



**CDM: Response form for request for clarification on
Approved Methodologies
(version 01.1)**

<i>Date of Meth Panel meeting:</i>	25 - 29 October 2010
<i>Title and number of request for clarification</i>	Clarification request on the use of heat recovery steam generators to deliver steam to existing steam turbine generators for the generation of electricity from recovered heat. AM_CLA_0193

Summary of the query:

Please use the space below to summarize the request for clarification on the related approved methodologies.

The project participants refer to the following applicability condition of AM0049.

“The methodology is applicable to project activities that install gas¹ based energy generation (electricity and/or steam/heat) system at an existing industrial facility to meet its own energy demand. The methodology is applicable to the following types of project activities:

(1) Project activities that generate on-site electricity and/or steam in:

- (a) Separate generation systems on-site in an industrial facility; or
- (b) Co-generate² electricity and steam on-site in an industrial facility.”

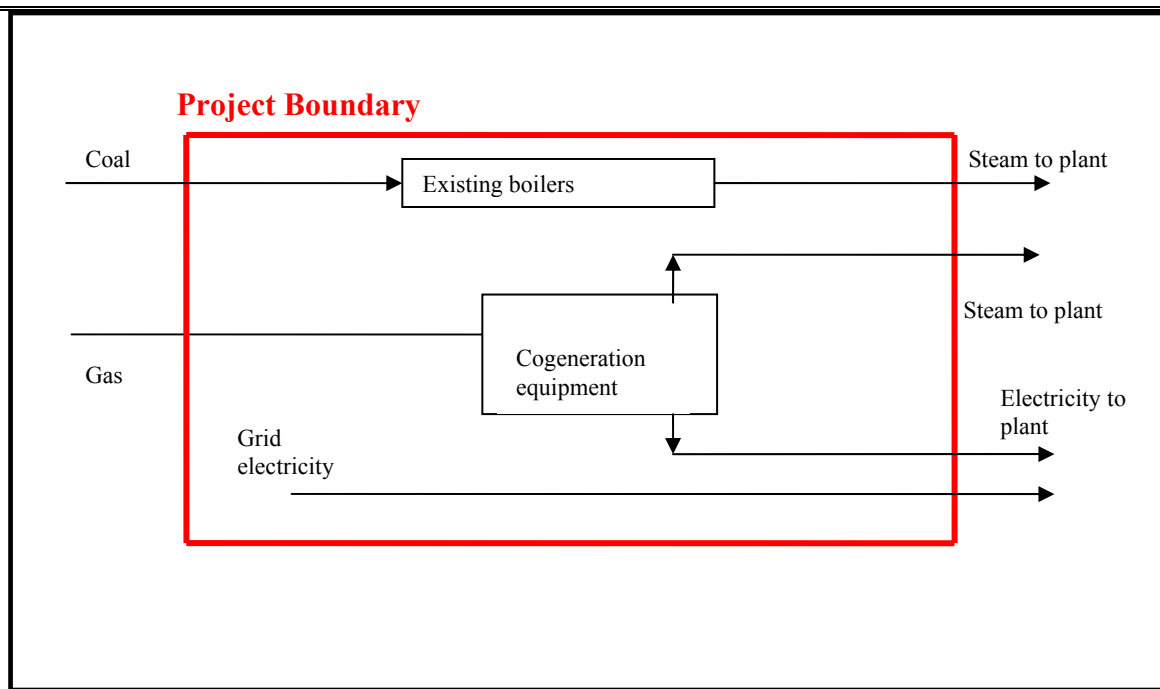
The project situation is described by PPs in the request and the attached PDD. The project is under validation and the DOE has requested that the PPs have to clarify whether the following situation comply with the applicability condition mentioned above.

Under the project activity the steam generated by heat recovery steam generator (HRSG) is fed to existing turbines to generate the 68MW in addition to the power produced by the same turbines on account of steam fed by existing coal-fired boilers.

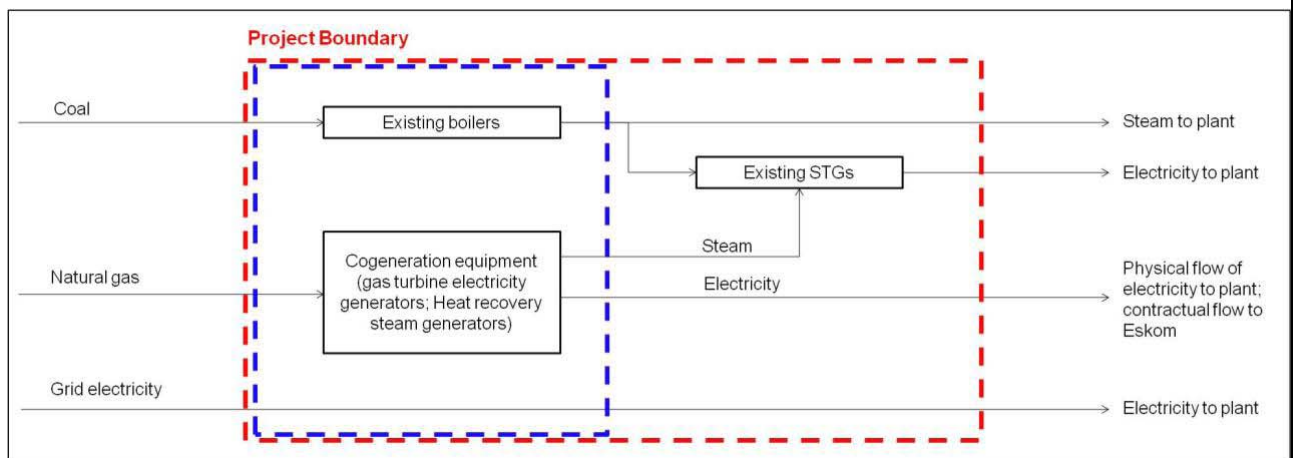
Also there is a mismatch in the project boundary. The following diagram indicates the project boundary given in the methodology.

¹ Gas should be the primary fuel. Small amounts of other startup or auxiliary fuels can be used, but can comprise no more than 1% of total fuel use.

² Cogeneration (could be either in combined heat and power system or sequentially produced from a single fuel source).



Whereas from Figure 4 of the draft PDD (attached), the following project boundary is copied. The blue (inner) dashed line indicates that the project boundary of the project activity is identical to that in the methodology.



The remainder of the diagram (i.e. outside the blue border, but inside the red border) indicates the specific use of steam in the PP's project. The methodology does not specify what the steam from the project activity must be used for. The PDD for this project activity indicates the use of the steam for electricity production in existing equipment outside of the project boundary. This means that the baseline emissions for the steam can be calculated based on the electricity emissions factor from the grid (at ~1 t CO₂ / MWh). This is more conservative than if the baseline applied is the off-setting of steam generated in the PP's existing coal-fired boilers (at ~1.4 t CO₂ / MWh).

The PPs seek the following clarifications from the Meth Panel.

Whether this quantification method of the greenhouse gas emission reductions associated with the waste heat steam generation from the project activity is acceptable. The PP's view is that the methodology does allow for downstream description of the use of recovered waste heat in the case where that heat is used for the generation of additional electricity to further offset grid imports, otherwise the applicability criterion cannot be held to be true: "The methodology is applicable to project activities that install gas based energy generation (electricity and/or steam/heat) system..."

Recommendation by the Meth Panel:

Please use the space below to provide amendments /changes (in your expert view, if necessary).

The Meth Panel clarified that:

- (1) The methodology does not require that the entire investment on the CDM project (cogeneration plant) should be new and therefore logically some components of existing plants can be used in the new project (fuel switching in an existing equipment is an explicitly acceptable project). The Meth Panel noted that the diagram presented in this methodology does not cover all possible alternatives described in the text. In cases where such a difference exists, project proponents are expected to follow the text of the methodology.
- (2) Based on the information provided in this request, the baseline emission factor of grid electricity that is offset by the additional electricity generated by recovering the waste heat is the appropriate value to be used since in the underlying project activity there is no substitution of the captive power produced in the baseline. Rather, there is an expansion of the capacity to replace the grid and in the absence of the project the grid would continue to provide the correspondent electricity.

Answer to authors of the request for clarification by the Meth Panel :

Please use the space below to provide an answer to the authors of the above query

As above.

Signed by the Chair, Mr. Lex de Jonge

Date: 29/10/2010

Signed by the Vice-Chair, Mr. Philip Gwage

Date: 29/10/2010

Information to be completed by the secretariat

F-CDM-AM	AM_CLA_0193
Name of the authors of the query:	TUEV-NORD
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