

Annex A: CDM Validation Protocol for Xiaogushan Hydropower Project in People's Republic of China

INTRODUCTION

*This document contains the Validation Protocol for **Xiaogushan Hydropower Project in People's Republic of China** which must be seen in conjunction with the Validation and Verification Guidelines.*

This validation protocol serves the following purposes:

- It organises, details and clarifies the requirements the project is expected to meet; and
- It ensures a transparent validation process by inducing the validator to document how a particular requirement has been validated and which conclusions have been reached;

This Protocol contains three tables as shown in index below:

- Table 1 shows the requirements that the GHG emission reduction project will be validated against.
- Table 2 consists of a checklist with validation questions related to one or more requirements in Table 1. Where a finding is issued, the corrective action requests (CAR) or clarification requests (CLAR) are stated.
- Table 3 describes the resolution and preliminary conclusions of these requests in Table 1 & 2.

Corrective action requests (CAR) are issued, where:

- 1) Mistakes have been made with a direct influence on project results;
- 2) Requirements of CDM or host party have not been met; or
- 3) There is an unacceptable risk as a CDM project or a risk that emission reductions cannot be verified and certified.

Clarification requests (CLAR) are issued where the additional information is required to clarify an issue sufficiently.

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

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	OK	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, Marrakesh Accords, CDM Modalities §40a	OK	Table 2, Section A.3 Sustainable development policies and plans of the host country are clearly mentioned. The Letter of Approval by DNA of PRC on 30 August 2005 confirmed that the project contributes PRC in achieving sustainable development
3. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC	Kyoto Protocol Art.12.2.	OK	Table 2, Section E.4.1
4. The project shall have the written approval of voluntary participation from the designated national authorities of each party involved	Kyoto Protocol Art. 12.5a, Marrakesh Accords, CDM Modalities §40a	CAR4 OK	The Letter of Approval from the DNA of PRC and the Declaration of Approval from the government of Netherlands were issued on August 30 2005, March 20 2006 respectively.
5. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change	Kyoto Protocol Art. 12.5b	OK	Table 2, Section E.
6. Reduction in GHG emissions shall 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 GHG gases by sources are reduced below those that would have	Kyoto Protocol Art. 12.5c, Marrakesh Accords, CDM	OK	Table 2, Section B.2.

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
occurred in the absence of the registered CDM project activity	Modalities §43		
7. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance	Marrakech Accords	OK	No indication of ODA being recognized for the project.
8. Parties participating in the CDM shall designate a national authority for the CDM	Marrakech Accords, CDM Modalities §29	OK	National Development and Reform Commission (NDRC) in PRC has been designated as DNA for the CDM.
9. The host country shall be a Party to the Kyoto Protocol	Marrakech Accords, CDM Modalities §30	OK	People's Republic of China ratified the Kyoto Protocol on 30 August 2002.
10. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received	Marrakech Accords, CDM Modalities §37b	OK	Table 2, Section G. Project Participants are requested to invite comments by stakeholders and take due account of the comments received. The PDD justifies that the appropriate activities were taken of the comments received.
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	Marrakech Accords, CDM Modalities §37c	OK	Table 2, Section F In accordance with the national and local legal procedures, EIA reports have been approved by relevant authorities.
12. Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel	Marrakech Accords, CDM Modalities §37e	OK	Table 2, Section B.1 and D.1 This project adopts the approved consolidated methodology ACM0002, after the justification for

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
			applicability.
13. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP	Marrakech Accords, CDM Modalities §37f	OK	Table 2, Section D
14. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	OK	The PDD was been made publicly available on JCI CDM Center web site linked to the UNFCCC web site. Parties, stakeholders and NGOs were invited to provide comments on the validation requirement from 23 July 2005 to 21 August. One comment was received.
15. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances	Marrakech Accords, CDM Modalities, §45c,d	OK	Table 2, Section B.2.
16. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure	Marrakech Accords, CDM Modalities, §47	OK	Table 2, Section B.2.
17. The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	CAR2 OK	The format of PDD published by CDM EB stipulates as follow. "This template shall not be altered." However, some parts of template such as version No and effective date are modified in the original PDD (PDD-Ver01). The revised PDD (PDD-Ver2) applies the format of PDD

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
			published by CDM EB without any modification. Therefore, this corrective action request was closed.

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Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
A. General Description of Project Activity <i>The project design is assessed.</i>					
A.1. Project Boundaries <i>Project Boundaries are the limits and borders defining the GHG emission reduction project.</i>					
A.1.1. Are the project's spatial (geographical) boundaries clearly defined?	PDD A.4	DR	The project is located on the Heihe River in Sunan Yugu Autonomous County of Zhangye City, Gansu province, China. The geographical boundaries are clearly defined.		OK
A.1.2. Are the project's system (components and facilities used to mitigate GHGs) boundaries clearly defined?	PDD B.4	DR	The project's system boundaries are clearly defined in B.4 of the PDD.		OK
A.2. Technology to be employed <i>Validation of project technology focuses on the project engineering, choice of technology and competence/maintenance needs. The validator should ensure that environmentally safe and sound technology and know-how is used.</i>					
A.2.1. Does the project design engineering reflect current good practices?	PDD A.4.3	DR /I	The project design engineering especially technical description is not good enough and transparent.	CLAR 4	OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
			There is some discrepancy in the project data. Features of the applied technology and its performance shall be proposed in detail.		
A.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD A.4.3	DR /I	Same as A.2.1 of this protocol.	CLAR 4	OK
A.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD A.4.3	DR /I	Same as A.2.1 of this protocol.	CLAR 4	OK
A.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD A.4.3/D.4	DR /I	The PDD does not clearly describe the extensive initial training and maintenance efforts for this project.	CLAR 2	OK
A.2.5. Does the project make provisions for meeting training and maintenance needs?	PDD A.4.3/D.4	DR /I	Regarding these points, not clearly described in the PDD.	CLAR 2	OK
A.3. Contribution to Sustainable Development <i>The project's contribution to sustainable development is assessed.</i>					
A.3.1. Is the project in line with relevant legislation and plans in the host country?	PDD A.2	DR /I	This Project will contribute to social, economic and environmental benefits as summarized in A2 of the PDD. The Letter of approval by DNA of PRC on		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
			30 August 2005 confirmed that the project contributes PRC in achieving sustainable development		
A.3.2. Is the project in line with host-country specific CDM requirements?	PDD A.2	DR /I	Same as A.3.1 of this protocol.		OK
A.3.3. Is the project in line with sustainable development policies of the host country?	PDD A.2	DR /I	Same as A.3.1 of this protocol.		OK
A.3.4. Will the project create other environmental or social benefits than GHG emission reductions?	PDD A.2	DR /I	The expected benefits other than GHG emission reductions are summarized in A.2 of the PDD.		OK
B. Project Baseline					
<i>The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.</i>					
B.1. Baseline Methodology					
<i>It is assessed whether the project applies an appropriate baseline methodology.</i>					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	PDD B.1	DR I	This project adopts approved consolidated baseline methodology ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources		OK
B.1.2. Is the baseline methodology the one deemed most applicable for this project and is the	PDD B.2	DR I	This project meets the applicability of ACM0002, as the description of A.3 & B.2 in		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
appropriateness justified?			the PDD, and the relevant data collected during the site survey.		
The below questions only apply when the validator is reviewing the baseline methodology prior to submission to the CDM EB (Two Steps Approach):			Two Steps Approach is not considered in this project.		
B.1.3. Is the discussion and selection of the baseline methodology transparent?			NA		
B.1.4. Is the proposed baseline methodology in line with one of the approaches outlined in Paragraph 48 of the Marrakech Accords?			NA		
B.1.5. Does the baseline methodology specify data sources and assumptions?			NA		
B.1.6. Does the baseline methodology sufficiently describe the underlying rationale for algorithm/formulae (e.g. marginal vs. average, etc.)			NA		
B.1.7. Does the baseline methodology specify types of variables used (e.g. fuels used, fuel consumption rates, etc)?			NA		
B.1.8. Does the baseline methodology specify the spatial level of data (local, regional, national)?			NA		
B.1.9. Does the baseline methodology specify an approach to define the additionality of the project?			NA		

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
B.2. Baseline Determination <i>The choice of baseline will be validated with focus on whether the baseline is a likely scenario, whether the project itself is not a likely baseline scenario, and whether the baseline is complete and transparent.</i>					
B.2.1. Is the application of the methodology and the discussion and determination of the chosen baseline transparent?	PDD B.1	DR	The reason for selection of the Simple OM method is not transparent.	CLAR 3	OK
B.2.2. Has the baseline been determined using conservative assumptions where possible?	PDD B.1	DR	Same as B.2.1 of this protocol.	CLAR 3	OK
B.2.3. Has the baseline been established on a project-specific basis?	PDD B.1/ B.2/ B.3	DR	The baseline scenario is determined on a specific-basis, taking into account the circumstances of the host country. Both Regulatory and economical conditions in the host country and contractual requirements are considered to establish the baseline.		OK
B.2.4. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	PDD B.1/ B.2/ B.3	DR	Refer to A.3.1 of this protocol.		OK
B.2.5. Is the baseline determination compatible with the available data?	PDD B.1/ B.2/ B.3	DR	Refer to B.2.1 of this protocol.		OK

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B.2.6. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD B.3	DR	The PDD demonstrates the additionality of this project using the "Tool for the demonstration and assessment of additionality" published by CDM EB. The selected scenario is most likely among other possible ones.		OK
B.2.7. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario (e.g. through (a) a flow-chart or series of questions that lead to a narrowing of potential baseline options, (b) a qualitative or quantitative assessment of different potential options and an indication of why the non-project option is more likely, (c) a qualitative or quantitative assessment of one or more barriers facing the proposed project activity or (d) an indication that the project type is not common practice in the proposed area of implementation, and not required by a Party's legislation/regulations)?	PDD B.3	DR	Regarding (b) and (c) of checklist question, the PDD clearly demonstrates in section B.3 that the project activity itself is not a likely baseline scenario.		OK
B.2.8. Have the major risks to the baseline been identified?	PDD B.3	DR	Major risks to the baseline are clearly identified in section B.3 of the PDD.		OK
B.2.9. Is all literature and sources clearly referenced?	PDD	DR	All literature and sources in the PDD are not clearly referenced and summarized.	CLAR 4	OK
C. Duration of the Project/ Crediting Period <i>It is assessed whether the temporary boundaries of the project are clearly defined.</i>					
C.1.1. Are the project's starting date and operational	PDD	DR	Yes, Starting date is 1 July 2006 and the		OK

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lifetime clearly defined and reasonable?	C.1		operational life is described as 30 years.		
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD C.2	DR	10 years A fixed crediting period of 10 years starting on 1 July 2006 without renewal is selected.		OK
D. Monitoring Plan <i>The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed ((Blue text contains requirements to be assessed for optional review of monitoring methodology prior to submission and approval by CDM EB).</i>					
D.1. Monitoring Methodology <i>It is assessed whether the project applies an appropriate baseline methodology.</i>					
D.1.1. Is the monitoring methodology previously approved by the CDM Methodology Panel?	PDD D.1/ D.2	DR	This project adopts approved consolidated monitoring methodology ACM0002: Consolidated monitoring methodology for grid-connected electricity generation from renewable sources.		OK
D.1.2. Is the monitoring methodology applicable for this project and is the appropriateness justified?	PDD D.1/ D.2	DR	To justify the applicability of the proposed monitoring methodology for this project, the following items shall be checked in detail. 1) Utilities including electricity used for the project operation, maintenance work	CLAR 5	OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
			and shutdown period etc. should be monitored. 2) The calibration procedure for the instruments should be described.		
D.1.3. Does the monitoring methodology reflect good monitoring and reporting practices?	PDD D.1/ D.2	DR	Same as D.1.2 of this protocol.	CLAR 5	OK
D.1.4. Is the discussion and selection of the monitoring methodology transparent?	D.1/ 2	DR	Same as D.1.2 of this protocol.	CLAR 5	OK
The below questions only apply when the validator is reviewing the monitoring methodology prior to submission to the CDM EB (Two Steps Approach):			Two Steps Approach is not considered in this project.		
D.1.5. Does the monitoring methodology provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?			NA		
D.1.6. Is the selected monitoring methodology supported by the monitored and recorded data?			NA		
D.1.7. Are the monitoring provisions in the monitoring methodology consistent with the project boundaries in the baseline study?			NA		
D.1.8. Have any needs for monitoring outside the project boundaries been evaluated and if so,			NA		

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
included as applicable?					
D.1.9. Does the monitoring methodology allow for conservative, transparent, accurate and complete calculation of the ex post GHG emissions?			NA		
D.1.10. Are formulas used for calculations stated and calculations incorporated or referenced?			NA		
D.1.11. Do the methodologies for calculating emission reductions comply with existing good practice?			NA		
D.1.12. Is the monitoring methodology clear and user friendly?			NA		
D.1.13. Does the methodology mitigate possible monitoring errors or uncertainties addressed?			NA		
D.2. Monitoring of Project Emissions <i>It is established whether the monitoring plan provides for reliable and complete project emission data over time.</i>					
D.2.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?	PDD D.2	DR	Refer to D.1.2 of this protocol.	CLAR 5	OK
D.2.2. Are the choices of project GHG indicators reasonable?	PDD D.2	DR	Same as D.2.1 of this protocol.	CLAR 5	OK
D.2.3. Will it be possible to monitor / measure the specified project GHG indicators?	PDD D.2	DR	Same as D.2.1 of this protocol.	CLAR 5	OK

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D.2.4. Will the indicators give opportunity for real measurements of achieved emission reductions?	PDD D.2	DR	Same as D.2.1 of this protocol.	CLAR 5	OK
D.2.5. Will the indicators enable comparison of project data and performance over time?	PDD D.2	DR	Same as D.2.1 of this protocol.	CLAR 5	OK
D.3. Monitoring of Leakage					
<i>It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.</i>					
D.3.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	PDD D.2./ D.4	DR	Refer to D.1.2 of this protocol.	CLAR 5	OK
D.3.2. Have relevant indicators for GHG leakage been included?	PDD D.2./ D.4	DR	Same as D.3.1 of this protocol.	CLAR 5	OK
D.3.3. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	PDD D.2./ D.4	DR	Same as D.3.1 of this protocol.	CLAR 5	OK
D.3.4. Will it be possible to monitor the specified GHG leakage indicators?	PDD D.2./ D.4	DR	Same as D.3.1 of this protocol.	CLAR 5	OK
D.4. Monitoring of Baseline Emissions					
<i>It is established whether the monitoring plan provides for reliable and complete project emission data over time.</i>					
D.4.1. Does the monitoring plan provide for the	PDD	DR	This project directly monitors and calculates		OK

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collection and archiving of all relevant data necessary for determining baseline emissions during the crediting period?	D.2. 1.4/ E.4		the emission reductions.		
D.4.2. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	PDD D.2. 1.4/ E.4	DR	Same as D.4.1 of this protocol.		OK
D.4.3. Will it be possible to monitor the specified baseline indicators?	PDD D.2. 1.4/ E.4	DR	Same as D.4.1 of this protocol.		OK
D.5. Monitoring of Sustainable Development Indicators/ Environmental Impacts <i>It is checked that choices of indicators are reasonable and complete to monitor sustainable performance over time.</i>					
D.5.1. Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD D	DR	<p>No sustainable development indicators, social and economic impacts are required to monitor in this project.</p> <p>The environmental monitoring is required during construction and operation in the PDD.</p> <p>However, the environmental monitoring plan is not described in the PDD.</p>	CLAR 6	OK
D.5.2. Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD D	DR	Same as D.5.1 of this protocol.	CLAR 6	OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
D.5.3. Will it be possible to monitor the specified sustainable development indicators?	PDD D	DR	Same as D.5.1 of this protocol.	CLAR 6	OK
D.5.4. Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD D	DR	Same as D.5.1 of this protocol.	CLAR 6	OK
D.6. Project Management Planning <i>It is checked that project implementation is properly prepared for and that critical arrangements are addressed.</i>					
D.6.1. Is the authority and responsibility of project management clearly described?	PDD D.4	DR	Regarding the monitoring work of this project, the scope of work and responsibility for each division and /or section in the Organization Chart should be described briefly. <u>Note:</u> The details of QA/QC system including specific training and operating practices shall be confirmed at the verification stage of this project.	CLAR 2	OK
D.6.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.3. Are procedures identified for training of monitoring personnel?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK

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D.6.5. Are procedures identified for calibration of monitoring equipment?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.6. Are procedures identified for maintenance of monitoring equipment and installations?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.7. Are procedures identified for monitoring, measurements and reporting?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.8. 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 D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.10. Are procedures identified for review of reported results/data?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.11. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.12. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK
D.6.13. Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD D	DR	Same as D.6.1 of this protocol.	CLAR 2	OK

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E. Calculation of GHG Emissions by Source <i>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.</i>					
E.1. Predicted Project GHG Emissions <i>The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.</i>					
E.1.1. Are all aspects related to direct and indirect GHG emissions captured in the project design?	PDD E	DR	Refer to D.1.2 of this protocol.	CLAR 5	OK
E.1.2. Are the GHG calculations documented in a complete and transparent manner?	PDD E	DR	Refer to E.1.1 of this protocol.	CLAR 5	OK
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	PDD E	DR	Refer to E.1.1 of this protocol.	CLAR 5	OK
E.1.4. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	PDD E	DR	Refer to E.1.1 of this protocol.	CLAR 5	OK
E.1.5. Have all relevant greenhouse gases and source categories listed in Kyoto Protocol Annex A been evaluated?	PDD E	DR	Refer to E.1.1 of this protocol.	CLAR 5	OK

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E.2. Leakage <i>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.</i>					
E.2.1. Are potential leakage effects beyond the chosen project boundaries properly identified?	PDD E.2	DR	Calculation of potential leakage and its effects to ERs is not described in detail	CLAR 5	OK
E.2.2. Have these leakage effects been properly accounted for in calculations?	PDD E.2	DR	Same as E.2.1 of this protocol.	CLAR 5	OK
E.2.3. Does the methodology for calculating leakage comply with existing good practice?	PDD E.2	DR	Same as E.2.1 of this protocol.	CLAR 5	OK
E.2.4. Are the calculations documented in a complete and transparent manner?	PDD E.2	DR	Same as E.2.1 of this protocol.	CLAR 5	OK
E.2.5. Have conservative assumptions been used when calculating leakage?	PDD E.2	DR	Same as E.2.1 of this protocol.	CLAR 5	OK
E.2.6. Are uncertainties in the leakage estimates properly addressed?	PDD E.2	DR	Same as E.2.1 of this protocol.	CLAR 5	OK
E.3. Baseline Emissions <i>The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.</i>					
E.3.1. Have the most relevant and likely operational characteristics and baseline indicators been chosen as reference for baseline emissions?	PDD E.4	E2	The most relevant and likely operational characteristics and baseline indicators are chosen.		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
			<p>The major source of GHG emissions in baseline is CO2 from existing fossil fuel power generation.</p> <p>The combined margin emission factor is determined ex-ante by the conservative electricity generation, based on the performance characteristics of existing plants.</p>		
E.3.2. Are the baseline boundaries clearly defined and do they sufficiently cover sources and sinks for baseline emissions?	PDD E.4	DR	Same as E.3.1 of this protocol.		OK
E.3.3. Are the GHG calculations documented in a complete and transparent manner?	PDD E.4	DR	<p>The GHG calculation procedure is not transparent. Only calculation results are shown in section E.</p> <p>Some discrepancy of the key data and missing of the formula etc. in Annex 3 of the PDD are recognized.</p>	CAR 3	OK
E.3.4. Have conservative assumptions been used when calculating baseline emissions?	PDD E.4	DR	Refer to E.3.1 of this protocol.		OK
E.3.5. Are uncertainties in the GHG emission estimates properly addressed in the documentation?	PDD E.4	DR	Same as E.3.4 of this protocol.		OK
E.3.6. Have the project baseline(s) and the project emissions been determined using the same appropriate methodology and conservative assumptions?	PDD E.4	DR	Same as E.3.4 of this protocol.		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
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 emissions than the baseline scenario?	PDD E.5	DR	Yes. Under the continuous stable operation of run-of-river hydropower plant, the project is expected to result in fewer GHG emissions.		OK
F. Environmental Impacts					
<i>Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.</i>					
F.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD F.1	DR /I	Yes. The original environmental impact assessment (EIA) for this project was carried out by Gansu Environment Science Design Institute (GESDI), who is EA consultant certified by the State Environmental Protection Agency (SEPA) The outline of EIA is summarized in section F.1 of the PDD.		OK
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD F.2	DR /I	Host Party regulation requested the preparation of detail EIA, and the EIA shall be approved by SEPA before the local environment bureau approves the project.		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
			All necessary national legal procedures have been finished, and then, the national and local environment authorities have approved this project. The written evidence regarding EIA was confirmed during site survey.		
F.1.3. Will the project create any adverse environmental effects?	PDD F.2	DR /I	Regarding the adverse environmental effects of the project, special attentions have been paid to the two issues occurred during the project construction phase to compensate the identified adverse impact. During project operation phase, environmental monitoring is planned to verify the project's actual impacts and to minimize the unexpected environmental problems.		OK
F.1.4. Are transboundary environmental impacts considered in the analysis?	PDD F.2	DR /I	Refer to F.1.1 of this protocol.		OK
F.1.5. Have identified environmental impacts been addressed in the project design?	PDD F.2	DR /I	Same as F.1.4 of this protocol.		OK
F.1.6. Does the project comply with environmental legislation in the host country?	PDD F.1	DR /I	Same as F.1.4 of this protocol.		OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conclusion	Final Conclusion
G. Stakeholder Comments					
<i>The validator should ensure that a stakeholder comments have been invited and that due account has been taken of any comments received.</i>					
G.1.1. Have relevant stakeholders been consulted?	PDD G.1	DR /I	The stakeholders' comments have been invited and summarized in the PDD. Most of comments show stakeholders' expectation to this project without negative comments.		OK
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	PDD G.1	DR /I	Yes. Same as G1.1 of this protocol.		OK
G.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD G.1	DR /I	No regulations/laws for a stakeholder consultation process is available in the host country.		OK
G.1.4. Is a summary of the stakeholder comments received provided?	PDD G.2	DR /I	Yes. Refer to G1.1 of this protocol.		OK
G.1.5. Has due account been taken of any stakeholder comments received?	PDD G.3	DR /I	Yes. Special attentions have been paid to the two issues to compensate identified adverse impact.		OK

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Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 & 2	Summary of project participants' response	Final conclusion
<p>CAR 1</p> <p>The letter of approval from each party involved are not obtained.</p> <p>Only written approval by DNA of PRC on 30 August 2005 was received during site survey.</p>	Table 1 Item 4	The Declaration of Approval from the government of Netherlands was obtained on March 20 2006.	<p>The DNA of PRC approved the project on August 30, 2005 and then the Declaration of Approval by the government of Netherlands was issued on March 20 2006.</p> <p>Therefore, this corrective action request was clearly closed.</p>
<p>CAR 2</p> <p>The format of PDD published by CDM EB stipulates as follow. "This template shall not be altered."</p> <p>However, some parts of template such as version No and effective date are modified.</p>	Table 1 Item 17	There is no modification on the re-submitted PDD.	<p>The revised PDD (PDD-Ver2) applied the format of PDD published by CDM EB was received and confirmed the appropriate action.</p> <p>Therefore, this corrective action request was closed.</p>
<p>CAR 3</p> <p>The GHG calculation procedure is not transparent. Only calculation results are shown in section E.</p> <p>Some discrepancy of the key data and missing of the formula etc. in Annex 3 of the PDD are recognized.</p>	Table 2 E.3.3	The PDD has been modified according to the validator's comment.	<p>The revised PDD (PDD-Ver.2) was submitted and confirmed the requested corrective action items.</p> <p>This corrective action request was therefore closed.</p>

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 & 2	Summary of project participants' response	Final conclusion
<p>CLAR 1</p> <p>The project design engineering especially technical description is not good enough and transparent.</p> <p>There is some discrepancy in the project data. Features of the applied technology and its performance shall be proposed in detail.</p>	<p>Table 2 A.2.1~2.3</p>	<p>The PDD has been revised according to the validator's comment.</p>	<p>The revised PDD (PDD-Ver.2) was submitted and confirmed the requested clarification items.</p> <p>This request for clarification was therefore closed.</p>
<p>CLAR 2</p> <p>The PDD does not clearly describe the extensive initial training and maintenance efforts for this project.</p> <p>Regarding the monitoring work of this project, the scope of work and responsibility for each division and /or section in the Organization Chart should be described briefly.</p>	<p>Table 2 A.2.4~2.5 D.6.1~6.13</p>	<p>The PDD has been revised according to the validator's comment.</p>	<p>The revised PDD (PDD-Ver.2) was submitted and confirmed the requested clarification items.</p> <p>This request for clarification was therefore closed.</p>

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 & 2	Summary of project participants' response	Final conclusion
<p>CLAR 3</p> <p>The reason for selection of the Simple OM method is not transparent.</p>	<p>Table 2 B.2.1~2.2</p>	<p>A justification for the use of the Simple OM method is provided within section B.2</p>	<p>The revised PDD (PDD-Ver.2) was submitted and confirmed the requested clarification items.</p> <p>This request for clarification was therefore closed.</p>
<p>CLAR 4</p> <p>All literature and sources in the PDD are not clearly referenced and summarized.</p>	<p>Table 2 B.2.9</p>	<p>The PDD has been revised according to the validator's comment.</p>	<p>. The revised PDD (PDD-Ver.2) was submitted and confirmed the requested clarification items.</p> <p>This request for clarification was therefore closed.</p>
<p>CLAR 5</p> <p>To justify the applicability of the proposed monitoring methodology for this project, the following items shall be checked in detail.</p> <ol style="list-style-type: none"> 1) Utilities including electricity used for the project operation, maintenance work and shutdown period etc. should be monitored. 2) The calibration procedure for the instruments should be described. 	<p>Table 2 D.1.2~1.4 D.2.1~2.5 D.3.1~3.4 E.1.1~1.5 E.2.1~2.6</p>	<p>A response to CLAR 5 regarding defining calibration methods and describing maintenance operations is contained within section D. A more complete response regarding leakage was requested in the validation protocol. However, the approved baseline methodology states that leakage in the form of power plant construction, fuel handling and land inundation do not need to consider these as leakage. <i>"Project participants do not need to consider these emission sources as leakage in applying this methodology. Project activities using this baseline methodology shall not claim</i></p>	<p>The revised PDD (PDD-Ver.2) was submitted and confirmed the requested clarification items.</p> <p>Additional data to be monitored for project emission from operation of facilities in the project activity and calibration plan for the instruments were listed as mandatory monitoring data.</p> <p>This request for clarification was therefore closed.</p>

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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1 & 2	Summary of project participants' response	Final conclusion
		<p><i>any credit for the project on account of reducing these emissions below the level of the baseline scenario" (ACM0002). The proposed project does not claim any credit for the project on account of reducing these emissions below the level of the baseline scenario and therefore leakage is not considered for the proposed project.</i></p>	
<p>CLAR 6</p> <p>No sustainable development indicators, social and economic impacts are required to monitor in this project.</p> <p>The environmental monitoring is required during construction and operation in the PDD.</p> <p>However, the environmental monitoring plan is not described in the PDD.</p>	<p>Table 2 D.5.1~5.4</p>	<p>The EIA has been summarized and included within the PDD and incorporated within the monitoring plan. Should the validator require additional information the full EIA can be made available.</p>	<p>The revised PDD (PDD-Ver.2) was submitted and confirmed the requested clarification items.</p> <p>This request for clarification was therefore closed</p> <p><u>Note:</u> Environmental Management and Monitoring Plan (EMMP) for building and operating the hydropower plant also has been submitted to the validator for review.</p>

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