issue:**

The DOE is requested to explain how it has verified the appropriate application of the weighting of operating margin emissions factor and weighting of build margin emissions factor in line with paragraph 376(e) of the VVS-PA (version 01.0) as: (i) The project activity applies the weighting of 0.75 and 0.25 for operating margin and build margin, respectively, whereas as per paragraph 84 of the "Tool to calculate the emission factor for an electricity system" (Version 05.0), default value of 0.25 and 0.75 should be used for operating margin and build margin; (ii) According to this tool, if the weightage does not reflect their situation with an explanation for the alternative weights. the PP can submit alternative proposal, for revision of tool or the methodology or deviation from its use. The PP, however, did not submit any proposal for revision of the tool. Please refer to paragraph 376(e) of VVS-PA (version 01.0) and paragraphs 84 and 85 of "Tool to calculate the emission factor for an electricity system" (Version 05.0).

**Response:**

It is worth to drawn attention that PP does not have any intention to submit an alternative proposal for the weighting of operating margin emissions factor and weighting of build margin emissions factor.

There is a writing mistake in the approved PDD. In fact, the right weighting of operating margin emission factor for Colombian electrical grid is 0.25 in accordance with paragraph 84 of the Tool to calculate the emission factor for an electricity system, version 05.0; likewise, the right of build margin emission factor for Colombian grid is 0.75.

The calculations of claimed CERS for the monitoring period between 01/04/2017 and 30/09/2017, was corrected with the adjusted emission factor for the Colombian grid (0.2547 tCO<sub>2</sub>e). The new figures, as an outcome of this adjustment, was updated in the new version of MR . For the new calculation there is a decrease in the CER's claimed with the adjusted emission factor

Similarly, the audit team raised FAR 1 with the aim to encourage PP to request a pos registration change for this parameter fixed in *ex-ante* manner for the following monitoring periods. The writing correction in the verification and certification report regarding this issue was performed.

**Fourth issue:**

The DOE is requested to explain how it verified the emission reductions calculation, in particular:

- (a) The correct application of the flare efficiency, both measured efficiency and default value of efficiency, in line with the tool "Project emissions from flaring" (Version 02.0.0). As per this tool, efficiency can be measured/calculated or default value of 90% can be applied when during the minute m, the temperature of the flare (TEG,m) and the flow rate of the residual gas to the flare (FRG,m) is within the manufacturer's specification for the flare (SPECflare) and flame is detected. Otherwise, the efficiency is zero. The PDD has documented the parameter SPECflare, i.e. temperature between 900 °C and 1,200 °C, and the flow rate between 1,000 - 5,000 Nm<sup>3</sup>/h. It is observed that in some minutes, the temperature and/or the flow rate are outside the range of the SPECflare, but the efficiency during those minutes are not zero, for examples:
- (i) Flare 2: 09/04/2017 15:53. Flare efficiency is 100% (calculated), while temperature of the flare is 832.15 and flow is 113.518 (outside the SPECflare);
  - (ii) Flare 2: 06/05/2017 18:38. Flare efficiency is 90% (default value), while temperature of the flare is 863.9468 (outside the SPECflare);
  - (iii) Flare 3: 12/09/2017 11:27. Flare efficiency is 100% (calculated), while temperature of the flare is 761.5586 and flow is 529.9262 (outside the SPECflare);
- It is also observed that the default efficiency of 50% is applied (for example in spreadsheets "BDJ - CDM Raw Data - 2017 05" and "BDJ - CDM Raw Data - 2017 09"), while the tool does not have provision for default value 50%

**Response:**

ICONTEC confirmed the information by comparison of the ERs file BDJ - CDM Raw Data – YYYY MM.xlsx, which shown the raw data from each one of the measuring equipment located in LFG, with the cross check file: CDM-CROSS CHECK Data Year Month.xlsx. However, during the on site visit this mistake was not identified related to temperature combustion.

According to the description, operation, maintenance and security manual of GRS Valtech – Veolia Proprete, Version 0.1, dated in 2010, which indicates that temperature combustion of flare is given from 800°C, it is necessary an adjustment for the next

verification period in the approved PDD for the parameter SPECflare, for this reason, ICONTEC issues FAR 2.

Likewise ICONTEC verified on file BDJ - CDM Raw Data - 2017 0X V2, the correction of the emission reductions calculation with the fulfillment of specifications of the flare for flow and temperature parameters this results in a penalty and the discount of CERs for the monitoring period since the combustion temperature less than 800 ° and biogas flow less than 1000 m<sup>3</sup>/h (outside of the range SPECflare of the provider) results in 0 Cer's

- (b) the completeness of the data, as it is observed that the file "BDJ - CDM Raw Data - 2017 04" only contains data from 03/04/2017 15:36, while the monitoring period starts on 01/04/2017; Please refer to paragraph 376(a) and (c) of VVS-PA (version 01.0).

**Response:**

It is worth to drawn attention that since 0 hour on April 1st /2017 and 15:35 h on April 3rd/2017 there is not claimed emission reduction since there was physical disconnection of the data between the SCADA and the server, as it was explained by the PP on page 12 in MR.

However in order to be transparent with the information, an updated version of the file is submitted (BDJ - CDM Raw Data - 2017 04 V2.xlsx), as the reader can review there were included the data request, the reader can review that there is not claimed emission reduction during this period of time (0 hour on April 1st /2017 and 15:35 h on April 3rd/2017)

We expect the explanations for every issue raised can fully answer your requests.

Please do not hesitate if you have doubts.