

Quantification Protocol for Solar-Powered Electrical Energy Generation: Summary of Comments & Revisions*December 2007: First Technical Review*

Page Number	Comment	Resolution
Cover Page and document	<p>Use of the term "electrical energy" in place of the terms power or electricity. In the case of this protocol, we need to differentiate between electrical energy services and other electricity services that supplement generation.</p> <p>Shifting to the use of this proposed language will further limit the scope of the protocol to Solar PV electrical energy generating systems, therefore requiring the development of an alternate protocol to address Solar heat generating systems. It has been suggested that the emissions related to solar heat generation and techniques for measurement are unique in comparison to PV electrical energy systems.</p>	All references to "Solar Power Generation" have been corrected to "Solar Electrical Energy Generation" throughout the document.
Page 1	References made to points of connection needed clarification and consistency.	Suggested terms have been applied to the document.
Page 1	Requiring a project proponent to prove that their electricity is being consumed (previously point one of project requirements in section 1.1) does not provide any value.	If the facility is generating power then we should assume it is being consumed. This requirement, therefore has been removed
Page 1	Questions around the placement of meters to measure electricity net of any line losses.	The text has been revised to ensure clarity of where metering should be completed.
Page 1	Clarification was needed on requirements for eligibility of certification, particularly, to address the frequency of audits and verification to prove compliance with EcoLogo.	Text has been revised to reflect the conditions for certification, verification, and auditing.
Page 4	The protocol applicability needed to be expanded to	Suggested language for a brief description if the

	include a statement on quantification and management of the environmental benefits associated with green power generation.	nature of RECs and Offsets, their relation to each other, and their quantification has been inserted
Page 4 and affected tables 2.1, 2.4, 2.5	Use of the term "electrical storage systems," is not necessary because electrical storage systems are an integral to Solar PV electrical generation systems.	P1 and P2 have been consolidated throughout the protocol to reflect the integral nature of the generation system and energy storage. A suggested definition of the generation system has been inserted in the definitions section.
Page 4	A mechanism must be developed to trigger the calculation of above-ground carbon as an onsite SS if project size will require the clearing of more than 1ha of land.	A flexibility provision has been inserted where, all projects must consider land clearing, however, in the case of small scale projects, the loss in above ground carbon can is excluded from calculation.
Page 4	A clear definition of above-ground/below-ground carbon is needed.	A suggested definition has been inserted into the definitions section.
Appendix A: Table A4	An appendix outlining the emissions intensities for fuel extraction/production is required.	Intensities have been inserted into the document as table A4 in Appendix A.

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#	Comment by	Type of Comment (general, technical, editorial)	Comment or Justification for Proposed Wording Change	Proposed Wording Change
1	Eric Schmadtke - PetroCanada	technical	How is it intended – don't foresee that someone would be cutting down a forest to put in a solar farm	Specific to the case where there is some land management required for large scale application. This is applicable for large scale solar farms – it can be ignored for small scale installations. To be considered for removal as this work is unnecessary.
2	Keith Driver – Baseline Emissions Management	General	Is the way we treated EcoLogo in Wind applicable here?	Similar issues – no sustained objection
3	Matt McCulloch - Pembina	General	Marginal vs. average – when can this group expect guidance re: this?	0.65 uses the WRI methodology and there is a need for further communication and discussion/debate. WRI calculates the GIF using marginal and next build – uses the same basic theory of CDM.
4	Kyle Kasawski – Conergy	General	In the case of new construction, there is a case that deforestation would have happened. Concern that solar install in a 1ha+ well site would be penalized for 1 ha deforestation when the actual footprint of solar is	Intent of 1ha is that 1ha is the footprint of the solar unit in larger scale projects. To provide diesel, propane, gasoline factors for alternatives to offgrid.

			much smaller. WRT offgrid – need baseline. Because power choices can be generator or bring the grid in	
5	Bruce Herdman - IAG		Even if we provide a guidance number for diesel, we don't know what kind of diesel that generator will burn because the quality of diesel is changing.	Largely true – not sure if we can put an exact number in the protocol or point to a source of a number which might change over time (i.e. Environment Canada is the best source)
6	Timo Makinen - Shell		Is there a separate protocol for solar hot water heating	It will be in development – possibly in the next round.
7	Timo Makinen - Shell		How often is the GIF reviewed?	Every 5 years. Keith Denman