



VALIDATION OPINION GEPIC DARONG ELECTRIC POWER COMPANY LTD

VALIDATION OF POST REGISTRATION CHANGES OF THE BAILONGJIANG DALIJIE HYDROPOWER STATION

REPORT No.COUNTRY-PRC/8412/2011

REVISION No.01

BUREAU VERITAS CERTIFICATION

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VALIDATION OPINION

| | | | |
|--|--|--|---|
| Date of first issue: 22/07/2012 | | Organizational unit: Bureau Veritas Certification Holding SAS | |
| Client: GEPIC Darong Electric Power Company Ltd | | Client ref.: Mr.Hu Bo | |
| Project reference No.: 8412/2011 | Date of registration: 06/12/2009 | Registered PDD version and date Version 02, 03/07/2009 | Revised PDD version and date Version 03, 31/07/2012 |
| Monitoring period to which the request applies.: Date of reagrstration: From 06/12/2009 onwards | | PRC tracks <input type="checkbox"/> Prior approval track <input checked="" type="checkbox"/> Issuance track | |
| The DOE conducted validation of the changes: <input type="checkbox"/> Prior to commencement of a verification for the project activity or PoA. <input checked="" type="checkbox"/> When performing a verification for the project activity or PoA. | | | |
| Types of Changes <input type="checkbox"/> A. Temporary deviations from the monitoring plan as described in the registered PDD, PoA-DD or generic CPA-DD, or the monitoring methodology <input type="checkbox"/> B. Corrections that do not affect project/ programme design <input type="checkbox"/> C. Change to the start date of the crediting period <input type="checkbox"/> D. Permanent changes from the monitoring plan as described in the registered PDD or the monitoring methodology <input checked="" type="checkbox"/> E. Changes to the project or programme design of a registered project activity or PoA <input type="checkbox"/> F. Changes specific to afforestation or reforestation project activities | | | |

| | |
|--|------------------------------|
| Report No.: Country-PRC/8412/2011 | Subject Group: CDM |
| Project title: Bailongjiang Dalijie Hydropower Station | |
| Work carried out by: Mr.Tony Li Xingtong - Team Leader | |
| Internal Technical Review carried out by: Ms.Cheng Linglin | |
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Indexing terms

Work approved by:

Flavio Gomes

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Abbreviations

| | |
|--------|---|
| CAR | Corrective Action Request |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reductions |
| CL | Clarification Request |
| CO2 | Carbon Dioxide |
| CO2e | Carbon Dioxide Equivalent |
| DOE | Designated Operational Entity |
| FAR | Forward Action Request |
| GHG | Green House Gas(es) |
| MoV | Means of Verification |
| MP | Monitoring Plan |
| PDD | Project Design Document |
| PLF | Plant Load Factor |
| PP | Project Participant |
| PPA | Power Purchase Agreement |
| PRC | Post-Registration Changes |
| UNFCCC | United Nations Framework Convention on Climate Change |
| VVS | Validation and Verification Standard |



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1. INTRODUCTION

GEPIC Darong Electric Power Company Ltd has commissioned Bureau Veritas Certification to validate the post-registration changes of CDM project Bailongjiang Dalijie Hydropower Station (hereafter called "the Project") at Lijie Village, Lijie Township, Zhouqu County, Tibetan Autonomous Prefecture of Gannan, Gansu Province, P.R. China.

This report summarizes the findings of the validation of the post-registration changes, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1. Objective

The objective of a validation is to provide a thorough and independent third party assessment of the post-registration changes. In particular, the changes' compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the changes meet the applicable CDM requirements and the identified criteria.

1.2. Scope

The validation scope is defined as an independent and objective review of the revised project design document and other relevant documents. The information in these documents is reviewed against the requirements of paragraph 37 of the CDM M&Ps, the applicability conditions of the selected methodology and guidance issued by the Board.

The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3. Validation Team

The assessment team and internal technical reviewer team consist of the following personnel:

| FUNCTION | NAME | TA 1.2 | TASK PERFORMED* |
|-----------------------------------|---------------------|-------------------------------------|--|
| Team Leader | Mr.Tony Li Xingtong | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI <input type="checkbox"/> TR |
| Team Member | N.A. | <input type="checkbox"/> | <input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR |
| Technical Specialist | N.A. | <input type="checkbox"/> | <input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR |
| Internal Technical Reviewer (ITR) | Ms.Cheng Linglin | <input checked="" type="checkbox"/> | <input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input checked="" type="checkbox"/> TR |
| Specialist supporting ITR | N.A. | <input type="checkbox"/> | <input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR |

*DR = Document Review; SV = Site Visit; RI = Report issuance; TR = Internal Technical Review



2. METHODOLOGY

The overall validation, from Contract Review to Validation Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 02.0 of the Clean Development Mechanism Validation and Verification Standard, issued by CDM Executive Board at its 65th meeting on 25/11/2011^[9]. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements the post-registration changes are expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

2.1. Review of Documents

The Revised Project Design Document (PDD) submitted by DHV BEEC Co., Ltd. and additional background documents related to the project design and monitoring plan were reviewed.

Furthermore, cross checks were made between information provided in the revised PDD and information from sources other than those used.

To address Bureau Veritas Certification corrective action and clarification requests, DHV BEEC Co., Ltd. revised the PDD and resubmitted it on 31/07/2012.

The validation conclusions presented in this report relate to the project as described in the revised PDD version 03.

2.2. Follow-up Interviews

On 12/01/2012, Bureau Veritas Certification performed a site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of GEPIC Darong Electric Power Company Ltd and DHV BEEC Co., Ltd. were interviewed (see References).

2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the validation is to resolve issues that require further elaboration, research or expansion prior to Bureau Veritas Certification's positive conclusion on the post-registration changes.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:



- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable, verifiable and additional emission reductions;
- (b) The applicable CDM requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A Forward Action Request (FAR) may also be raised during validation, to identify issues related to project implementation that require review during the first verification of the project activity.

To guarantee the transparency of the validation process, the issues raised, the responses provided by the project participants, the means of validation of such responses and references to any resulting changes in the PDD or supporting annexes are documented in the Validation Protocol in Appendix A.

2.4. Internal Technical Review

The validation opinion underwent an Internal Technical Review (ITR) before requesting approval of the post-registration changes.

The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the validation opinion to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

- The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, closure of CARs and CLs during the validation exercise, review of sample documents.

The reviewer may raise Clarification Requests to the validation team and will discuss these matters with the Team Leader.

After the agreement of the responses to the Clarification Requests from the validation team as well as the PP(s), the finalized validation opinion is accepted for further processing such as uploading via the UNFCCC interface.



3. VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the revised project design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in **1 CL**.

The CARs and CLs were closed out based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section corresponds to the VVS paragraph.

3.1. Temporary deviations from the registered monitoring plan and/or monitoring methodology (255-256)

N.A.

3.2. Corrections (259)

N.A.

3.3. Changes to the start date of the crediting period (261)

N.A.

3.4. Permanent changes from the registered monitoring plan or monitoring methodology (267-268)

N.A.

3.5. Changes to the project design of a registered project activity (277-282)

[Description of the changes]

Bailongjiang Dalijie Hydropower Station (hereafter referred to as “**the Project**”) was registered on 06/12/2009 under CDM methodology ACM0002 Version 07.

During the onsite visit on 12/01/2012 for the 3rd monitoring period (from 30/01/2011 to 28/11/2011) of the Project, it was noticed that the model of three turbine-generators does not conform to the description in the registered PDD.

The detail changes as compared to the registered PDD are summarized in the following table.

**Table 1. The change of the models of the major equipment and main technical parameters**

| Items | | In the registered PDD | Proposed Revised PDD |
|------------------|--|-----------------------|----------------------|
| Equipment | Turbines | HL290-LJ-280 | HLA551C-LJ-272 |
| | Generators | SF13.4-36-470 | SF-J13.4-36/5100 |
| Parameter | Rated discharge water flow for all the turbines | 154.83m ³ | 153.42m ³ |

Bureau Veritas Certification has assessed the identified changes and found that the changes are actual changes to the project design of a registered CDM project activity. This issue is applicable for the whole crediting period from 06/12/2009 onwards.

[Assessment on the changes]**(a) When the changes occurred**

The changes occurred at the contract signing of the turbine-generators between the PP and Hangzhou Liyuan Power Generation Equipment Co., Ltd. in Nov.2006^[5], before the registration date of the Project on 06/12/2009.

(b) Reasons for these changes taking place

Through review of the Clarification of Type Changes of Turbines and Generators of Bailongjiang Dalijie Hydropower Station issued by the FSR Design Institute (Northwest Hydro Consulting Engineers, CHECC)^[7], the verification team noticed that the model of the hydro turbine-generators described in the registered PDD is exactly quoted from the FSR. The model of turbines and generators are not strictly unified in the market for different manufacturers adopted different size of runner diameter of the turbines and stator external diameter of the generators. Thus the exact model of hydro turbine-generators can be identified only when the manufacturer has been determined.

Bureau Veritas Certification checked the relevant documents and confirmed that the FSR of the Project was finished in Aug.2006^[6] and the Purchase Contract of Hydro Turbine-Generator was signed on 27/11/2006^[5], approximately 3 month later than completion of the FSR. As analyzed above, it is reasonable that the type of the equipments in the FSR is different from the actual one. The description of main equipment in section A4.3 of PDD^[2] derived from the FSR, and it is different from the actual condition.

Bureau Veritas Certification has checked the technical contract of turbine generators and the FSR, and made the list in Table 2:

Table 2. The model description and main parameter for the equipment changes

| Equipments Model | Description of Model | Main Parameter |
|-------------------------|--|-----------------------|
| HL290-LJ-280 | HL: Francis turbine | Rated water head: 29m |
| | 290: type defined by the manufacturer | Rated water flow: |

| | | |
|------------------------------|--|--|
| | LJ: Vertical shaft metal spiral case | 51.61m ³ /s for each turbine (total 154.83 m ³ /s in the PDD for 3 turbines) |
| | 280: Runner Diameter 280cm | |
| HLA551C-LJ-272 | HL: Francis turbine | Rated water head: 29m |
| | A551C: type defined by the manufactor | Rated water flow: 51.14m ³ /s |
| | LJ: Vertical shaft metal spiral case | (total 153.42m ³ /s for 3 turbines) |
| | 272: Runner Diameter 272cm | |
| SF13.4-36-470 | SF: Vertical air-cooled | Rated Capacity: 13.4MW Rated Voltage: 10.5kV |
| | 13.4: Unit capacity | |
| | 36: Number of Poles | |
| | 470: Stator External Diameter. It's a typo in PDD, which should be 4700mm. | |
| SF-J13.4- 36/5100 | SF: Vertical air-cooled | Rated Capacity: 13.4MW Rated Voltage: 10.5kV |
| | J: Symbol of the manufacturer | |
| | 13.4: Unit capacity | |
| | 36: Number of Poles | |
| | 5100: Stator External Diameter : 5100mm. | |

The selected turbines and generators could meet all the requirements stated in the FSR, which was confirmed by the Northwest Hydro Consulting Engineers, CHECC^[7].

(c) Whether the changes would have been known prior to registration of the project activity

The changes would have been known prior to registration of the project activity for the registered PDD version 02 was completed on 03/07/2009^[2], after Nov.2006 when the turbine-generator contract was signed^[5].

(d) How the changes would impact the overall operation/ability of the project activity to deliver emission reductions as stated in the PDD

The main parameters of the hydro turbines and generators, i.e. the rated capacity, rated voltage and rated water head, etc. are consistent with the description in the PDD. Even the rated water flow has 1% increase than the estimation, the rated capacity of the generator has not been changed, and as per the Clarification of Type Changes of Turbines and Generators of Bailongjiang Dalijie Hydropower Station issued by Northwest Hydro Consulting Engineers, CHECC on 06/05/2010^[7], the plant load factor (PLF)/ the electricity generation of the Project has not been changed due to the changes.

Therefore the changes would not impact the overall operation/ability of the project activity to deliver emission reductions as stated in the PDD.



[Impact to the validation conclusions in the registered PDD]

(a) Additionality of the project activity

The overall operation/ability of the Project has not impact as per the discussion above.

Bureau Veritas Certification has checked the 2009 Financial Report of the GEPIC Darong Shuiboxia Power Co., Ltd ^[8] conducted by *Crowe Horwath China Certified Public Accountant Co., Ltd Gansu Branch*, which is a certified third party by Gansu Province Financial Department. According to the Report, the investment in fixed asset has been 363.10 million CNY which is higher than the estimated investment (329.92 million CNY) in the PDD, i.e. the actual investment is higher than the assumption made in the FSR.

Therefore the electricity output keeps the same, and the actual investment is higher than estimation in PDD, the income is deemed lower than estimated IRR in PDD.

In summary, the changes do not impact on the additionally of the project activity.

(b) Scale of the project activity

As the installed capacity of the Project is not impacted, Bureau Veritas Certification can conclude that the scale and estimated annual electricity generation of the Project remains unchanged.

(c) Applicability and application of approved baseline methodology

The changes do not impact the applicability and application of the baseline and monitoring methodology ACM0002 version 07 under which the Project has been registered.

The above referred documents have been provided to Bureau Veritas Certification and verified.

(d) Compliance of the monitoring plan with applied monitoring methodology

Not applicable for the monitoring plan has not changed.

(e) Level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.

Not applicable for the monitoring plan has not changed.



4. VALIDATION OPINION

Bureau Veritas Certification has performed a validation of post-registration changes of the Bailongjiang Dalijie Hydropower Station, which is located in Lijie Village, Lijie Township, Zhouqu County, Tibetan Autonomous Prefecture of Gannan, Gansu Province, P.R. China. The validation was performed on the basis of UNFCCC criteria for the CDM, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion.

The review of the revised project design document, relevant additional information and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the post-registration changes meet all relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests the approval of post-registration changes of the project activity.

Ms.Cheng Linglin
Internal Technical Reviewer
31/07/2012

Mr.Tony Li Xingtong
Team Leader
31/07/2012



5. REFERENCES

Category 1 Documents:

Documents provided by project participants that relate directly to the GHG components of the project.

- [1] Revised PDD of the Project, version 03 dated 31/07/2012.
- [2] Registered PDD, version 02 dated 03/07/2009
- [3] Validation Report of the Project Revision 4 dated 03/08/2009
- [4] Nameplates of the three turbine-generators
- [5] Turbine-generators contract and its technical agreement signed in Nov.2006, provided by the Hangzhou Liyuan Power Generation Equipment Co., Ltd.
- [6] Feasibility Study Report(FSR) of the Project completed in Oct.2006
- [7] Clarification of Type Changes of Turbines and Generators of Bailongjiang Dalijie Hydropower Station issued by Northwest Hydro Consulting Engineers, CHECC on 06/05/2010
- [8] The 2009 Financial Report of the GEPIC Darong Shuiboxia Power Co., Ltd conducted by *Crowe Horwath China Certified Public Accountant Co., Ltd Gansu Branch* issued on 09/03/2010

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents used for cross-check.

- [9] CDM Validation and Verification Standard Version 02.0 (EB65 Annex 1)
- [10] CDM Validation Project Standard Version 01.0 (EB65 Annex 5)
- [11] CDM Project Cycle Procedure Version 02.0 (EB66 Annex 64)
- [12] ACM0002 Version 07

Persons interviewed:

Persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

GEPIC Darong Electric Power Company Ltd

Mr. Hu Bo CDM Manager

Ms. Xing Xiaoyan CDM Manager

Mr. Yuan Jiaqing CDM Project Manager

DHV BEEC Co., Ltd.

Ms. Wang Huan Consultant



6. CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

| | | |
|---------------------|--|---|
| Mr.Tony Li Xingtong | Bureau Veritas Certification, China | Team Leader, Climate Change Lead Verifier, He holds a Master Degree in Landscape Ecology and Bachelor Degree in Environmental Engineering. Before joining BV in 2009, he gained one year of CDM technical experience in P.R China. He obtained the certificate of CDM Verifier, Lead Auditor for ISO 14001 and completed the course assessment for the ISO 14064:2006. |
| Ms.Cheng Linglin | Bureau Veritas Certification, China | Technical Reviewer, Climate Change Lead Verifier. She holds a Master Degree in Environmental Science and Engineering. Before joining BV in 2009, she gained over 2 years of research experience on air pollution control and 2 years of CDM technical experience in energy sector in P.R. China. She obtained the certificate of CDM Lead Verifier, Lead Auditor for ISO14001 and has successfully completed the course assessment for ISO 14064:2006. |

APPENDIX A: VALIDATION PROTOCOL FOR POST REGISTRATION CHANGES

Table 1 Validation requirements based on VVS section IX.E (EB65 Annex4) and PS section XII.H (EB65 Annex5)

| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|---|------|-----|----------|----------------|----------------|
| 1. Temporary deviations from the registered monitoring plan or applied methodology | | | | | |
| a. Are there deviations from the registered monitoring plan or methodology? | VVS | 251 | No. | OK | OK |
| b. Do the provisions of appendix 1 of the Project standard apply to the identified deviations? | VVS | 252 | N.A. | OK | OK |
| c. If the provisions of appendix 1 of the Project standard do not apply, is prior approval from the Board with respect to the acceptability of the deviations sought? | VVS | 252 | N.A. | OK | OK |
| d. If the deviation will lead to a reduction in the accuracy of the calculation of ERs, are conservative assumptions or discount factors applied to the calculations to the extent required to ensure that ERs will not be over-estimated as a result | VVS | 253 | N.A. | OK | OK |



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| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|---|------|---------|----------|----------------|----------------|
| of the deviation? | | | | | |
| e. For cases where a deviation from the monitoring plan may be applicable to the monitoring period under verification, and part of the subsequent monitoring period, is the exact period to which the deviation applies verified? | VVS | 254 | N.A. | OK | OK |
| 2. Corrections | | | | | |
| a. Are the corrections to project information or parameters fixed at validation, as described in the registered PDD, made by PPs in a revised PDD comply with the requirements of the Project standard? | VVS | 257 | N.A. | OK | OK |
| b. Is the corrected information an accurate reflection of actual project information? | VVS | 258 (a) | N.A. | OK | OK |
| c. Are the corrected parameters in accordance with the applied methodology and/or selected monitoring plan? | VVS | 258 (b) | N.A. | OK | OK |



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| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|--|------|-----|----------|----------------|----------------|
| 3. Changes to the start date of the crediting period | | | | | |
| a. Is it ensured that the start date of the crediting period in the registered PDD was not prior to the date of registration? | PS | 211 | N.A. | OK | OK |
| b. Is it ensured that PPs do not request any changes to the start date of the crediting period of more than two years - not more than four years for project activities hosted by a Least Developed Country? | PS | 212 | N.A. | OK | OK |
| c. If the change of the start date of the crediting period constitutes a difference of more than one year but less than two years - more than two years but less than four years for project activities hosted by a Least Developed Country, do PPs demonstrate that no changes have occurred to the project activity that would result in a less conservative baseline, and that substantive progress has been made by the PPs to start the project activity? | PS | 214 | N.A. | OK | OK |



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| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|--|------|-----|----------|----------------|----------------|
| 4. Permanent changes from the registered monitoring plan or monitoring methodology | | | | | |
| a. Is it ensured that the changes to the monitoring plan contained in the registered PDD are in compliance with the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan? | VVS | 263 | N.A. | OK | OK |
| b. If the proposed changes refer to a later version of the applied methodology in the registered PDD, does the application of any later version of the applied methodology and tools impact the conservativeness of the monitoring and verification process, including the related emission reduction calculation? | VVS | 264 | N.A. | OK | OK |
| c. If the PPs are unable to implement the registered monitoring plan and it will not be possible to monitor the registered CDM project activity in accordance with a monitoring plan | VVS | 265 | N.A. | OK | OK |

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| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|--|------|-----|---|----------------|----------------|
| that would comply with the applied methodology and any applicable tools or the relevant provisions of appendix 1 of the Project standard, is any guidance (prior approval) requested from the Board concerning the acceptability of the permanent changes? | | | | | |
| d. If the permanent changes will lead to a reduction in the accuracy of the calculation of ERs, are conservative assumptions or discount factors to the calculations applied to the extent required to ensure that ERs will not be over-estimated as a result of the permanent change? | VVS | 266 | N.A. | OK | OK |
| 5. Changes to the project design of a registered project activity | | | | | |
| a. If the project design in the implementation or operation of the project activity does not conform with the description contained in the registered PDD or the relevant provisions of appendix 1 of the Project standard, is any guidance (prior approval) requested from the | VVS | 270 | No. The changes to the project design conformed with the provisions of Appendix of the Project Standard. | OK | OK |

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| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|--|------|---------|--|----------------|----------------|
| Board concerning the acceptability of the proposed or actual changes? | | | | | |
| b. Was an on-site visit conducted in case of actual changes? | VVS | 271 | Yes The onsite visit has been conducted on 12/01/2012 for the 3 rd monitoring period (from 30/01/2011 to 28/11/2011) of the Project. | OK | OK |
| c. Does the revised PDD describe the nature and extent of the proposed or actual changes, including | PS | 218 | | | |
| i. Changes in the effective output capacity due to increased installed capacity or increased number of units, or installation of units with lower capacity or units with a technology which is less advanced than that described in the PDD? | PS | 218 (a) | <p>CL-1. The justification of the nature and extent of the actual changes should be provided in the PDD.</p> <p>The justification of the nature and extent of the actual changes has been provided in the section A.4.3 of the revised PDD.</p> <p>There is no change in the effective output capacity due to the model changes, as installed capacity and number of units are not changed. No installation of units with lower capacity and no units with a technology which is less advanced than that described in the PDD.</p> <p>The main parameters of the hydro turbines and generators, i.e. the rated capacity, rated voltage and rated water head, etc. are consistent with the description in the PDD. Even the rated water flow has 1% increase than the estimation, the rated capacity of the generator has not been changed, and as per the Clarification of Type Changes of Turbines and Generators of Bailongjiang Dalijie Hydropower Station</p> | GL-4 | OK |



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| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|---|------|---------|--|-------------------------|-------------|
| | | | issued by Northwest Hydro Consulting Engineers, CHECC on 06/05/2010, the plant load factor (PLF)/ the electricity generation of the Project has not been changed due to the changes. | | |
| ii. Addition of component or extension of technology? | PS | 218 (b) | Pending on CL-1 No addition of component or extension of technology | Pending g | OK |
| iii. Removal or addition of one site (or more) of a project activity registered with multiple-sites? | PS | 218 (c) | Pending on CL-1 No removal or addition of one site (or more) of a project activity registered with multiple-sites | Pending g | OK |
| iv. Actual operational parameters which are within the control of PPs differing from the expected parameters? | PS | 218 (d) | Pending on CL-1 No actual operational parameters which are within the control of project participants differing from the expected parameters. | Pending g | OK |
| v. Any consequential changes to the baseline methodology, including changing or adding another baseline methodology or applying a baseline scenario that is more appropriate as a result of the proposed or actual modifications to the project activity? | PS | 218 (e) | Pending on CL-1 No any consequential changes to the baseline methodology, including changing or adding another baseline methodology or applying a baseline scenario that is more appropriate as a result of the proposed or actual modifications to the project activity | Pending g | OK |
| d. Are the impacts of the proposed or actual changes to the registered CDM project activity reported in the revised PDD, including | PS | 219 | | | |



VALIDATION OPINION

| CHECKLIST QUESTION | Ref. | § | COMMENTS | Draft Concl | Final Concl |
|---|------|---------|---|----------------|----------------|
| i. The applicability and application of the applied methodology under which the project activity has been registered? | PS | 219 (a) | These changes will not impact the applicability and application of the applied methodology under which the project activity has been registered; | OK | OK |
| ii. Compliance of the monitoring plan with the applied methodology? | PS | 219 (b) | These changes will not impact compliance of the monitoring plan with the applied methodology for the monitoring plan has not been changed | OK | OK |
| iii. The level of accuracy and completeness in the monitoring of the project activity? | PS | 219 (c) | These changes will not impact the level of accuracy and completeness in the monitoring of the project activity for the monitoring plan has not been changed | OK | OK |
| iv. The additionality of the project activity? | PS | 219 (d) | <p>The main parameters of the hydro turbines and generators, i.e. the rated capacity, rated voltage and rated water head, etc. are consistent with the description in the PDD. Even the rated water flow has 1% increase than the estimation, the rated capacity of the generator has not been changed, and as per the Clarification of Type Changes of Turbines and Generators of Bailongjiang Dalijie Hydropower Station issued by Northwest Hydro Consulting Engineers, CHECC on 06/05/2010, the plant load factor (PLF)/ the electricity generation of the Project has not been changed due to the changes. Therefore the changes would not impact the overall operation/ability of the project activity to deliver emission reductions as stated in the PDD.</p> <p>As per the 2009 Financial Report of the GEPIC Darong Shuiboxia Power Co., Ltd conducted by <i>Crowe Horwath China Certified Public Accountant Co., Ltd Gansu Branch</i>,</p> | OK | OK |

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|---|------|---------|---|----------------|----------------|
| | | | <p>which is a certified third party by Gansu Province Financial Department, the investment in fixed asset has been 363.10 million CNY which is higher than the estimated investment (329.92 million CNY) in the PDD, i.e. the actual investment is higher than the assumption made in the FSR.</p> <p>Therefore the electricity output keeps the same, and the actual investment is higher than estimation in registered PDD, the income is deemed lower than estimated IRR in registered PDD.</p> <p>In summary, the changes do not impact on the additionally of the project activity.</p> | | |
| v. The scale of the project activity? | PS | 219 (e) | These changes will not impact the scale of the project activity | OK | OK |
| e. Are the proposed or actual changes would adversely affect the conclusions of the validation report of the registered PDD with regard to: | VVS | 273 | | | |
| i. Additionality of the project activity? | VVS | 273 (a) | <p>The overall operation/ability of the Project has not changed.</p> <p>Bureau Veritas Certification has reviewed the turbine-generator contract^[5] and the FSR^[6], and found the contract value for the turbine-generator is slightly lower than the estimation in the FSR. However, Bureau Veritas Certification has also checked the 2009 Financial Report of the GEPIC Darong Shuiboxia Power Co., Ltd^[8] conducted by <i>Crowe Horwath China Certified Public Accountant Co., Ltd Gansu Branch</i>, which is a certified third party by Gansu Province Financial Department. According to the Report,</p> | OK | OK |

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|---|------|---------|---|----------------|----------------|
| | | | <p>the investment in fixed asset has been 363.10 million CNY which is higher than the estimated investment (329.92 million CNY) in the PDD, i.e. the actual investment is higher than the assumption made in the FSR.</p> <p>Therefore the electricity output keeps the same^[7], and the actual investment is higher than estimation in PDD^[8], the income is deemed lower than estimated IRR in PDD.</p> <p>In summary, the changes do not impact on the additionally of the project activity.</p> | | |
| ii. Scale of the project activity? | VVS | 273 (b) | As the installed capacity of the Project is not impacted, Bureau Veritas Certification can conclude that the scale of the Project remains unchanged. | OK | OK |
| iii. Applicability and application of approved baseline methodology under which the project activity has been registered? | VVS | 273 (c) | The changes do not impact the applicability and application of the baseline and monitoring methodology ACM0002 version 07 under which the Project has been registered. | OK | OK |
| iv. The compliance of the monitoring plan with the applied monitoring methodology? | VVS | 273 (d) | | OK | OK |
| f. If the proposed or actual changes affect the additionality of the project activity: | VVS | 274 | | | |
| i. In the case of investment analysis, have PPs only modified the key parameters in the original | VVS | 274 (a) | N.A | OK | OK |



VALIDATION OPINION

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|--|------|---------|--|----------------|----------------|
| spreadsheet calculations affected by the proposed or actual changes to the project activity? | | | | | |
| ii. In the case where only barriers have been claimed to demonstrate additionality, have PPs demonstrated that the barriers are still valid under the new circumstances? | VVS | 274 (b) | N.A | OK | OK |
| g. If the PP applies a later version of the methodology or another methodology that is applicable to the project activity, is it confirmed that the applied methodology and tools do not impact the conservativeness of the monitoring and verification process and the related emission reduction calculations? | VVS | 275 | The changes do not impact the applicability and application of the baseline and monitoring methodology ACM0002 version 07 under which the Project has been registered. | OK | OK |
| h. Does the revised PDD comply with the applied monitoring methodology and tools or any later version of the methodology or the requirements of another methodology that is applicable to the project activity? | VVS | 276 | The changes do not impact the applicability and application of the baseline and monitoring methodology ACM0002 version 07 under which the Project has been registered. | OK | OK |

**Table 2 Resolution of Corrective Action /Clarification /Forward Action Requests**

| Draft report clarifications and corrective action requests by verification team | Ref. to checklist question in table 1 | Summary of project participant response | Verification team conclusion |
|--|---------------------------------------|---|--|
| CL-1 The justification of the nature and extent of the actual changes should be provided in the PDD. | 5.c.i | The justification of the nature and extent of the actual changes has been provided in the section A.4.3 of the revised PDD. | Bureau Veritas Certification has checked the revised PDD against the relevant evidences provided, and found the justification of the nature and extent of the actual changes has been clarified reasonably. Thus, CL-1 is closed. |