Mr. Rajesh Kumar Sethi Chair, CDM Executive Board UNFCCC Secretariat CDMinfo@unfccc.int

August 24<sup>th</sup> 2008

### *Re: Request for review of the request for registration for the CDM project activity "Danian 14MW Hydropower Project in Gansu Province" (Ref. No. 1808).*

### Dear Mr. Sethi,

Longnan Dongcheng Construction Group Co., Ltd has been informed that the request for registration for the CDM project activity "Danian 14MW Hydropower Project in Gansu Province" (Ref. No. 1808) was put under consideration for review.

In response to the two issues raised from the request for review by the CDM Executive Board, we would like to provide to you, and through you, to the CDM Executive Board, our clarifications and explanations to address the concerns by the Executive Board, as following.

The first issue raised in the request for review is:

"The DOE is requested to explain how it has validated that the range of variations of the parameters in the sensitivity analysis is reasonable, as per EB41, Annex 45, paragraph 17."

As per EB41, annex 45, paragraph 17, the general point of departure variations in the sensitivity analysis should at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances. In the context of this project, the FIRR of the total investment remains lower than the benchmark rate (10%) when the four critical variables vary from +10% to -10%, detailed values are shown in the following table. Therefore, the project is not financially feasible when the range is considered.

Range Parameter	10%	5%	0%	-5%	-10%
Total Static Investment	7.01%	7.46%	7.95%	8.49%	9.08%
Annual Output	9.04%	8.50%	7.95%	7.40%	6.84%
Feed-in Tariff	9.04%	8.50%	7.95%	7.40%	6.84%
Operation and Maintenance expenses	7.81%	7.88%	7.95%	8.02%	8.09%

In addition to the analysis above, we introduced the critical point analysis (i.e., when a scenario touches the benchmark) as discussed in the PDD, for the purpose of being conservative, which is also consistent with the rationale of determining the likelihood of the occurrence of a scenario other than the scenario presented. Considering the correlation between the four critical variables in the investment analysis of the project as well as the context of the project activity, in the sensitivity analysis section of PDD, the probability of the occurrence has been assessed in comparison with the likelihood of the assumptions, and the related evidences have been submitted to DNV for verification.

In view of fact that the construction engineering, mechanical and electrical equipment, metal equipment, provisional project, and design cost account for 90% of the total static investment, and also CPI and the average fluctuate price of industrial products have been increasing since year 2002, and therefore the total static investment has not the probability to decrease so greatly by 17%. The DNV (DOE) has validated the budgetary estimate form for construction works in Preliminary Design Report (PDR) and Figure 3 of the Report regarding CPI increasing by Centre for Forecasting Science Chinese Academy, and the range of variation 17% of the total static investment is not deemed to happen.

For the fact that the calculation of annual output and the selection of hydro-energy parameters are based on the runoff hydrology data of the past 17 years, the annual output is the average value of those years and can be changed so small. Furthermore, even if the annual output increases by 19%, it will be increased from 74,816.4MWh to 89,031.5MWh, which would exceed the maximum output (85,223.6MWh) of the year with abundant water supply, and therefore the annual output has not the possibility to increase by 19%. The DNV (DOE) has validated Preliminary Design Report page 46-49, and the range of variation 19% of the annual output is not deemed to happen.

According to the historical statistics of feed-in tariff in Gansu Province, the feed-in tariff is unlikely to increase by 19% where FIRR will increase to reach the benchmark, in view of the fact that the feed-in tariff (including VAT) of small-scale hydro power below 50MW remained in the same level during the period of year 1996-2004 and has not been changed. The DNV (DOE) has validated the statement of feed-in tariff for small-scale hydropower of Gannan State in Gansu Province dated Dec 29<sup>th</sup> 2004, and the range of variation 19% of the feed-in tariff is not deemed to happen.

The sensitivity of the annual Operation and Maintenance expenses is also unlikely reach the benchmark even when it decreases by 100%, which is not likely at all to happen for the reason that it involves the maintenance fee, salary and employee welfare etc.

The second issue raised in the request for review is:

"The DOE is requested to provide reliable evidence that the benefits of the CDM were a decisive factor in the PP's decision to proceed with the project activity and that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation following the guidelines from EB 41, Annex 46, paragraph 5."

As the requirements of EB41, Annex 46, the following detailed chronicle is provided to indicate that the awareness of CDM prior to the project activity start date, the benefits of CDM were a decisive factor in the decision to proceed with the project, as well as continuing and real actions were taken to ensure CDM status for the project in parallel with its implementation.

	Timeline	Milestone
1	Aug 2004	The PDR for Danian I and II was completed by Institute of Gannan State Hydropower Reconnaissance Design, in which the estimated feed-in tariff was introduced to be of RMB 0.20 Yuan/kWh (not including VAT) resulting the FIRR was 9.87% which is close to the benchmark. In this report, the project was suggested to apply for CDM project development in view of the possible approval risk of feed-in tariff and geological risk by the Centre for Development and Promotion of Science and Technology of Gansu Province, which is under the Gansu Provincial Science and

	Technology Department and has carried on propaganda
	about the development of CDM project since year 2002 in Gansu Province.
	This indicates that the awareness of the CDM prior to the project activity start date.
Aug 30 <sup>th</sup> 2004	The PDR for Danian I and II was approved by Gannan Prefectural Development and Planning Committee.
November 08 <sup>th</sup> 2004	The notice of feed-in tariff for small hydropower enterprises issued by Gansu Province Price Bureau (File No. [2004] 352). According to the requirements of this document, the feed-in tariff is only RMB 0.18Yuan/kWh (Including VAT), which is lower than the estimated tariff of RMB 0.20 Yuan/kWh (not including VAT) in PDR.
February 2005	Since the feed-in tariff of small-scale hydropower approved by Gansu Provincial Price Bureau dated on November 08 <sup>th</sup> 2004 (as mentioned above) was lower than that in the PDR, then entrusted by the project participant, the original entity of PDR, Institute of Gannan State Hydropower Reconnaissance Design re-do the financial analysis of Danian I and II project and completed the revised project investment analysis report, which suggested CDM application due to the unattractive lower FIRR of 7.95%.
March 08 <sup>th</sup> 2005	The decision of Board meeting agreed to implement the project activity based on the suggestions given by the revised project investment analysis report of Danian Hydropower Project completed by Institute of Gannan State Hydropower Reconnaissance Design, which seriously considered the CDM benefits and greatly enhanced the confidence of the project participant. This indicates that the CDM benefits were a decisive factor in the investment decision to proceed with the project estivity.
March 20 <sup>th</sup> 2005	activity. The supervision contract for project construction for Danian I & II Hydropower Project was signed, and the project activity started. After that, the project participant started to apply for the loan from the bank
May 28 <sup>th</sup> 2005	The Contract for CDM project development was signed between the project entity and the Centre for Development and Promotion of Science and Technology of Gansu Province (now act as Gansu Huike Centre for Technology Transferring on Resource and Environment). <i>This indicates that continuing and real actions were taken to ensure CDM status for the project in parallel with its implementation.</i>
Oct 15 <sup>th</sup> 2005	The consultant started to collect materials and prepare PDD.
	November 08 <sup>th</sup> 2004 February 2005 March 08 <sup>th</sup> 2005 March 20 <sup>th</sup> 2005

9	Jun 23 <sup>rd</sup> 2006	The letter from Gansu Branch of China Agricultural Bank on the loan of the project issued, CDM benefits regarded as the mortgage for repayment of the loan.
10	Jul 10 <sup>th</sup> 2006	The PDD Version 01 was completed by consultant.
11	Aug 15 <sup>th</sup> 2006	The validation contract was signed between the consultant and DNV (DOE).
12	August 17 <sup>th</sup> 2006	The PDD was made publicly available on DNV's climate change website.
13	Nov 13 <sup>th</sup> 2006	The follow-up Interviews with project stakeholders by DNV
14	Aug 01 <sup>st</sup> 2007	The PDD was made publicly available again on DNV's climate change website for the reason that the version of methodology changed.
15	Apr 09 <sup>th</sup> 2008	The project is submitted to UNFCCC Secretariat requesting registration.

The main documents supporting CDM benefits consideration and real actions are being submitted as follows:

- 1. The revised project investment analysis report dated 02-2005 as Annex 1
- 2. The Decision of board meeting dated 08-03-2005 as Annex 2
- 3. The supervision contract for project construction dated 20-03-2005 as Annex 3
- 4. The Contract for CDM project development dated 28-05-2005 as Annex 4
- 5. The letter from Gansu Branch of China Agricultural Bank dated 23-06-2006 as Annex 5

All the materials mentioned have been submitted to DOE. We sincerely hope that with above clarifications and explanations and more information as provided above, the CDM EB would accept approve our project and register it in a timely manner.

Yours sincerely



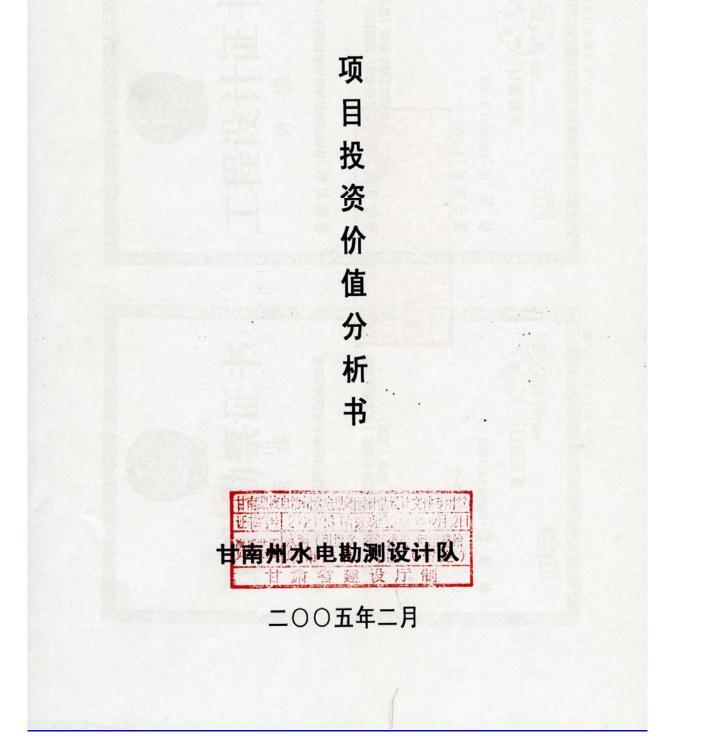
### <u>Annex 1</u>

The revised project investment analysis report for Danian I and II hydropower station

### Description of Page 2 (two):

The Danian I and II hydropower station will be have a construction period of 48 months, and is estimated to be in operation in Oct 2008, further reach the design production capacity. The station will have a total installed capacity of 14MW, annual generation hours of 5623, annual generation of 78,721MWh, and station service power assumption rate of 1% and the annual output of 74,816.4MWh. If the feed-in tariff referred as the estimated tariff 0.20Yuan/kWh (not including VAT), the total sale revenue of power generation will be 14.9633 million Yuan, the FIRR after tax is 9.87%, and it is financial feasible. However, according to the document of "the notice of feed-in tariff for small hydropower enterprises" issued by Gansu Province Price Bureau, File No. [2004] 352, the feed-in tariff for SHP is only RMB 0.18Yuan/kWh (including VAT). If calculated as the tariff, total sale revenue of power generation before tax is 13.467 million Yuan; FIRR after tax is about 7.95% lower than 10%; the investment recovery period is about 12.6 years, and this investment situation is not accorded with national standard, and not financial feasible. Since the "Kyoto Protocol" taking into effective on Feb 16<sup>th</sup> 2005, the future CDM revenue about 4.58 million Yuan (one crediting period, 7years) can be as a cash flow resource, the estimated sale revenue of power generation and CDM up to 18.047 million Yuan. After calculated, the station will be have a FIRR (after tax) of the total investment of 10.96% higher than 10%, and an investment recovery period 9.67 Years, and the station situation can be reach national standard, and financial feasible.

## 甘肃省舟曲县大年一、二级水电站



### 甘肃省舟曲县拱坝河大年一、二水电站建设项目

万 kwh,电站总投资 8667.16 万元,对外输电线路分别为 0.4km、7km, 接入丁字河口 110KV 变电站。本工程属五等小(2、1)型规模,主要 建筑物、次要和临时性建筑物均按五级设计。根据国际《防洪标准》 (GB50201-94),大年一、二级水电站防洪规模为IV等小(II)、(I) 型,首部枢纽为低坝,坝高 3m,低于 15m,上下游水位差小于 10m, 防洪按十年一遇设计,五十年一遇校核。厂区按三十年一遇设计,五十 年一遇校核。

(二)目标及远景规划

大年一、二级水电站建设期 48 个月,预计 2008 年 10 月投产发电,达 到设计生产能力。总装机容量 14000KW,年利用小时数 5623h;年发电量 7872.10万KW.h,有效电量为 7557.22万KW.h,厂用电率按 1%计算,电站 上网电量为 7481.64万KW.h;按原初步设计报告测算电价 0.20元/KW.h(不 含税)计算,年售电收入 1496.33万元,税后财务收益率 9.87%,财务上基本 可行。根据省物价局 2004 年 11 月(甘价商[2004]352号),"关于提高小水电 企业上网点价的通知"上网电价仅为 0.18/度(含税)。据此电价测算,该电站 年税前售电收入 1346.70万元,税后财务收益率 7.95% (<10%),投资回收 期 12.6年(>10年),不符和国家规定标准,不能建设。2005年2月16日 《京都协议》生效,考虑到该电站属清洁能源项目,若将 CDM 收益每年约 458万元(按一个周期7年计算)作为一项来源,经测算该水电站年售电收 入和 CDM 年收入两项可达 1804.7万元,税后财务收益率 10.96% (>10%), 投资回收期 9.67年(<10年),达到国家规定标准,财务上可行。

该电站建设期4年,设计生产采用期为20年,计算期为25年,折现基 准年为开工的第一年年初,其远期(25年)可达到经营目标。含 CDM 的财 甘南州水电勘测设计队 2

### Annex 2

The Decision of board meeting dated 08-03-2005

### Longnan Dongcheng Construction Group Corporation Limited ( 2005 ) Sixth

### **Board Resolution**

The Board has made the following resolution on March 6<sup>th</sup> 2005 according to the proposal proposed on shareholders' meeting March 1<sup>st</sup> 2005:

Danian I and II Hydropower Project which has been confirmed by local authority at the beginning of Year 2004, has completed the relevant approvals for project development. But for the purpose of protecting ecological environment around the construction area and reducing soil erosion, discharge from tunnel had been taken which increased the investment of this project. Based on the preliminary design report, it will be financially feasible if the project can apply the feed-in tariff of RMB 0.20 Yuan/kWh which is the level of provincial dispatch. However, the fact is that this project is under the jurisdiction of Gannan Autonomous Prefecture Electric Power Bureau and the power purchase price is only RMB 0.18 Yuan/kWh. The reckon result of financial indicators manifest that the financial internal rate of return after taxation is 7.95%(<10%), the financial net present value is RMB -10.48 million Yuan(<0), which do not conform to the state specified standard and not qualified in construction.

After "Kyoto Protocol" has been taken effect on February  $16^{th}$  2005 and the reasoning of the suggestions by experts team of Promotion Centre for Science and Technology Development of Gansu Province, which is authorised by Gansu Provincial Science and Technology Department, the conditions which this project possess are qualified to develop as a CDM project in order to improve the economic efficiency of the hydropower station. For these conditions, Dongcheng Construction Group Co., Ltd entrusted the Institute of Gannan State Hydropower Reconnaissance Design to assess the investment value of this project. The analysis result manifest that if considering the CDM benefit which is RMB 4.58 million Yuan per year (every 7 years as a cycle) as a profit, the financial internal rate of return (FIRR) after taxation of the hydropower station will be 10.96%(>10%), the financial net present value (NPV) will be RMB 4.74 million Yuan (>0). The statistics conform to the state specified standard and feasible financially.

The meeting had reached an agreement in starting the construction of the project after a thorough discussion.

Signatures of the board of directors:

March 08th 2005

Carbon Copy: Board of directors of the company Archive 2 copies

## 陇南市东诚建设集团有限公司

(2005) 第6次

## 董事会决议

经公司股东会二 OO 五年三月一日提议,二 OO 五年三月六 日董事会讨论研究形成如下决议:

大年一、二级水电站项目虽经发改委于 2004 年初立项,各 项建设手续基本齐全,但公司考虑到为保护建设区生态环境,减 少水土流失,设计时采用了隧洞引水的方案,加大了项目投资。 根据项目初步设计报告测算,如果争取到省上网电价 0.20 元/度, 财务上可行。但根据电力部门规定本项目属甘南州电力公司管 辖,上网电价仅为 0.18 元/度。经对该项目财务指标测算,税后 财务内部收益率仅 7.95%(<10%),财务净现值为-1048 万元(< 0),不符合国家规定标准,不具备建设条件,暂未开工。

2005年2月16日《京都议定书》生效,经省科技厅科技发展促进中心 CDM 专家小组论证,该项目所拥有条件适于 CDM 项目开发,可大大改善电站的经济效益。为此,公司委托甘南州水

电勘测设计队对该项目投资价值进行了分析。经过分析测算,若 将每年 CDM 收益约 458 万元(按一个周期 7 年计算)作为一项 收入,该水电站税后财务收益率为 10.96%(>10%),财务净现 值为 474 万元(>0),达到国家规定标准,财务上可行。

经会议充分讨论,全体与会人员达成一致,同意该项目开工 建设。

全体董事会成员签字: 新闻部 楊全著 高叶林 李新社 的天顿



抄送: 公司董事会成员

存档2份

### Annex 3

The supervision contract for project construction dated 20-03-2005

委托人就意地是我说是国际与监理人产的地区科试查记忆] 经双方协商一致,签订本合同。

一、委托人委托监理人监理的工程(以下简称"本工程")概况如下:

工程名称: 搭坡洞天了---级水电话

工程地点: 每日号搭调河

工程规模: 14000KW

总投资:招们们参加建物专名陆伯财仍元 (8341.63 62)

二、本合同中的有关词语含义与本合同第二部分《标 准条件》中赋予它们的定义相同。

三、下列文件均为本合同的组成部分:

①监理投标书或中标通知书;

②本合同标准条件;

③本合同专用条件;

④在实施过程中双方共同签署的补充与修正文件。

- 1 -

四、监理人向委托人承诺,按照本合同的规定,承担

本合同专用条件中议定范围内的监理业务。

五、委托人向监理人承诺按照本合同注明的期限、 方式、币种,向监理人支付报酬。

本合同自<u>2005年3月22日</u>开始实施,至<u>2008</u>年 \_<u>8月\_24</u>日完成。

20 份,具有同等法律 本合同 双方各执 专份 监理人 委托人 住所: 月75 住所: 律認 法定代表人: (签章) 法定代表人: 开户银行: 开户银行:+ 账号: 账号: 邮编:746000 邮编:746000 电话: 8233629 电话:

本合同签订于:二00页 年 三月二十日

2

### <u>Annex 4</u>

The Contract for CDM project development dated 28-05-2005

经甲、乙双方自愿、平等、友好协商,并在真实、充分表达双 方意愿的基础上,就甲方潜在的清洁发展机制(CDM)项目开发达 成以下协议。

一、委托内容:

甲方委托乙方为其<u>大年水电站(一级、二级)</u>项目的唯一咨询服务机构,乙方负责该潜在CDM项目(从项目识别到联合国气候变化执行理事会(EB)注册)的开发工作。

### 二、甲方的权利义务

2.1 甲方有权要求乙方提供本协议3.1 - 3.4 款中所约定的各项服务及提出合理的改善意见,并有权得知该项目的进展情况。

2.2 甲方必须确保该项目工程进度,即到执行理事会(EB)注册 后,确保该项目在\_2008年\_10月底以前完成工程建设并发电,使工 程进度与该CDM项目开发工作保持一致。若因甲方工程建设原因导 致该项目不能成功在国内、EB注册,乙方不承担任何法律责任,而 甲方需承担乙方前期项目的开发费用。

2.3 甲方须指派工作人员配合乙方工作,并按乙方工作人员的要求提供与该项目有关的文件、资料、数据和现场调研的配合工作。

2.4 若在约定的时间内,乙方未完成该项目国内注册,经甲乙双 方协商,并经乙方同意后,甲方有权寻找其他合作伙伴。

#### 三、乙方的权利义务

3.1 乙方负责该项目开发过程中的各项工作,主要包括:项目识别文件(PIN)、寻找购买方、项目设计文件(PDD)的编制,项目的国内注册,指定经营实体(DOE)CDM项目确认、联合国执行理事会(EB)注册、DOE减排量的审核及最终执行理事会(EB)CERs的签发工作。

7.1 本协议履行若有争议,由甲、乙方双方协商解决。

7.2 甲、乙双方合作过程中各自产生的费用自行承担, 若产生公 共费用, 由甲、乙双方协商合理分担。

7.3 因不可抗力因素导致该项目注册失败,由甲乙双方协商解决。

7.4 本协议一式四份,甲、乙双方各执二份,每份具有同等法律效力。

7.5 本协议在双方签字后生效。

甲方: 乙方: 甘肃省科技发展促进中 法定代表人: 2012] 法定代表人 ) or I, J. 2818 日期:

### Annex 5

The letter from Gansu Branch of China Agricultural Bank dated 23-06-2006

Page 2 (five) of this document, the CDM revenue from Danian hydropower station should be priority to as the mortgage for repayment of the loan.

# 中国农业银行甘肃省分行文件

### 农银甘复[2006]86号

关于陇南市东诚建设集团有限公司 "大年二级水电站"项目贷款的批复

陇南分行:

你行上报的《关于推荐陇南市东诚建设集团有限公司 3000 万 元水电项目贷款的报告》(农银陇发[2006]29 号)收悉。经省分行 贷款审查委员会 2006 年第 15 次会议审议,行长审批,并报备总行 同意,现批复如下:

一、同意向陇南市东诚建设集团有限公司发放项目贷款 3000 万元,用于"大年二级水电站"建设;贷款总期限不超过 8 年,其中 提款有效期 1 个月,宽限期不超过 3 年,还款期 5 年;贷款利率在 利率基准上上浮不低于 30%,在贷款期限内按季调整;采用分期 还款方式;项目建设期以"大年二级水电站"在建工程及借款人正 在兴建的其他三座水电站的在建工程提供抵押担保,项目竣工验 收后以上述四座水电站的整体资产提供抵押担保。同时限定以下 条款:

(一)贷款发放前,对 830 万元的新入股本进行验资,并按照 承诺单独成立专门的发电公司。

(二)在借款合同中载明:合理的分期还款计划;未经我行书面同意,不进行其他项目建设和大额固定资产购置;我行贷款全额 清偿前,不归还子公司和关联企业的借款,我行当期贷款清偿前, 不退还职工集资款和分红。

(三)贷款发放前,办妥合法有效的在建工程抵押担保手续,抵押物须由我行代理办理财产保险,并约定农行为第一受益人。

(四)贷款发放前,要与陇南市东诚建设集团有限公司签订全 面合作协议,并在我行开立项目建设专户、售电款解缴专户,其所 有项目建设资金和营业收入全部通过我行结算。

(五)大年二级电站作为《清洁发展机制项目》所取得的收入, 优先归还我行贷款。

二、所需资金由你行自行筹集解决,贷款计划必须报省分行(资 产负债管理处)同意后方可发放。

三、鉴于本项目建设地点在异地,要求陇南分行成立由主管行 长任组长的客户经理小组,制订切实可行的贷后管理方案,并指定 专职客户经理加强对项目建设资金的监督,项目资本金必须先于我 行贷款使用,贷款要根据项目进度分笔发放,大额建设资金拨付须 经客户经理逐笔审核,确保专款专用,严防挤占挪用。

四、项目建成投产后,要及时办理电站整体资产抵押担保手续, 抵押物须由我行代理办理财产保险,并约定农行为第一受益人。

五、该笔贷款首笔业务发生之日起十五日内按要求填制《限制

- 2 -

性条款落实情况表》,并上报至省分行(贷审会办公室)。



主题词:贷款业务 项目贷款 批复 本 行:行长、副行长、纪委书记、行长助理,办公室、各业务处室、信贷管理处(6),存档(2) 2006年6月23日印发 中国农业银行甘肃省分行办公室

- 3 -