Attn.:
Chair of JISC
Mr Leguet

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Utrecht **7 October 2010**

Subject: Comments on review determination JI0211

Dear Mr Leguet,

On the 9th of August 2010 we were informed that four JISC members requested a review of the JI project 0211 “Utilization of coke gas with electricity generation by two 6 MWe CHP at “ZaporozhCox Plant”".

In accordance with article 11 (b) of the procedures for reviews[1], I herewith submit comments to the JISC on the issues raised. These comments, presented in annex 1, are submitted on behalf of the AIE Bureau Veritas Certification Holding SAS and both Project Participants JSC "ZaporozhCox Plant" and Global Carbon BV. First the reasons for review are listed, second our comments to the particular reason are provided and thirdly a proposal is included how we believe the issue can be closed.

In annex 2 elaborations on ‘prior consideration’ in the context of JI are provided. This is a submission by Global Carbon BV only.

Sincerely yours,

Lennard de Klerk
Managing Director

[1] Procedures for reviews under the verification procedure under the Joint Implementation Supervisory Committee, version 03.

ANNEX 1: Comment on review

Review reason: Starting date of crediting period

- From request 1: There are contractions (sic) within and between PDD and determination report (DR) regarding the start date of the crediting period. While DR p.33 (A4.3.2.) states a crediting period start date of 01.01.2008 the PDD p.23 & p.5 refer to a crediting period start date of 01.02.2008 (and so does the DR p. 41, C.3.1.) The basis for the annual ER calculations is therefore not consistent.
- From request 2: Regarding the crediting period, it is necessary to clarify of inconsistency between the PDD and Determination report.
- From request 3: Starting date of the crediting period: Annex 2 of the guidance on criteria for baseline setting and monitoring requires an ex-ante estimation of the emission reductions in the PDD (§1, §2). PDD and determination report (DR) are inconsistent regarding the basis for the calculation of annual emission reductions. While the Determination Report p.33 states a crediting period start date of 1.1.2008, PDD p.23, p.5 and Determination Report p. 41 refer to a crediting period start date of 01.02.2008. This issue could be resolved by clarifying and correcting, where necessary the starting date of the crediting period.

Comments:
The correct starting date of the crediting period is 01/02/2008. There is a mistake in the DR on page 33.

Suggested solution:
Correct mistake in DR and submit updated DR to the JISC.

Review reason: Increase of COG production by project

- From request 1 and 2: It is not clear that the project could not result in an overall increase in production of COG, and hence an increase in fossil fuel emissions, in order to increase steam generation and thereby electricity generation and ERU revenues from the new CHP units.
- From request 3: Project boundary: It is not clear that the project could not result in an overall increase in production of COG, and hence an increase in fossil fuel emissions, in order to increase steam generation and thereby electricity generation and ERU revenues from the new CHP units. It is stated as an assumption (PDD p. 8) that "The proposed project should have no influence on the COG production level". Therefore, the amount of COG for the project scenario and for the baseline scenario can be assumed to be the same for each year.

Comments:

In accordance with the Guidance[2] par. 24, the baseline has been selected by "listing and describing plausible future scenarios and selecting the most plausible one". For this project the most plausible future scenario is the scenario in which the amount of Coke Oven Gas (COG) produced by the coke plant is the same as in project scenario. The reasons why this scenario is the most plausible are as follows:

- Technical: COG is a waste gas that is produced as a result of the production of coke in a coke plant. Most COG is fed back into the coke plant as a fuel for the coking process. The remaining COG is flared or can be available for utilization outside the coke plant. No fossil fuels are used in the coke plant (other than the coal as raw material) so no extra COG can be produced unless the production of cokes is increased. The production of cokes is outside of the project boundary;
- In the reason for review it is suggested that, due to the additional income of ERUs in the project scenario, the plant will start to produce more COG than the production that would have happened in the baseline scenario. Technically this can only be done by increasing coke production (see above). As the project is expected to work at full capacity it is not possible to increase the utilization of the coke oven gas. As a result it is not plausible to assume the more COG will be produced compared to the baseline scenario as it cannot be utilized.
- Even in the unlikely event that the project is not working at full capacity it is not plausible that production of coke is increased. The production of coke is the core business of the company and driven by market circumstances. The cost price of one tonne of coke is approximately 100 Euro and each tonne of coke will allow to generate 0.09 ERU). Assuming a price of 10 Euro/ERU this would mean a decrease of costs price of one tonne of coke of to 99,1 Euro/tonne cokes (or 0.9%) only.
- Also note that even if the plant would start to produce more coke compared to the baseline scenario, it will lead to less coke production at other plants[3].

[2] Guidance on criteria for baseline setting and monitoring, version 02

[3] In other registered JI projects this possible effect is also not seen as the most plausible. For example in cement projects it is assumed that a cement plant would not to produce more cement after applying energy efficiency measures, a CMM utilization project would note start to produce more coal and a steel plant would not start to produce more steel. Exceptions could be some industrial gases projects, like HFC projects, were the impact of ERU/CER revenue on the cost price can be significant making it profitable to increase production for the purpose of ERU/CER generation only.

Suggested solution:
Add in the PDD a plausible future scenario which describes the case that the plant will increase COG production compared to the baseline scenario. However, using the argumentation above, this scenario will not be selected as the most plausible one[4].

[4] In review request 3 it is proposed to cap the baseline COG on historical average COG production. However, this would not be a plausible scenario as COG production varies due to variations in coke production which in its turn depends on market demand.

Review reason: Monitoring other fossil fuels

- From request 1: It essential that no natural gas or other fossil fuel is mixed with COG in the project, otherwise project emissions would not be zero.
- From request 3: Emission reductions project emissions: If natural gas or other fossil fuels were mixed with COG in the project, project emissions would not be zero (PDD, p. 9).
- From request 4: is not clear on how to ensure that no natural gas or other fossil fuel is mixed with COG in the project, since otherwise project emissions would not be zero. The monitoring plan should clarify how this can be verified not to have occurred. (JI Guidelines Appendix B and JISC Guidance on criteria for baseline setting and monitoring, paragraph 29).

Comments:

Boilers installed for steam generation at ZaporozhCox plant are not connected to natural gas pipelines and there is no other infrastructure in place to supply any other fuel except COG. This has been as checked during the site-visit and can be confirmed by BVC.

Suggested solution:

Explicitly state in the PDD that there is no technical infrastructure to supply any fuel other than COG. Explicitly state in the DR that this has been checked by BVC. Include in the monitoring plan of the PDD a check whether any non-COG fuel has been supplied to the boiler during the monitoring period. The latter solution was also recommended in request 3 stating that ”this issue could be resolved by clarifying in the monitoring plan how this will be verified not to have occurred”.

Review reason: Leakage

- From request 1 & 2: The amount of COG delivered to Zaporozhstal should be monitored and compared with historical average deliveries to ensure that any decrease in externally delivered COG is not greater than that caused by the difference in steam input and output through the new units.
- From request 3: Emission reductions - leakage: In the baseline, COG is delivered to Zaporozhstal for heating purposes. In the project scenario, the decrease of COG deliveries could be greater than that caused by the difference in steam input and output through the new units. In this case, overall emissions would rise. This is considered in the calculation of emission reductions (PDD p. 9, p. 20), but not transparently reflected in the monitoring plan.
- From request 4: not transparently reflects the issue of project scenario where the decrease of COG deliveries could be greater than that caused by the difference in steam input and output through the new units and overall emissions would rise (JI Guidelines Appendix B and JISC Guidance on criteria for baseline setting and monitoring, paragraph 29).

Comments:

Before the starting date of the crediting period, COG was delivered to ZaporozhStal as a fuel for heat production. After commissioning of the second turbine the level of COG utilization at ZaporozhCox is higher than level of fired COG. Therefore it is possible that COG delivery to ZaporozhStal will be reduced due to the project implementation. This will lead to increasing of natural gas consumption at ZaporozhStal to cover the lack of COG (= leakage).

In the PDD these possible leakages are considered through two parameters SG_{input} and SG_{output} in the monitoring plan. Indeed the monitoring plant did not fully detail how this leakage can be monitored. On the page 9 of the PDD it is stated that "the only additional consumption of fuel is at site of the external consumers, to cover the lack of COG supplied before the project was implemented", as well as that "$Lack_{fuel,i,y}$ - energy equivalent of COG, which would not be supplied to external consumers due to the project activity, as appropriate, GJ". Leakages in this case are considered equal to this abstract parameter $Lack_{fuel,i,y}$ multiplied by emission factor of fuel which would be substituted:

$$LE_{CHP,y} = Lack_{fuel,i,y} \times EF_{fuel,j,y}$$

In the monitoring plan (pages 28-29) there are two parameters (SG_{input} and SG_{output}) included which describes the leakages in more detailed way. In fact, leakages in the monitoring plan described like difference between heat equivalents of steam input (SG_{input}) and steam output (SG_{output}) amounts:

$$LE_{CHP,y} = \frac{\Delta SG_{extra,y} \times EF_{NG}}{1000}$$

Therefore, the inconsistency in the PDD is that the same values were described in different ways. In fact parameter $Lack_{fuel,i,y}$ is just the same as $\Delta SG_{extra,y}$.

The only difference in these two formulas is that the first one is more abstract (that's why 1000 as a unit correction factor was not mentioned in the denominator) and the second is practical.

Suggested solution:
Therefore, the solution is to update the Monitoring Plan by including the parameter $Lack_{fuel,i,y}$ through the parameters SG_{input} and SG_{output} and formula D.1.4. This is in line with proposed solution included in review request 3 which states that "this issue could be resolved by clarifying how the parameter Lackfuel,i,y is included in the monitoring plan."

Review reason: Necessity to replace boiler house

- From request 3 & 4: Emission reductions additionality (transparent determination of alternatives): It is not clear from the Determination Report that the AIE has verified assertions in the PDD such as there is no need to replace the existing boiler house (PDD, p. 7). [....] These assertions should have been verified during the on-site visit, or by transparent reference to reliable documentation. (JI Guidelines Appendix B and JISC Guidance on criteria for baseline setting and monitoring, paragraph 23).

Comments:

The industrial boilers installed at ZaporozhCox Plant are separate buildings made of firebricks. This allows continuing its operation for a very long time without significant renovations. Both boilers were commissioned in 2002. Thus it can be stated that there is no need to replace the boiler house before the end of the crediting period. The type of boilers and their external performance were checked on site and are confirmed by BVC.

Suggested solution:

Explicitly state in the PDD that the boiler have not reached its technical lifetime. Explicitly state in the DR that this has been checked by BVC.

Review reason: Plausibility of external heat delivery

- From request 3 & 4: Emission reductions additionality (transparent determination of alternatives): [....] Likewise, there is no evidence in the Determination Report that the AIE has verified that the construction of steam and condensate pipelines to external consumers would be complicated and expensive (PDD, p. 8). These assertions should have been verified during the on-site visit, or by transparent reference to reliable documentation. (JI Guidelines Appendix B and JISC Guidance on criteria for baseline setting and monitoring, paragraph 23).

Comments:

In the course of the desk review by the AIE, as well during the site-visit performed by the BVC determination team, the future plausible scenarios other than the project scenario, were carefully regarded. One of the future plausible scenarios proposes the construction of steam and condensate pipelines to external consumers. Right at the desk review stage the mentioned above scenario was rejected as not being the most plausible as:

- to bring heat to residential areas would require high-pressure pipes over the distance exceeding 800 m. This is very unprofitable as considerable heat losses will occur. Also high-pressure steam is not used in the district heat supply systems;
- closer to the plant are industrial enterprises which do not require heat as they have their own heat generation and supply facilities;
- transportation of high pressure steam, especially on long distances, is bound to meet heightened safety and networks thermal insulation requirements, which in its turn is connected with the high implementation costs and, as a result, impacts the overall project profitability.

During the site-visit BVC concluded that this scenario is not the most plausible one (i.e. not realistic) based on the arguments above.

Suggested solution:

Improve the transparency of the PDD in the assessment of the future plausible scenarios (section B.1). Improve the transparency of the PDD DR in the assessment of this scenario by BVC.

Review reason: Prior consideration

- From request 3: Emission reductions additionality (conservativeness and transparency: prior consideration of JI): The prior consideration of JI which is inherent to the concept of additionality is not shown in the PDD and the corresponding determination report. In section A.2 of the PDD it is explained: In 2004, the management of ZCP decided to further improve the existing scheme, by implementing units which would generate electricity from the excess temperature and pressure reduced by the PRDSs. This electricity will be used for ZCPs energy consuming equipment and therefore will substitute energy purchased from the Ukrainian distribution network. The design documents were completed by 2004 and after a short consideration in January 2005 the company approved the project.It is not clear from the determination report whether JI is explicitely (sic) mentioned in the relevant Minutes of ZaporozhCox Plant Technical Council of 14.01.2005 (PDD p. 21, No. 54).
- From request 4: Prior consideration of JI is not shown in the PDD and Determination Report

Specific comment:

For this particular project JI was considered before the starting date of this JI project. An initial review of possible financial sources was considered at OJSC "Zaporozhcoke" Plant Technical Council Meeting on 14 January 2005 and included a reference to Joint Implementation. The respective minutes of this meeting was seen by BVC, but this was not documented in the DR.

Suggested solution to close this review:

The PDD can be updated by explicitly mentioning the above-mentioned meeting and minutes. The DR will include a reference to the minutes as seen by BVC.

General comment:

The Project Participants believe that prior consideration is not a requirement in a JI project. This issue was raised not only in this review, but also in interactions with AIEs. There is an apparent necessity to discuss prior consideration outside the context of this review.

Not to delay the closing of this review the suggested solution above is presented for the purpose of closing this review only. We believe that this review should not be considered by market participants as a precedent, but wait the broader discussion in the JISC whether the JISC wants to introduce such requirement.

In annex 2 an analysis of the JI rules is provided clarifying why the Project Participants believe prior consideration is not an implicit or explicit requirement in a JI project.

Annex 2: Elaboration on prior consideration in the context of JI

Background

In some determinations of JI projects AIEs have requested to demonstrate the so-called "prior consideration of JI". Also in the request for review of project JI0211 it was stated that "... prior consideration of JI which is inherent to the concept of additionality... "[5]. This concept, hereinafter referred to as prior consideration, has its roots in CDM projects and is explained as the demonstration of the fact "that the CDM benefits were considered necessary in the decision to undertake the project as a CDM project activity"[6].

In JI there is no *explicit* mentioning that prior consideration should be demonstrated. This paper analyses if prior consideration can be considered as an *implicit* requirement, in particular for projects already implemented. This analysis is based on an assessment of the JI guidelines adopted by the Conference of the Parties serving as the Meeting of the Parties (CMP) to the Kyoto Protocol (KP) and the relevant guidance and guidelines issued by the JI Supervisory Committee (JISC), further referred to as 'JI Rules'.

Definitions and assumptions

- 'JI Guidelines' means the 'Guidelines for the implementation of Article 6 of the Kyoto Protocol';
- 'Guidance' means 'Guidance on criteria for baseline setting and monitoring', version 02;
- 'PDD user guidelines' means 'Guidelines for users of the joint implementation project design document form', version 04;
- 'PDD form' means 'Joint Implementation Project Design Form', version 01;
- 'CDM tool' means 'Tool for the demonstration and assessment of additionality', version 05.2.
- For simplicity the starting date of the project equals the date of the investment decision;
- A JI specific approach is taken for setting a baseline and that the CDM Tool is used for proving additionality.

The essence of a JI project

Article 6, par. 1 (b) of the Kyoto Protocol states that "any such project provides a reduction in emissions by source, or an enhancement of removals by sinks, that is additional to any that would otherwise occur". In essence a JI project consists of two components being a) that here should be a *reduction* and b) that this reduction is *additional to any that otherwise would occur*.

In the relevant JI rules these two elements are treated separately:

a) The reductions is being proven by setting a baseline which is done in section B.1 (baseline setting) of the PDD. Should the emissions of the project scenario be below the emissions of the baseline scenario, the first element of a JI project (i.e. reductions) is proven.

[5] http://ji.unfccc.int/JI_Projects/DB/5WN6N4R5K3L8QH20EWB7DPTHL4008R/Determination/Bureau%20Veritas%20Certification1276093168.48/Review/RFR_JISCGQRZ3IHDQV3DTLVF6N9O97BUIFQC0A

[6] CDM EB 41, Annex 46, p 1

b) The second requirement of a JI project "additional to any that otherwise would occur" should be provided in section B.2 of the PDD and in the Guidance is referred to as "Additionality". If it can be proven that the project scenario does not equal the identified baseline scenario, additionality is proven.

Baseline setting (section B.1 of PDD)
Guidance paragraph 13a says: "The baseline of a JI project is the scenario that reasonably represents the anthropogenic emissions by source or anthropogenic removals by sinks of GHGs that would occur *in the absence* of the proposed project." This guidance is repeated in paragraph 20a: "…is the scenario that reasonable represents the anthropogenic emission …. that would occur *in the absence* of the project".

Furthermore guidance paragraph 24: "A baseline shall be identified by listing and describing plausible future scenarios on the basis of conservative assumption and selecting the most plausible one". In section B.1 future scenarios are to be listed and the most plausible one is to be selected as the baseline.

Here it is important to note that the baseline is a scenario that occurs *in the absence* of the proposed project. This excludes the possibility that, in the context of baseline setting in section B.1, the baseline scenario equals the proposed project scenario. Note that the latter is being checked under additionality, section B.2.

Additionality (section B.2 of the PDD)
Guidance annex 1 paragraph 2: "Having identified a baseline, additionality can be demonstrated, inter alia, by using one of the following approaches" where option (c) allows to use the CDM Tool: "Application of the most recent version of the "Tool for the demonstration and assessment of additionality" approved by the CDM Executive Board…..".

In the CDM Tool realistic and credible alternatives *to the project activity* have to be identified (step 1). Then one have to show that the project, without taking the JI incentive into account, would be financially not attractive (step 2) or that the project faces barriers preventing the project being implemented (step 3). By fulfilling step 2 or step 3 one demonstrates that the proposed project is not the identified baseline of section B.1. A final check is performed through a so-called Common Practise Analysis (step 4). If all steps are met additionality is deemed proven. The CDM tool does not require proving prior consideration.

JI projects already in operation
Some JI projects have been determined after the Starting Date of the project or after the Starting Date of the Crediting Period. When developing the PDD of such project it is important that the PDD does not reflect the situation at the date of writing the PDD, but at the Starting Date of the project. In other words, the PDD should reflect the future plausible scenarios available to the Project Participant before or at the Starting Date and that in the additionality proof assumptions should be taken that were relevant on or before the Starting Date of the project. The most plausible scenario in absence of the project can be identified and it can in principle be shown that the project was financially not attractive or faced barriers. No prior consideration is required in this process.

Concluding remarks

The above analysis of the JI rules presented above shows that 'prior consideration' is not an implicit or explicit requirement in the context of a JI project, neither in the baseline setting nor in the additionality proof. This is an analysis of the existing guidance as set by the JISC. This analysis is not making any statement whether prior consideration should be a requirement in JI. Such decision is to be made by the regulatory body JISC while interpreting CMP decisions.

Should the JISC decide to introduce such requirement precise guidance is needed including the definition of prior consideration, how this can be proven and how an AIE should check the evidence. However, we believe that introducing such essential new requirement half way the first commitment period would be rather late, in particular if it is to be applied retroactively to projects that in principle can be eligible if they have a Starting Date from 1 January 2000 onwards.