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Your ref.:	Our ref.:	Date:
	ZAAAU980DAWES080409-1 v2	16/09/2008

Voluntary Emission Reductions Verification Opinion
Meridian Energy: White Hill Project for the period 1 January 2007 to 31 December 2007

1 SCOPE

You have engaged us to conduct audit procedures associated with verification of the Voluntary Emission Reductions (VERs) achieved by the White Hill Wind Farm project for the calendar year 2007. The project is located in the South Island of New Zealand and supplies electricity directly to the New Zealand electricity grid. The project has been established and meets the requirements of the New Zealand Projects to Reduce Emissions (PRE) arrangements, and so has approval as a JI project. The VERs presented for verification were created during the 2007 calendar year.

We have conducted sufficient verification procedures to enable us to express an opinion on the following matters:

1. The number of VERs proposed to be verified in respect of the period 1 January 2007 to 31 December 2007 have been calculated in all material respects:
   - Based on accurate and reliable generation records and other relevant supporting documentation; and
   - In a manner consistent with the methodology determined in the White Hill Project Design Document (PDD, December 2005).

2 VERIFICATION PROCEDURES

Meridian's management is responsible for operation of the project. energy market services is the Half Hour Data Administrator for the project and is responsible for collection and reporting of the electrical energy sent out to the grid to Meridian and the NZ electrical market regulator. Meridian Energy is responsible for reporting compliance with the sustainability requirements contained within the Resource Consent for approval by the relevant regulatory authorities. We have not conducted any audit procedures with respect to the internal control environment of Meridian Energy taken as a whole. As such, no assurance is given on any internal controls not associated with the creation of VERs.

Our verification has been conducted in accordance with International Standard on Assurance Engagements 3000 *Assurance Engagements other than Audits or Reviews of Historical Information* and adopting the International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): *Validation and Verification Manual* to provide potential purchasers of VERs with reasonable assurance that the VERs have been calculated in a manner consistent with the White Hill PDD (December 2005). Accordingly, we have conducted such tests and procedures as we considered appropriate including:

- Review of the White Hill Wind Farm 2007 Annual Emission Reduction Report;
- Review of the energy data claimed as being the 2007 Net Sent Out generation (provided by the independent Half Hour Data Administrator, energy market services limited) from the project by comparison with individual turbine generation records and the plans from the PDD (December 2005);
- Consideration as to whether the estimate of project construction and operation emissions is reasonable;
- Review of sustainability statements included in s7 of the White Hill Wind Farm 2007 Annual Emission Reduction Report;
- Review of sustainability reports submitted by Meridian Energy to
- Discussions with the relevant Meridian Energy personnel; and
- Observation and review of relevant documentation.

We have not performed audit procedures on other information contained in the White Hill PDD (December 2005).

3 VERIFICATION FINDINGS

3.1 Data arrangements

Our verification comprised a desktop review of the information contained in the Meridian Energy White Hill Wind Farm 2007 Annual Emission Reduction Report conducted on 8 April 2008 and which found no material discrepancies in the arrangements as documented.

We confirmed that the individual turbine generation data was reasonable based on the planned arrangements from the PDD (December 2005) and the Half Hour Data Administrator records of Net Sent Out generation. The Net Sent Out generation for the period 1 January 2007 – 31 December 2007 was recorded as 75.845 GWh.

We considered the information used to develop the estimate of construction and operational emissions. In accordance with the PRE Agreement, embodied and actual emissions from the construction activity are to be taken to account in the first claims for abatement from the project. We noted that Meridian included international emission sources, which is not a requirement of the New Zealand PRE Agreement, and so increased the initial construction and operational emission from 5891 t CO_2-e to 15 507 t CO_2-e. This is a material emission source for the first abatement claim, but is not recurrent. It is in excess of the requirements of the approved CDM methodology applicable at the time of determination, ACM0002 version 01. We note that abatement from the displacement of grid electricity commenced in mid-2007, and that the emissions from construction and operation activities were incurred during 2006 and 2007. Based on our professional judgement and after comparison with similar projects, we consider the estimate to be reasonable.

We also confirmed that the carbon emission factor (CEF) for NZ grid electricity used in the calculation of VERs was the same as the factor previously determined for use by the New Zealand Government in the reporting of emission abatement for PRE projects as a long run average emission factor. This factor is 625 t CO_2-e/GWh (White Hill PDD, p10).

3.2 Creation of 2007 VERs

A completed VER calculation is included in the Annual Report. The information in the calculation table was able to be cross checked against the energy market services report of 15 January 2008 and the grid CEF from the White Hill PDD (December 2005). In accordance with the PRE project agreement and the PDD (December 2005) emissions embodied in construction materials were subtracted from the abatement calculated from the displacement of grid electricity. Meridian Energy included international emissions sources, which is in excess of the requirements of the PRE Agreement. The claim for creation of 31 895 tonnes CO_2-e VERs (net of construction and operational emissions, and noting that some project emissions were from 2006) during the period 1 January 2007 – 31 December 2007 was found, in all material respects, to be fairly stated. A copy of the Annual Report is attached to this report.

3.3 Sustainability Statements in s7 of the Annual Report

Section 7 of the Annual report included reference to the following sustainability elements. Each of these was verified by DNV Certification as follows:

1. Creation of Beech Reserve – an area is being created under the applicable New Zealand covenant arrangements for a perpetual reserve (QEII National Trust). Correspondence from the Trust dated 1 April 2008 indicating that the reserve was an area of floristic value.
2. Operation of erosion and sedimentation control plan – it was indicated by Meridian that these construction phase pollution control structures were properly constructed and operated. Further, representatives of the different regulatory agencies were onsite during the construction phase to ensure that appropriate structures were effectively implemented.
3. Placement of turbines on ridges – photographic evidence was sighted showing the placement of turbines along ridgelines. Representatives of the different regulatory authorities were onsite during construction, and were required to sign-off on overall compliance with the consent conditions at close-out of the construction process.
4. Construction workforce – Meridian indicated a total of 654 different individuals were inducted to carry out work on the site over the 18 month construction period, the peak onsite workforce was approximately 120, and that 85% of the workforce were of New Zealand national origin. These numbers are consistent with the nature and scale of the construction undertaking.
5. Open day and community funding – A news report from the Otago Daily Times “Open day raised $62,600” 3 April 2007 was sighted. It was indicated that the funds were handed to the community on 12 April 2007.
6. Visitor viewing site – photographic evidence of the type and size of the resource was provided. It appeared to be of a nature and scale appropriate for the expected visitor numbers and the purported purpose of the facility.

These elements related to the commitments made in the Resource Consent as follows:

- Water quality – points 2 and 3
- Soil conditions – removal of land from agricultural uses and the reserve in point 1
- Biodiversity – the reserve in point 1

3.4 Inherent Limitations

Because of the inherent limitations in any internal control structure it is possible that fraud, error, or non-compliance with laws and regulations may occur and not be detected. Further, the verification was not designed to detect all weaknesses or errors in internal controls so far as they relate to the requirements set out above as the verification has not been performed continuously throughout the period and the procedures performed on the relevant internal controls were on a test basis. Any projection of the evaluation of control procedures to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

The verification opinion expressed in this report has been formed on the above basis.

3.5 Disclaimer

This report has been prepared for Meridian Energy. We disclaim any assumption of responsibility for any reliance on this report to any person other than Meridian Energy, or for any purpose other than that for which it was prepared.

4 VERIFICATION OPINION – CREATION OF VERS

In our opinion:

1. The 31 895 tonnes CO_2-e VERs proposed to be created in respect of the Meridian Energy White Hill Wind Farm for the period 1 January 2007 – 31 December 2007 have been fairly stated and calculated and are:
    - Based on accurate and reliable generation records and other relevant supporting documentation (including Sustainable Development Indicators and the approved Monitoring Plan); and
    - Have been calculated in a manner consistent with the methodology determined in the White Hill Gold Standard compliant Project Design Document (PDD, December 2005).
2. The Sustainability Indicators required to be monitored and met to demonstrate with the Resource Consent and the God Standard were found to have been fairly stated as follows:
    - Water quality was improved through the use of construction phase pollution control structures and the placing of turbines on ridges;
    - Soil conditions were improved through the removal of land from intensive agricultural uses and creation of a new 38ha QEII Conservation Trust; and
    - Biodiversity was improved through the creation of a new 38ha QEII Conservation Trust.

Yours faithfully
for DNV Certification Pty Ltd

Simon Dawes
Lead Auditor - Climate Change

Michael Lehmann
Techncial Director - Climate Change Services

Attachment 1: White Hill Wind Farm 2007 Annual Emission Reduction Report

5 ATTACHMENT 1: WHITE HILL WIND FARM 2007 ANNUAL EMISSION REDUCTION REPORT