



**Approved baseline and monitoring methodology /
methodological tool clarification response form
(Version 03.0)**

INFORMATION TO BE COMPLETED BY THE SECRETARIAT OR PANEL / WG

Date and number of Panel / WG meeting:	20 – 24 Sept 2021 / MP 86
Title/Subject of the request for clarification:	Clarification on how to calculate the EGPJ as the quantity of electricity generated by the project activity and supplied to the grid and to the electricity consuming facility, under ACM0002
Reference number of the request for clarification:	AM_CLA_0290
Exact reference (number, title and version) of the methodology or methodological tool to which the request for clarification applies:	ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources --- ver. 12.3.0
Fast track or Regular track:	<input type="checkbox"/> Fast track <input checked="" type="checkbox"/> Regular track

Summary of the request for clarification

Original text from the DOE:

The project activity Wind farm extension project for Lafarge's cement plant in Tétouan (5991) was registered on 08/12/2012, but it was not verified until December 2019 when Lafarge hired AENOR to verify the seven years of the first crediting period. The request for issuance of CERs was submitted on 06/05/2020.

The verification was carried out in accordance with the requirements of the CDM (methodology ACM0002 version 12.3.0 and applied tools), the registered PDD and the validation report.

The validation report version 06.2 carried out by TÜV Rheinland on 19/11/2012, indicates in the page 152 that the "EGPJ,y is in this case the "quantity of the net electricity generation that is produced and fed into the grid and to the cement plant as a result of the implementation of the CDM project activity in the year y (MWh)". This is a slight, but important deviation to the wording used by ACM0002".

Different sections of the registered PDD (version 8.4 completed on 15/11/2012) identified that "a part of the electricity generated in the capacity addition is used in the cement plant and another part is fed to the grid", and it is specially referenced in the description of the calculation of EGPJ,y included in section B.6.1. and the description of the parameter EGPJ,Add,y of the section B.7.1.

Therefore, as it is described in the registered PDD, the net electricity produced by the project activity and used in the close Lafarge cement plant of Tetouan replaced in any case the grid electricity which would be used in the baseline scenario.

Although the methodology applied by the project activity, ACM0002 version 12.3.0 indicates that the parameter EGPJ_Add,y is the "quantity of net electricity generation supplied to the grid in year y by the project plant/unit that has been added under the project activity", we **request clarification if we could determine the parameter EGPJ_Add,y as per methodological tool: "Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" version 03, and consider that it is the quantity of electricity generated by the project activity and supplied to the grid and consumers/electricity consuming facility because the electricity supplied to the cement plant replaces the grid electricity which would be consumed in the baseline scenario.**

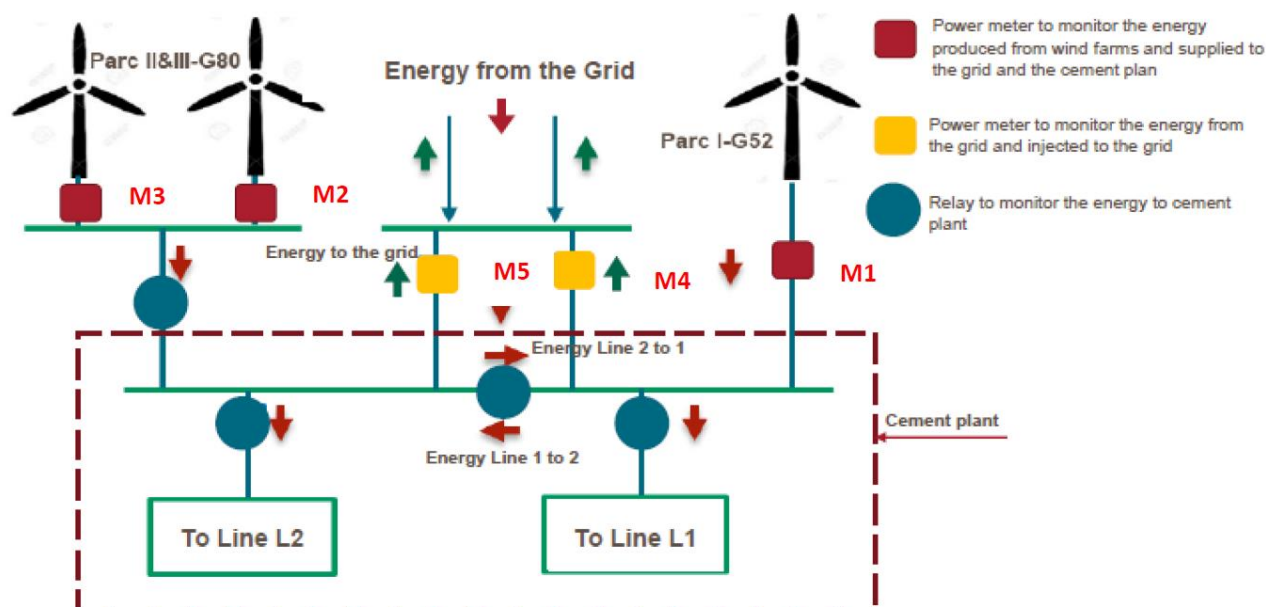
This approach is consistent with the description of the parameter EGBL,y of the small -scale methodology AMS -I.F "Renewable electricity generation for captive use and mini-grid" version 03.0 as the "the quantity of electricity generated by the project activity and supplied to the grid and consumers/electricity consuming facility". This small-scale methodology is applied in the project activity "0042: Tétouan Wind Farm Project for Lafarge Cement Plan", close to the project activity 5991 which also supplies electricity to the cement plant and the national grid.

Additional information requested on 14 July 2021:

You are kindly requested to share a line diagram that shows the points where electricity supplied by the project activity to the grid and the cement plant are monitored. Separate line diagrams to indicate the project boundary in the baseline and project situation including metering points may be provided.

Reply received on 20 July 2021 from the DOE:

1. A line diagram that shows the points where electricity supplied by the project activity to the grid and the cement plant are monitored.



The Lafarge complex includes the wind Park I (CDM project 0042), the wind Park II & III (CDM project 5991) and the cement plant. The energy supplied by the Complex to the grid (EGexp) and the energy received from the grid (EGimp) are monitored by the bidirectional meters M4 and M5.

$$EG_{exp} = M4_{exp} + M5_{exp}$$

$$EG_{imp} = M4_{imp} + M5_{imp}$$

The energy generated (Mgen) or consumed (Mcon) by the wind Park I, II and III is monitored by the bidirectional meters M1, M2 and M3.

$$M_{gen} = M1_{gen} + M2_{gen} + M3_{gen}$$

$$M_{con} = M1_{con} + M2_{con} + M3_{con}$$

Therefore, the net energy generated by the wind parks (Mnet) is:

$$M_{net} = M1_{net} + M2_{net} + M3_{net}$$

$$M1_{net} = M1_{gen} - M1_{con}; M2_{net} = M2_{gen} - M2_{con}; M3_{net} = M3_{gen} - M3_{con}$$

As consequence of the energy supplied to the grid can be injected by the line 1 and/or 2, it is not possible to know the electricity supplied by each wind park to the grid, and it is monitored the energy supplied to the grid by all wind parks.

Likewise, the energy supplied by the project activity to the plant is not monitored separately either and is only calculated considering the energy generated by all wind parks and the energy supplied to the grid.

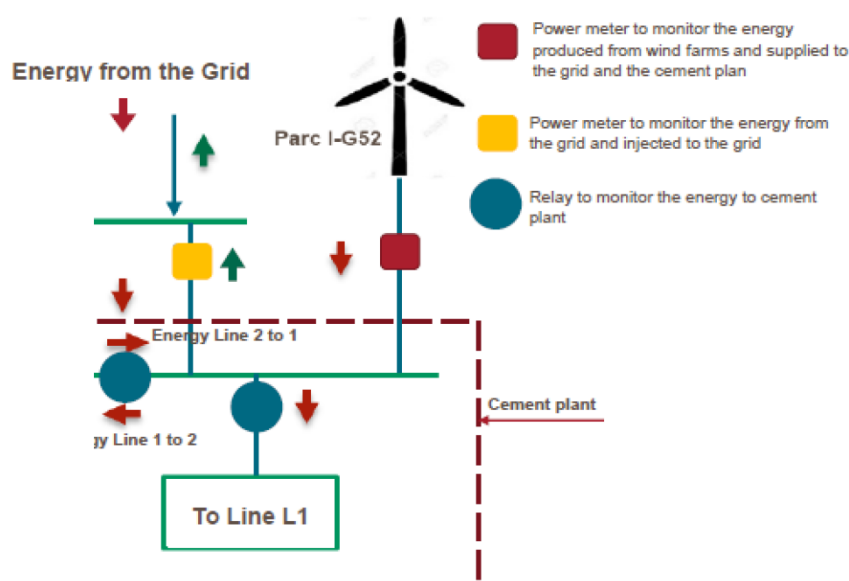
Therefore, the energy supplied by all wind Parks to the cement plant (EGrec) is as following:

$$EG_{rec} = M_{net} - EG_{exp}$$

The total energy consumed by the cement plant:

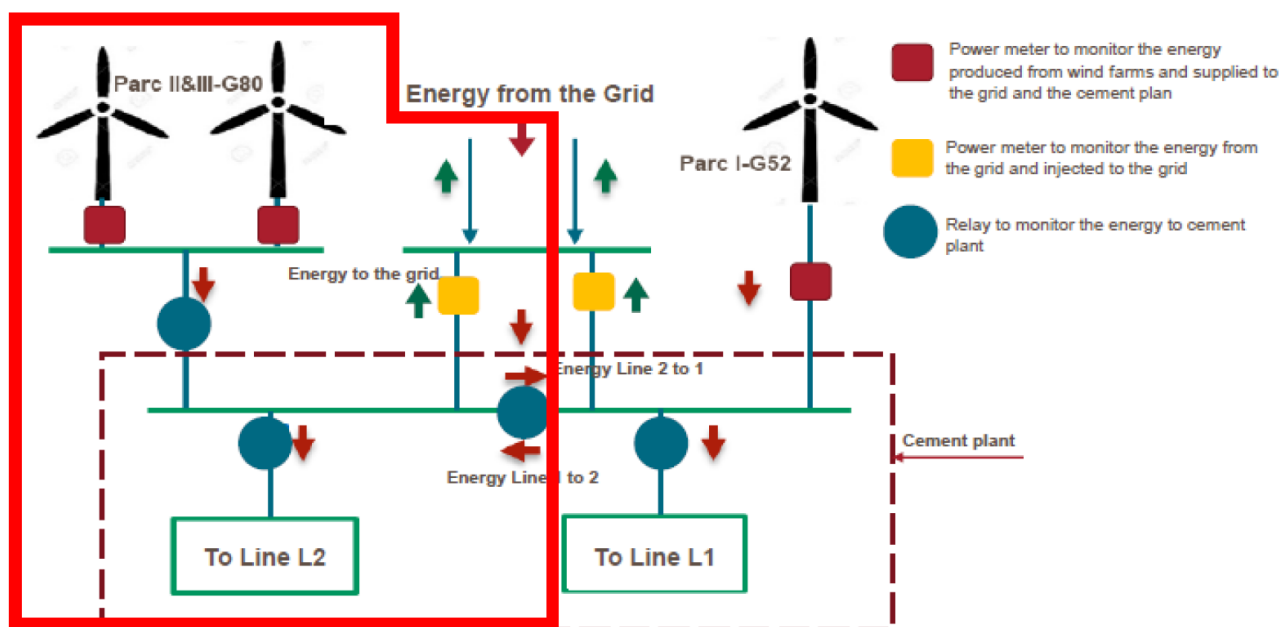
$$EG_{con} = EG_{rec} + EG_{imp}$$

2. A line diagram to indicate the project boundary in the baseline situation including metering points



The project boundary in the baseline situation should be that the energy consumed by the cement plant would be supplied by the wind Park I or/and the national grid. Please, see figure B3 of the registered PDD of the project activity 0042.

3. A line diagram to indicate the project boundary in the project situation including metering points, identifying clearly the new additional transmission lines and metering points included due to the project activity.



The project boundary in the project situation including the new additional transmission lines and metering points included due to the project activity are identified clearly into the red figure. Please, see figure included in Annex 4 of the registered PDD of the project activity 5991.

Additional information requested on 9 August 2021:

- Referring to the line diagram you have shared, could you please clarify the metering locations for project 0042 and project 5991; and
- How the net electricity supplied to the grid by each project is monitored and calculated noting that "the

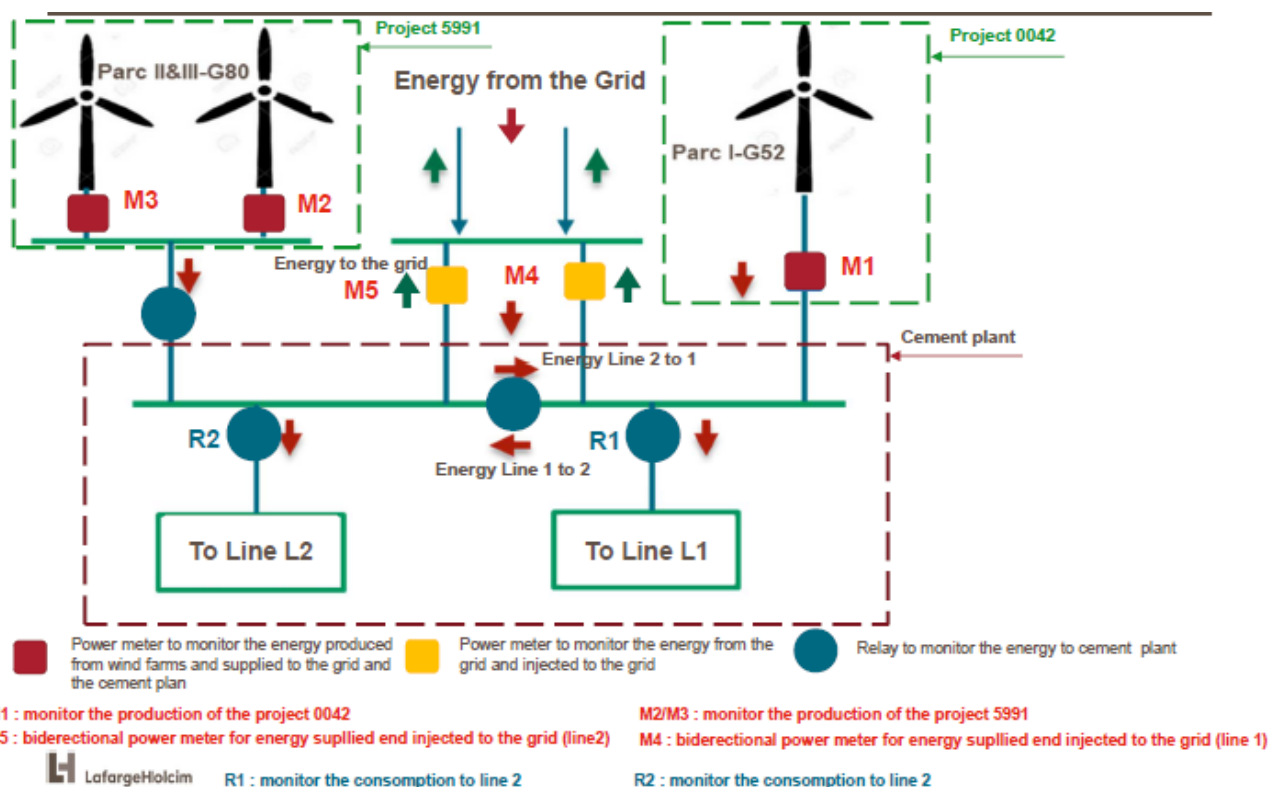
energy supplied to the grid can be injected by the line 1 and/or 2, it is not possible to know the electricity supplied by each wind park to the grid, and it is monitored the energy supplied to the grid by all wind parks". Also clarify how the procedure used to monitor net electricity supplied to the grid is in-line with the respective applied methodologies.

Reply received on 13 August 2021 from the DOE:

As we explained in previous documents, the net electricity supplied to the grid and the cement plant by each project cannot be monitored, but the net energy generated by each project is monitored (meters M1 and M2/M3), and this energy is the quantity of energy displaced by each project from the grid, well supplied directly to the grid or to the cement plant that replaces the consumption from the grid if the project was not implemented.

For this reason, we submitted the clarification requesting that the project 5991 could consider the parameter EGPJ_Add,y as the quantity of electricity generated by the project activity and supplied to the grid and consumers/electricity consuming facility.

In this case, the net electricity supplied to the grid by the project (directly or indirectly supplying it to the cement plant) would be equivalent to the net energy generated by the project 5991 and monitored by the meters M2 and M3, minus the transmission and transformation losses (2%). This case would be requested in a post registration change once the clarification would be answered accepting the consideration of the parameter EGPJ_Add,y equivalent to the electricity generated.



Clarification by the secretariat or Panel / WG

The Meth Panel would like to thank the stakeholder for submission. The Meth Panel noted that as per the applied methodology "ACM0002: Grid-connected electricity generation from renewable sources"(ACM0002), version 12.3 (hereinafter applied methodology), the baseline scenario for the project activity mentioned in the submission (project 5991) is *"In the absence of the CDM project activity, the existing facility would continue to supply electricity to the grid at historical levels,..... assumed to occur."* Therefore, only the amount of the electricity that is supplied to the grid by the project activity is eligible to calculate emission reductions. As per registered PDD of project 5991 and the information provided by the stakeholder, it is inferred that the project activity supplies electricity to the grid as well as to the cement plant, and consideration of the latter (i.e. portion that is supplied to the cement plant) in the calculation of emission reductions is not consistent with the applied methodology.

Further, the applied methodology does not refer to "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" (TOOL05). Even though the latest version, i.e. version 20.0 of ACM0002 refers to the tool, it should be noted, that TOOL05 only compiles

different options for monitoring depending on the technologies/measures that are sourced from multiple methodologies. Therefore, the fact that the TOOL05, for parameter $EG_{PJ_Add,y}$, includes cases when electricity is also supplied to the captive consumer does not automatically mean that the same measure is applicable in all methodologies which refer to TOOL05, as it is the methodology which ultimately determines the applicability.

For this reason, the project 5991 needs to meet the requirements in the applied methodology and therefore $EG_{PJ_Add,y}$ corresponds to the quantity of electricity generated and supplied to the grid in year y and should not include an option to take into account the supply to a captive facility. Therefore, the approach described by the stakeholder is also not eligible for project 5991 under the current version of the applied methodology.

To explore the possibility to claim emission reductions against the electricity supplied to the grid and to the cement plant, a request for revision to ACM0002 or a new methodology may have to be submitted. Following approval of such revision or a new methodology, the project participant will be able to apply them to the project activity following relevant requirements of post registration change request as per section 8 of the "CDM project standard for project activities", version 2.0.

The project participant may wish to explore the possibility to claim emission reductions against the portion of electricity supplied to the grid by the project 5991, submitting a post-registration change request as per section 8 of the "CDM project standard for project activities", version 2.0 providing details regarding the method used to determine the portion of the electricity supplied to the grid, as the line diagram submitted by the stakeholder appears to indicate that the meters M4 and M5 measures the electricity supplied to the grid by both project 5991 and project 0042.

Furthermore, the Meth Panel also noted that the description of parameter " $EG_{PJ_Add,y}$ " in the registered monitoring plan is not in line with the description in the applied methodology. The Meth Panel is of the opinion that the monitoring plan should be revised to make it in line with the applied methodology following the requirements for the post-registration change request.

Version(s) of the approved methodology / methodological tool to which the clarification is applicable:

ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources --- ver. 12.3.

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Document information

Version	Date	Description
03.0	13 May 2016	Revised to include the row "Version(s) of the approved methodology / methodological tool to which the clarification is applicable"
02.0	18 July 2013	Revised to remove the row "Date and signature of the chair and vice chair of Panel/WG (in case of clarification by Panel/WG)"
01.0	4 July 2013	Initial publication. This document supersedes and replaces the following documents: <ul style="list-style-type: none"> Recommendation Form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1) Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1)
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