

**TABLE FOR COMMENTS**

Name of submitter: Elena Pellón

Affiliated organization of the submitter (if any): Solid Forest

Contact email of submitter: elenapellon@solidforest.com

0	1	2	3	4	5	6
#	Para No./ Annex / Figure / Table	Line Number	Type of comment ge = general te = technical ed = editorial	Comment (including justification for change)	Proposed change (including proposed text)	Assessment of comment (to be completed by UNFCCC secretariat)
1	Table 1 Methodology key elements	4	te	<p><b><u>Addition.</u></b></p> <p>We propose to include a new definition of projects in the methodology and that is the reason why we would like to take advantage of the current revision.</p> <p>So far, it has not been considered in the ACM0002 methodology a category of projects that are also achieving emissions reductions from the displacement of fossil electricity through grid-connected electricity generation from renewable sources. These are the hydro projects that produce more electricity due to one or several new reservoirs connected with existing as well as new hydro power plants. As there is an increase of waterflow due to the storage of more water into the reservoir, existing hydro turbine units will generate more electricity than before and thus, more emission reductions.</p> <p>This energy is additional to that produced by new hydro power plants. Integrated project have already been defined in paragraph 2.6.6 of the methodology.</p>	Retrofit, rehabilitation (or refurbishment), replacement or capacity addition of an existing power plant or construction and operation of a new power plant that uses renewable energy sources and supplies electricity to the grid <b><u>and reservoir addition to an integrated project.</u></b>	
2	Para 2.1	4	te	<p><b><u>Addition.</u></b></p> <p>See previous justification</p>	This methodology applies to project activities that include retrofitting, rehabilitation (or refurbishment), replacement or capacity addition of an existing power plant or construction and operation of a Greenfield power plant <b><u>and reservoir addition to an integrated project.</u></b>	

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3	Para 2.2 3	9	te	<p><b>Addition.</b></p> <p>See previous justification</p>	<p>(a) Install a Greenfield plant;</p> <p>(b) Involve a capacity addition of (an) existing plant(s);</p> <p>(c) Involve a retrofit of (an) existing operating plant(s);</p> <p>(d) Involve a rehabilitation of (an) existing plant(s); or</p> <p>(e) Involve a replacement of (an) existing plant(s).</p> <p><b><u>(f) Involve a reservoir addition to an integrated project</u></b></p>	
4	Para 2.2 5	11	te	<p><b>Addition.</b></p> <p>As we are aiming to include a new category of hydro power energy, we would like to add a new condition for the calculation of power density in case of reservoir addition to an existing hydro power system:</p> <p>Bearing in mind that the surplus of energy generated from existing hydro plants has to be considered, if the current calculation of power density is kept as in equation 3 it would not be possible to include this type projects, just because their installed capacity is not changing. What it is actually changing it is their electricity output. Therefore, as it might happen that the installed capacity is the same before and after the project (if no new hydro power plant is added) the power density would be linked to a greater water surface (because of the new reservoir) but with no change in installed capacity.</p> <p>In this case the power density should be calculated taking into account the whole installed capacity of those plants that are increasing their electrical power output due to the new reservoir, whether they are new or old ones. Also, the surface of all reservoirs connected to these plants should be considered.</p> <p>However, as it is clear, there is an increase of real verifiable energy production.</p>	<p>5. In case of hydro power plants, one of the following conditions shall apply:</p> <p>(a) The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or</p> <p>(b) The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of the reservoirs is increased and the power density of each reservoir, as per equation (3), is greater than 4 W/m<sup>2</sup>; or</p> <p>(c) The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per equation (3), is greater than 4 W/m<sup>2</sup>.</p> <p><b><u>(d) In case of reservoir addition to an integrated project as per equation (3.2), the power density of the system is greater than 4 W/m<sup>2</sup>.</u></b></p>	

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5	2.2.6 (b)	1	te	<p><b>Modification</b></p> <p>It has been included a small change in the definition of multiple reservoirs in 2.2.6 (b) to avoid introducing another similar definition for integrated project. The requirements in footnote 1 may be applicable to the new proposed type of projects.</p>	<p>(b) Multiple reservoirs and hydro power plants are located at the same river <b>and/or</b> are designed together to function as an integrated project<sup>1</sup> that collectively constitute the generation capacity of the combined power plant;</p>	
6	Para 4.17		te	<p><b>Addition.</b></p> <p>Inclusion of definitions in the glossary of terms related to reservoir addition and integrated system.</p>	<p>17. For the purpose of this methodology, the following definitions apply:</p> <p>(a) Installed power generation capacity (or installed capacity or nameplate capacity) - the installed power generation capacity of a power unit is the capacity, expressed in Watts or one of its multiples, for which the power unit has been designed to operate at nominal conditions. The installed power generation capacity of a power plant is the sum of the installed power generation capacities of its power units;</p> <p>(...)</p> <p>(j) Greenfield power plant - a new power plant or unit that is constructed and operated at a site where no renewable power plant was operated prior to the implementation of the project activity.</p> <p><b>(k) Reservoir addition to an integrated project - is an instalment of one or several reservoirs into an existing hydro power system or as defined in pg 7 integrated project, with or without new hydro power plants associated, that leads to a power generation increase of the system due to the water surplus added by the reservoir.</b></p>	

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7	5.2	26	te	<p><b><u>Addition.</u></b></p> <p>The baseline scenario is exactly the same as in Greenfield power plant as the surplus energy is displacing energy from the existing electricity system.</p>	<p>5.2. Identification of the baseline scenario 21. If the project activity is the installation of a Greenfield power plant, the baseline scenario is the following: (...)</p> <p><b><u>26. If the project activity is the addition of a single or several reservoirs to an integrated project, the baseline scenario would be the same as in Greenfield power plant (see 5.2.21 and 5.2.22)</u></b></p>	

8	5.4.3.36	addition	te	<p style="text-align: center;"><b><u>Addition.</u></b></p> <p>A new equation is proposed to take into consideration the capacity of the whole hydro plants affected by the project as well as the reservoirs implied. In this way, a real picture of the power density in an integrated water system is given.</p> <p>As mentioned previously, it would not make sense when calculating the power density to take into consideration only the new installed capacity as in this type of projects the increase in energy may be generated in existing hydro plants benefiting from more water flow. Only hydro power plants of the integrated system that comply with the requirements set at 2.2.6(b) are eligible. Only existing hydropower plants benefiting from the new reservoir or reservoirs shall be included in the calculation of the power density (in order to avoid that existing plants that are not contributing to an output increase may be included).</p>	<p>36. The power density (<i>PD</i>) of the project activity is calculated as follows:</p> <p>Where:</p> <p><i>PD</i> = Power density of the project activity (W/m<sup>2</sup>)</p> <p>(...)</p> <p><b><u>In the case of reservoir addition to an integrated hydro power system the power density (<i>PD</i>) of the project activity is calculated as follows:</u></b></p> <p style="text-align: right;"><b><u>Equation (3.2)</u></b></p> <p><b><u>Where:</u></b></p> <p><b><u><i>PD</i><sub>2</sub> = Power density of the project activity (W/m<sup>2</sup>)</u></b></p> <p><b><u><i>Cap</i><sub>2BL</sub> = Installed capacity of the existing hydro power plants in an integrated project where a single or multiple reservoir addition is connected (W). Only existing plants leading to an electricity output increase shall be included.</u></b></p> <p><b><u><i>Cap</i><sub>2PJ</sub> = Installed capacity of the new hydro power plants in an integrated project where a single or multiple reservoir addition is connected (W).</u></b></p> <p><b><u><i>A</i><sub>2PJ</sub> = Area of the single or multiple reservoirs measured in the surface of the water after the implementation of the project activity, that are connected to hydro power plants that are increasing their electrical output in the integrated system, when the reservoir is full (m<sup>2</sup>)</u></b></p> <p><b><u><i>A</i><sub>2BL</sub> = Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, that are connected to hydro power plants that are increasing their electrical output in the integrated system, when the reservoir is full (m<sup>2</sup>)</u></b></p> $PD_2 = \frac{Cap_{2PJ} + Cap_{2BL}}{A_{2PJ} + A_{2BL}}$	
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9	Para 5.5.1.	2	te	<p style="text-align: center;"><b><u>Addition.</u></b></p> <p>The calculation is the same as in Greenfield renewable energy power plants. When considering net electricity generation it means that only energy surplus produced as a result of the CDM project (in this case, a reservoir addition) is considered. If there are also new plants associated to the construction of the reservoir they also perfectly fit here.</p>	<p><b>5.5.1. Calculation of <math>EGPJ,y</math></b></p> <p>41. The calculation of <math>EGPJ,y</math> is different for: Greenfield plants, capacity additions, retrofits, rehabilitations, and replacements; and <b>reservoir additions</b>. These cases are described as follows:</p> <p>5.5.1.1. Greenfield renewable energy power plants and <b>reservoir addition</b></p>	
10	Para 5.10.		te	<p style="text-align: center;"><b><u>Addition.</u></b></p> <p>Inclusion of parameters related to new created equation 3.2</p>	<p>5.10. Data and parameters not monitored (...)</p> <p><b><u>Data / Parameter table 9.</u></b>  <b><u>Parameter: <math>Cap_{2BL}</math></u></b>  <b><u>Data unit: W</u></b>  <b><u>Description: Existing installed capacity of the hydro power plants that are increasing their electricity output after implementation of the reservoir addition in the integrated system.</u></b>  <b><u>Source of data: Project site</u></b>  <b><u>Value to be applied: Determine the installed capacity based on manufacturer's specifications or recognized standards</u></b>  <b><u>Any comment: -</u></b></p> <p><b><u>Data / Parameter table 10.</u></b>  <b><u>Parameter: <math>A_{2BL}</math></u></b>  <b><u>Data unit: <math>m^2</math></u></b>  <b><u>Description: Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, that are connected to hydro power plants that are increasing their electrical output in the integrated system, when the reservoir is full (<math>m^2</math>)</u></b>  <b><u>Source of data: Project site</u></b>  <b><u>Value to be applied: Measured from topographical surveys, maps, satellite pictures, etc.</u></b></p>	

<p>1 1</p>	<p>Para 6.</p>		<p>te</p>	<p><b><u>Addition.</u></b> Inclusion of parameters from new created equation 3.2</p>	<p>6. Monitoring methodology (...) <b><u>Data / Parameter table 19</u></b>  <b><u>Data / Parameter: Cap<sub>2PJ</sub></u></b> <b><u>Data unit: W</u></b> <b><u>Description: New installed capacity of the hydro power plants after the implementation of the project activity that collectively constitute an integrated system. If no new hydro power plant is built, this value is zero.</u></b> <b><u>Source of data: Project site</u></b> <b><u>Measurement procedures (if any): Determine the installed capacity based on manufacturer's specifications or recognized standards</u></b> <b><u>Monitoring frequency: Once at the beginning of each crediting period</u></b> <b><u>QA/QC procedures:</u></b> <b><u>Any comment:</u></b>  <b><u>Data / Parameter table 20</u></b>  <b><u>Data / Parameter: A<sub>2PJ</sub></u></b> <b><u>Data unit: W</u></b> <b><u>Description: Area of the single or multiple reservoirs measured in the surface of the water after the implementation of the project activity, that are connected to hydro power plants that are increasing their electrical output in the integrated system, when the reservoir is full (m<sup>2</sup>)</u></b> <b><u>Source of data: Project site</u></b> <b><u>Measurement procedures (if any): Determine the installed capacity based on manufacturer's specifications or recognized standards</u></b> <b><u>Monitoring frequency: Once at the beginning of each crediting period</u></b> <b><u>QA/QC procedures:</u></b> <b><u>Any comment:</u></b></p>	
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