Table 1 Mandatory Requirements for Small Scale Clean Development Mechanism (CDM) Project Activities

Small Hydropower Projects at Hapugastenne and Hulu Ganga

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3	Kyoto Protocol Art. 12.2	Annex I party has been included. Letter of Approval of the Annex I party has been provided 25th May 2005. CAR 1 has been closed out.	Table 2 Section E.4.1
2. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof	Kyoto Protocol Art. 12.2, Simplified Modalities and Procedures for Small Scale CDM Project Activities §23a	Letter of Approval of the host country has been submitted to the validator. This LoA was not in accordance with the guidance from EB17 and a new LoA was submitted 16th May 2005.	Table 2, Section A.3
3. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC	Kyoto Protocol Art. 12.2.	Power generation from hydro power replacing fuel oil or diesel generation will result in emission reductions, assuming competent installation and operation.	Table 2, Section A.4.3
4. The project shall have written approval of voluntary participation from the designated national authorities of each party involved	Kyoto Protocol Art. 12.5a, Simplified Modalities and Procedures for Small	Letter of Approval of the Annex I party has been provided 25th May 2005.	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
	Scale CDM Project Activities §23a	CAR 1 has been closed out.	
5. The emission reductions should be real, measurable and give long-term benefits related to the mitigation of climate change	Kyoto Protocol Art. 12.5b	Yes.	Sections E.1 to E.4
6. Reduction in GHG emissions must be additional to any that would occur in absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity	Kyoto Protocol Art. 12.5.c, Simplified Modalities and Procedures for Small Scale CDM Project Activities §26	Power generation from hydro power replacing fuel oil or diesel generation will result in emission reductions, assuming competent installation and operation.	Table 2, Section B.2.1
7. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance	Marrakech Accords (Decision 17/CP.7)	No ODA has been used for this project.	
8. Parties participating in the CDM shall designate a national authority for the CDM	Marrakesh Accords (CDM modalities§ 29)	The DNA for Sri Lanka is the Ministry of Environment and Natural Resources.	http://cdm.unfccc.int/DNA
9. The host country shall be a Party to the Kyoto Protocol	Marrakesh Accords (CDM modalities§ 30)	Sri Lanka has ratified the Kyoto Protocol 3rd September 2002.	http://unfccc.int/resource/country/country.html?200
10. The proposed project activity shall meet the eligibility criteria for small scale CDM project activities set out in § 6 (c) of the Marrakesh Accords and shall not be a debundled component of a larger project activity	Simplified Modalities and Procedures for Small Scale CDM Project Activities §12a,c	The project meets the eligibility criteria for small scale CDM project activities.	Table 2, Section A.1

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
11. The project design document shall conform with the Small Scale CDM Project Design Document format	Simplified Modalities and Procedures for Small Scale CDM Project Activities, Appendix A	The PDD is not in accordance with the Small Scale CDM Project Design Document format: not all headings are according to the format (e.g. A.4.5 and B.3). New PDD has been submitted to the validator and is in accordance with the SSC CDM PDD format.	http://cdm.unfccc.int/Reference/Documents/SSC_PDD/English/SCCPDD_en.doc
12. The proposed project activity shall confirm to one of the project categories defined for small scale CDM project activities and uses the simplified baseline and monitoring methodology for that project category	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22e	Project complies with category I.D.	Table 2, Section A.1.3 and B.1
13. Comments by local stakeholders are invited, and a summary of these provided	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22b	Project developer has consulted local stakeholders at various points of the development of the project. Hapugastenne Consultation was taken place on 23rd May 2003 and 19th June 2003. Villagers and Pradeshiya Sabba members have attended these meetings. Hulu Ganga Meeting was held on 30th June 2000 and 13th October 2004.	Table 2, Section G

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/ Comment
14. If required by the host country, an analysis of the environmental impacts of the project activity is carried out and documented	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22c	Detailed environmental impact assessment reports were not required by regulatory bodies such as Central Environmental Authorities. However, basic environmental reports were available for each project. Approval to run the projects was granted.	Table 2, Section F
15. Parties, stakeholders and UNFCCC accredited NGOs have been invited to comment on the validation requirements and comments have been made publicly available	Simplified Modalities and Procedures for Small Scale CDM Project Activities §23b,c,d	The project has been published on the web from 1st April 2005 until 1st May 2005.	

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
A. **Project Description** The project design is assessed.					
A.1. Small scale project activity It is assess whether the project qualifies as small scale CDM project activity.					
A.1.1. Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	PDD Dec. 17/CP7	DR	This project proposes to establish four small hydropower plants with a capacity of 13.55 MW. To qualify as a small scale CDM project a maximum output capacity equivalent of up to 15 megawatts is allowed.	Y	Y
A.1.2. The small scale project activity is not a debundled component of a larger project activity?	PDD	DR	The project consists of four stand-alone small hydropower plants with an output of 13.55 MW. The projects are presented in one PDD based on the fact that their combined size is less that 15 MW and they share a common monitoring plan. One company will build, own and operate all four facilities.	Y	Y
A.1.3. Does proposed project activity confirm to one of the project categories defined for small scale CDM project activities?	PDD App. B	DR	The project is a hydropower project and covered in: I.D. “Renewable electricity generation for a grid”.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
A.2. Project Design Validation of project design focuses on the choice of technology and the design documentation of the project.					
A.2.1. Are the project's spatial (geographical) boundaries clearly defined?	PDD	DR	Project boundaries are consistent with the physical site of the power plants. Coordinates of the power plants have been provided.	Y	Y
A.2.2. Are the project's system (components and facilities used to mitigate GHG's) boundaries clearly defined?	PDD	DR	The projects involve installation of four run-of-river hydropower plants. Electricity generated will be sold to the Ceylon Electricity Board (CEB).	Y	Y
A.2.3. Does the project design engineering reflect current good practices?	PDD	DR	No engineering details have been provided for the project design so it is not possible to assess whether it reflects current good practices. *Response project developer: Detailed information on project engineering is available with the operator, EPL, based in Sri Lanka. EPS is prepared to transmit all relevant supporting documents to the local assessor.* Random examination of all of these drawings confirms that best practises have been followed in designs of the projects. Hapugastenne Following drawings have been examined at EPL: 1. Project layout -ECO/HAPU/P-1 2. Forebay Struture-ECO/HAPU/RF4 3. Power House - ECO/HAPU/C-PS1 4. Power House Layout -ECO/HAPU/FDN-PP01	N NIR 1	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			Hulu Ganga 1. ECO/Hulu/Weir-01 &RF/W1 2 .ECO/Hulu/SediT-01 3. ECO/RF/AD-04 4. Power House Layout.		
A.2.4. Will the project result in technology transfer to the host country?	PDD	DR	Local assessor confirmed that the project is not expected to result in technology transfer to the host country.	N NIR 2	Y
A.2.5. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period? Does the project make provisions for meeting training and maintenance needs?	PDD	DR	The project is not expected to result in extensive training and maintenance needs and does not make provisions for training and maintenance.	Y	Y
A.3. Contribution to Sustainable Development The project's contribution to sustainable development is assessed					
A.3.1. Will the project create other environmental or social benefits than GHG emission reductions?	PDD	DR	The projects will result in the following environmental and social benefits: - Additional employment during construction and operation of the plants; - New roads; - During construction various additional work will be undertaken beneficial to the local communities; - Annual budget for community development	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			after commissioning of the plants; - Breakdowns in the grid are repaired quickly because the project will pay a separate unofficial retainer to CEB; and - Decrease in fuel imports. Local assessor confirmed that all benefits described above are true. Further, it was observed that Sri Lankan Rupees 200,000 /- has been allocated for community development for each project.		
A.3.2. Will the project create any adverse environmental or social effects?	PDD	DR	The projects will replace electricity that would otherwise be generated by the most expensive thermal power plants. It is not expected to create adverse environmental or social effects.	Y	Y
A.3.3. Is the project in line with sustainable development policies of the host country?	PDD	DR	All projects developed by EPL are subjected to proper scrutiny of a panel of experts which is recommending the projects to DNA. The experts have looked into the energy conservation policies of the country and social and environmental effects of the projects.	Y	Y
A.3.4. Is the project in line with relevant legislation and plans in the host country?	PDD	DR	All four projects inspected are in line with relevant legislations and plans. Environmental approvals for all projects have been verified.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
B. **Project Baseline** The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.					
B.1. Baseline Methodology It is assessed whether the project applies an appropriate baseline methodology.					
B.1.1. Is the selected baseline methodology in line with the baseline methodologies provided for the relevant project category?	PDD	DR	The proposed project activity is expected to substitute fossil fuel generated electricity. The selected baseline methodology is regarded to be in line with category I.D. “Renewable Electricity for a grid”.	Y	Y
B.1.2. Is the baseline methodology applicable to the project being considered?	PDD	DR	For category I.D. “Renewable electricity generation for a grid”, the simplified baseline is the kWh produced by the renewable generating unit multiplied by an emission coefficient calculated in a transparent and conservative manner as: (a) the average of the “approximate operating margin” and the “build margin”. This methodology is applicable to this project.	Y	Y
B.2. Baseline Determination It is assessed whether the project activity itself is not a likely baseline scenario and whether the selected baseline represents a likely baseline scenario.					
B.2.1. Is it demonstrated that the project activity	PDD	DR	The PDD identifies that the projects are additional	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
itself is not a likely baseline scenario due to the existence of one or more of the following barriers: investment barriers, technology barriers, barriers due to prevailing practice or other barriers?			since the CEB power expansion plan excludes hydropower projects less than 15MW. CEB controls access to, terms for power production and payment in Sri Lanka and as such limits the access of small scale hydropower projects to access the market and introducing an investment barrier. This information is verified by examining CEB agreements with EPL. Hapugastanne - agreement dated April 2001. Huluganga - agreement dated April 2002.		
B.2.2. Is the application of the baseline methodology and the discussion and determination of the chosen baseline transparent and conservative?	PDD	DR	The baseline is expansion of power generation by (mainly) thermal power plants to cover the increase in energy demand. The generation expansion plan takes into account contributions from existing and committed power facilities, and identifies additional capacity needs to meet future energy demand at the least possible cost The baseline expansion of power generation is mainly by thermal power plants. However, Sri Lankan government is considering building a coal power plant in the future.	Y	Y
B.2.3. Are relevant national and/or sectoral policies and circumstances taken into account?	PDD	DR	The Sri Lanka power generation expansion plan is prepared and managed by the CEB. Local assessor confirms that CEB controls power generation expansion and management.	Y	Y
B.2.4. Is the baseline selection compatible with the available data?	PDD	DR	Baseline is calculated as the kWh produced by the small hydropower projects multiplied by an emission coefficient derived from the approx.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			operating margin and the build margin.		
B.2.5. Does the selected baseline represent the most likely scenario describing what would have occurred in absence of the project activity?	PDD	DR	The simplified baseline is the annual kWh produced generated by the renewable unit times an emission coefficient. The baseline scenario selected is the expansion of electricity production by thermal power plants. There is no analysis why this is the most likely scenario and no other scenarios are considered. *Response project developer: See revised section B.5 which includes a discussion of uncertainties and alternatives in defining the baseline.* The discussion on uncertainties has been studied and was found to be satisfactory. CAR 2 has been closed out.	N CAR 2	Y
C. **Duration of the Project / Crediting Period** It is assessed whether the temporary boundaries of the project are clearly defined.					
C.1.1. Are the project's starting date and operational lifetime clearly defined?	PDD	DR	Hapugastenne Phase 1: Construction has started in February 2000; anticipated operational date: August 2001; expected lifetime of the project activity is 30 years. Hapugastenne Phase II: Construction has started in January 2002; anticipated operational date: September 2002; expected lifetime of the project activity is 30 years. Hulu Ganga Phase I: Construction has started in April 2002;	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			anticipated operational date: June 2003; expected lifetime of the project activity is 30 years. Hulu Ganga Phase II: Construction has started in March 2004; anticipated operational date: May 2005; expected lifetime of the project activity is 30 years.		
C.1.2. Is the crediting period clearly defined (seven years with two possible renewals or 10 years with no renewal)?	PDD	DR	Crediting period is fixed crediting period (10 years).	Y	Y
D. **Monitoring Plan** The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed.					
D.1. Monitoring Methodology It is assessed whether the project applies an appropriate monitoring methodology.					
D.1.1. Is the selected monitoring methodology in line with the monitoring methodologies provided for the relevant project category?	PDD	DR	Monitoring shall consist of metering the electricity generated by the renewable energy. This monitoring methodology is in line with the monitoring methodology mentioned in category I.D.	Y	Y
D.1.2. Is the monitoring methodology applicable to the project being considered?	PDD	DR	Yes, this methodology is applicable to the project.	Y	Y
D.1.3. Is the application of the monitoring methodology transparent?	PDD	DR	Section D.3 indicates which date will be monitored.	Y	Y
D.1.4. Will the monitoring methodology give	PDD	DR	The data monitored in combination with an	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
opportunity for real measurements of achieved emission reductions?			emission factor will give the opportunity to calculate the achieved emission reductions.		
D.2. Monitoring of Project Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.					
D.2.1. Are the choices of project emission indicators reasonable?	PDD	DR	No project emissions have been identified. No construction emissions have been included. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.* Project emissions have been studied and were found to be satisfactory.	N NIR 3	Y
D.2.2. Will it be possible to monitor / measure the specified project emission indicators?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.* Project emissions have been studied and were found to be satisfactory.	N NIR 3	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
D.2.3. Do the measuring technique and frequency comply with good monitoring practices?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.* Project emissions have been studied and were found to be satisfactory.	N NIR 3	Y
D.2.4. Are the provisions made for archiving project emission data sufficient to enable later verification?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.* Project emissions have been studied and were found to be satisfactory.	N NIR 3	Y
D.3. Monitoring of Leakage It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.					
D.3.1. If applicable, are the choices of leakage indicators reasonable?	PDD	DR	No leakage has been identified. The project is not likely to result in leakage.	Y	Y
D.3.2. If applicable, will it be possible to monitor / measure the specified leakage indicators?	PDD	DR	No leakage has been identified.	Y	Y
D.3.3. If applicable, do the measuring technique and frequency comply with good monitoring practices?	PDD	DR	No leakage has been identified.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
D.3.4. If applicable, are the provisions made for archiving leakage data sufficient to enable later verification?	PDD	DR	No leakage has been identified.	Y	Y
D.4. Monitoring of Baseline Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.					
D.4.1. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	PDD	DR	The baseline is based on the weighted average emissions of the current generation mix of thermal plants expressed in kg/CO2/year.	Y	Y
D.4.2. Will it be possible to monitor / measure the specified baseline emission indicators?	PDD	DR	Emission data from current generation mix are available.	Y	Y
D.4.3. Do the measuring technique and frequency comply with good monitoring practices?	PDD	DR	N/A	Y	Y
D.4.4. Are the provisions made for archiving baseline emission data sufficient to enable later verification?	PDD	DR	N/A	Y	Y
D.5. Project Management Planning It is checked that project implementation is properly prepared for and that critical arrangements are addressed.					
D.5.1. Is the authority and responsibility of project management clearly described?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures*	N CAR 3	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			and responsibilities. CAR 3 has been closed out.		
D.5.2. Is the authority and responsibility for registration monitoring measurement and reporting clearly described?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.3. Are procedures identified for training of monitoring personnel?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.5. Are procedures identified for calibration of monitoring equipment?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
D.5.6. Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.7. Are procedures identified for monitoring, measurements and reporting?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.8. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.10. Are procedures identified for internal audits of GHG project compliance with	PDD	DR	The monitoring plan does not cover procedures and responsibilities.	N CAR 3	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
operational requirements as applicable?			*Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.		
D.5.11. Are procedures identified for project performance reviews?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y
D.5.12. Are procedures identified for corrective actions?	PDD	DR	The monitoring plan does not cover procedures and responsibilities. *Response project developer: Section D.3 presents additional information on monitoring procedures and responsibilities.* CAR 3 has been closed out.	N CAR 3	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
E. **Calculation of GHG emission** It is assessed whether all material GHG emission sources are addressed and how sensitivities and data uncertainties have been addressed to arrive at conservative estimates of projected emission reductions.					
E.1. Project GHG Emissions The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.					
E.1.1. Are all aspects related to direct and indirect project emissions captured in the project design?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.*	N NIR 3	Y
E.1.2. Have all relevant greenhouse gases and sources been evaluated?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.*	N NIR 3	Y
E.1.3. Do the methodologies for calculating project emissions comply with existing good practice?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials*	N NIR 3	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			and equipment to the project sites.		
E.1.4. Are the calculations documented in a complete and transparent manner?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.*	N NIR 3	Y
E.1.5. Have conservative assumptions been used?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.*	N NIR 3	Y
E.1.6. Are uncertainties in the project emissions estimates properly addressed?	PDD	DR	No project emissions have been identified. *Response project developer: See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.*	N NIR 3	Y
E.2. Leakage It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed.					
E.2.1. Are leakage calculation required for the	PDD	DR	No leakage has been identified.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
selected project category and if yes, are the relevant leakage effects assessed?					
E.2.2. Are potential leakage effects properly accounted for in the calculations (if applicable)?	PDD	DR	No leakage has been identified.	Y	Y
E.2.3. Do the methodologies for calculating leakage comply with existing good practice (if applicable)?	PDD	DR	No leakage has been identified.	Y	Y
E.2.4. Are the calculations documented in a complete and transparent manner and (if applicable)?	PDD	DR	No leakage has been identified.	Y	Y
E.2.5. Have conservative assumptions been used (if applicable)?	PDD	DR	No leakage has been identified.	Y	Y
E.2.6. Are uncertainties in the leakage estimates properly addressed (if applicable)?	PDD	DR	No leakage has been identified.	Y	Y
E.3. Baseline GHG Emissions The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.					
E.3.1. Are the baseline emission boundaries clearly defined and do they sufficiently cover sources for baseline emissions?	PDD	DR	No baseline boundaries have been defines as such but baseline boundaries are considered to be the new thermal plants in the Expansion Plan.	Y	Y
E.3.2. Are all aspects related to direct and indirect baseline emissions captured in the project design?	PDD	DR	The new thermal plants will emit CO2, NO	Y	Y
E.3.3. Have all relevant greenhouse gases and	PDD	DR	All relevant GHGs have been evaluated.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
sources been evaluated?					
E.3.4. Do the methodologies for calculating baseline emissions comply with existing good practice?	PDD	DR	The calculations of the baseline emissions comply with the approved methodology.	Y	Y
E.3.5. Are the calculations documented in a complete and transparent manner?	PDD	DR	The calculations are documented in a complete but not transparent way since not all calculations are correct, e.g. the values in Table 2 do not add up to the figures presented. Commission dates in Table 3 and Table E2 are not the same. Table E2 contains mistakes, e.g. in the calculation of J and therefore also in N and O. *Response project developer: All discrepancies in figures have been addressed. Regarding the commission dates of older power plants, the discrepancy is related to the fact that these plants came on line in stages of power output over 1-3 years. Table E2 calculations are now corrected as well. The only error in "J" involved the Lakhdanavi diesel plant which was not linked to other table data.* CAR 4 has been closed out.	N CAR 4	Y
E.3.6. Have conservative assumptions been used?	PDD	DR	Baseline emissions have been calculated assuming all power plants operating at optimal load levels. This can be regarded as conservative.	Y	Y
E.3.7. Are uncertainties in the baseline emissions estimates properly addressed?	PDD	DR	No uncertainties in the baseline emissions have been assessed. *Response project developer: The PDD baseline emissions calculations are based on Appendix B of*	N CAR 5	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
			the Simplified Modalities and Procedures for Small-Scale CDM project activities. Page 9 of Appendix B states how to calculate baseline emissions based on the weighted average of current thermal power plants serving the grid combined with the build margin of all recently added facilities. There is therefore no uncertainty in the emissions calculation per se. *Baseline uncertainties are addressed in Section B of the PDD which discusses alternative baseline scenarios. The basic conclusion of that analysis is that if the expansion plan were to be realized as foreseen, the addition of coal power plants in the future would drive emissions up, a change that is not accounted for in our calculations. Similarly, our calculations do not account for possible delays in the expansion plan which would also increase emissions because of longer reliance on the oldest, least efficient thermal power plants in the system. The calculations in the PDD therefore represent a conservative estimate of probable future carbon emissions offsets.* CAR 5 has been closed out.		
E.4. Emission Reductions Validation of baseline GHG emissions will focus on methodology transparency and completeness in emission estimations.					
E.4.1. Will the project result in fewer GHG	PDD	DR	Power generation from run-of-river hydro plants	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
emissions than the baseline case?			replacing fuel oil or diesel generation will result in emission reductions, assuming competent installation and operation.		
F. **Environmental Impacts** It is assessed whether environmental impacts of the project are sufficiently addressed.					
F.1.1. Does host country legislation require an analysis of the environmental impacts of the project activity?	PDD	DR	The PDD states: "Every small hydropower plant requires approval from the Central Environmental Authority (CEA) which looks at both environmental and social aspects. Because of the small scale of the investment, developers prepare an Environmental Report rather than a full blown Environmental Impact Assessment". The project has obtained the Environmental Clearance from the CEA. Hapugastanne - Enviornmental clearence licence was given on October 25, 1999 ref: 08/06/29/24/95. Huluganga - Environmental clearence licence was given on October 25, 2001 ref: 08/P&E/24/01.	Y	Y
F.1.2. Does the project comply with environmental legislation in the host country?	PDD	DR	The project complies with environmental legislation in Sri Lanka.	Y	Y
F.1.3. Will the project create any adverse environmental effects?	PDD	DR	The project is not expected to create any adverse effects. Environmental Reports were reviewed at EPL in Sri Lanka and found to be satisfactory.	-	Y
F.1.4. Have environmental impacts been identified and addressed in the PDD?	PDD	DR	Environmental Reports were reviewed at EPL in Sri Lanka and found to be satisfactory.	-	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
G. **Comments by Local Stakeholder** Validation of the local stakeholder consultation process.					
G.1.1. Have relevant stakeholders been consulted?	PDD	DR	Local stakeholders have been consulted although no overview has been provided. *Response project developer: Detailed information on the stakeholder consultations is available with the operator, EPL. EPL is prepared to transmit all relevant supporting documents to the local assessor.* Project developer has consulted local stakeholders at various points of the development of the project. Hapugastenne Consultation was taken place on 23rd May 2003 and 19th June 2003 . Villagers and Pradeshiya Sabba members have attended these meetings. Hulu Ganga Meeting was held on 30th June 2000 and 13th October 2004. CAR 6 has been closed out.	N CAR 6	Y
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	No evidence was available for the use of media. It remains unclear how stakeholder comments have been invited or how meetings have been announced.	N CAR 8	Y
G.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation	PDD	DR	There are no regulations in Sri Lanka for stakeholder consultation.	-	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
process been carried out in accordance with such regulations/laws?					
G.1.4. Is a summary of the comments received provided?	PDD	DR	No summary has been provided but a statement that comments received were generally positive. *Response project developer: Detailed information on the stakeholder consultations is available with the operator, EPL. EPL is prepared to transmit all relevant supporting documents to the local assessor.* Except for minutes of stakeholder consultations maintained by the company there were no other documents to verify. CAR 7 has been closed out.	N CAR 7	Y
G.1.5. Has due account been taken of any comments received?	PDD	DR	EPL has used the comments to map and take into account current land uses and economic activities.	Y	Y

Table 3 Resolution of Corrective Action and Clarification Requests

Number	Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
CAR 1	No Letter of Approval of the Annex 1 party has been submitted to the validator	Table 1, question 2		CAR 1 has been closed out.
CAR 2	The simplified baseline is the annual kWh produced generated by the renewable unit times an emission coefficient. The baseline scenario selected is the expansion of electricity production by thermal power plants. There is no analysis why this is the most likely scenario and no other scenarios are considered.	Table 2, B.2.5	See revised section B.5 which includes a discussion of uncertainties and alternatives in defining the baseline.	CAR 2 has been closed out.
CAR 3	The monitoring plan does not cover procedures and responsibilities.	D.5.1	Section D.3 presents additional information on monitoring procedures and responsibilities.	CAR 3 has been closed out.
CAR 4	The calculations are documented in a complete but not transparent way since not all calculations are correct, e.g. the values in Table 2 do not add up to the figures presented. Commission dates in Table 3 and Table E2 are not the same.	E.3.5	All discrepancies in figures have been addressed. Regarding the commission dates of older power plants, the discrepancy is related to the fact that these plants came on line in stages of power output over 1-3 years. Table E2 calculations are now corrected as well. The only error in "J" involved the	CAR 4 has been closed out.

Number	Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
	Table E2 contains mistakes, e.g. in the calculation of J and therefore also in N and O.		Lakhdanavi diesel plant which was not linked to other table data.	
CAR 5	No uncertainties in the baseline emissions have been assessed.	E.3.7	The PDD baseline emissions calculations are based on Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM project activities. Page 9 of Appendix B states how to calculate baseline emissions based on the weighted average of current thermal power plants serving the grid combined with the build margin of all recently added facilities. There is therefore no uncertainty in the emissions calculation per se. Baseline uncertainties are addressed in Section B of the PDD which discusses alternative baseline scenarios. The basic conclusion of that analysis is that if the expansion plan were to be realized as foreseen, the addition of coal power plants in the future would drive emissions up, a change that is not accounted for in our calculations. Similarly, our calculations do not account for possible delays in the expansion plan which would also increase emissions because of longer	CAR 5 has been closed out.

Number	Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
			reliance on the oldest, least efficient thermal power plants in the system. The calculations in the PDD therefore represent a conservative estimate of probable future carbon emissions offsets.	
CAR 6	Local stakeholders have been consulted although no overview has been provided.	G.1.1	Information on or any specific stakeholder consultations are available with the operator, EPL. EPL is prepared to transmit all relevant supporting documents to the local assessor.	CAR 6 has been closed out.
CAR 7	No summary has been provided but a statement that comments received were generally positive.	G.1.4	Detailed information on the stakeholder consultations is available with the operator, EPL. EPL is prepared to transmit all relevant supporting documents to the local assessor.	CAR 7 has been closed out.
NIR 1	No engineering details have been provided for the project design so it is not possible to assess whether it reflects current good practices.	A.2.3	Detailed information on project engineering is available with the operator, EPL, based in Sri Lanka. EPS is prepared to transmit all relevant supporting documents to the local assessor.	NIR 1 has been closed out.

Number	Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response	Validation team conclusion
NIR 2	The project is not expected to result in a technology transfer to the host country but no details have been provided.	A.2.4	SGS needs to be more specific on the information/details sought on this issue.	NIR 2 has been closed out.
NIR 3	No project emissions have been identified. No construction emissions have been included.	D.2.1	See section E.1.2. for an estimation of construction-related emissions, including diesel engines used on-site combined with diesel used by trucks transporting materials and equipment to the project sites.	NIR 3 has been closed out.

CAR 8	It remains unclear how stakeholder comments have been invited or how meetings have been announced.	G.1.2	The only stakeholders in the case of all projects are the small numbers of villagers in the areas surrounding the project. It is not possible to use media to inform villagers of the projects since there are no local newspapers or other avenues for providing such information. The villagers were informed of the project details and their comments were solicited at face to face meeting arranged with them. The meetings were arranged through the local government official called the Grama Niladhari (Village Officer) who is the focal point of all government interaction	CAR 8 has been closed out.

			with villagers at this level. [A typical GN knows every single village household within his GN Division.] For each project we notified the GN of the basic parameters of the project and had him assemble a meeting between us and all villagers who could potentially be affected by the project in any way. Further meeting as necessary were arranged in the same manner during the construction of the projects. The local representative was shown the minutes of the various meetings that were held with the stakeholders and all comments were recorded in these minutes. The IFC in consultation with Eco Power prepared two documents, a Summary of Project Information and an Environmental Review Summary. These two documents together provided all salient details relating to the environmental and social aspect of the projects for which PDDs were prepared. These documents were translated into Sinhalese, the local language, and were made available for inspection by the public, including all stakeholders, at the following locations close to each of the projects for a period of one Month, starting on May 9, 2005.	

			Eco Power's head office and locally at the following addresses Hapugastenne Power House, Hapugastenne Rubber Estate, Gallella Alupola Power House, Alupola Estate, Alupola CECB Magal Ganga Project Office, Maliboda Estate, Nakkawita Hulu Ganga Sub Post Office, Hulu Ganga Town Divisional Secretariat, Meegahakiula via Badulla An advertisement was placed in a large Sinhalese language daily newspaper, the Lankadeepa, informing the public of the availability of the documents and soliciting comments. The comments could be sent to an IFC web site whose address was given in the advertisement or sent directly to the Chief Executive Officer of Eco Power. No comments were received during the one month period or thereafter to date.	

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