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# VERIFICATION AND CERTIFICATION REPORT

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**Ecosecurities Group PLC**

**NOBRECCEL Biomass energy project**

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**SGS Climate Change Programme**

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| <b>Date of Issue:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | <b>Project Number:</b>                                                                                                      |  |
| 12.03.2009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                    | CCP.VOL0155 BR01 MP2                                                                                                        |  |
| <b>Project Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                                                                                                                             |  |
| NOBRECEL Biomass energy project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                                                             |  |
| <b>Organisation:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                    | <b>Client:</b>                                                                                                              |  |
| SGS United Kingdom Limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                    | Ecosecurities Group PLC                                                                                                     |  |
| <b>Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                                                             |  |
| <p>SGS United Kingdom Limited has performed the Voluntary Emission Reduction verification of the NOBRECEL Biomass energy project. A site visit was conducted to verify the data submitted in the monitoring report.</p> <p>NOBRECEL Biomass energy project is located at the Brazilian cellulose and paper company NOBRECEL, in Pindamonhangaba city, São Paulo state. The project activity consists of renewable energy generation by installing a new biomass boiler and a new turbine. This new cogeneration plant replaces fuel-oil-fired boilers and reduces the electricity consumption from the grid. In the baseline scenario, NOBRECEL would continue using electricity generated from the grid, burning fossil fuel oil to produce steam and dumping or leaving to decay the biomass residues.</p> <p>SGS confirms that the project is implemented in accordance with the Project Description. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 85,057 tCO<sub>2</sub>e during period 01/01/2008 to 31/10/2008.</p> |                                    |                                                                                                                             |  |
| <b>Subject:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    | <b>Indexing Terms</b>                                                                                                       |  |
| VCS 2007 Verification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                                                                                                                             |  |
| <b>Voluntary Team:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    | <input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational unit) |  |
| Fabian Goncalves – Lead Assessor<br>Leandro Silva – Local Assessor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                    |                                                                                                                             |  |
| <b>Technical Review:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Trainee Technical Reviewer:</b> | <input type="checkbox"/> Limited Distribution                                                                               |  |
| Name: Irma Lubrecht<br>Date: 17.02.2009, 24.03.2009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Name: N/A                          |                                                                                                                             |  |
| <b>Authorised Signatory:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    | <input type="checkbox"/> Unrestricted Distribution                                                                          |  |
| Name: Siddharth Yadav<br>Date: 27.03.2009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                    |                                                                                                                             |  |
| <b>Revision Number:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Date:</b>                       | <b>Number of Pages:</b>                                                                                                     |  |
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| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12.03.2009                         | 16                                                                                                                          |  |
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## Abbreviations

|                    |                                           |
|--------------------|-------------------------------------------|
| ANEEL              | Electrical Energy National Agency         |
| CAR                | Corrective Action Request                 |
| CO <sub>2</sub>    | Carbon Dioxide                            |
| CO <sub>2</sub> eq | Carbon Dioxide Equivalent                 |
| CRQ                | Chemical Recovery Boiler                  |
| DNA                | Designated National Authority             |
| DOE                | Designated Operational Entity             |
| EF                 | Emission Factor                           |
| FAR                | Forward Action Request                    |
| GHG                | Green House Gas(es)                       |
| IPCC               | Intergovernmental Panel on Climate Change |
| MP                 | Monitoring Plan                           |
| MR                 | Monitoring Report                         |
| NCV                | Net Calorific Value                       |
| NIR                | New Information Request                   |
| NPV                | Net Present Value                         |
| ONS                | System National Operator                  |
| PD                 | Project Description                       |
| SELIC              | Special System of Liquidation and Custody |
| VCS                | Voluntary Carbon Standard                 |
| VER                | Voluntary Emission Reduction              |

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## 1. Introduction

### 1.1 Objective

EcoSecurities Group PLC has commissioned an independent verification by SGS United Kingdom Ltd. of its reported greenhouse gas emission reductions from the NOBRECCEL Biomass energy project. The verifiers have reviewed the GHG data collected to date for the period between 01/01/2008 and 31/10/2008.

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the project has resulted in emission reductions as declared by the organisation or GHG project's GHG assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

### 1.2 Scope and Criteria

This engagement covers verification of emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the NOBRECCEL Biomass energy project.

Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for the defined reporting period.

### 1.3 VCS Project Description

The project activity is constituted by the replacement of four small boilers (two oil boilers and two biomass boilers) for a new biomass boiler and a new turbine. The new cogeneration plant reduces the electricity consumption from the grid, avoids the firing of fossil fuel (7A oil) and avoids methane emissions from dumping or leaving to decay the biomass residues.

The biomass residues used to produce high-pressure steam will be both by-products from NOBRECCEL core business (cellulose and paper production) and biomass purchased from third parties (located near the project developer). Also, a turbine and a generator were installed to produce electricity (reducing the consumption from the grid).

Technical specifications of the new equipments:

- Biomass boiler with capacity of 60 tonnes of steam/hour at 450°C and 45bar; manufactured by Equipalcool, model 60-v-2-s;
- Turbine manufactured by TGM;
- Generator WEG with an installed capacity of 8 MW;
- Meters: a MFR-3 Woodward Multifunction Relay (electricity meter), a YOKOGAWA steam flow meter controlled by a supervisory system and a Toledo weight bridge.

The project was validated and verified (first verification) in February 2008 with Verification Opinion Number 105701/Vol155BR01/03/08. This is the second periodic verification.

### 1.4 Level of Assurance

The parameters and values presented in the monitoring report were assessed through review of detailed project documentation and production records, interviews with personnel at NOBRECCEL and EcoSecurities, observation of established monitoring and reporting practices and assessment of the reliability of measuring equipment.

Information which was not available during site visit was reported as New Information Request (NIR), following submission of additional information, monitoring and operational records, and the reconsolidation of all reported data was assessed again.

### **1.5 Project Activity and Period Covered**

This engagement covers emissions and emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the following project and period.

|                                          |                                                                                                                                                                                                                           |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title of Project Activity:               | NOBRECEL Biomass energy project                                                                                                                                                                                           |
| UNFCCC Registration Number:              | NA                                                                                                                                                                                                                        |
| Monitoring Period Covered in this Report | 01/01/2008 and 31/10/2008                                                                                                                                                                                                 |
| Project Participants                     | NOBRECEL S/A Celulose e Papel (Private Entity – Project Developer)<br>EcoSecurities Group PLC (Private Entity – Carbon Advisor)                                                                                           |
| Location of the Project Activity:        | Rodovia Vereador Abel Fabrício Dias, s/nº, Km 155, Distrito de Moreira César, Caixa Postal 1, Zipcode 2400-970, in the municipality of Pindamonhangaba, São Paulo State.<br>GPS location: 22° 54' 07.7" S, 45° 23'35.3" W |

## 2. Methodology

### 2.1 General Approach

SGS' approach to the verification is a two-stage process.

In the first stage, SGS completed a strategic review and risk assessment of the projects activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

At the end of this stage, SGS produced a periodic verification checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

Using the periodic verification checklist, SGS verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a site visit and a desk review of the monitoring report. This verification report describes the findings of this assessment.

### 2.2 Verification Team for this Assessment

| <b>Name</b>      | <b>Role</b>    | <b>SGS Office</b> |
|------------------|----------------|-------------------|
| Fabian Gonçalves | Lead Assessor  | SGS Brazil        |
| Leandro Silva    | Local Assessor | SGS Brazil        |

### 2.3 Means of Verification

#### 2.3.1 Review of Project Documentation

The Project Description, the monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in section 5 of this report.

#### 2.3.2 Onsite Inspections

As part of the verification, the following on-site inspections have been performed

|                                                                                                         |                                                    |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Location:</b> Pindamonhangaba/SP                                                                     | <b>Date:</b> 06/11/2008 and 07/11/2008             |
| <b>Coverage</b>                                                                                         | <b>Source of information / Persons interviewed</b> |
| Management Approach to GHG commitment                                                                   | Bruna da Silva Rossi – Ecoefficiency analyst       |
| Assessment of Project Boundary Quality Assurance – Management and operating system Emergency procedures | Francisco Paulo dos Santos – Coordinator           |
| CDM monitoring & reporting documentation                                                                | João Plicas – Monitoring Manager                   |
| Monitoring Plan and QA/QC Procedures                                                                    | Helio Heimer – Consultant                          |

### 2.3.3 Review of Monitoring Results and Verification of the Correct Application of Monitoring Methodology

| Parameter                                                                                                                                                                                                            | Monitoring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BF<sub>k</sub></b> - Quantity of biomass residue combusted in the project plant, on a wet basis                                                                                                                   | The data is collected and recorded by a computer system based on a study that determined the average weight of biomass per truck, as stated in Reference 5. According to the method of controlling the biomass used in the process, each truck from each biomass supplier had its capacity established and the operator of the weigh bridge just registers which truck is doing the delivery. Weight Calibration Report number 195659, 05/11/2007                                                                                                                                                                                                                                                                                                                                |
| <b>EG<sub>project plant</sub></b> - Net quantity of electricity generated in the project power plant                                                                                                                 | The net quantity of electricity measured by the meter is automatically transferred to a supervisory system, which controls all data. The supervisory system can automatically issue daily and monthly reports regarding the electricity generation. Technical report of maintenance services: N°742/1069 issued by Actual on 29/06/2007 and N°862/1257 issued by Catena on 10/09/2008.                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>EG<sub>total</sub></b> - Net quantity of electricity generated in all power units at the project site, including the new power unit installed as part of the project activity and any previously existing units.  | Data are obtained automatically using only one calibrated meter. The net quantity of electricity generated in all power units at the project site measured by the meter is automatically transferred to a supervisory system, which controls all data. Technical report of maintenance services: N°742/1069 issued by Actual on 29/06/2007 and N°862/1257 issued by Catena on 10/09/2008.                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Q<sub>project plant</sub></b> - Net quantity of heat generated from firing biomass in the project plant                                                                                                           | Data are obtained automatically using calibrated meter. Unit conversion is required (from tons to MWh).<br><br>The net quantity of heat generated from firing biomass in the project plant measured by the steam flow meter is automatically transferred to a supervisory system, which controls all data.<br><br>The supervisory system automatically issues daily and monthly reports regarding the electricity generation and the quantity of heat is transferred to a spreadsheet automatically. In cases of system's failing, the data is collected manually. Any failure in the system is immediately detected in the supervisory system.<br><br>Steam Flow Meter Calibration Report: equipment BIOF-0002 serial number 12B414992, calibrated on 28/05/2007 and 30/05/2008 |
| <b>Q<sub>total</sub></b> - Net quantity of heat generated in all cogeneration units at the project site, including the cogeneration unit installed as part of the project activity and any previously existing units | Data are obtained automatically using calibrated meter. Unit conversion is required (from tons to MWh).<br><br>The net quantity of heat generated in all cogeneration units at the project site, including the cogeneration unit installed as part of the project activity and any previously existing units measured by the steam flow meter is automatically transferred to a supervisory system, which controls all data. Although the supervisory system automatically issues daily and monthly reports regarding the electricity generation, the quantity of heat must be manually transferred to a spreadsheet. Data isn't                                                                                                                                                 |

| Parameter                                                                                                                                                            | Monitoring                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                      | rounded.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>W</b> - Total amount of organic waste prevented from disposal (tonnes)                                                                                            | The data is collected and recorded by a computer system based on a study that determined the average weight of biomass per truck, as stated in Reference 5. According to the new method of controlling the biomass used in the process, each truck from each biomass supplier had its capacity established and the operator just registers which truck is doing the delivery.                                                               |
| <b>AVD</b> - Average round trip distance (from and to) between biomass fuel supply sites and the project site                                                        | It was verified that the standard value used (150km) is conservative. As the biomass is supplied from different sites, this parameter corresponds to the mean value of km travelled by trucks (there and back) supplying the biomass plant. The amount of biomass per supplier was monitored and the distance was assessed individually. These data were recorded monthly and were stored electronically.                                   |
| <b>TL</b> - Average truck load of the trucks used for transportation of biomass                                                                                      | It was verified that the standard value used is conservative. The data is collected and recorded by a computer system based on a study that determined the average weight of biomass per truck, as stated in Reference 5. According to the new method of controlling the biomass used in the process, each truck from each biomass supplier had its capacity established and the operator just registers which truck is doing the delivery. |
| <b>F</b> - Fraction of methane captured at the SWDS and flared, combusted or used in another manner                                                                  | The project developer has researched all local landfills and the landfills operators have confirmed that they didn't capture or flare any methane during the monitoring period.                                                                                                                                                                                                                                                             |
| <b>EC<sub>shredder/chopper</sub></b> - Electricity consumed by shredder/chopper of the project activity                                                              | From January 2008 to March 2008, to calculate the shredder operational hours, Nobrecel monitors the non-working hours of the shredder (manually written down by the shredder operator) and subtracts these from 24 hours. Afterwards, Nobrecel multiplies the shredder operational hours by the installed capacity of the shredder.<br><br>In April 2008 the shredder work was subcontracted and records were made by an hour meter.        |
| <b>FF<sub>project plant,i</sub></b> - Quantity of fuel oil combusted in the biomass residue fired power plant                                                        | There is no entrance for fossil fuel in the project boiler, thus it is not consumed. The absence of this structure is measured monthly by interviews with the project boiler engineers.                                                                                                                                                                                                                                                     |
| <b>FF<sub>project site,i</sub></b> - Quantity of diesel oil combusted at the project site for other purposes that are attributable to the project activity           | The only one equipment that consumes diesel oil at the project site for other purposes that are attributable to the project activity is a tractor (to pull biomass to the boiler).<br><br>As the amount of diesel consumed by the tractor is approximately 180 litres/day (or 166.66 kg/day), the project developer decides to use a default value (60 ton/year).                                                                           |
| <b>GWP<sub>CH4</sub></b> - Global warming potential for CH <sub>4</sub>                                                                                              | The global warming potential for methane is defined ex-ante and will be annually checked.                                                                                                                                                                                                                                                                                                                                                   |
| <b>EF<sub>CO2,BL,heat,i</sub></b> - CO <sub>2</sub> emission factor of the fossil fuel type <i>i</i> used for heat generation in the absence of the project activity | The emission factor is defined ex-ante and should be re-calculated in the next crediting period.                                                                                                                                                                                                                                                                                                                                            |

| Parameter                                                                                    | Monitoring                                                                                       |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>EF<sub>CO2,FF,j</sub></b> - CO <sub>2</sub> emission factor for fossil fuel type <i>i</i> | The emission factor is defined ex-ante and should be re-calculated in the next crediting period. |

#### 2.3.4 Determinations of the Reductions in GHG Emissions

| Parameter                                                                                                                                                                                          | Reported Value                                                               | Verified Value                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| BFk - Quantity of biomass residue combusted in the project plant, on a wet basis                                                                                                                   | 114,940 t                                                                    | 123,276 t (see CAR 1)                                                        |
| EGproject plant - Net quantity of electricity generated in the project power plant                                                                                                                 | 31,509 MWh                                                                   | 19,772 MWh (see CAR 2)                                                       |
| EGtotal - Net quantity of electricity generated in all power units at the project site, including the new power unit installed as part of the project activity and any previously existing units.  | 19,995 MWh                                                                   | 19,995 MWh                                                                   |
| Qproject plant - Net quantity of heat generated from firing biomass in the project plant                                                                                                           | 346,288 MWh                                                                  | 346,288 MWh                                                                  |
| Qtotal - Net quantity of heat generated in all cogeneration units at the project site, including the cogeneration unit installed as part of the project activity and any previously existing units | 552,241MWh                                                                   | 552,241MWh                                                                   |
| W - Total amount of organic waste prevented from disposal (tonnes)                                                                                                                                 | 103,428 t                                                                    | 110,948 t (see CAR 3)                                                        |
| AVD - Average round trip distance (from and to) between biomass fuel supply sites and the project site                                                                                             | 150 Km                                                                       | 150 Km                                                                       |
| TL - Average truck load of the trucks used for transportation of biomass                                                                                                                           | Jan – Jun 2008 = 10 tonnes per truck<br>Jul – Oct 2008 = 20 tonnes per truck | Jan – Jun 2008 = 10 tonnes per truck<br>Jul – Oct 2008 = 20 tonnes per truck |
| F - Fraction of methane captured at the SWDS and flared, combusted or used in another manner                                                                                                       | 0                                                                            | 0                                                                            |
| ECshredder/chopper - Electricity consumed by shredder/chopper of the project activity                                                                                                              | 669 MWh                                                                      | 669 MWh                                                                      |
| FFproject plant,i - Quantity of fuel oil combusted in the biomass residue fired power plant                                                                                                        | 0                                                                            | 0                                                                            |
| FFproject site,i - Quantity of diesel oil combusted at the project site for other purposes that are attributable to the project activity                                                           | 49 ton                                                                       | 49 ton                                                                       |
| GWpch4 - Global warming potential for CH <sub>4</sub>                                                                                                                                              | 21                                                                           | 21                                                                           |
| EFCO2,BL,heat,i - CO <sub>2</sub> emission factor of the fossil fuel type <i>i</i> used for heat generation in the absence of the project activity                                                 | 3.1064 tCO <sub>2</sub> /ton fuel                                            | 3.1064 tCO <sub>2</sub> /ton fuel                                            |
| EFCO2,FF,j - CO <sub>2</sub> emission factor for                                                                                                                                                   | 0,13tCO <sub>2</sub> /GJ                                                     | 0,13tCO <sub>2</sub> /GJ                                                     |

| Parameter          | Reported Value | Verified Value |
|--------------------|----------------|----------------|
| fossil fuel type i |                |                |

### 2.3.5 Review of Additional Data from other Sources if appropriate

Additional data used:

- Emission factor 0.2823 tCO<sub>2</sub>/MWh calculated using data information from ONS, the Brazilian electricity system manager, and was provided in the “NOBRECCEL biomass workbook”.
- CO<sub>2</sub> emission factor for the trucks 0.00077 tCO<sub>2</sub>/Km.
- Average calorific value of the fuel oil co-fired 40.1514 GJ/ton applied.

## 2.4 Reporting of Findings

As an outcome of the verification process, the team can raise different types of findings.

In general, where insufficient or inaccurate information is available and clarification or new information is required the team shall raise a New Information Request (NIR) specifying what additional information is required.

Where a non-conformance arises the team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- I. the verification is not able to obtain sufficient evidence for the reported emission reductions or part of the reported emission reductions. In this case these emission reductions shall not be verified and certified;
- II. the verification has identified misstatements in the reported emission reductions. Emission reductions with misstatements shall be discounted based on the verifiers ex-post determination of the achieved emission reductions

The verification process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification actors. These have no impact upon the completion of the verification activity.

Corrective Action Requests and New Information Requests are detailed in Periodic Verification Checklist. The Project Developer is given the opportunity to “close” outstanding CARs and respond to NIRs and Observations.

## 2.5 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment Team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

### 3. Verification Findings

#### 3.1 *Remaining Issues, including any material discrepancy, FAR's from Previous Validation*

There are no issues pending.

#### 3.2 *Project Implementation*

The physical components, project boundaries are in conformity with description in the PD and monitoring report. No additional emission sources used for project activity.

#### 3.3 *Completeness of Monitoring*

FAR #1 raised in the first periodic verification: QA/QC procedures implemented are not consistent with the QA/QC described in the PD. In the PD, EcoSecurities has described that the Monitoring Manual has all information updated about maintenance and calibration schedules and monitoring responsible for each step in data flow, but this Manual has not been issued yet. The only issued procedure related to the project activity is:

- **Procedure for fulfilling the monitoring spreadsheet:** provides instructions about how to get and how to fulfil the data required by the monitoring spreadsheet.

The project developer needs to improve the documented procedure for the archiving and control of all data required for verifying the project's performance in the next monitoring period. Thus, FAR #1 was raised.

The FAR #1 opened in the last verification was closed because the Procedure for monitoring of the CDM projects was done, according to Reference 14.

FAR #1 was closed.

Regarding the quantity of biomass residue combusted in the project plant, on a wet basis CAR #1 was raised because monitoring report version 1 presents different values. Data verified during the site visit were correct and monitoring report was revised to reflect the correct values. CAR #1 was closed out.

Regarding the net quantity of electricity generated in the project power plant SGS verified errors regarding data input and records when crosschecking data collected locally and the information provided in the Monitoring Report. The total electricity generation of the plant was wrongly used in the report. CAR #2 was raised.

After the issuance of the CAR, the project developer revised the net quantity of electricity in the Nobrecel biomass workbook and in the CER calculation spreadsheet accordingly. CAR #2 was closed out.

Regarding the total amount of organic waste prevented from disposal CAR #3 was raised because the data verified during site visit did not correspond with data presented in monitoring report version 1. The monitoring report was revised to present the correct data as verified during the site visit. CAR #3 was closed out.

#### 3.4 *Accuracy of Emission Reduction Calculations*

Calculation is done by Nobrecel's adviser (EcoSecurities) using an excel program, as verified through the CER calculations spreadsheet (in the Nobrecel Biomass workbook) provided to SGS. The difference in the reported value and verified value are related to the CARs raised. See CARs for more detail.

#### 3.5 *Quality of Evidence to Determine Emission Reductions*

Critical parameters used for the determination of the Emission Reductions are discussed in section 2.3.3 above.

#### 3.6 *Management and Operational System*

The company has made a Greenhouse Gas Emission Manual which states management system and monitoring and reporting procedures. The monitoring team at the shop floor level (comprising of Boiler

Operator, Instrumentation Supervisor, Turbine Operator, and Electrician) records the daily observations and report the same in the plant log books. The competency of the operators was checked by interviewing them about their tasks and understanding of greenhouse gases and found satisfactory. The daily report generated by the floor level team is then sent to the shift In charge. The shift in charge reviews the daily report, transforms it into the soft format and forwards the same to the general manager (cogeneration plant). The reports were checked for the signatures of the general manager and precision in the values and all was found in compliance.

In order to avoid any kind of discrepancy in the monitoring process, regular internal audits are planned. The audit team comprise of the in house technical experts and the senior officials from the corporate office.

#### 4. Verification Conclusion

SGS United Kingdom Ltd. has been engaged by EcoSecurities Group Plc to examine the greenhouse gas (GHG) emission reductions reported from the NOBRECCEL Biomass energy project, resulting to 85,057tonnes of CO2 equivalents. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported for the period 01/01/2008 to 31/10/2008 and the PD of NOBRECCEL Biomass energy project.

The management of NOBRECCEL and EcoSecurities are responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions 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 NOBRECCEL and EcoSecurities.

It is our responsibility to express an independent GHG validation and verification opinion on the GHG emissions from the project for the period 01/01/2008 to 31/10/2008 and on the calculation of GHG emission reductions from the project.

The verification approach was based on the requirements as defined in Voluntary Carbon Standard VCS 2007. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for the period 01/01/2008 to 31/10/2008. We planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that the amount of GHG emission reductions for the period 01/01/2008 to 31/10/2008, prepared on the basis of Monitoring Report version 2 dated 10/03/2009, are fairly stated. We conducted our verification with regard to the client's GHG projects PD and monitoring report which included NOBRECCEL Biomass energy project, baseline applied and baseline GHG emissions or removals, Monitoring and Verification Plan, GHG Emission reductions. This assessment included collection of evidence supporting the reported data checking whether the provisions of the Monitoring and Verification Plan in the PD were consistently and appropriately applied

We have verified whether the information included in the monitoring report representing the project baseline is current and has been extracted from the project site and the emission reduction achieved has been determined by correctly subtracting emissions for the monitoring period 01/01/2008 to 31/10/2008 from the baseline figures

Reporting Period: From 01/01/2008 to 31/10/2008

Verified emissions in the above reporting period:

|                     |        |                  |
|---------------------|--------|------------------|
| Project Emissions   | 871    | tCO2equivalents  |
| Emission Reductions | 85,057 | tCO2 equivalents |

Based on process and procedures conducted, in our opinion, NOBRECCEL and EcoSecurities assertion on GHG emission reductions for the NOBRECCEL Biomass energy project during the reporting period 01/01/2008 to 31/10/2008 is materially correct and is a fair representation of the GHG data and information and the emission reductions are fairly stated. The GHG emission reductions were calculated correctly on the basis of approved monitoring methodology ACM0006 version 06.

SGS confirms that the project is implemented as described in the Project Document. Based on the information we have seen and evaluated, we confirm the following:

|                                            |                                 |
|--------------------------------------------|---------------------------------|
| Name and Reference                         | NOBRECEL Biomass energy project |
| Approved Methodology used for Verification | ACM0006 version 06              |
| Applicable Period                          | 01/01/2008 to 31/10/2008        |
| Total GHG Emission Reductions Verified     | 85,057 t CO <sub>2</sub>        |

**Signed on behalf of the Verification Body by Authorized Signatory**



Signature:

Name: Siddharth Yadav

Date: 27<sup>th</sup> March 2009

## 5. Document References

|    |                                                                                                                            |
|----|----------------------------------------------------------------------------------------------------------------------------|
| 1  | Nobrecel Biomass energy project PD, version 01, 19 November 2007.                                                          |
| 2  | Methodology ACM0006, version 06, valid from 10 August 2007 onwards.                                                        |
| 3  | Nobrecel Monitoring Report, version 02, 10/03/2009.                                                                        |
| 4  | Nobrecel Equipment Photobook version 01, 12 September 2008.                                                                |
| 5  | Methodological tool, version 02.                                                                                           |
| 6  | Methodological tool, version 04.                                                                                           |
| 7  | Weight Calibration Report number 195659, 05/11/2007.                                                                       |
| 8  | Table of Energy Generation                                                                                                 |
| 9  | Steam Flow Meter Calibration Report: equipment BIOF-0002 serial number 12B414992, calibrated on 28/05/2007 and 30/05/2008. |
| 10 | Units Conversion Sheet                                                                                                     |
| 11 | Environmental License of Operation number 3002479, 30/11/2007. Valid until 30/11/2009.                                     |
| 12 | Steam Generated by Biomass                                                                                                 |
| 13 | Samples for Steam Control                                                                                                  |
| 14 | CDM Project Monitoring Procedure rev7, 24/10/2008.                                                                         |
| 15 | Suppliers List                                                                                                             |
| 16 | Landfill Contact Data                                                                                                      |
| 17 | Chopper's time of use                                                                                                      |
| 18 | Average Load Capacity of the Trucks                                                                                        |
| 19 | Turbine Calibration Report                                                                                                 |
| 20 | Nobrecel Workbook, 10/11/2008.                                                                                             |

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