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# Verification Report

## BTG Central Europe s.r.o.

## Biomass Energy Portfolio for Czech Republic
## Period 01/01/2006 – 31/12/2006

**Report No. 988482, Version 01**

**18 July 2007**

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

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|---|---|
| **Subject:** | Verification of a Climate Change Project |
| **Executing Operational Unit:** | TÜV SÜD Industrie Service GmbH<br>Carbon Management Service<br>Westendstr. 199 – 80684 Munich - GERMANY |
| **Client:** | BTG Central Europe S.R.O.<br>Korunni 79<br>130 00 Praha 3 - CZECH REPUBLIC |
| **Contract approved by:** | Werner Betzenbichler |
| **Report Title:** | Verification of the project Biomass Energy Portfolio for Czech Republic Period 01/01/2006 – 31/12/2006 |
| **Number of pages** | 17 (without cover page and annexes) |

Summary:

TÜV SÜD Industrie Service GmbH has performed a verification of the prospective JI project: "Biomass Energy Portfolio for Czech Republic". The verification is based on requirements of ER-UPT 1 set as part of the MVP for this specific project. Additionally this verification is based on the currently valid documentation of the UN Framework Convention on Climate Change (UNFCCC). In this context, the relevant documents are the "Marrakech Accords".

This verification engagement was carried out during the period of 10.04.2006 and 31.07.2007.

The management BTG Central Europe s.r.o. (BTG) is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project "Biomass Energy Portfolio for Czech Republic" on the basis set out within the project Monitoring and Verification Plan. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project is the responsibility of the management of the project.

The verifier confirms that the project is implemented as planned and described in validated and registered project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately.

The monitoring system is in place and the project is ready to generate GHG emission reductions. Further quality assurance procedures summarized in a appropriate manual shall be elaborated and implemented, further details are addressed in the report and its annexes.

The verifier can confirm that the GHG emission reduction is calculated without material misstatements.

Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported for the period of 01-01-2006 to 31-12-2006 and its associated documents. Based on the information we have seen and evaluated we confirm the submitted amount of 103,485 ton CO2 –equivalents for the period of 2006.

| Work carried out by: | Internal Quality Control by: |
|---|---|
| Markus Knödlseder (Project manager, GHG lead auditor) | Certification Body of Climate and Energy |

## Abbreviations

| | |
|---|---|
| AE | Applicant Operational Entity |
| BTG | BTG Central Europe s.r.o. |
| CAR | Corrective Action Request |
| FAR | Forward Action Request |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reduction |
| CR | Clarification Request |
| JI | Joint Implementation |
| DNA | Designated National Authority |
| DOE | Designated Operational Entity |
| EB | Executive Board |
| EIA / EA | Environmental Impact Assessment / Environmental Assessment |
| ER | Emission reduction |
| GHG | Greenhouse gas(es) |
| KP | Kyoto Protocol |
| MP | Monitoring Plan |
| NGO | Non Governmental Organization |
| PDD | Project Design Document |
| TÜV SÜD | TÜV SÜD Industrie Service GmbH |
| UNFCCC | United Nations Framework Convention on Climate Change |
| VVM | Validation and Verification Manual |

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# 1 INTRODUCTION

## 1.1 Objective

The client (BTG Central Europe s.r.o.) has commissioned an independent verification by TÜV SÜD Industrie Service GmbH of its project Biomass Energy Portfolio for Czech. Verification is the periodic independent review and ex post determination by the Designated Operational Entity / Independent Entity of the monitored reductions in GHG emissions during the defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification:

**Initial Verification**: The objective of an initial verification is to verify that the project is implemented as planned, to confirm that the monitoring system is in place and fully functional, and to assure that the project will generate verifiable emission reductions. A separate initial verification prior to the project entering into regular operations is not a mandatory requirement.

**Periodic Verification**: The objective of the periodic verification is to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures de-scribed in the monitoring plan; further more the periodic verification evaluates the GHG emission reduction data and express a conclusion with a high, but not absolute, level of assurance about whether the reported GHG emission reduction data is “free” of material misstatements; and verifies the reported GHG emission data is sufficiently supported by evidence, i.e. monitoring records. If no prior initial verification has been carried out, the objective of the first periodic verification also includes the objectives of the initial verification.

The verification shall consider both quantitative and qualitative information on emission reductions. Quantitative data comprises the monitoring reports submitted to the verifier by the project entity. Qualitative data comprises information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, review and internal audit of calculations/data transfers.

The verification follows UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities as agreed in the Bonn Agreement and the Marrakech Accords.

The portfolio project is characterized by an increasing number of participating sub-projects. Sub-projects that are the first time in the verification process have to pass above mentioned Initial Verification. For all involved sub-project the initial verification was performed at least in the last verification or even in the verification before; hence this verification is a standard periodic verification.

## 1.2 Scope

Verification scope is defined as an independent and objective review and ex post determination by the Designated Operational Entity / Independent Entity of the monitored reductions in GHG emissions. The verification is based on validated project design document including baseline. These documents are reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. TÜV SÜD has, based on the recommendations in the Validation and Veri-

fication Manual employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of CERs/ERUs.

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

The audit team has been provided with a Monitoring Report issued in March 2007, covering the period 1.1.2006 – 31.12.2006. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. Afterwards the client decided to revise the Monitoring Report according to the identified findings in the audit process. The final Monitoring Report version was submitted in June 2007 serves as the basis for the final assessment presented herewith.

Studying the existing documentation belonging to this project, it was obvious that the competence and capability of the validation team has to cover at least the following aspects; according to these requirements TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV certification body “climate and energy”:

- Knowledge of Kyoto Protocol and the Marrakech Accords
- Environmental and Social Impact Assessment
- Skills in environmental auditing
- Quality assurance
- Technical aspects of biomass utilization for energy production and district heating
- Monitoring concepts
- Political, economical and technical random conditions in host country

In order to have an internal quality control of the project, a team of the following persons has been composed by the certification body “climate and energy”:

Werner Betzenbichler (head certification body “climate and energy”)

## 1.3 GHG Project Description

The project Biomass Energy Portfolio for Czech Republic is a early Joint Implementation project sponsored by Senter International, the Netherlands. The project is owned by BioHeat International B.V., the Netherlands, and administered by its daughter company BTG Central Europe s.r.o., the Czech Republic. After winning a contract (#ERU 0011) in the ERUPT 2000 tender, and two years of administrative delays, the project has recently received an approval from the Czech Ministry of Environment, satisfied the contractual requirements of the Dutch government, and started receiving prepayments from Senter International.

The project is a flexible portfolio of 14 subprojects in the Czech Republic where fossil fuels are replaced by biomass. The prepared and submitted monitoring report is linked to the original Project Description (BTG, February 2001), including the Validation Reports (SGS, January 2001 and May 2004). Furthermore conclusions from last verifications are considered also in this monitoring report.

It covers emission reductions from 1st January 2006 and 31st December 2006 for the 14 subprojects of the portfolio. The subprojects included are:

| | | |
|---|---|---|
| Bouzov, | Nova Cerekev, | Velký Karlov, |
| Bystrice nad Pernstejnem, | Rostin, | Zlate Hory, |

Driten, Slavicín, Zruc nad Sazavou,
Horni Plana, Stitna nad Vlari, Zlutice.
Iromez s.r.o., Pelhrimov, TTS CZ s.r.o., Trebic,

The crediting start date is January 1, 2003.

# 2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual (for further information see www.vvmanual.info), an initiative of Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a verification protocol was customized for the project, according to the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM/JI project is expected to meet;
- It ensures a transparent validation process where the verifier will document how a particular requirement has been proved and the result of the verification.

The verification protocol consists of four tables. The different columns in these tables are described in

| Periodic Verification Checklist<br>Table 3: Detailed audit testing of residual risk areas and random testing | | |
|---|---|---|
| Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including FARs) |
| List of residual areas of risks of Periodic Verification Checklist Table 2 where detailed audit testing is necessary.<br>In addition, other material areas may be selected for detailed audit testing. | The additional verification testing performed is described. Testing may include:<br>Sample cross checking of manual transfers of data<br>Recalculation<br>Spreadsheet 'walk throughs' to check links and equations<br>Inspection of calibration and maintenance records for key equipment<br>Check sampling analysis results<br>Discussions with process engineers who have detailed knowledge of process uncertainty/error bands. | Having investigated the residual risks, the conclusions are noted here. Errors and uncertainties are highlighted. |

| Periodic Verification Checklist<br>Table 4: Compilation of open issues | | |
|---|---|---|
| Corrective and Forward Action Requests by audit team | Summary of project owner response | Audit team conclusion |
| List of open clarifications and correction that needs to be solved before concluding the verification positively. | Project owner's responses, clarifications or corrections. | Evaluation of given responses. |

Figure 1. The checklist for initial Verification has been used as well for increasing transparency.

The completed protocol is enclosed in Annex 1 to this report.

| Periodic Verification Checklist<br>Table 1: Data Management System/Controls | | |
|---|---|---|
| **Expectations for GHG data management system/controls** | **Score** | **Verifiers Comments (including Forward Action Requests)** |
| Critical issues needs to be checked. | score is assigned as follows:<br>• Full - all best-practice expectations are implemented.<br>• Partial - a proportion of the best practice expectations is implemented<br>• o Limited - this should be given if little or none of the system component is in place | Explanation of defined score. |

| Periodic Verification Checklist<br>Table 2: GHG calculation procedures and management control testing | | |
|---|---|---|
| **Identification of potential reporting risk** | **Identification, assessment and testing of management controls** | **Areas of residual risks** |
| Based on onsite visit potential risks are listed. | If potential risks have been identified, the evaluation and tsting procedure should clearify if identified risks are not real or if there are residual risks. | List of residual risks |

| Periodic Verification Checklist<br>Table 3: Detailed audit testing of residual risk areas and random testing | | |
|---|---|---|
| Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including FARs) |
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Figure 1 Verification Protocol Tables

## 2.1 Review of Documents

The project design document submitted by the client and additional background documents related to the project design and baseline were reviewed. A complete list of all documents reviewed is attached as annex 2 to this report.

## 2.2 Follow-up Interviews

In the period of April 10 - 19, 2007 TÜV SÜD performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Represen-

tatives of subproject owners and BTG were interviewed. The main topics of the interviews are summarised in Table 1.

Table 1 Interview topics

| Interviewed organization | Interview topics |
|---|---|
| BTG on April 10, 2007 | Project design<br>Technical equipment and operation<br>Crediting period<br>Monitoring plan<br>Monitored data<br>Implementation of management system<br>Environmental impacts<br>Compliance with national laws and regulations |
| Iromez s.r.o., Pelhrimov<br>TTS CZ s.r.o., Trebic<br>Žlutice.<br>Zlaté Hory<br>Bystrice nad Pernstejnem<br>Nova Cerekev<br>Dříteň<br>Horní Planá | Technical equipment and operation<br>Monitored data<br>Sustainable development issues<br>Environmental impacts<br>Compliance with national laws and regulations |

## 2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification and any other outstanding issues which needed to be clarified for TÜV SÜD`s positive conclusion on the project design. The Corrective Action Requests, Clarification Requests and raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. Forward Action Requests are indicated issues which do not effect the generation of emission reduction in the verified period, but shall be improved in order to ensure the reliability of future data. To guarantee the transparency of the verification process, the concerns raised and responses that have been given are summarized in chapter 3 below and documented in more detail in the verification protocol in annex 1.

Verification Findings

In the following sections the findings of the verification are stated. The verification findings for each verification subject are presented as follows:

- The findings from the desk review of the final project design document and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Verification Protocol in annex 1.
- Where TÜV SÜD had identified issues that needed clarification or that represented a risk to the fulfillment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in annex 1. The verification of the project resulted in Corrective Action Request (CAR) a/o Clarification Requests (CR).
- Where Clarification or Corrective Action Requests have been issued, the exchanges between the Client and TÜV SÜD to resolve these Clarification or Corrective Action Requests are summarized.

In the context of Forward Action Requests (FAR), risks have been identified, which may endanger the delivery of high quality CERs in the future, i.e. by deviations from standard procedures as defined by the MP. As a consequence, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions. Forward Action Requests are understood as recommendation for future project monitoring; they are stated, where applicable, in the following sections and are further documented in the Verification Protocol in annex 1. The verification of the project resulted in five Forward Action Requests.

The final conclusions for verification subject are presented.

The verification findings relate to the project design as documented and described in the final project design documentation.

# 3 INITIAL VERIFICATION FINDINGS

This verification does not include aspects from the initial verification. Aspects that occurred during the assessment and that fit to the table 1 in the annex 1 are considered in the following chapter “Periodic Verification Findings”.

# 4 PERIODIC VERIFICATION FINDINGS

## 4.1 Remaining Issues / FARs from Previous Verification

### 4.1.1 Discussion

The previous verification the verification team addressed Forward Action Requests (FAR), which may endanger the delivery of high quality CERs in the future, i.e. by deviations from standard procedures as defined by the MP. As a consequence, such aspects should receive a special focus during this periodic verification. A FAR may originate from lack of data sustaining claimed emission reductions. Forward Action Requests are understood as recommendation for future project monitoring; they are stated, where applicable.

In the last Verification Report for BTG Central Europe s.r.o. declared as “Biomass Energy Portfolio for Czech Republic” Period 01/01/2005 – 31/12/2005, Report No. 812870, Version 02 two open FARs were addressed:

Forward Action Request 1:

*In municipalities where third parties are contracted for data gathering, invoicing or operation and maintenance of installed equipment, such companies shall be aware about their responsibility in this JI-Project Monitoring on the other hand a change of contracted companies to another one or the decision in a municipality to do the job on their own includes a potential risk regarding a lack of correct, continuous or transparent monitoring. Thus the overall project management shall take care about involved third parties. Changes in shall be noted in the annual monitoring report.*

*Since the issue could not be clarified until this verification, it is converted to* Clarification Request 1.

*Forward Action Request 2:*

*The verification team can follow those adjustments, especially against the background that baseline and monitoring procedures of VER- or JI-projects are allowed to be applied more flexible than in other schemes. Nevertheless, the verification team asks for an agreement from all project participants that those changes are accepted. Referring to the periodical update of the baseline situation in each municipality like the proportional stove distribution the verification team asks to fix the period when such baseline update should be made.*

*Since the issue could not be clarified until this verification, it is converted to* Clarification Request 5.

### 4.1.2 Finding

Clarification Request 1:

However, the previous verification addresses FAR 1 in the context of monitoring the responsibility. The project management of BTG Central Europe s.r.o is asked to pro-vide information / documented procedures how involved third parties are monitored.

Answer: Manual for BTG staff rules responsibility. It has been submitted.

Clarification Request 5:

In the previous verification the verifier asked to submit a confirmation from project owner and from project participants. The original baseline and monitoring study have been adjusted several times due to inaccurate descriptions there and real situations. Hence, the verifier repeats his Request. All project participants (BTG, Czech Ministry of Environment and involved agency SenterNovem) should confirm that they are aware about that several assumptions from original studies had been adjusted, and to note in what manner those adjustments are accepted.

Answer: All changes are commented and documented in the Monitoring Report transparently.

### 4.1.3 Conclusion

CL 1 is considered as solved.

The technical reasonability has been confirmed by the third entity in the appropriate verification reports. Since no party has complained so far, the third party considers that behavior as an agreement on the changes. Issue is considered as solved as well.

## 4.2 Project Implementation / changes

### 4.2.1 Discussion

According to the stated baseline and to the previous verification there are changes beyond the baseline. The changes are transparent mentioned in the submitted monitoring report.

First change has become necessary since a sub project had not measured delivered heat for district heating as required due to applied methodology. The originally developed methodology says that delivered heat should measure. However, that is at Iromez s.r.o. not the case. Produced heat for district heating can only be calculated. The method has been elaborated together with internal energy experts (Eberhard Rothfuß) from TÜV SÜD, the verification team and the project developer. It should be ensured that a reasonable approach has been applied with respect to conservative assumptions.

The second change that has been applied is the proportional distribution of individual stove types has been changed since baseline determination. The district heating systems are growing organically. That means year by year new residences of households are connected to the district heating system. New connected households can be households that had existed already before or which are quite new, like additional accommodations. Since the implemented biomass boilers are smaller than old replaced coal boilers there is no risk that new customers could not be supplied by the old system as well. However, the developed and determined baseline studies and monitoring methodologies does neither cover nor explicitly exclude any baseline adaptations.

### 4.2.2 Findings

Corrective Action Request 1:

During onsite audit Mr. Hoferek (Zlate Hory) indicated that heat which is delivered from the heat exchangers to the district heating system is measured. From the point of view of the verifier is that the right points to measure the heat for comparison with baseline situation. The monitoring calculation and report has to be adjusted accordingly.

Answer: See attached answer provided in “Clarification Request 3_Zlate Hory.pdf”

Clarification Request 3:

As mentioned above the terminology was misunderstood from the operator from the beginning of reporting. That misunderstanding was not identified in the previous verifications, because the operator was asked if heat is measured, but it was not identified that the measuring point is at the wrong position.

The operator is asked to report how much heat had been delivered from the heat ex-changers to the district heating system in the monitoring period of year 2004 and 2005; BTG Central Europe is asked to address the overestimation during those periods.

Answer: See attached answer provided in “Clarification Request 3_Zlate Hory.pdf”

Clarification Request 4:

The project owner is asked to submit information about accuracy of the heat metering devices measuring the heat from the heat exchangers.

Answer: The information is not available. However, since the heat meter measures heat delivered to the district heating system the net heat is measured.

### 4.2.3 Conclusion

Beyond that no significant risk can be identified.

## 4.3 Completeness of Monitoring

### 4.3.1 Discussion

Monitoring of data covers all aspects of data measuring, processing and collecting. The focus is on completeness, accuracy and consistency. The accuracy and calibration has been checked onsite at the meters. According to check law the calibration is valid for 4 years. A calibration stamp on each meter addressing the year of calibration serves as an evidence of calibration.

Furthermore the Czech law requires the use of metering equipment with an accuracy class of 2 meaning an accuracy of +- 2%.

### 4.3.2 Findings

None

### 4.3.3 Conclusion

The monitoring has been complete although some inaccuracy was identified as mentioned in the next chapter.

## 4.4 Accuracy of Emission Reduction Calculations

### 4.4.1 Discussion

The calculation is defined in an Excel sheet. Its functionality was tested. As mentioned the Czech law requires the use of metering equipment with an accuracy class of 2 meaning an accuracy of +- 2%. The calculation sheet considers a safety deduction of 5% minimum. In other words the calculated emission reduction per sub-project considers already the common and inherent uncertainty of the equipment. This is valid as far as relevant parameters are metered directly and according to their purpose.

### 4.4.2 Findings

Corrective Action Request 2:

The delivered heat calculation in the case of Iromez s.r.o is based on annual assumptions and parameters of operation. Those assumptions are met roughly as the stored data records show; however, the stored data allows a more precisely calculation of the point (1), (2), (3) and (4) of the given scheme (figure 1 of monitoring re-port).

Answer: The updated Monitoring Report considers quarterly aver-age data, available from the recording system.

Corrective Action Request 3:

The original reported amount of produced gross heat at Iromez s.r.o was not correct in September 2006.

Answer: Data has been corrected.

Forward Action Request 2:

The project management at BTG Central Europe has to implement a system that ensures that sub-project owners store and archive all relevant original data that has been considered so far.

### 4.4.3 Conclusion

According to submitted and verified data the verification team confirms that the accuracy of calculated and reported emission reductions do not lead to a significant and material misstatement.

## 4.5 Quality of Evidence to Determine Emission Reductions

### 4.5.1 Discussion

Determining emission reductions is based on invoices in the case of biomass. Those are usually the most reliable evidences. In case of produced or consumed heat the most reliable evidence is also the invoice for sold heat in respective manual monitored heat production.

### 4.5.2 Findings

None

### 4.5.3 Conclusion

The project management elaborated procedures ensuring stable quality. Procedures are mainly described in the monitoring report as well. The Issues is considered as resolved.

## 4.6 Management System and Quality Assurance

### 4.6.1 Discussion

A proper established and implemented Quality Management System is not crucial for monitoring and reporting of emission reduction units (ERU), but it reduce the inherent risk and raise the reliability of monitored data.

As recommended the conduction of internal validation and checks have been performed. Additional documented procedures have been introduced

### 4.6.2 Findings

Clarification Request 2:

The overall management of BTG Central Europe is asked to clarify if other participants have also different interpretations about asked information. The result of the survey should be submitted.

Answer: Statement has been submitted “Clarification Request 2.pdf”

Forward Action Request 1:

The overall management of BTG Central Europe is asked to develop and to implement procedures how existing procedures can be improved. That includes asking the local municipalities as well as owning staff experiences for improvements regarding reporting procedures.

### 4.6.3 Conclusion

The verification team can not identify any misstatements through that missing documentation. The verification team identified the introduction of a proper management system as recommended.

# 5 PROJECT SCORECARD

| Risk Areas | | Conclusions | | | Summary of findings and comments |
|---|---|---|---|---|---|
| | | Baseline Emissions | Project Emissions | Emission Reductions | |
| Completeness | Source coverage/ boundary definition | ☑ | ☑ | ☑ | Can be confirmed |
| Accuracy | Physical Measurement and Analysis | ☑ | ☑ | ☑ | Can be confirmed |
| | Data calculations | ☑ | ☑ | ☑ | Can be confirmed |
| | Data management & reporting | ☑ | ☑ | ☑ | Can be confirmed |
| Consistency | Changes in the project | ☑ | ☑ | ☑ | Can be confirmed |

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# 6 VERIFICATION OPINION

TÜV SÜD Industrie Service GmbH has performed a verification of the prospective JI project: “Biomass Energy Portfolio for Czech Republic”. The verification is based on requirements of ER-UPT 1 set as part of the MVP for this specific project. Additionally this verification is based on the currently valid documentation of the UN Framework Convention on Climate Change (UNFCCC). In this context, the relevant documents are the "Marrakech Accords".

This verification engagement was carried out during the period of 10.04.2007 and 31.07.2007.

The management BTG Central Europe s.r.o. (BTG) is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project “Biomass Energy Portfolio for Czech Republic” on the basis set out within the project Monitoring and Verification Plan. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project is the responsibility of the management of the project.

The verifier confirms that the project is implemented as planned and described in validated and registered project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately.

The monitoring system is in place and the project is ready to generate GHG emission reductions. Further quality assurance procedures summarized in a appropriate manual shall be elaborated and implemented, further details are addressed in the report and its annexes.

Possible negative as well as positive environmental and social impacts are addressed detailed in the report, however significant negative impacts are not identifiable.

The verifier can confirm that the GHG emission reduction is calculated without material misstatements.

Our opinion relates to the project’s GHG emissions and resulting GHG emissions reductions reported for the period of 01-01-2006 to 31-12-2006 and its associated documents. Based on the information we have seen and evaluated we confirm the submitted amount of 103,485 ton CO2 –equivalents for the period of 2006.

Munich, 18 July 2007

Certification body “climate and energy”

Munich, 18 July 2007

Markus Knödlseder
Project Manager

Industrie Service

# Annex 1: Verification Protocol

## Table 1: Data Management System/Controls

The project operator's data management system/controls are assessed to identify reporting risks and to assess the data management system's/control's ability to mitigate reporting risks. The GHG data management system/controls are assessed against the expectations detailed in the table. A score is assigned as follows:

- Full - all best-practice expectations are implemented.
- Partial - a proportion of the best practice expectations is implemented
- Limited - this should be given if little or none of the system component is in place.

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| ***1. Defined organisational structure, responsibilities and competencies*** | | |
| **1.1. Position and roles** | Full | Regarding roles and positions there is no change against previous verification. The positions and roles are defined in the contracts. |
| **1.2. Responsibilities** | Partial | The responsibilities of involved person are clear and documented in the contracts.<br>**Clarification Request 1:**<br>However, the previous verification addresses FAR 1 in the context of monitoring the responsibility. The project management of BTG Central Europe s.r.o is asked to provide information / documented procedures how involved third parties are monitored. |
| **1.3. *Competencies needed*** | Full | Involved persons have the appropriate competence to fulfill all required tasks with GHG reporting. |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| ***2. Conformance with monitoring plan*** | | |
| **2.1. Reporting procedures** | Partial | The reporting follows established procedures. They are part of the monitoring report it self.<br><br>The responsible people on the level of sub-projects do follow given instructions in the given monitoring protocol. However, in the case Dřiteń it could be identified that asked questions in the monitoring protocols can be misunderstood. In the identified case the major interpreted the original, current and future project plan a bit different than is was meant by BTG. Finally here it has not effected the ERU calculation, but it indicates a potential improvement.<br><br>**Clarification Request 2:**<br><br>The overall management of BTG Central Europe is asked to clarify if other participants have also different interpretations about asked information. The result of the survey should be submitted.<br><br>**Forward Action Request 1:**<br><br>The overall management of BTG Central Europe is asked to develop and to implement procedures how existing procedures can be improved. That includes asking the local municipalities as well as owning staff experiences for improvements regarding reporting procedures. |
| **2.2. Necessary Changes** | Limited | In Zlate Hory a necessary change in monitoring has been identified. The change is due to baseline situation, implemented project and installed monitoring equipment used for reporting.<br><br>The baseline situation was that the existing district heat system had been heated by a |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| | | central boiler producing only steam fed directly to the district heating system for heating and not producing any power. The project situation, however, is determined by the project biomass boilers which produce steam. One part of the steam is used for co-generation in a small turbine, after the turbine the rest heat is used to heat the district heating system and a second part is used directly for the heating system. In opposite to baseline situation the produced steam heat in transferred via heat exchanger to the sys-tem.<br><br>According to that situation and as agreed in the first verification among all participants the baseline and emission reduction occurs by heat that is delivered by the project boiler to the district heating system. That heat is called “produced heat” in the Excel-Spread sheet and which is sampled from the municipalities using the same terminology. In the situation of Zlate Hory, however, the terminology of “produced heat” was misunderstood from the beginning in respect to emission calculation. In fact Zlate Hory is reporting “produced heat”, but<br><br>• at first not the produced net heat and<br><br>• secondly not the heat which delivered to the district heating system (like in the baseline), but the amount of steam directly after the boilers before entering the turbine or heat exchangers to the district heating system.<br><br>That results in an overestimation of calculated emission reductions, because, emission reductions from produced electricity is counted double, the reported cross heat does is not eligible for calculating the emission reduction and heat losses according to the heat ex-changers are not considered.<br><br>**<u>Corrective Action Request 1:</u>**<br><br>During onsite audit Mr. Hoferek (Zlate Hory) indicated that heat which is delivered |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| | | from the heat exchangers to the district heating system is measured. From the point of view of the verifier is that the right point to me3asure the heat for comparison with baseline situation. The monitoring calculation and report has to be adjusted accordingly.<br><br>**Clarification Request 3:**<br><br>As mentioned above the terminology was misunderstood from the operator from the beginning of reporting. That misunderstanding was not identified in the previous verifications, because the operator was asked if heat is measured, but it was not identified that the measuring point is at the wrong position.<br><br>The operator is asked to report how much heat had been delivered from the heat exchangers to the district heating system in the monitoring period of year 2004 and 2005; BTG Central Europe is asked to address the overestimation during those periods.<br><br>**Clarification Request 4:**<br><br>The project owner is asked to submit information about accuracy of the heat metering devices measuring the heat from the heat exchangers.<br><br>Beyond those aspects no need for further changes are identified. However, against the background the project shall be advanced to JI standard we would like to note a revision of the fixed biomass baseline and to introduce a monitoring procedure which reflects the ongoing changes in the demand and supply in the Czech biomass market. |
| ***3. Application of GHG determination methods*** | | |
| **3.1. Methods used** | Partial | The used method follows the validated method considering the real heat production or |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| | | heat demand except in the case of Zlate Hory as described above. At the sub-project of Iromez s.r.o., Pelhrimov the verification team confirms the use of the agreed method.<br><br>**Clarification Request 5:**<br><br>In the previous verification the verifier asked to submit a confirmation from project owner and from project participants. The original baseline and monitoring study have been adjusted several times due to inaccurate descriptions there and real situations. Hence, the verifier repeats his Request. All project participants (BTG, Czech Ministry of Environment and involved agency SenterNovem) should confirm that they are aware about that several assumptions from original studies had been adjusted, and to note in what manner those adjustments are accepted.<br><br>Annotation from the verifier: It is recommended by the verifier that in case of project status change to JI status, participants shall ad-dress clearly the baseline and monitor-ing plan. |
| **3.2. Information/process flow** | Full | An information flow diagram is not developed. However, the con-tract between BTG and the sub-project owner rules the duties and rights of each. |
| **3.3. Data transfer** | Full | On the tier of sub-project data has to be collected from computer assisted systems as well as from invoices or manual writings. That information is summarized in the given monitoring protocols. Those protocols are handled at BTG. A more standardized or automatic procedure will result in high costs and quality risks. |
| **3.4. Data trails** | Full | All documents are physical available. |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| ***4. Identification and maintenance of key process parameters*** | | |
| **4.1. Identification of key parameters** | Full | The determination of the GHG emissions is based on two aspects: First the fuels switches from fossil to biomass fuels and second the avoidance of rotting biomass. Rotting biomass emits methane.<br>Regarding fuel switch the key process parameters is the produced energy respectively consumption. That key parameters are verifiable.<br>Regarding avoiding methane one key parameter is the biomass utilization factor. Those values have not been determined on objective evidences but just on statements. As that approach was developed for the baseline study and was not rejected by validator or involved parties, the verification team assumes that this approach commonly accepted.<br>A similar approach has been used for estimating the distribution of substituting individual stoves. The households that are connected to the district heating system for the first time are estimated by the major regarding their previous used fuels. As that approach was developed for the baseline study and was not rejected by validator or involved parties, the verification team assumes that this approach commonly accepted. |
| **4.2. Calibration/maintenance** | Full | The electricity and heat meters are calibrated according to Czech law defined in Act no.458/2000 Coll, of 28 November 2000.<br>Calibration and maintenance are managed different by the operators. Some of them use specialized companies for maintenance and some do not.<br>The onsite audits confirm that operators take care seriously about regular calibrations and necessary utility maintenance. |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| ***5. GHG Calculations*** | | |
| **5.1. Use of estimates and default data** | Limited | As mentioned above the proportional distribution of individual stove types have been adjusted according to updated circumstances. Those proportions are based on the assumptions from the majors in the municipality. That is the same approach had been used for validation. As that approach was developed for the baseline study and was not rejected by validator or involved parties, the verification team assumes that this approach commonly accepted. Estimates and default values addressed in the baseline and monitoring study have been applied correctly.<br><br>**Corrective Action Request 1:**<br><br>During onsite audit Mr. Hoferek (Zlate Hory) indicated that heat which is delivered from the heat exchangers to the district heating system is measured. From the point of view of the verifier is that the right point to me3asure the heat for comparison with baseline situation. The monitoring calculation and report has to be adjusted accordingly.<br><br>**Corrective Action Request 2:**<br><br>The delivered heat calculation in the case of Iromez s.r.o is based on annual assumptions and parameters of operation. Those assumptions are met roughly as the stored data records show; however, the stored data allows a more precisely calculation of the point (1), (2), (3) and (4) of the given scheme (figure 1 of monitoring report).<br><br>**Corrective Action Request 3:**<br><br>The original reported amount of produced gross heat at Iromez s.r.o was not correct in September 2006. Has to be corrected. |

| Expectations for GHG data management system/controls | Score | Verifiers Comments (including Forward Action Requests) |
|---|---|---|
| **5.2. Guidance on checks and reviews** | Full | Guidance on checks and reviews are very important in this kind of project portfolio has been checked by interviews in the office of BTG s.r.o. It is also reflected by the monitoring and reporting procedures of BTG. |
| **5.3. Internal verification / validation** | Full | BTG makes a kind of internal validation and verification of submitted data from the sub-project. |
| **5.4. Data protection measures** | Partial | Special data protection systems seem not be necessary.<br>**Forward Action Request 2:**<br>The project management at BTG Central Europe has to implement a system that ensures that sub-project owners store and archive all relevant original data that has been considered so far. |
| **5.5. IT systems** | Full | The central IT system for reporting is MS-Excel at BTG. On the tier of sub-projects the IT systems of energy monitoring is the most relevant, those systems are usually reliable, and however its functionality shall be tested regularly and documented. |

## Table 2: GHG calculation procedures and management control testing

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks |
|---|---|---|
| As mentioned above one potential reporting risk is that monitoring protocols can be misunderstood by the operators. | The internal review of BTG Central Europe s.r.o identified that issue already. | This specific issue has been identified in time. However, it can not be excluded that there might be further mistakable parts. |
| At the level of sub-project there re often third parties involved. Those hired companies are contracted for calibration issues as well as for invoicing or maintenance issues. | Depending on their contracted task they are partly responsible for reported key parameters. Onsite it has been checked individual which company is hired for which task. | In this verification no doubtful observations could be identified. However, it can not be excluded that the involvement of a new contracted company will cause data trouble that affects the reliability of reported ERUs. |
| The original baseline and monitoring study was less concrete about possible project scenarios as well as which project will be concrete included in that portfolio. Already in the 1st verification the verifier identified that elaborated baseline and monitoring does not cover the real project situation. During the 1st verification the project developer as well as the Dutch party agreed on necessary changes as they are mentioned in the monitoring report. One of the changes is to distinguish | The sub-projects are asked in the monitoring protocols to report produced and sold heat in order to distinguish those. Sub-projects that produce only heat measure always produced / delivered net heat. Only Driten calculates the produced heat because of missing heat meters, but that calculation is plausible and reliable.<br>In Zlate Hory the project case is different from the baseline case, because of power generation | The way of reporting overestimate the amount of ERUs, because produced energy is overestimated in the context gross – net heat and because produced heat is counted double once in the turbine partly and once substituting the baseline boilers heat supply. |

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks |
|---|---|---|
| between produced heat and heat supply; heat supply shall be considered in cases where no central boiler is the baseline and produced heat shall be considered if a central boiler has been substituted. Produced heat is obviously the net heat that is produced and delivered from the project boiler in they same manner as the baseline boiler would do. | that had not been produced before. The steam produced is measured after the boiler, but before entering the turbine. In addition the amount of produced stem reflects a cross heat production and not net. However, due to missing awareness that cross heat has been reported so far. The management of BTG Central Europe has also not identified that confused reporting. | |
| As mentioned above baseline assumptions and project implementation had been changed and the monitoring had been adjusted accordingly. It is rather and acceptance issue than a real reporting risk, but the management of the project developer shall make sure that those changes are aware at all project parties and if they agree on. | | The acceptance of changes is considered as a residual risk; especially if the project shall be continued under JI scheme. |
| Human errors of transferring data from one source to the next are typical potential reporting risks.<br><br>In general the reported data are often relevant for fiscal statements as well as for invoicing. In that manner the original data are checked several times by the sub-project staffs. Risk occurs in those cases where those data are copied in the monitoring protocols. | During verification it has been checked if reported values have been transferred correctly in the ERU calculation tool. No observations could be identified.<br><br>In a second step the monitoring protocols had been checked at visited sites, if the original data match the reported ones. That checks as been performed on a systematic and random base. Systematic means that the operators' data management and data process system has been | That deviation of produced gross heat is relevant in order to calculate the delivered heat as it is mentioned in the monitoring report.<br><br>This special method to estimate the delivered heat in the case of Iromez s.r.o is based on a thermodynamic model assuming different steam conditions and enthalpies. Although the general assumptions match fairly the recorded |

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks |
|---|---|---|
| | checked. Random means that concrete data are checked from the origin, potential aggregation to the final reported figures.<br><br>Only at the site of Iromez s.r.o a deviation of produced gross heat has been identified. That has to be changed see CAR 3. | conditions the calculation could be performed with a more precise result in order to avoid any overestimation. |

## Table 3: Detailed audit testing of residual risk areas and random testing

| Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including Forward Action Requests) |
|---|---|---|
| This specific issue has been identified in time. However, it can not be excluded that there might be further mistakable parts. | All reported and for the ERU calculation relevant information reported by the sub-projects had been asked regarding correctness. Further misunderstood issues where not identified during onsite visits and interviews. | **Forward Action Request 1:**<br>The overall management of BTG Central Europe is asked to develop and to implement procedures how existing procedures can be improved. That includes asking the local municipalities as well as owning staff experiences for improvements regarding reporting procedures.<br>**Clarification Request 2:**<br>The overall management of BTG Central Europe is asked to clarify if other participants have also different interpretations about asked information. The result of the survey should be submitted. |
| In this verification no doubtful observations could be identified. | However, it can not be excluded that the involvement of a new contracted company will cause data trouble that affects the reliability of reported ERUs. | **Clarification Request 1:**<br>The previous verification addresses FAR 1 in the context of monitoring the responsibility. The project management of BTG Central Europe s.r.o is asked to provide information / documented procedures how involved third parties are monitored. |

| Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including Forward Action Requests) |
|---|---|---|
| The way of reporting overestimate the amount of ERUs, because produced energy is overestimated in the context gross – net heat and because produced heat is counted double once in the turbine partly and once substituting the baseline boilers heat supply. | That misunderstanding was not identified in the previous verifications, because the operator was asked if heat is measured, but it was not identified that the measuring point is at the wrong position.<br><br>However, the operator measures the net heat that is delivered into the district heating system. This is the heat which is produced in the two biomass boilers, used in the turbine for electricity production and which is transferred via heat exchanger to the system. Before and after the heat exchanger it is measured at the side of the system, so it could be considered as a utility boundary. | **Clarification Request 3:**<br><br>As mentioned the terminology was misunderstood from the operator from the beginning of reporting.<br><br>The operator is asked to report how much heat had been delivered from the heat exchangers to the district heating system in the monitoring period of year 2004 and 2005; BTG Central Europe is asked to address the overestimation during those periods.<br><br>**Clarification Request 4:**<br><br>The project owner is asked to submit information about accuracy of the heat metering devices measuring the heat from the heat exchangers.<br><br>**Corrective Action Request 1:**<br><br>During onsite audit Mr. Hoferek (Zlate Hory) indicated that heat which is delivered from the heat exchangers to the district heating system is measured. From the point of view of the verifier is that the right point to measure the heat for comparison with baseline situation. The monitoring calculation and report has to be adjusted accordingly. |

| Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including Forward Action Requests) |
|---|---|---|
| The acceptance of changes is considered as a residual risk; especially if the project shall be continued under JI scheme. | In the previous verification the verifier asked to submit a confirmation from project owner and from project participants. The original baseline and monitoring study have been adjusted several times due to inaccurate descriptions there and real situations. | **Clarification Request 5:**<br>Hence, the verifier repeats his Request. All project participants (BTG, Czech Ministry of Environment and involved agency SenterNovem) should confirm that they are aware about that several assumptions from original studies had been adjusted, and to note in what manner those adjustments are accepted. |
| That deviation of produced gross heat is relevant in order to calculate the delivered heat as it is mentioned in the monitoring report.<br>This special method to estimate the delivered heat in the case of Iromez s.r.o is based on a thermodynamic model assuming different steam conditions and enthalpies.<br>The operator of Iromez s.r.o mentioned in the interview that there is no guideline regarding for such operating records. A risk of retracing old data can be identified, | The operating system of Iromez s.r.o recorded the different steam, heat conditions and electricity production although the general assumptions match fairly the recorded conditions the calculation could be performed with a more precise result in order to avoid any overestimation. | **Corrective Action Request 2:**<br>The delivered heat calculation in the case of Iromez s.r.o is based on annual assumptions and parameters of operation. Those assumptions are met roughly as the stored data records show; however, the stored data allows a more precisely calculation of the point (1), (2), (3) and (4) of the given scheme (figure 1 of monitoring report).<br>**Corrective Action Request 3:**<br>The original reported amount of produced gross heat at Iromez s.r.o was not correct in September 2006. Has to be corrected.<br>**Forward Action Request 2:**<br>The project management at BTG Central Europe has to implement a system that ensures that sub-project owners store and archive all relevant original data that has been considered so far of at least two years after end of project crediting period. |

| Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including Forward Action Requests) |
|---|---|---|
| the project management should start appropriate actions immediately to ensure that all project and ERU related information are stored – either in their responsibility or on the level of the sub-projects. | | |

## Table 4: Compilation of open issues

| Corrective and Forward Action Requests by audit team | Summary of project owner response | Audit team conclusion |
|---|---|---|
| **Clarification Request 1:**<br>The previous verification addresses FAR 1 in the context of monitoring the responsibility. The project management of BTG Central Europe s.r.o is asked to provide information / documented procedures how involved third parties are monitored. | Manual for BTG staff rules responsibility. It has been submitted. | The manual is appropriate to manage the tasks of involved staff. Issue is considered as resolved.<br>☑ |
| **Clarification Request 2:**<br>The overall management of BTG Central Europe is asked to clarify if other participants have also different interpretations about asked information. The result of the survey should be submitted. | Statement has been submitted "Clarification Request 2.pdf" | The misinterpretation of baseline led in the past to no overestimation of emission reduction. Issue is considered as resolved.<br>☑ |
| **Clarification Request 3:**<br>As mentioned above the terminology was misunderstood from the operator from the beginning of reporting. That misunderstanding was not identified in the previous verifications, because the operator was asked if heat is measured, but it was not identified that the measuring point is at the wrong position.<br>The operator is asked to report how much heat had been delivered from the heat exchangers to the district heating system in the monitoring period of year 2004 and 2005; BTG Central Europe is asked to address the overestimation during those peri- | See attached answer provided in "Clarification Request 3_Zlate Hory.pdf" | The misunderstanding has been clarified at the operator side and considered correctly in the 2006 data.<br>The analysis shows that the overestimation in 2004 and 2005 was |

| Corrective and Forward Action Requests by audit team | Summary of project owner response | Audit team conclusion |
|---|---|---|
| ods. | | about 1% which is not considered as material. Since the calculation method includes several safety deductions of about 5% at a minimum the verification team does not identify a real overestimation of emission reduction. Issue is considered as resolved. ☑ |
| **Clarification Request 4:** The project owner is asked to submit information about accuracy of the heat metering devices measuring the heat from the heat exchangers. | The information is not available. However, since the heat meter measures heat delivered to the district heating system the net heat is measured. | Issue is considered as resolved. ☑ |
| **Clarification Request 5:** In the previous verification the verifier asked to submit a confirmation from project owner and from project participants. The original baseline and monitoring study have been adjusted several times due to inaccurate descriptions there and real situations. Hence, the verifier repeats his Request. All project participants (BTG, Czech Ministry of Environment and involved agency SenterNovem) should confirm that they are aware about that several assumptions from original studies had been adjusted, and | All changes are commented and documented in the Monitoring Report transparently. Since no party has complained so far, the third party considers that behavior as an agreement on the changes. | The technical reasonability has been confirmed by the third entity in the appropriate verification reports. Issue is considered as Solved |

| Corrective and Forward Action Requests by audit team | Summary of project owner response | Audit team conclusion |
|---|---|---|
| to note in what manner those adjustments are accepted. | | ☑ |
| **Corrective Action Request 1:**<br>During onsite audit Mr. Hoferek (Zlate Hory) indicated that heat which is delivered from the heat exchangers to the district heating system is measured. From the point of view of the verifier is that the right point to measure the heat for comparison with baseline situation. The monitoring calculation and report has to be adjusted accordingly. | See attached answer provided in "Clarification Request 3_Zlate Hory.pdf" | The misunderstanding has been clarified at the operator side and considered correctly in the 2006 data.<br>The analysis shows that the overestimation in 2004 and 2005 was about 1% which is not considered as material. Since the calculation method includes several safety deductions of about 5% at a minimum the verification team does not identify a real overestimation of emission reduction. Issue is considered as resolved.<br>☑ |
| **Corrective Action Request 2:**<br>The delivered heat calculation in the case of Iromez s.r.o is based on annual as- | The updated Monitoring Report considers quarterly aver- | The applied data can be confirmed by the auditor. |

| **Corrective and Forward Action Requests by audit team** | **Summary of project owner response** | **Audit team conclusion** |
|---|---|---|
| sumptions and parameters of operation. Those assumptions are met roughly as the stored data records show; however, the stored data allows a more precisely calculation of the point (1), (2), (3) and (4) of the given scheme (figure 1 of monitoring report). | age data, available from the recording system. | Calculation has been performed correctly.<br>Issue is considered as solved.<br>☑ |
| **Corrective Action Request 3:**<br>The original reported amount of produced gross heat at Iromez s.r.o was not correct in September 2006. Has to be corrected. | Data has been corrected. | Issue is considered as solved.<br>☑ |
| **Forward Action Request 1:**<br>The overall management of BTG Central Europe is asked to develop and to implement procedures how existing procedures can be improved. That includes asking the local municipalities as well as owning staff experiences for improvements regarding reporting procedures. | | |
| **Forward Action Request 2:**<br>The project management at BTG Central Europe has to implement a system that ensures that sub-project owners store and archive all relevant original data that has been considered so far. | | |

Industrie Service

# Annex 2: Information Reference List

| Reference No. | Document or Type of Information |
|---|---|
| 1. | The audits were conducted in the office of BTG in Prague on April 10 to 19, 2007 the onsite visits covered following locations additional:<br>Iromez s.r.o., Pelhrimov — Mr. Dub (director of IROMEZ s.r.o in Pelhrimov),<br>TTS CZ s.r.o., Trebic — Mr. Radek Placek TTS Energo s.r.o. and Mr. Radek (deputy director of operations) TTS Energo s.r.o. Ms. Šoukal Tomáš (technician)<br>Žlutice. — Ms. Voláková (project responsible)<br>Zlaté Hory — Mr. Hoferek (project responsible)<br>Bystrice nad Pernstejnem — Mr. Stanislav (staff) Mr. Josef Novotný (major)<br>Nova Cerekev — Ms. Adriana Kottová (project responsible)<br>Dříteň — Mr. Karel Lukaš (project responsible)<br>Horní Planá — Mgr. Jaroslav Šima (project responsible)<br>**Validation auditor on-site:**<br>Markus Knödlseder TÜV SÜD Industrie Service GmbH<br>**Interviewed persons:**<br>Michaela Remrova BTG Central Europe s.r.o |
| 2. | Biomass Energy Portfolio for Czech Republic Final Monitoring Report 2006, BTG Central Europe s.r.o., June 2007, finally submitted on June 19. 2007 |
| 3. | Project Design Document: Biomass Energy Portfolio for Czech Republic PROJECT DESCRIPTION, Feb. 2001, BTG Biomass Technology Group B.V. |
| 4. | Validation Report: Biomass Energy Portfolio for Czech Republic, 2001, SGS Agrocontrol |
| 5. | Validation Report: Validation of 'Biomass Energy Portfolio for Czech Republic Extension #1' , 2004, SGS Agrocontrol |

| Reference No. | Document or Type of Information |
|---|---|
| 6. | Verification Report: First Verification of “Biomass Energy Portfolio for Czech Republic”, Report No. 306533 2004, August 31st, TÜV SÜD |
| 7. | Verification Report: First Verification of “Biomass Energy Portfolio for Czech Republic”, Period 01/01/2005 – 31/12/2005, Report No. 812870, Version 02; 07 February 2007, TÜV SÜD |
| 8. | Validation and Verification Manual, IETA/PCF http://www.vvmanual.info |
| 9. | UNFCCC homepage http://www.unfccc.int |
| 10. | European Standard; EN 1434-1 and EN 1434-6, reviewed 2005 |
| 11. | Czech law: Act no.458/2000 Coll, of 28 November 2000 |
| 12. | Onsite records about produced heat and electricity,<br>Onsite records abut sold heat,<br>Completed and reported monitoring protocols from sub-projects to BTG Central Europe s.r.o<br>Verification of existing and valid seals from calibrations of measruring equipments |
| 13. | International Association for the Properties of Water and Steam, "Steam Tables" books based on the IAPWS-IF97, http://www.iapws.org/ |