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Paula Auer	Paula.Auer@tuev-sued.de			

Request for Review

Dear Sirs,

Please find below the response to the review formulated for the CDM project with the registration number 1657. In case you have any further inquiries please let us know how we can kindly assist you.

Yours sincerely,

Javier Castro
Carbon Management Service

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Response to the CDM Executive Board

Question 1

Further clarification is required how the DOE has validated the investment barrier.

Response by PP

The IRR of the project (5.68%) is lower than the benchmark of 13%. Therefore, without CDM revenue, the project faces obvious financial barriers.

In addition, in recent years, the Chinese economic continues to develop and grow rapidly, and the demand for iron and steel is increasing dramatically, thus the overriding task of Laigang at this stage is to expand and strengthen its core field. However, this project is not the core field of Laigang, also the implementation of this project will need large amount of initial investment. Laigang would have preferred to invest on the enlargement of production scale and the improvement of manufacture technology capability, rather than the investment on the project as using waste heat for power generation. Therefore, even till now the project owner still cannot acquire loan from bank, because it is not the core business of Laigang, the bank was not willing to support this project.

In addition, the investment analysis can prove the additionality sufficiently, so the barrier analysis is only as supplementary and additional information to prove additionality. As such barrier analysis will not be applied; the project participant agrees to remove this section.

Response by DOE

The additionality of the project has been demonstrated through Investment analysis. Earlier the barriers were validated through anecdotal evidence. Further since the additionality is convincingly demonstrated through investment analysis, the PP agrees to remove the barrier analysis from the revised PDD.

Question 2

Further clarification is required on how the DOE has validated the suitability of the input values to the investment analysis, as per the guidance of EB 38 paragraph 54(c).

Question 3

The PP/DOE is requested to provide evidence that continuing and real actions were taken to secure CDM status (EB41, Annex 46, para 5 (b)).

Response by PP

In order to clear reply the Issue 2 and 3, the key events are listed in the below table (Table 1) to show the important information, documents and events for investment analysis and CDM status of the project.

Table 3 Key Events of the Project

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Date (dd-mm-yyyy)	Key Event
7-2004	The PR of the project was developed by *Shandong Province Metallurgical Design Institute.*
15-7- 2004	Due to the high investment and low IRR in PR, the Technology and Resource Department of Laigang submitted a CDM application letter to Laigang.
9-8-2004	Laigang accepted the documentation submitted by the Technology and Resource Department of Laigang to develop this project as CDM project.
24-8-2004	Laigang submitted a CDM application letter to the local Government.
16-9-2004	Local Government approved the application.
8-4-2005	Laigang consigned Beijing Tianqing Power International CDM Consulting Co., Ltd (CDM Consulting Company) to develop the CDM application (the Cooperation Contract).
6-2005	Feasibility Study Report (FSR) was completed by *Shandong Province Metallurgical Design Institute* and approved by the local Development and Reform Commission (DRC).
3-8-2005	The project owner signed the Equipment Purchase Agreement (EPA) (the earliest starting date of the project activity[1]).
10-8-2005	The project started construction.
9-2006	The project started operation.
22-5-2007	The project owner and RWE signed LoI.
6-2007	The Consulting company and the project owner submitted application letter of CDM to Chinese DNA.
7-2007	The project was listed on the Chinese DNA's official website as approved.
26-8-2007	The LoA (paper pattern) of China was issued.
19-9-2007	TÜV SÜD conducted on-site validation.
22-2-2008	The final validation report was issued by TÜV SÜD.
3-3-2008	The project was submitted to registration by TÜV SÜD.

Responses for the suitability of the input values to the investment analysis:
The Pre-assessment Report (PR) of the project, which was developed in July 2004 by *Shandong Province Metallurgical Design Institute*. This entity is an independent organization which is qualified to compile design reports for Iron & Steel projects (it has obtained the "Engineering Consulting Design Certificate" issued by the National Development and Reform Commission). The IRR in the PR is 5.33% lower than benchmark of the equity IRR (13%), so the project faces high investment risk. Due to high investment and low IRR in PR, the project owner decided to implement CDM application to overcome the financial barrier. Therefore, the Technology and Resource Department of Laiwu Iron & Steel Group Corp. submitted a CDM application letter to Laiwu Iron & Steel Group Corp. (hereafter referred as "Laigang") on July 15, 2004. Afterwards, Laigang accepted the documentation submitted by the Technology and Resource Department of Laigang to develop this project as CDM support on August 9, 2004. Soon, Laigang submitted CDM application to the local Government on August 24, 2004 and the local Government approved the CDM application within one month. During the following few months, Laigang was

[1] In PDD, we used the date of construction (August 10, 2005) as the starting date of the project activity, but according to the requirement of EB 41, the starting date of a CDM project activity is the earliest of the date(s) on which the implementation or construction or real action of a project activity begins/has begun (PDD guideline). Therefore, we revised the starting date to the signature date of the EPA.

positive to find a CDM consulting company. Fortunately, Laigang consigned Consulting Company to develop the CDM application on April 8, 2005. Meanwhile, Laigang consigned *Shandong Province Metallurgical Design Institute* to make the Feasibility Study Report (FSR), which was completed in June 2005 and approved by the local DRC. The IRR in FSR was only 5.68%, but the IRR will be improved by CDM revenue. Considering FSR and CDM revenue, the project owner decided to proceed with the investment in the project. Therefore, the project owner signed the EPA on August 3, 2005 (the earliest starting date of the project activity) and started construction few days later. It is obvious that: the project owner had taken consider seriously the potential revenue of CDM to proceed with the project before investing the project (signed the equipment purchase agreement), and CDM plays a very crucial role in the successful implementation of the project.

Clarification for the process of CDM application:
After signed the cooperation contract with project owner, the CDM Consulting Company began to write PIN and seek for a potential buyer. During this period, the Chinese government gave further guidance and clarification on the CDM implementation procedures "Measures for Operation and Management of Clean Development Mechanism Projects in China" on October 12, 2005. In the beginning of 2006, Consulting company recommended some energy efficiency projects to ENEL, who intended to buy CERs of Laigang Group CCPP project (LoI signed in Dec. 2006), but not this project (ENEL signed enough energy efficiency projects). Afterwards, Tianqing Power was preparing a draft PDD and looking for another buyer. By October 2006 ENEL recommended Tianqing Power to RWE. After few-month market research and project study, the project owner signed the LOI signed with the buyer on May 22, 2007. Soon, CDM Consulting Company submitted the project to Chinese DNA (CDM application letter) in June, 2007. On July 13, 2007, the project was approved as CDM project by Chinese DNA on line (See the website: http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File1347.pdf). After 2 months, the project owner got the approval (paper pattern) from Chinese DNA in May, 2007. From then on, the process of CDM application for the project was going smoothly.

In addition, in order to cross-check the reasonability of the main parameters for IRR calculation, we made below clarification:

To prove the conservative of the assumption from FSR, the assumption from FSR can be compared with the actual data.

Table 4 the Estimated Data in FSR and Actual Data

	Value in FSR	**Actual Value**	**Comment**
Annual utilization hours	7,000 h	6,997 h (The project operated from Oct. 2006 to Jul. 2008 and the actual average annual utilization hours are 6,997 h.)	The actual annual utilization hour is almost the same with the data in FSR. Thus, it is reasonable to employ annual utilization hour of 7,000h in investment analysis.
Electricity price	0.35 Yuan/kWh (internal settlement price, without VAT)	0.305612 Yuan/kWh Without VAT(power purchase invoice)	The price used in FSR is more conservative than the price for purchase from grid
Total investment	123,793,900Yuan RMB	126,066,181.85 Yuan RMB	The actual investment is higher than the one in FSR

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Annual Operation Cost	41,940,000 Yuan RMB	71,293,148.058 Yuan RMB	The actual operating cost is higher than cost in PDD, it is conservative. (See details in below context)

Annual operation cost in FSR

In Table 4, the annual operation cost includes fuel & power costs, employ's expenses (including salary and welfare), and other O&M costs (other operational and maintenance costs, management cost and financial cost).

- Fuel cost[2]

Fuel cost is mainly for the pre-treatment of blast furnace gas (BFG), which consists of collecting, cleaning (purifying) and management (distributing), etc. to ensure the safe utilization of BFG[3]. It is estimated at 25,317,600Yuan RMB /year.

- Power cost

All power cost used in the IRR calculation are taken from approved FSR. The power cost is the cost of some key material, which should be invested yearly, like desalinating water, circulate water, and lube, which are used for ongoing operation safely so that comparatively decrease the cost of maintenance. Hence, the total power cost is calculated as 5,350,000 Yuan RMB/year.

- Employees' expenses (including salary and welfare)

The number of employees is 64, and salary and welfare per capita per year is 40,000 Yuan RMB. Hence, total employees' expenses 2,560,000 Yuan RMB/year.

- Other O&M costs

Other O&M costs consist of overhaul cost, material cost, subproject maintenance expenses, Management cost and insurance for fixed assets. Hence, the total other O&M cost is 8,753,879.21 Yuan RMB/year.

In conclusion, the above input values of annual operation cost employed in IRR calculation sheet are conservative. In a word, in accordance with the guidance of EB 38 paragraph 54, the project is an eligible and high quality CDM project activity.

Response to question 2 by DOE

The input values used in the investment analysis are consistent with the Financial Evaluation report.

The chronology of the key events related to the project is as follows:

Description	Date	Remarks

[2] According to Effective Utilization of Secondary Energy and Accelerate the Development of Technology Improvement for Energy Conservation and Emission Reduction, equipments must be installed for utilization of BFG, such as, dust collection equipment, desulfurization equipment, pressure equipment etc. These treatment processes will also consume power and manpower. Therefore, these costs must be accounted and it is common to be applied in iron and steel companies of China.
See details at the website: http://www.steelplanning.cn/ShowArticle.asp?ArticleID=231

[3] According to Cost Accounting of the Coking and Chemicals industry, before utilization, BFG must be collected, purified and distributed, so there are costs to these treatment processes for operation and maintenance.
See details at P17 and P18, the Regulation for Cost Accounting Regulation in Coking and Chemistry Industry

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Pre-assessment Report (PR)	July 2004	IRR – 5.33%
Feasibility Study Report (FSR)	June 2005	IRR – 5.68%
Equipment Purchase Agreement	August 2005	
Construction start date	August 2005	
Validation start	July 2007	
Final Validation Report (VR)	September 2007	
EB-38 Guidance	March 2008	

As per EB 38 paragraph 54:

"where project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities, DOEs are required to ensure that:

1. The FSR has been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed.
2. The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the DOE should validate the appropriateness of the values.
3. On the basis of its specific local and sectoral expertise, confirmation is provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision."

We hereby confirm the following:

1. The FSR has been the basis of decision making taking CDM revenues into account. The values used in the PDD and the FSR are fully consistent.
2. The FSR has been accepted as the basis of investment analysis in the PDD.
3. Further the input values (annual operational hours, electricity price, total investment) have also been validated based on the invoices, grid power purchase price, local regulations and have found to be reasonable and acceptable. The actual O&M costs of 71.293 million RMB have been checked by the DOE from internal document of project owner. They are higher than the value assumed in the FSR.

The documents supporting CDM consideration and input values are being submitted as follows:

1. Approval of CDM Projects Application from Laigang dated 08-09-2004 as Annexure-1
2. Approval of CDM Projects Application by the Government- English and Chinese version dated 16-9-2004 as Annexure-2
3. Feasibility Study Report dated June 2005 as Annexure-3

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Response to question 3 by DOE

TÜV SÜD can confirm the named timeline of the project participant. The following documents have been checked and verified by the DOE:

1. The PR of the project, dated 07/2004
2. Approval of CDM Projects Application from Laigang dated 09-2004 as Annexure-1
3. Application letter to the local Government, dated 09-2004
4. Approval of CDM Projects Application by the Government- dated 09-2004 as Annexure-2
5. CDM confirmation between PP and Consultant, dated 04/2005
6. Feasibility Study Report dated June 2005 as Annexure-3
7. Equipment Purchase Agreement dated 08/2005
8. Starting date of construction dated 08/2005
9. LOI signed by project owner and RWE dated 05/2007

Question 4

If the barriers to the project activity cannot be further substantiated, an economic comparison of the proposed baseline and the project activity without CDM must be conducted to determine the baseline.

Response by PP

As discussed in the PDD, scenarios (c), (d), (e) and (f) have been excluded. Therefore, the only remaining baseline options are scenarios (a) and (b). We will continue to compare baseline scenarios (a) with (b) as follows.

According to Tool for the Demonstration and Assessment of Additionality (version 03, because the project has been uploaded in March, 2008, so at that time, we use the additionality tool version 03, which can lead to the same conclusion as version 05), this Tool provides three investment analysis methods: Simple cost analysis (Option I), investment comparison analysis (Option II) and benchmark analysis (Option III).

Option I: simple cost analysis

In the PDD, we excluded simple cost analysis first. So here, we only discuss the investment comparison analysis (Option II) or the benchmark analysis (Option III).

Option II: investment comparison analysis and Option III: benchmark analysis

Although the project has been submitted in March 2008 the EB now underlined our point of view that investment comparison is not appropriate in this project. According to Annex 45 Guidance on the Assessment of Investment Analysis (Version 02), the paragraph 15 states "*if the proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services, a benchmark analysis is not appropriate and an investment comparison analysis shall be used. If the alternative to the project activity is the supply of electricity from a grid this is not to be considered an investment and a benchmark approach is considered appropriate*" and "*the benchmark approach is therefore suited to circumstances where the baseline does not require investment or is*

outside the direct control of the project developer, i.e. cases where the choice of the developer is to invest or not to invest". Hence, investment comparison analysis (Option II) is not applicable because the alternative to the project activity is the importing electricity from a grid.

Therefore, benchmark analysis (Option III) is applicable and employed in the PDD.

The project is additional as per the benchmark analysis (IRR):
According to calculations in PDD, the post-tax equity IRR of the project without CDM revenue is 5.68% which is much lower than the benchmark of 13%. Based on the benchmark of the financial evaluation of the iron & steel industry of China, the equity IRR of a steel industry project should not be lower than the benchmark of 13%. Therefore, the continuation of grid electricity import is a more economically attractive alternative than the project activity undertaken without CDM.

The project is also additional as per the comparison analysis (NPV):
However, in order to further demonstrate that the continuation of grid electricity is a more economically attractive alternative, these **two scenarios** by the comparative analysis of NPV and subsequent levelized cost has been compared. As for NPV analysis, the cost of the continuation of grid electricity import (scenario I) has been compared with the cost of the project activity undertaken without CDM (scenario II). To provide equivalent amount of electricity as scenario I, the following components of the costs in scenario II has to be included: initial investment cost, annual operation cost and tax saving. The tax saving in two scenarios are different because of different pre-tax deduction (depreciation has been considered in scenario II for tax saving calculation). Meanwhile, the levelized cost has also been calculated to further compare the above two scenarios.

The discounting rate in the both scenarios is the benchmark rate of 13%. Please find below comparative NPV and levelized cost

Table 5 NPV and Levelized Cost of Two Scenarios

Scenarios	NPV (Unit: 10,000 Yuan RMB)	Levelized Cost(Yuan RMB/kWh)
I: The continuation of grid electricity import	-25,945.02	0.2345
II: Project activity undertaken without CDM	-30,442.66	0.2752

Note: More detail could be found in IRR calculation sheets.

By the comparative analysis of NPV, it can be concluded that NPV for scenario I is greater than that for scenario II. Also for levelized cost, it could be seen in the above table that the levelized cost of scenario I is much lower than that of scenario II.

It can be concluded that the continuation of grid electricity import (scenario I) is a more economically attractive alternative than the project activity undertaken without CDM (scenario II). Therefore, it can be confirmed that the continuation of grid electricity import is indeed the baseline scenario.

In order to further demonstrate the above conclusion, the fluctuation of grid price and O&M cost has been considered.

- Ø For grid price, the maximum increasing rate of 2% from 2000 to 2006 (Shandong Province Electricity Supply Sector) has been adopted for conservative purpose.
- Ø For O&M cost, the average increasing rates of coal ,water, N_2 and salary are 9%, 7.26%, 4.43%, and 14.36% respectively from 2000 to 2006 (Shandong Province Electricity Supply Sector). The minimum average increasing rate of 4.43% has been adopted for conservative purpose.

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It can be found that if the grid price increases, the other price indexes of O&M costs would increase further.
All the above data come from public official website of local government. (http://www.stats-sd.gov.cn).

Table 6 Various Price Indexes Fluctuations (Last Year=100)

Item	2000	2001	2002	2003	2004	2005	2006	Average	Max
Grid Price	100.4	100.7	99.9	100.2	100.1	102	101.6	0.70%	2.00%
Coal	97.3	115	115.2	102.1	124.8	111	97.6	9.00%	24.80%
Water	118.3	108.4	104.5	105.5	104.6	104.9	104.6	7.26%	18.30%
N_2	104.2	100.1	96.7	106.5	114.3	108.4	100.8	4.43%	14.30%
Salary	113.7	113.4	117	108.6	111.6	122.3	113.9	14.36%	22.30%

Information source: http://www.stats-sd.gov.cn/2007/tjsj/tjsj.asp?lbbm=1

The NPV and levelized cost of two scenarios with price fluctuations has been calculated as follows:

Table 7 NPV and Levelized Cost of Two Scenarios with Price Fluctuations

Scenarios	Increasing rate	NPV (Unit: 10,000 Yuan RMB)	Levelized Cost(Yuan RMB/kWh)
I: The continuation of grid electricity import	Increasing rate of grid price is 2%	-29,231.73	0.2642
II: Project activity undertaken without CDM	Increasing rate of O&M cost is 4.43%	-36,717.01	0.3319

Note: More detail could be found in IRR calculation sheets.

It can be found in the above table, even with the fluctuation of grid price and O&M cost, scenario I is more economically attractive than scenario II.

It is clear that scenario I is the most economically attractive; therefore, the baseline is indeed the continuation of grid electricity import.

Response by DOE

According to “Tool for the demonstration and assessment of additionality /Version 03”, benchmark analysis was used for the investment analysis of this project. As far as alternatives 2, the IRR without CDM revenues is 5.68% only, which is much lower than the benchmark value (13%). Thus it was concluded that the project is not attractive from a financial point of view.

Alternative 2 is the continued situation of the present state. It needs no additional investment and faces no prohibitive barrier and is also most economically attractive, so it is considered as the baseline scenario.

Further the levelized cost analysis has also been submitted by the PP for the two alternatives. Input values to this analysis are similar to the analysis presented earlier. The analysis has been validated and shows that buying power from grid is cheaper than the project activity based power. Thus the baseline scenario would be grid based power. The levelized cost analysis is being submitted (Annexure-4)

Furthermore a sensitivity analysis of grid price and O&M costs has been considered. This analysis has been validated and the sources of the input values have been checked by the presented web pages.

Based on these evidences presented, the O&M costs will raise faster than the electricity price.

Question 5

The DOE is requested to explain the difference between the grid emission factor in the PDD submitted for registration and that published for global stakeholder consultation and whether this change results directly and solely for a corrective action request raised during validation.

Response by PP

According to the *Bulletin on Baseline Emission Factors of China Grid* renewed by the Director Office of National Climate Change Coordination of NDRC (China DNA) on December 15, 2006, the Operating Margin emission factor of the North China Power Grid (NCPG) is 1.0585tCO_2e/MWh and the Build Margin emission factor is 0.9066tCO_2e/MWh. Hence, the Combined Baseline Emission Factor of the NCPG corresponds to 0.98255tCO_2e/MWh. Therefore, the emission factor issued by China DNA on December 15, 2006 was employed in the GSP PDD (global stakeholder process from July 2, 2007).

However, the *Bulletin on Baseline Emission Factors of China Grid* was renewed by the Director Office of National Climate Change Coordination of NDRC (China DNA) on August 9, 2007, the Operating Margin emission factor of the North China Power Grid (NCPG) is 1.1208tCO_2e/MWh and the Build Margin emission factor is 0.9397tCO_2e/MWh. Therefore, the published Combined Baseline Emission Factor of the NCPG corresponds to 1.03025tCO_2e/MWh. The PDD refers to the Operating Margin (OM) Emission Factor and the Build Margin (BM) Emission Factor published by the Chinese DNA on 09 August 2007, but deviate at some points by using data published in the China Electric Power Yearbook and 2006 IPCC. (Please see details in Table 8).

Table 8 the difference of input data

	The data employed by the China DNA	**The data in the Electricity Yearbook 2006 and IPCC 2006**
The emission factor of coke	25.8 tC/TJ	29.2 tC/TJ in IPCC 2006
The emission factor of refinery gas	18.2 tC/TJ	15.7 tC/TJ in IPCC 2006
The import electricity from Northeast China Grid in 2005	23,432,000MWh	3,929,000 MWh in Electricity Yearbook(P351)

According to the above revision, the calculated OM factor is 1.1205tCO_2e/MWh, instead of 1.1208tCO_2e/MWh published by China DNA and the calculated BM factor of 0.93978tCO_2e/MWh, instead of 0.9397tCO_2e/MWh published by China DNA. Therefore, the Combined Baseline Emission Factor of the NCPG corresponds to 1.030015tCO_2e/MWh has been employed for conservative purpose. Therefore, the lower emission factor of 1.030015tCO_2e/MWh was employed in the PDD for request for registration.

Response by DOE

The DOE can confirm the explanation given by the project participant.

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The values in the PDD submitted for registration are the published values from the NDRC on 9th August 2007 and applicable for this project.

Question 6

Further clarification is required on how the DOE has validated the electricity consumption in pre-project scenario and current status of the waste gas based captive power plant.

Response by PP

In 2006, the electricity consumption of Laigang mainly imports from the North China Power Grid and the rest electricity sources from captive power plants. By far, there is not any thermal captive power plant in Laigang, one waste gas captive power plant and a TRT power plant are in operation. From 2004 to 2006, about 90.38% (minimum value) electricity consumed by the project owner is supplied from the North China Power Grid, and 9.62% (maximum) electricity consumed by the project owner is supplied from the captive power plants. Regarding to the project, its electricity totally replace the electricity from the grid. Before the implementation of the project, this part of electricity was totally imported from the grid. Therefore, as the project perspective, the pre project scenario for the project should be equivalent electricity imported from the grid, and the baseline scenario is also the equivalent electricity imported from the grid.

As per Issue 5, the pre project scenario is equivalent electricity from both the grid and captive power plant. If so, the pre project scenario is clarified further as follows: The project started operation in the end of 2006. Therefore, the pre project scenario is shown as the share of electricity consumption by Laigang from the grid and captive power plants from 2004 to 2006. According to the statistical data of the electricity consumption from 2004 to 2006 provided by Laigang, the electricity consumption in Laigang is from the grid and the captive power plants.

In PDD, it described as, among these three years (2004, 2005 and 2006), the 95.75% electricity of the total consumption (the maximum) in Laigang was purchased from the NCPG, while the rest 4.25% electricity demand is from the waste gas power generation captive plants of Laigang.

The statistical data of the electricity consumption from 2004 to 2006 had been checked by local auditor during on site-visit validation. Please see the detailed data in the Table 9.

Table 9 the ratio of electricity purchasing from grid and electricity generated by existing captive power plants from 2004 to2006

	2004	**2005**	**2006**
Total electricity consumption(10^4kWh)	242,652	319,157	369,423
electricity purchasing from grid(10^4kWh)	225,408	305,593	333,868
electricity generated by existing captive power plants(10^4kWh)	17,244	13,564	35,555
The ration of electricity generated by existing captive power plants	7.11%	4.25%	9.62%

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Note: the minimum 4.25% electricity demand that from the waste gas power generation captive station of Laigang has been employed in PDD. Even if the average 6.99% or maximum 9.62% employed, based on the above explanation, the power generated by the project still does not replace the electricity generated by the existing captive power plants.

Moreover, the project operation will not make any impact on the existing captive power plants, namely, the power generated by the project does not replace the electricity generated by the existing captive power plants, but only replace the electricity imported by the NCPG. Therefore, the baseline of the project is identified as follows, without the CDM project, annual equivalent electricity is imported from the NCPG.

The waste gas captive power plant (24MW) was in operation in 1998 and has been operated for 10 years successfully. The power plant was approved as integration utilization unit by local DRC every year. 30MW TRT project was in operation in 2006. All electricity generated by these projects only took less than 10% of the total electricity consumption of Laigang. Therefore, the power supplied by the project, which is $15{,}750\times10^4$kWh, only can replace little electricity purchasing from the grid.

Response by DOE

The production scale of the Waste Gas Power Plant has been evidenced by the "Generation of 24 MW waste gas power generation captive power station of Laigang (2003-2007)" and "the ratio of self generation power" (2004-2006). TÜV can confirm the values shown by the project participant.

The total electricity consumption of the steel company is much higher than the electricity produced by the existing waste gas power plant (please see table 9).

In the submitted levelized costs calculation, if the investment costs of the old waste heat recovery project is included, the NPV is lower than the grid. That means electricity generated by the existing power plant is financially more attractive than the grid. Hence the electricity generated by the CDM project is always going to replace the electricity imported from the grid.

The existing captive power plant is operating since 1998 and the lifetime of the project is determined to be 22 years. This has been checked and verified by TÜV SÜD. Hence the possibility, that the project will replace electricity generated by the existing power plant is not given.

TÜV SÜD has checked the waste gas balances of the steel plant. We can confirm that there is enough waste gas available, for the CDM project and the existing waste gas power plant.