



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

Date of Meth Panel meeting:

9 - 13 July 2007

Title and number of request for clarification

Calculation of power density /
AM_CLA_0049

Summary of the query:

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

Power density of hydro electric power plant is required to be calculated under certain cases to justify the applicability of ACM0002. The following two clarifications were sought:

1. For a run of the river hydropower plant which has no regulation capacity or has only daily regulation capacity, is power density required as a necessary condition to determine the applicability of ACM0002?
2. Can “increased flooded land area resulting from the project” be used to calculate the power density for the hydropower project, since power density according to ACM0002 is calculated by dividing the installed power generation capacity with the surface area at full reservoir level?

According to the request for clarification, Annex 5 of the meeting report of EB23 “Thresholds and criteria for the eligibility of hydroelectric power plants with reservoirs as CDM project activities” power density is calculated by dividing “installed power generation capacity” by the “flooded surface area”. Using this definition, the request for clarification proposed two methods for calculating power density, as follows:

1. Power density = Installed capacity / $(C1' + C2') \times L$
2. Power density = Installed capacity / $(C1 + C2) \times L$

Where,

$C1'$ and $C2'$ are the increased river width as a result of the project, measured in the water surface (see diagram on page 2 of the submission);

$C1$ and $C2$ are the increased river width as a result of the project, measured in the bottom of the reservoir from the projection of the increased water surface area in the bottom of the reservoir (see diagram on page 2 of the submission);

L is the backwater distance.

And,

$C1 > C1'$ and $C2 > C2'$

The additional clarification requested is:

3. Which of the two definitions of power density is acceptable?

Recommendation by the Meth Panel:

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

The Meth Panel clarifies that:

1. On the first question: what really matters is whether or not a reservoir is created (i.e. whether or not new areas are flooded because of the implementation of the project hydro power plant). The issue that dictates whether or not power density is required for assessing the applicability of the methodology is not the capacity of regulating the reservoir, but the existence of a reservoir. This is because reservoirs of hydro power plants may produce substantial emissions of greenhouse gases due to anaerobic decomposition of biomass submerged in the flooded areas. Therefore, as long as the power plant involves a new reservoir or the increase of an existing reservoir, be it run-of-river or not, greenhouse gases emissions from the reservoir must be considered and, hence, the assessment of the power density is required as a necessary applicability condition of ACM0002;
2. On the second and third questions: in order to calculate the power density, the correct equation will be the increased power capacity divided by the increased flooded area measured in the water surface:

Power density = (Total installed capacity after project implementation - Total installed capacity before project implementation) / (C1' + C2') x L

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

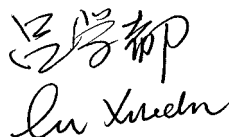
Please, refer to the section above.



Signature of Meth Panel Chair

Date: 17/07/07

(Akihiro Kuroki)



Signature of Meth Panel Vice-Chair

Date: 17/07/2007

(Xuedu Lu)

Information to be completed by the secretariat

F-CDM-AM	AM_CLA_0049
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