Report No. AT201-2007-012, Revision 03

Validation Report

Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project

August 19, 2008

Korea CDM Certification Office

KOREA ENERGY MANAGEMENT CORPORATION

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<tr><td>Category</td><td colspan="4">Energy Industries (renewable energy sources)</td></tr>
<tr><td>Scope</td><td colspan="4">The validation scope for the proposed CDM project includes:
- Physical and geographical boundaries of the proposed project;
- Legal, institutional, financial and technological aspects of the project;
- GHG sources and types to be included within the boundaries;
- Time periods to be covered by the project design;
- Baseline scenario established;
- Monitoring plan;
- Environmental impacts caused by the proposed project; and,
- Stakeholders' comments</td></tr>
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2. On-site Assessment: 14 Dec 2007 ~ 14 Dec 2007
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1 Summary of the project activity

The "Korea Midland Power Co., LTD. (KOMIPO) Boryeong small hydroelectric power plant project" involves generation of electricity using cooling water discharge from eight thermal power plants of Boryeong power site division. Boryeong power site division of KOMIPO consists of six existing thermal power plants (from #1 to #6) for small hydroelectric unit 1 and two new thermal power plants (#7, #8) for small hydroelectric unit 2. The electricity generated from the proposed project will be exported to the grid and thus displace electricity produced from fossil fuel fired plants and result in reduced GHG emissions. The installed capacity of the project is 7.5MW (six 1.25MW turbines) and the yearly generation of electricity is likely to be 24,950 MWh. The estimated emission reductions due to the project are 137,150 tCO2 e for 10 years of crediting period, with annual average GHG emission reduction of 13,715 tCO2 e.

The small hydroelectric power project is located in OCheon-Myon Boryeong city, Chungcheongnam-do, Republic of Korea. The purpose of this proposed project is to install two hydroelectric power plants inside Boryeong power site division to generate electricity by utilizing sea water discharge which is or will be used as cooling water in the 8 thermal power plants. And this is applicable to grid-connected renewable power generation project activity.

Thus, the proposed project is expected to significantly contribute to sustainable development in Korea by utilizing renewable and clean energy source - hydro energy generation. Several national or public benefits of the project are ;

- Reduction of GHG emissions
- Diversification of the national supply of energy
- Reduction of the imported energy bill
- Promotion of renewable energy use

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2 Principles

The project design document (PDD) of the Korea Midland Power Co., LTD. (KOMIPO) Boryeong small hydroelectric power plant project is assessed based on the following principles

2.1 Completeness

The completeness of the PDD is ensured by assessing whether the project proponent has identified all greenhouse gases (GHG) sources directly attributable to the proposed project within the project boundary and indirect GHG emissions outside the project boundary

2.2 Consistency

The consistency of the PDD is ensured by assessing whether major factors used in the project plan such as data, formulae/algorithm and assumptions have been uniformly applied:

- Among potential baseline scenarios;
- Between the project and baseline scenario; and
- Between the baseline and monitoring methodology.

2.3 Accuracy

The accuracy of the PDD is ensured by assessing whether any material errors or omissions made in using data and estimating GHG emissions have been corrected, and uncertainties associated with GHG quantification have been minimized to the extent possible.

2.4 Transparency

The transparency of the PDD is ensured by assessing whether all assumptions, choices and procedures are clearly stated and substantiated such that another party may reach the same conclusions

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2.5 Relevance

The relevancy of the PDD is ensured by assessing whether selection of GHG sources, quantification procedures and potential baselines scenarios have been justified taking into account the requirements for the CDM project and the host country's particular situation.

2.6 Conservativeness

The conservativeness of the PDD is ensured by assessing whether the baseline has been established choosing values of parameters that generate a lower baseline projection and thereby reducing the possibility of over-estimating GHG emission reductions

3 Definitions of non-conformities and observations

3.1 Non-conformities

Non-conformities refer to validation findings that fail to fulfill the validation criteria such as failure to demonstrate additionality, lack of key information and exclusion of significant leakages. Non-conformities are divided into major and minor ones.

- Major non-conformity includes, inter alia:
  - failure to comply with the Modalities and Procedures of CDM projects;
  - occurrence of significant errors in the project baseline and monitoring methodologies
- Minor non-conformity includes, inter alia:
  - unclear data sources;
  - minor miscalculation and misstatements

3.2 Observations

Observations include validation findings that are likely to be of non-conformity but with few evidences available at the moment and recommendations for improved documentation, data use, etc.

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4 Desk review

The desk review has been made during the period from 11 December to 13 December by reviewing documents submitted by the project participants including the Project Design Document and supporting documentation in respect of completeness, consistency, accuracy, transparency, relevance, and conservativeness. The Validation Criteria, against which the project documentation is assessed, include the CDM modalities and procedures determined by the Marrakech Accords and relevant CDM EB decisions, and are specified in the Validation Checklist. The desk review focused mainly on the three aspects below:

- Demonstration of the project additionality;
- Calculation of baseline and project emissions; and
- Environmental Impacts.

The scope of desk review depends primarily on the information provided by the project participants and would be extended through interviews and in-depth review of more documentary evidences during on-site assessment afterwards.

4.1 Validation findings

The proposed project - a 7.5MW small hydroelectric power project - applied the approved baseline and monitoring methodologies for small-scale projects. As the project generate electricity utilizing renewable sources and supply it to the grid, Category I.D, Grid-connected renewable electricity generation (ver 13) is applied. Given that the electricity system in Korea comprise nuclear power and renewable-based power as well as fuel oil and diesel fuel, the project adopted as a baseline emission factor the average of the Operating Margin and Build Margin emission factors and accordingly performed calculation using data from official documents such as the 1996 IPCC Guidelines and Electric Power Statistics of KEPCO (Korea Electric Power Corporation). The formulae for the emission factors were consistently used in the monitoring plan.

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Validation Results	In order to demonstrate the project's addtionality, the PDD choose (a) investment barrier as per options provided under 'attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities' and showed that the project is not financially attractive under the baseline scenario because NPV of the project is negative without CDM. The operational lifetime of the project is estimated to be around 30 years, and discount rate is 6%. As for its environmental impacts on the local area, the host country legislation does not require an analysis of the environmental impacts of the project activity because of the small-scale nature of the hydro power projects. In addition, the project participant has used a pop-up menu function of the company website at September, 2007 to publicize the proposed CDM project to receive comments from local stakeholders as a stakeholders' comments invitation process. However, the validation team identified several items as follows that need to be further checked: - Selection of a capacity factor for the proposed project is not clearly specified in the PDD. (see Appendix B, B.3.2); - The addtionality of the proposed project is weakly justified (see Appendix B, B.3.2); - QA/QC procedures for the proposed project are not fully described (see Appendix B, D.4); - There seems to be inconsistency in using the most recent power generation statistics in order to calculate the OM and BM (see Appendix B, B.2.4); - Documentary evidences on environmental impacts by the hydroelectric power plants and the receipt of stakeholder comments will be further checked during the onsite assessment. (see Appendix B, F, G);	

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Validation Results	Based on the results of the desk review, the validation team requests the project proponents to provide more documentary evidences and justification in order to ensure the compliance of the PDD with the validation criteria. Additional documents and revised sections of PDD to be submitted prior to on-site assessment (deadline: 14 December 2007) are: 1) The written approval of voluntary participation from the designated national authorities of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development (see Appendix B, A.3.3~4); 2) Supplementary documents to justify selection of a capacity factor for the proposed project (see Appendix B, B.3.2); 3) Supplementary documents on the justification of assumptions for investment barriers(NPV calculation) in developing the proposed project (see Appendix B, B.3.2); 4) Additional description on QA/QC procedures for the proposed project including training for the staff (see Appendix B, D.4); 5) Re-calculation of the Operating Margin and Build Margin in a transparent and conservative manner (see Appendix B, B.2.4, E.1.12~13); 6) Documentary evidences on environmental impacts by the hydroelectric power plants (see Appendix B, F1.1~1.3). 7) Clarification on how to deal with comments of stakeholders in respect of CDM impacts of this project (see Appendix B, G.1.1~3.1).	

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5 On-site assessment and interview

On-site assessment has been performed at 14 December 2007 by making on-site visits and interviewing relevant persons particularly for the purpose of checking the remaining issues identified at the desk review. The on-site assessment focused mainly on the three aspects below:

1) Capacity factors of the hydro-electric power plant;
2) Investment barrier analysis of the hydro-electric power plant; and
3) Whether due consideration has been taken of local stakeholders' comments.

The major means of validation is by cross-check between documents and interviews with relevant persons. The key persons interviewed at the on-site assessment are as below:

1) Kang, Hyun Seok, Manager, Environmental Management Team, Korea Midland Power Co., LTD, Boryeong Thermal Power Site Division; and
2) Lee, Hee Sang, Manager, Headquarter, Environmental Management Team, Korea Midland Power Co., LTD, Boryeong Thermal Power Site Division
3) Lee, Sang Wook, Assistant Manager, Headquarter, Environmental Management Team, Korea Midland Power Co., LTD, Boryeong Thermal Power Site Division
4) Cho, Hang Tae, Assistant Manager, Renewable Energy Team, Korea Midland Power Co., Head Office

As a result of the on-site assessment, the validation team requests the project entity to take corrective actions against 4 non-conformities i.e. two Major non-conformities and two Minor non-conformities identified within the deadline, 31 January 2008, as agreed in the Validation Contract.

5.1 On-site assessment findings

During the on-site assessment KEMCO reviewed the permit of electricity power generation business for hydroelectric unit 2/4/ issued by the provincial government of Chungcheongnam-do, and the permit of electricity power generation business for hydroelectric unit 1/5/ issued by MOCIE (Ministry of Commerce, Industry and Energy) then, concluded that the project is in compliance with local legislations.

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Validation Results	The project starting date is 1st of February, 2007 which is the date of purchase contract of main equipments for the project/10/. Because the starting date is before the date of the commencement of validation (Period for global stakeholder comments: 24 Nov - 23 Dec 2007), it was thoroughly assessed during the validation whether or not the CDM benefits were seriously considered in the decision to undertake the project as a CDM project activity against Guidance by EB41 (Annex 46). Based on the feasibility study reports from KOPEC /6/, /7/ which include CDM benefits in the economic evaluation, the project proponent prepared the basic plan/11/ for the development of the proposed project as of 18 April, 2006. The basic plan which was approved by the President of KOMIPO before the starting date of the project activity included CDM income in the investment analysis as an additional income source. And it has been verified by the team that the incentives from the CDM was seriously considered in the decision to implement the project activity. In regard to the demonstration of additionality, KEMCO checked PDD and Investment Analysis/2/ for determination of initial investment costs and other financial data such as discount rate, fuel costs and NPV. The PDD appropriately showed that the project is not financially attractive under the baseline scenario by showing that NPV is negative. Furthermore, KEMCO checked the monitoring plan of the proposed project and closely looked into the details of the QA/QC procedures. The modification of related EIA/8/ showed that there is no outstanding issue regarding the proposed project. As per stakeholders' comments, the way how KOMIPO invited and compiled local stakeholders' opinions has been reviewed by checking Q&A results of the website. However, it is not transparently described in the PDD how the capacity factor of the proposed project is determined. The PDD should also provide complete monitoring plan including detailed procedures for QA/QC. In regards to determining the baseline emissions, operating and build margin needs to be recalculated in a transparent manner.	

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Validation Results	In addition, the project participant is requested to provide further documentary evidences on how the project proponent has dealt with comments received from stakeholders in respect of the impacts the proposed project has on local community. Major and minor non-conformities identified during the assessment is summarized as follows: 1) Major non-conformity 1: Further clarification is required with objective evidence for the determination of capacity factor of the proposed project(see Appendix B. B.3.2); 2) Major non-conformity 2: Recalculation of the Operating Margin and Build Margin in a transparent and conservative manner.(see Appendix B. B.2.4); 3) Minor non-conformity 1: The monitoring plan lacks detailed procedures for QA/QC (see Appendix B. D.4.2); 4) Minor non-conformity 2: It is required that the submission of documentary evidences on how the project proponent has dealt with comments received from stakeholders in respect of the impacts the proposed project has on local community (see Appendix B. G.3.1). Observations: The project participants have not yet submitted the written approval of voluntary participation from the designated national authorities of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development and private entities participating in the project have not been authorized by the designated national authorities of the Parties. These issues should be further checked prior to preparation of the Final Validation Report. **6 Review of corrective actions** In response to the request for corrective actions against non-conformities identified, the project proponents submitted the revised project documentation to the validation team, of which the validation team made a thorough review during the period from 28 February to 4 April 2008. Corrective actions of the project proponents and conclusions of the validation team are as follows:	

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1) Major non-conformity 1

A. Corrective Actions: For further clarification of the capacity factor, the project proponent submitted two feasibility study reports for the project from KOPEC (Korea Power engineering company, Inc.) /6/ and /7/.

B. Conclusions: As a result of the review of these design estimation, it is concluded that the proposed hydroelectric power project is appropriately estimated the capacity factor and correctly substantiated the amount of electricity generation.

2) Major non-conformity 2

A. Corrective Actions: The revised PDD and OM&BM Calculation Excel Sheet/3/ recalculated Operating Margin and Build Margin by including all relevant plants connected to the grid.

B. Conclusions: The OM & BM of the proposed project has been recalculated and verified by the validation team.

3) Minor non-conformity 1

A. Corrective Actions: The revised PDD/1/ described procedure for training of monitoring personnel accordingly.

B. Conclusions: The revised PDD submitted correctly described procedure for training of monitoring personnel. And it is verified that KOMIPO has also established foundation of EMS since receiving a certificate of ISO 14001 in 2004 /17/.

4) Minor non-conformity 2

A. Corrective Actions: The project proponent submitted documentary evidences/9/ of local stakeholders' comments. There were questions from local stakeholder who was interested in CDM project, who was concerned about environmental issues of the project, and who asked of CO2 emission reduction calculation of the CDM project. KOMIPO gave answers and necessary information to the local stakeholders.

B. Conclusions: Overall comments from local stakeholders in respect of the impacts the proposed project was positive.

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7 Receipt of public comments

In accordance with Paragraph 40(c) of the CDM Modalities and Procedures, the project design document of "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project" had been posted on the UNFCCC CDM website for public comments from 24 Nov 2007 to 23 Dec 2007. As a result, no comments were received during that period.

8 Issuance of written approvals

The KEMCO validation team has received the written approvals from the designated national authorities of the Party involved in "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project" (issued on 20 June, 2008), which states the following:

1) The Party, Republic of Korea approves that its participation in "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project" is voluntary
2) The Korean government, the host Party of "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project" confirms the project activity contributes significantly to sustainable development in Korea.
3) The Party, Republic of Korea authorizes the project participants indicated in the PDD to participate in "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project."

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9 Validation opinion

The KEMCO validation team has performed a validation of "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project" which claimed approximately 13,715 CO2eq ton annually by utilizing hydro resources. To ensure the transparency and integrity of the validation, the validation team first had established the validation checklist taking into account UNFCCC, Kyoto Protocol, Marrakesh Accords, Decision 3, 4/CMP.1 and relevant decisions of the CDM executive board. Based on the checklist the validation of the project activity was undertaken in three stages, i.e. desk review (11 Dec 2007～13 Dec 2007), on-site assessment (14 Dec 2007 ~ 14 Dec 2007) and review of corrective actions (28 Feb 2008 ~ 4 Mar 2008).

As a result of the desk review and on-site assessment, the validation team identified two Major non-conformities and two Minor non-conformities and then requested the project proponents to take corrective actions against them. In response to the request, the project proponents submitted the revised project documentation to the validation team, of which the validation team made a thorough review. Then the team fully agreed that all the significant non-conformities issued had been cleared.

In conclusion, it is the validation team's opinion that the "Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project", as described in the project design document as of January 23, 2008 version, is in full compliance with all the major requirements for the CDM by leading to emission reductions additional to what would have otherwise occurred, providing for reliable and measurable emission reductions with the well-established monitoring plan and contributing to sustainable development in Korea through diversification of the national supply of energy, reduction of the imported energy bill, and promotion of renewable energy use.

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10 References

Documents and electronic files submitted by the Project Entity

/1/ The PDD of Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project, updated in 18 August, 2008

/2/ Investment Analysis Excel Sheet (Submitted on 07 August, 2008)

/3/ OM&BM Calculation Excel Sheet (submitted on 07 August, 2008)

/4/ The permit of electricity power generation business by Chungchungnam–do Provincial Government as of December 6, 2006(in Korean only)

/5/ The permit of electricity power generation business by MOCIE (Ministry of Commerce, Industry and Energy) as of October 9, 2006(in Korean only)

/6/ The feasibility study report of hydroelectric power generation unit 1 by KOPEC (Korea Power Engineering Company, Inc.) as of March, 2006 (in Korean only)

/7/ The feasibility study report of hydroelectric power generation unit 2 by KOPEC (Korea Power Engineering Company, Inc.) as of March, 2006 (in Korean only)

/8/ The modification of EIA(Environmental impact Assessment) for the Boryeong thermal power plant #7, #8 which contains information about the environmental impact of the proposed project as of May, 2007(in Korean only)

/9/ Results of the Stakeholders' comments invitation process as of September, 2007(in Korean only)

/10/ Purchase contract between KOMIPO and vendors as of 1st February, 2007(in Korean only)

/11/ Basic plan for the construction of Boryeong Small Hydroelectric Power Plant approved by the President of KOMIPO as of 18 April, 2006(in Korean only)

Documents and websites referred to by KEMCO

/12/ http://cdm.unfccc.int/DNA

/13/ http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf

/14/ http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html

/15/ http://cdm.unfccc.int/methodologies/PAmethodologies/approved.html

/16/ http://www.moleg.go.kr (Ministry of Government Legislation, in Korean only)

/17/ http://www.komipo.co.kr/english/ (KOMIPO official homepage)

/18/ Korea Power Exchange, Electricity Market Operation Regulations, 2005 (in Korean only)

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	Role	Name	Organization /position	Scope of Validation	Signature
Validation Team	Team Leader, Validator	Park, Kyung Soon	KEMCO	Baseline methodology, Monitoring methodology, Estimation of GHG emissions	
	Validator	Lee, Eun Koo	KEMCO	Sustainable Development, Environmental impacts, Stakeholder comments	
Appendix	A. Validation Criteria B. Validation Checklist C. Review of Corrective Actions D. CVs of Validators				

Appendix A

Validation Criteria

(Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project)

REQUIREMENT	Reference	Conclusion	Comments
1. The project shall assist non-Annex I Parties in achieving sustainable development, which shall be confirmed by the host Party in the form of a written approval of voluntary participation.	Kyoto Protocol (KP) Article 12.2, Marrakech Accords(MA) CDM Modalities and Procedures (M&P) paragraph 29	Checked	See Appendix B. A.3.3~4
2. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC and lead to real, measurable and give long-term benefits related to the mitigation of climate change.	KP Article 12.2, 5(b)	Checked	See Appendix B. Checklist A.4.8
3. The project shall assist Annex I Parties in achieving compliance with part of their emission reduction commitment under Article 3 of the Kyoto Protocol.	KP Article 12.2	Checked	See Appendix B. Checklist A.4.8
4. Emission reductions attributable to the project shall be additional to any that would occur in the absence of the project activity.	KP Article 12.5(c), MA CDM M&P paragraph 37(d), 43	Checked	See Appendix B. Checklist B.3.2
5. The project activity should lead to the transfer of environmentally safe and sound technology and know-how.	MA Decision 17/CP.7	Checked	See Appendix B. Checklist A.4.6
6. Public funding for the project from Annex I Parties shall not result in a diversion of official development assistance	MA Decision 17/CP.7	Checked	See Appendix B. Checklist A.4.9
7. Participation in the CDM shall be voluntary, which shall be approved by each party involved	KP Article 12.5(a), MA CDM M&P paragraph 28, 40(a)	To be checked	See Appendix B. Checklist A.3.3~4
8. Parties participating in the CDM shall designate a national authority for the CDM	MA CDM M&P paragraph 29	Checked	See Appendix B. Checklist A.3.1
9. Parties participating in the CDM shll be a Party to the Kyoto Protocol	MA CDM M&P paragraph 30, 31	Checked	See Appendix B. Checklist A.3.2

REQUIREMENT	Reference	Conclusion	Comments
10. The proposed project activity shall meet the eligibility criteria for small-scale CDM project activities set out in paragraph 6 (c) of decision 17/CP.7	Simplified Modalities and Procedures for Small Scale Projects, paragraph 12a	Checked	See Appendix B. Checklist A.4.2
11. The proposed project activity shall conform to one of the project categories in appendix B to the Simplified Modalities and Procedures for Small Scale Projects	Simplified Modalities and Procedures for Small Scale Projects, paragraph 12b	Checked	See Appendix B. Checklist A.4.3
12. The proposed project activity shall not be a debundled component of a larger project activity, as determined through appendix C to the Simplified Modalities and Procedures for Small Scale Projects	Simplified Modalities and Procedures for Small Scale Projects, paragraph 12c	Checked	See Appendix B. Checklist A.4.10
13. The project design document is in conformance with the Small Scale CDM-PDD format	Simplified Modalities and Procedures for Small Scale Projects, Appendix A	Checked	The PDD of the proposed project was prepared in accordance with UNFCCC Small-scale CDM-PDD Format Version 03
14. The proposed project activity shall use the simplified baseline and monitoring methodologies specified in appendix B to the Simplified Modalities and Procedures for Small Scale Projects for its project category	Simplified Modalities and Procedures for Small Scale Projects, paragraph 14	Checked	See Appendix B. Checklist B.2.1, D.2.1
15. Comments by local stakeholders are invited, a sum mary of these provided and how due account was t aken of any comments received	Simplified Modalities and Procedures for Small Scale Projects, paragraph 22b	Checked	See Appendix C. Review of Corrective Actions No. 4
16. An analysis of the environmental impacts of the project activity is carried out and documented if required by the Host Party	Simplified Modalities and Procedures for Small Scale Projects, paragraph 22c	Checked	See Appendix B. F.1.1~3
17. The project activity conforms to all other requirements for CDM project activities in the CDM modalities and procedures that are not replaced by the Simplified Modalities and Procedures for Small Scale Projects	Simplified Modalities and Procedures for Small Scale Projects, paragraph 22f	Checked	The project activity conforms to all other requirements for CDM project activities in the CDM modalities and procedures as well as the Simplified Modalities and Procedures for Small Scale Projects

REQUIREMENT	Reference	Conclusion	Comments
18. Parties, stakeholders and UNFCCC accredited NGOs 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.	Simplified Modalities and Procedures for Small Scale Projects, paragraph 23b,c	Checked	The PDD of the proposed project will bes posted for 30 days on the CDM website for public comments from 24 Nov 2007 to 23 Dec 2007. As a result, no comments were received during that period.
19. Emission reductions attributable to the project shall be adjusted for leakage	Simplified Modalities and Procedures for Small Scale Projects, paragraph 30	Checked	See Appendix B. Checklist D.3.7
20. The project boundary shall encompass all anthropogenic emissions by sources of greenhouse gases under the control of the project participants that are significant and reasonably attributable to the CDM project activity	Simplified Modalities and Procedures for Small Scale Projects, paragraph 31	Checked	See Appendix B. Checklist B.3.1

Appendix B

Validation Checklist

(Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydroelectric Power Plant Project)

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
A. General Description of Project Activity *In this section, the project design is assessed including the project purpose, how technology will be transferred and whether public funding from Annex I Parties results in a diversion of official development assistance.*						
A.1. Title of the small-scale project activity *Note:*						
A.1.1. Does the title characterize the project activity clearly and properly?		/1/	Document Review	1. Checked: The project title, Korea Midland Power Co., LTD. (KOMIPO) Boryeong Small Hydro-electric Power Plant Project is clearly characterized in the PDD.		OK
A.2. Description of the small-scale project activity *Note:*						
A.2.1. Is the purpose of the project activity clearly described?		/1/	Document Review	1. Checked: The proposed project aims to generate electricity utilizing cooling water from the power generation of Boroyeong power site division and feed it into the grid.		OK
A.2.2. Is the project in compliance with relevant legislation in the host country?		/4/,/5/	Document Review	1. Checked: The proposed project conforms to relevant legislations including the Electricity Act and Act on Assessment of Impacts on Environment, Traffic, and Disaster. The permit of electricity power generation business for the proposed project has been issued by the relevant authorities.		OK
A.2.3. Does the project contribute to sustainable development of the host country from environmental, social and economic perspectives?		/1/	Document Review	1. Checked: The proposed project is expected to bring the host country and local areas social and environmental benefits including diversification of energy sources, reduction of GHG emissions.		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
A.3. Project Participants *Note:*						
A.3.1.	Have Parties participating in the project designated a national authority for the CDM?	/12/		1. Checked: Korea has designated a national authority for the CDM.		OK
A.3.2.	Is the host country a Party to the Kyoto Protocol?	/13/	Document Review	1. Checked: Korea has ratified the Kyoto Protocol on 08-11-2002.		OK
A.3.3.	Have the project received the written approval of voluntary participation from the designated national authorities of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development?	/1/	Document Review	1. Checked: The project participants have submitted the written approval of voluntary participation by the Republic of Korea. (issued on 20 June, 2008).		OK
A.3.4.	Have a private and/or public entity participating in the project been authorized by the designated national authorities of the Party?	/1/	Document Review	Ditto		OK
A.4. Technical description of the small-scale project activity *Note:*						
A.4.1.	Is the location of the project activity clearly described?	/1/	Document Review	1. Checked: The hydroelectric power plant is located in Ocheon-Myon Boryeong City Chungcheongnam-do Republic of Korea.		OK
A.4.2.	Does the project qualify as a small scale CDM project activity in Paragraph 6(c) of decision 17/CP.7 of the Marrakech Accords?	/1/, /14/	Document Review	1. Checked: The rated power generation of the proposed project is 7.5MW and the category of the project is renewable energy.		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
A.4.3.	Does the project activity conform with one of the project categories defined in Appendix B to the simplified M&P for small scale CDM project activities?	/1/, /14/	Document Review	1. Checked: The proposed project belongs to the category of I.D, Grid connected renewable electricity generation.		OK
A.4.4.	Is it justified how the project activity conforms to the project categories?	/1/	Document Review	1. Checked: The proposed project generates electricity utilizing renewable resources and feed it to the grid		OK
A.4.5.	Does the project design engineering reflect current good practices?	/1/	Document Review	1. Checked: The proposed project utilize the latest Kaplan-1.5 turbine and three phase alternating current induction generator.		OK
A.4.6.	Are the environmentally safe and sound technology and know how transferred to the host Party through the project?	/1/,/6/,/7/	Document Review Interview	1. Checked: The equipment used in the project is domestically manufactured, which represents state of the art technology.		OK
A.4.7.	Are the GHGs emissions reductions additional to what would occur in the absence of the project?	/1/	Document Review Interview	1. Checked. See Section B.		OK
A.4.8.	Does the project design clearly and consistently indicate the chosen crediting period, the total estimation of emission reductions for the chosen crediting period?	/1/	Document Review	1. Checked : The length of the crediting period is 10 years and the total estimated reductions of 13,715 tonnes of CO_2eq per year		OK
A.4.9.	In case public funding from Annex I Parties is involved, does the project provide an affirmation that such funding does not result in a diversion of official development assistance?	/1/ /12/	Document Review	1. Checked: It is confirmed that no public funding is included in the project investment.		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
A.4.10.	Has the confirmation been provided that the project activity is not a debundled component of a larger project activity?	/1/	Document Review Interview	1. Checked: There are no other CDM projects with the same project participant within 1 km of the project boundary.		OK
B. Application of a Baseline methodology	*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.	**Title and reference of the project category applicable to the project activity** *Note:*					
B.1.1.	Has the PDD properly referred to the most recent list of the small scale CDM project activity categories in Appendix B of the simplified M&P for small scale CDM projects?	/1/ /14/	Document Review	1. Checked: The most recent list of the small scale CDM project activity categories has been properly referred to at the CDM website.		OK
B.2.	**Project category applicable to the project activity** *Note:*					
B.2.1.	Has the PDD justified the choice of the applicable baseline calculation for the project category as provided for in Appendix B of the simplified M&P for small scale CDM project activities?	/4/ /14/	Document Review	1. Checked: The project selects the approved small scale methodology AMS I.D(ver 13)		OK
B.2.2.	Has the PDD described how the	/4/	Document	1. Checked: The scale and technical description of		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
	baseline methodology is applied in the context of the project activity?	/14/	Review	proposed project are appropriately provided in regards to the application of baseline methodology.		
B.2.3.	Has the PDD explained the basic assumptions of the baseline methodology in the context of the project activity?	/1/	Document Review	1. Checked: It is assumed that the proposed project displaces electricity from the grid - existing plants and new capacity additions that would be otherwise constructed.		OK
B.2.4.	Has the baseline been determined in a transparent and conservative manner?	/1/, /3/	Document Review Interview	1. Checked: The Operating Margin and Build Margin emission factors are properly calculated.	~~Major NC 2~~	OK
B.2.5.	Has the PDD provided the key information and data used to determine the baseline scenario (variables, parameters, data sources, etc.)?	/1/, /3/	Document Review	1. Checked: In accordance with Tool to calculate the emission factor for an electricity system, OM & BM are estimated using ex ante data including electricity supplied to the grid, fuel consumptions, calorific values, and IPCC 2006 default emission factors.		OK
B.3.	**Description of how the anthropogenic emissions of GHG by sources are reduced below that would have occurred in the absence of the registered CDM project activity** *Note:*					
B.3.1.	Is it justified that the proposed project activity qualifies to use simplified methodologies?	/4/	Document Review	1. Checked: The proposed project is a renewable energy project and the capacity of the project is less than 15MW.		OK
B.3.2.	Is the discussion and demonstration of the additionality of the project activity transparent?	/3/, /6/, /7/	Document Review Interview	1. Checked: There was a need for supplementary documents to justify that the proposed project selects 86% as a capacity factor. The document evidence submitted sufficiently substantiates determination of the capacity factor for the proposed project..	~~Major NC1~~	OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
B.3.3.	Is it demonstrated that the project activity itself is not a likely baseline scenario (e.g. through demonstrating investment barriers, technology barriers, barriers to prevailing practices, and/or other barriers showing that emissions would have been higher without the project activity)?	/1/, /2/	Document Review Interview	1. Checked: Demonstration of investment barrier analysis was justified by showing that NPV of the project is negative.		OK
B.3.4.	Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	/1/, /4/, /5/	Document Review	1. Checked: Relevant national and/or sectoral policies and circumstances have been taken into account.		OK
B.3.5.	Is it showed why the emissions in the baseline scenario would likely exceed emissions in the project scenario by analyzing both scenarios?	/1/	Document Review	1. Checked: The proposed project is deemed to be zero emission technology-renewable energy source:hydro.		OK
B.4.	**Description of the project boundary for the project activity** *Note:*					
B.4.1.	Are the project's spatial (geographical) boundaries clearly defined?	/1/, /18/	Document Review	1. Checked: The spatial extent of the project boundary for the proposed project includes the project site and all the power plants connected physically to the electricity grid system of Korea Electric Power Corporation (KEPCO).		OK
B.4.2.	Are the project's system (components and facilities used to mitigate GHGs) boundaries clearly	/1/	Document Review	1. Checked: The project boundary established encompasses the physical, geographical site of the proposed project.		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
	defined?					
B.5. Details of baseline and its development *Note:*						
B.5.1.	Has the PDD specified the baseline for the project activity using a methodology specified in the applicable project category in Appendix B of the simplified M&P for small-scale CDM projects?	/1/	Document Review	1. Checked: Operating Margin and Build Margin are specified in Section B.4 and Appendix 3 of the PDD		OK
B.5.2.	Has the date of completion of the baseline study and the name of person(s)/entity(ies) determining the baseline clearly been stated?	/1/	Document Review	1. Checked: Relevant information is provided in Section B.8 of the PDD.		OK
B.5.3.	Is contact information clearly provided and is it indicated that the person/entity is a project participant listed in Annex I?	/1/	Document Review Interview	1. Checked: The contact information on participants in the project activity (Annex I) clearly provided.		OK
C. Duration of the Project/ Crediting Period *It is assessed whether the temporal boundaries of the project are clearly defined.*						
C.1. Duration of the project activity *Note:*						
C.1.1.	Has the project's starting date been chosen as the date at which the implementation or construction or real action of the project activity begins?	/1/, /10/	Document Review Interview	1. Checked: The starting date of the project has been as of 1st February, 2007. The expected starting date of the proposed project activity is 1st August, 2009.		OK
C.1.2.	Is the operational lifetime of the project activity clearly defined and reasonable?	/1/, /6/, /7/	Document Review	1. Checked: The lifetime of the project is approximately 30 years.		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
C.2. Choice of the crediting period and related information	*Note:*					
C.2.1.	If the starting date of the project activity is before the date of validation, has sufficient evidence been provided that the incentive from the CDM was seriously considered in the decision to proceed with the project activity?	/1/, /10/, /11/	Document Review	1. Checked: The project proponents have not applied for validation prior to the starting date of the proposed project. However, the CDM benefits were considered necessary in the decision to undertake the project as a CDM project activity.		OK
C.2.2.	Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two times 7 years or fixed crediting period of max. 10 years)?	/1/	Document Review	1. Checked: The crediting period for the proposed project activity is 10 years without renewal.		OK
C.2.3.	Is the assumed crediting time chosen as below the operational lifetime of the project activity?	/1/	Document Review	1. Checked: The crediting period chosen is below the operational lifetime of the proposed project activity.		OK
C.2.4.	Are the starting date and length of the crediting period clearly and properly stated?	/1/	Document Review	1. Checked: The crediting period starts in 1st August, 2009 and lasts over 10 years.		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
D. Application of a monitoring methodology and plan *In this section it is assessed whether the monitoring plan is properly established in accordance with the baseline methodology ensuring reliable emission reductions*						
D.1. Title and reference of approved monitoring methodology applied to the project activity *Note:*						
D.1.1. Has the PDD properly referred to the most recent list of the small scale CDM project activity categories in Appendix B of the simplified M&P for small scale CDM projects?		/1/ /14/	Document Review	1. Checked: The project selects the approved monitoring methodology AMS-I.D (ver 13).		OK
D.1.2. If a national or international monitoring standard has to be applied to monitor certain aspects of the project activity, has the PDD provided a reference to the source where a detailed description of the standard can be found?		/1/, /17/, /18/	Document Review	1. Checked: KOMIPO has acquired and implemented ISO 14001 since 2004. The monitoring meters operate in accordance with 'Law regarding measurement' and 'Act on operation of electricity market'. In addition, the meters are calibrated according to Korea Electric Power Corporation (KEPCO)'s procedure.		OK
D.2. Justification of the choice of the methodology and why it is applicable to the project activity *Note:*						
D.2.1. Has the PDD justified the choice of the monitoring methodology applicable to the project category		/1/, /14/	Document Review	1. Checked: The proposed project is a grid-connected renewable electricity generation project such that baseline calculation is undertaken in accordance with		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
	as provided for in Appendix B of the simplified M&P for small scale CDM project activities?			AMS. I. D version 13.		
D.3.	**Data to be monitored** *Note:*					
D.3.1.	Does the monitoring methodology reflect good monitoring and reporting practices?	/1/, /18/	Document Review	1. Checked: The monitoring and reporting of electricity generation will be undertaken electronically and cross checked with the statistics of KEPCO(the grid).		OK
D.3.2.	Does the methodology address possible monitoring errors or uncertainties addressed?	/1/, /18/	Document Review	1. Checked: Electricity supplied to the grid are monitored on a continuous basis and recorded on a monthly basis, and cross-checked with KEPCO.		OK
D.3.3.	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?	/1/	Document Review	1. Checked: The proposed project activity is deemed to emit no greenhouse gases.		OK
D.3.4.	Will it be possible to monitor / measure project emissions as described in the monitoring plan?	/1/	Document Review	Ditto		OK
D.3.5.	Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining the baseline within the project boundary during the crediting period?	/1/	Document Review	1. Checked: Baseline emissions are monitored by electricity supplied to the grid times the average of Operating Margin and Build Margin.		OK
D.3.6.	Will it be possible to monitor /	/1/	Document	1. Checked: The current electricity metering system of		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
	measure baseline emissions as described in the monitoring plan?		Review Interview	the proposed project is as described in the monitoring plan		
D.3.7.	Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	/1/	Document Review	1. Checked: The proposed project activity is deemed to cause no leakage, because the energy generating equipment is not transferred from another activity.		OK
D.3.8.	Will it be possible to monitor / measure leakage as described in the monitoring plan?	/1/	Document Review	Ditto		OK
D.4.	**Qualitative explanation of how quality control (QC) and quality assurance (QA) procedures undertaken** *Note:*					
D.4.1.	Are procedures identified for monitoring, taking measurements and reporting?	/1/, /18/	Document Review	1. Checked: The monitoring and operation of the proposed project will be undertaken in accordance with the guidelines of KPX (Korea Power Exchange) and ISO 14001.		OK
D.4.2.	Are procedures identified for training of monitoring personnel?	/1/	Document Review Interview	1. Checked: The monitoring plan lacks detailed procedures for QA/QC. But the revised PDD described procedures for training of monitoring personnel.	~~Minor NC1~~	OK
D.4.3.	Are procedures identified for emergency preparedness?	/1/	Document Review	1. Checked: KOMIPO established its own emergency procedure.		OK
D.4.4.	Are procedures identified for calibration of equipment?	/1/	Document Review	1. Checked: Meters will be calibrated according to KEPCO's procedure.		OK
D.4.5.	Are procedures identified for monitoring of maintenance needs for equipment and installations?	/1/	Document Review	1. Checked: The PDD (Section B.7) describes internal procedure for correction.		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
D.4.6.	Are procedures identified for review or checks of reported results/data?	/1/	Document Review	1. Checked: The QA/QC procedures for the project have been elaborated in the PDD (section B.7.2).		OK
D.4.7.	Are procedures identified for internal audits to confirm that the project has been monitored as planned?	/1/, /17/	Document Review	1. Checked: The QA/QC procedures for the project have been elaborated in the PDD (section B.7.2).		OK
D.4.8.	Are procedures identified for corrective actions?	/1/, /17/	Document Review	1. Checked: The QA/QC procedures for the project have been elaborated in the PDD (section B.7.2).		OK
D.5.	**Operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects, generated by the project activity** *Note:*					
D.5.1.	Is the authority and responsibility of project management clearly described?	/1/	Document Review	1. Checked: The management and operation structure for the proposed project has been well defined in the PDD (section B.7.2).		OK
D.5.2.	Is the authority and responsibility for monitoring, measurement and reporting project emission, baseline emission and leakage data over time clearly described?	/1/	Document Review	1. Checked: The management and operation structure for the proposed project has been well defined in the PDD (section B.7.2).		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
D.6. Name of person/entity determining the monitoring methodology *Note:*						
D.6.1.	Is contact information provided and is it indicated that the person/entity determining the monitoring methodology is a project participant listed in Annex I?	/1/	Document Review Interview	1. Checked: The contact information on the entity determining the monitoring methodology is clearly provided.		OK
E. Estimation of GHG Emissions by Sources *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. Formulae used *Note:*						
E.1.1.	Does the PDD clearly describe the formulae used to estimate all significant **direct and indirect GHG emissions** within the project boundary for each gas, source, formulae/algorithm, emissions in units of CO_2 equivalent?	/1/	Document Review	1. Checked: the proposed project activity is deemed to emit no greenhouse gases.		OK
E.1.2.	In the case of direct monitoring of emission reductions, are directly estimated emission reductions provided?	/1/	Document Review	Ditto		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
E.1.3.	Are the project emission calculations documented in a complete and transparent manner?	/1/	Document Review	Ditto		OK
E.1.4.	Have conservative assumptions been used to calculate project emissions?	/1/	Document Review	Ditto		OK
E.1.5.	Are uncertainties in the project emissions estimates properly addressed in the documentation?	/1/	Document Review	Ditto		OK
E.1.6.	Does the PDD clearly describe the formulae used to estimate **leakage effects** for each gas, source, formulae/algorithm, emissions in units of CO_2 equivalent?	/1/	Document Review	1. Checked: The proposed project activity is deemed to cause no leakage.		OK
E.1.7.	Are the leakage calculations documented in a complete and transparent manner?	/1/	Document Review	Ditto		OK
E.1.8.	Have conservative assumptions been used when calculating leakage?	/1/	Document Review	Ditto		OK
E.1.9.	Are uncertainties in the leakage estimates properly addressed?	/1/	Document Review	Ditto		OK
E.1.10.	Does the sum of estimated GHG emissions within project boundary and estimated leakage clearly represent the emissions attributable to project activity?	/1/	Document Review	Ditto		OK
E.1.11.	Does the PDD clearly describe the formulae used to estimate all **baseline emissions** identified in	/1/	Document Review	1. Checked: The baseline emissions for the proposed project have been estimated using the Simple OM& BM as described in the Tool to calculate the emission		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
	the baseline methodology for each gas, source, formulae/algorithm, emissions in units of CO_2 equivalent?			factor for an electricity system **(Version 01.1)**.		
E.1.12.	Are the baseline emission calculations documented in a complete and transparent manner?	/1/	Document Review	1. Checked: There were some errors in selecting plants on the Operating Margin and Build Margin. And the OM &BM has been recalculated.	~~Major NC2~~	OK
E.1.13.	Have conservative assumptions been used when calculating baseline emissions?	/1/	Document Review	1. Checked: The assumptions which have been used to select the plants for the average OM and BM calculation were checked and verified by KEMCO	~~Major NC2~~	OK
E.1.14.	Are uncertainties in the baseline emission estimates properly addressed in the documentation?	/1/	Document Review	1. Checked: Major parameters including electricity generation, fuel consumptions, calorific values and emission factors are clearly referenced		OK
E.1.15.	Does difference between emissions from the project activity and baseline emissions clearly represent the emission reductions due to the project activity?	/1/	Document Review	1. Checked: Since it is assumed that the proposed project releases almost zero greenhouse gases (GHGs), electricity generation displaced by the project is equal to the emission reductions attributable to the project		OK
E.2.	**Table providing values obtained when applying formulae above** *Note:*					
E.2.1.	Have all significant values obtained from calculation provided in the Table?	/1/	Document Review	1. Checked: Annex 3 in the PDD provides key values for estimating emission reductions.		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
F. Environmental Impacts *Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.*						
F.1. If required by the Host Party, documentation on the analysis of the environmental impacts of the project activity *Note:*						
F.1.1.	Does the project comply with environmental legislation in the host country?	/1/	Document Review	1. Checked: : In accordance with the Act on Assessment of Impacts of Works on Environment, Traffic, and Disasters the proposed project is not required to undertake an Environmental Impact Assessment since it is less than 3MW. However, as requested by the provincial office, the project proponents had assessed potential impacts on human population, flora and fauna, water, air, climate, and landscape		OK
F.1.2.	Is the project activity likely to create any adverse environmental effects?	/1/	Document Review	1. Checked: As a result of the Environmental Impact Assessment of the source of this proposed project - Boryeong thermal power plant, no significant impacts had been identified by this project.		OK
F.1.3.	Have the environmental impacts identified been properly addressed in the PDD?	/1/, /8/	Document Review	1. Checked: It is turned out that environmental impact of the project is properly considered in the application for the project by relevant EIA.		OK

KEMCO	**Small Scale Projects Validation Checklist**	Ref.	MoV	Comments	Draft Concl.	Final Concl.
G. Stakeholder Comments *The validator should ensure that a stakeholder comments have been invited and that due account has been taken of any comments received.*						
G.1. Brief description how comments by local stakeholders have been invited and compiled *Note:*						
G.1.1.	Is the process clearly described by which comments by local stakeholders have been invited and compiled?	/1/	Document Review	1. Checked: The project participant utilized company website to publicize and to receive comments about the proposed project from the local community.		OK
G.1.2.	Has an invitation for comments by local stakeholders made in an open transparent manner, in a way that facilitates comments to be received from local stakeholders and allow for a reasonable time for comments to be submitted?	/1/, /17/	Document Review	1. Checked: The company website is open to the public and local stakeholders, and the information about this project is on the website now briefly.		OK
G.1.3.	Has detailed description been provided to stakeholders in a manner which allows the local stakeholders to understand project activity?	/1/	Document Review	1. Checked: The company received questions from local stakeholders who were interested in the CDM project and gave answers to them, after publicizing information about the project on the company website.		OK
G.1.4.	If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder	/1/	Document Review	1. Checked: Stakeholder consultation process is not required by regulations/laws, but the company take actions according to the CDM process.		OK

KEMCO	Small Scale Projects Validation Checklist	Ref.	MoV	Comments	Draft Concl.	Final Concl.
	consultation process been carried out in accordance with such regulations/laws?					
G.2. Summary of the comments received *Note:*						
G.2.1.	Have relevant stakeholders been consulted?	/1/	Document Review	1. Checked: Local stakeholders who are interested has been consulted. The project participant created a website (September, 2007) to provide information on the proposed project. Through the website, local residents and interested persons could express their opinions and queries.		OK
G.2.2.	Is a summary of the comments received provided?	/1/	Document Review	1. Checked: A summary of the comments received is provided in the PDD.		OK
G.3. Report on how due account was taken of any comments received *Note:*						
G.3.1.	Has due account been taken of any comments received?	/4/,/9/	Document Review Interview	1. Minor Non-conformity 2: It is required that the submission of documentary evidences on how the project proponent has dealt with comments received from stakeholders in respect of the impacts the proposed project has on local community. And it is verified that stakeholder's comments are positive and supporting the project.	~~Minor NC2~~	OK

Appendix C

Review of Corrective Actions

Non-conformities	Reference	Corrective Actions	Comments
1. Major non-conformity 1: Further clarification is required with objective evidence for the determination of capacity factor of the proposed project.	Appendix B. Checklist B.3.2	For further clarification of the capacity factor, the project proponent submitted two feasibility study reports for the project from KOPEC (Korea Power engineering company, Inc.)	As a result of the review of these design estimation, it is concluded that the proposed hydroelectric power project is appropriately estimated the capacity factor and correctly substantiated the amount of electricity generation.
2. Major non-conformity 2: Recalculation of the Operating Margin and Build Margin in a transparent and conservative manner.	Appendix B. Checklist B.2.4, E.1.12, E.1.13	The revised PDD and OM&BM Calculation/3/ recalculated Operating Margin and Build Margin by including all relevant plants connected to the grid.	The OM & BM of the proposed project has been recalculated and verified by the validation team.
3. Minor non-conformity 1: The monitoring plan lacks detailed procedures for QA/QC.	Appendix B. Checklist D.4.2	The revised PDD described procedure for training of monitoring personnel accordingly.	The revised PDD submitted correctly described procedure for training of monitoring personnel. And it is verified that KOMIPO has also established foundation of EMS since receiving a certificate of ISO 14001 in 2004 /15/.
4. Minor non-conformity 2: It is required that the submission of documentary evidences on how the project proponent has dealt with comments received from stakeholders in respect of the impacts the proposed project has on local community.	Appendix B. Checklist G.3.1	The project proponent submitted documentary evidences of local stakeholders' comments. There were questions from local stakeholder and KOIMPO gave answers and necessary information to the local stakeholders.	Overall comments from local stakeholders in respect of the impacts the proposed project was positive.

Appendix D

CVs of Validators

KEMCO

Personal History

Name	Park, Kyung Soon (Mr.)		
ID No.	680127-*******	Phone No.	(031) 260 – 4885
Date of employment/ Contract date	December 12, 1997	Scope of Qualification	Sectoral Scope 1, 3, 4, 5
Classification	■ Full-time Validator/verifier ☐ Full-time Lead Validator/verifier ☐ Part-time Validator/verifier ☐ Part-time Lead Validator/verifier ☐ Technical Expert ☐ Committee member( ) ☐ Others( )		
Organization	Korea Energy Management Corporation	Position	GHG Auditor, Korea CDM Certification Office

	Description
Educational background	1) 1991-1995 Pusan National University, Department of Science, Physics (Bachelor's degree)
Work experience	Jan 1996 – Dec 1997 Start-up Operation Engineer, Uljin Nuclear Power Plant of KEPCO(Korea Electric Power Corporation) ● Conducted several Start-up Operation Tests for the Plant ● Prepared several Start-up Standard Operation and Tests Procedure Documents – PAT Load Rejection(with RPCS) etc. Dec 1997 – Jan 1999 Natural Gas DSM Department of KEMCO ● Participated in DSM Project(A study on the role of industrial NG demand) with KOGAS R&D Center Jan 1999 – Dec 2004 Energy Auditor, Energy Audit Office of KEMCO ● Participated in such Energy Audit Projects as; - Chemical Industry : SKC, Samsung General Chemicals, LG Chem., Samsung-BP Chem, SK Corporation, KGCC, Kumho Chem - Food Industry : Cheiljedang, Daesang, , Doosan Corp, CornProduct Korea - Others : KSPC, Saehan Media Jan 2005 – Dec 2006 Energy Auditor, GHG Validator/Verifier Korea ● Conducted validation of several GHG Reduction Registration projects; - LG VCM, LG NPG, LG SM, LG Chem Ulsan, LG Chem Naju(MVR), Hyundai Oil Bank, Korea District Heating Corporation, Nam-Jeju Powerplant, Kumho Chemicals - Samsung Electronics HF6 Gas Reduction Project Jan 2007 – present: GHG Auditor, Korea CDM Certification Office, Korea Energy Management Corporation ● 2007: Participated in Verification of Young-duk Wind Park Project
Certificate	1) GHG Verifier/Validator(2006)
Training	Completed the training course for GHG Validator/Verifier - Date: 6 Feb. 2006 ~ 10 Feb. 2006 (44 hours) - Training organization: KEMCO GHG Registration Office Completed the training course for Start-up Engineer of Nuclear Power Plant - Date: June. 1996 ~ August. 1996 (3 months) - Training organization: Nuclear Training Center of KEPCO
Publications	● Participated in the report : A study on the role of industrial NG demand(1998)
Linguistic abilities	1) Korean: A 2) English: A
Date of preparation : 21 March 2007	

KEMCO

Personal History

Name	Lee, Eunkoo (Mr.)		
ID No.	730908-*******	Phone No.	(031) 260 – 4882
Date of employment/ Contract date	2005. 02. 01	Scope of Qualification	Sectoral Scope 1~3
Classification	■ Full-time Validator/verifier ☐ Full-time Lead Validator/verifier ☐ Part-time Validator/verifier ☐ Part-time Lead Validator/verifier ☐ Technical Expert ☐ Committee member( ) ☐ Others( )		
Organization	Korea Energy Management Corporation	Position	Project Coordinator, Korea CDM Certification Office

	Description
Educational background	1) 1992-1997 The University of Michigan(Ann Arbor), College of Liberal Arts & Science, Statistics (Bachelor of Science) 2) 1997-1999 Pennsylvania State University, College of Engineering, Industrial Engineering(Master of Science)
Work experience	1) 2005~2006 Project Coordinator, Center for Climate Change Mitigation, Korea Energy Management Corporation • Published KEMCO Climate Change Newsletter • Organized Climate Change seminars and conferences 2) 2006~Current, GHG Auditor, Korea CDM Certification Office •Participated in the validation of Yangyang Renewable Energy CDM Project(2006) •Participated in the validation of Korea South-East Power Co. (KOSEP) small scale hydroelectric power plants CDM project (2006) • Participated in the verification of LG Chemical Ulsan plant GHG inventory (2006) • Participated in the verification of SK Ulsan Complex GHG inventory (2006)
Certificate	GHG Auditor Certificate(2007)
Training	Completion of the training course for GHG Auditor 1) Date: 6 Feb. 2006 ~ 10 Feb. 2006 (44 hours) - Training organization: Korea Energy Management Corporation 2) Date: 31 Mar 2006 ~ 1 April 2006 (16 hours) - Training organization: Korea Energy Management Corporation 3) Date: 31 Mar 2006 ~ 1 April 2006 (16 hours) - Training organization: Korea Energy Management Corporation
Publications	1) Master's thesis "A cost effective model in justifying the optimal mean and variance settings of a process"
Linguistic abilities	3) Korean: A 4) English: A

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