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ANNUAL REPORT TEMPLATE FOR WINDFARM PROJECTS (PRE 2)

Project Title: Tararua Wind Farm – Stage III

Description of Project: Wind Farm located in Tararua ranges consisting of 31 Vestas V90 – 3MW turbines..

Company: TrustPower Limited

Year Reported on: 2009

(1) Break down and total of emissions generated during construction using the emission factors listed in Schedule 2 *(if applicable to the year being reported on).*

CONSTRUCTION EMISSIONS			
Element	**Usage**	**Embodied emission factors**	**tCO_2-e**
Diesel	0	0.00271 tonnes CO_2-e per litre	
Petrol	0	0.00232 tonnes per CO_2-e per litre	
Iron/Steel – produced in New Zealand		2.01 tonnes CO_2-e per litre	
Aluminium – produced in New Zealand		1.62 tonnes CO_2-e per tonne	
Cement	0	0.46 tonnes CO_2-e per tonne	
			Total 0

(2) Once abatement commences the following, if applicable to your project, to be recorded if used in its operation:

Element	**Annual Usage**	**Factor**	**tCO_2-e**
Diesel	negligible	0.00271 tonnes CO_2-e per litre	
Petrol	negligible	0.00232 tonnes per CO_2-e per litre	
Iron/Steel – produced in New Zealand		2.01 tonnes CO_2-e per litre	
Aluminium – produced in New Zealand		1.62 tonnes CO_2-e per tonne	
Cement		0.46 tonnes CO_2-e tonne	
			Total 0

Reminder: Emission Reductions cannot exist until after the requirements of 4.4 have been met.

(3) A record of the amount of electricity exported by the Project during the year. *(How this is to be metered and recorded is listed in Schedule 2 of the Project Agreement).*

The following table records the output for each Stage III turbine as generated at the machine.

Revenue Meter	kWh OR	Turbine Identifier	kWh
		Stage III WTG	Machine kWh
		T301	9,882,499
		T302	9,097,112
		T303	7,842,017
		T304	10,143,937
		T305	8,600,793
		T306	10,829,912
		T307	10,721,737
		T308	9,698,514
		T309	12,146,674
		T310	10,441,827
		T311	11,341,748
		T312	12,728,491
		T313	14,545,719
		T314	15,000,353
		T315	11,589,453
		T316	11,321,498
		T317	10,348,789
		T318	10,845,994
		T319	10,760,180
		T320	9,748,093
		T321	10,604,024
		T322	9,418,448
		T323	10,464,555
		T324	10,441,183
		T325	12,011,587
		T326	10,786,807
		T327	11,915,476
		T328	11,195,087
		T329	11,401,950
		T330	11,058,186
		T331	10,954,381
Total Electricity Generated (GWh)			**337.887**

(4) Identify and measure any other generation that is not part of the project that flows through the above meters. *(This generation to be subtracted from the metered generation to determine the electricity output of the project).*

The data above data is measured at the turbine and includes only the project generation, however the data below shows the generation for NZ Wind Farms that is reconciled at the same connection point.

Element and Measure	Total
Electricity (GWh)	56.749

(5) If the electricity is measured at the turbine provide an estimate of electrical losses at the wind farm and before connection to the lines network or Transpower grid. (Attach calculation).

The total generation measured at all machines for the year was 337.887 GWh and the total metered output to the Network was 332.308 GWh, giving eligible generation of 332.308 GWh.

Electrical Losses for the site was 1.65%.

Calculation (337.887- 332.308)/337.887

(6) A record of the amount of tCO_2-e Emission Reductions resulting from the Project during the year determined by the relevant emission factors as per Schedule 2 of the Project Agreement. The construction emissions should be subtracted from this total for each of the years that are reported on when construction takes place. Once abatement commences the total of any emissions recorded in (2) above should be subtracted from the total *(if applicable to your project).*

Element	Annual Production	Factor	t CO_2-e
Electricity (GWh) (3)	389.057	625 tonnes per GWh	243,161
		Less construction emissions and or/or other project emissions (1),(2)	
Less other generation not part of the project, recorded by the meters (GWh) (4)	56.749	625 tonnes per GWh	35,468
		Net Emission Reductions for the year	207,693

(7) Emission Units claimed for the year using the emission ratio "C" set out in Clause 5.1 of the Project Agreement.

Clause 5.1 calculation
A = B x C

174,462 = 207,693 x 0.84

(8a) Advice on the location of the meters or how the generation was measured.
For example at the turbines, at the revenue meter point of entry into the lines network or the national grid.

There are meters located at the turbines and also at the point of entry into the Network. Trustpower reads the Generation meters for Tararua Stage III and also NZ Wind Farms and checks that the totals match what has been submitted for each.

(8b) Advice on how the generation was measured. *For example, metered directly, or using meter readings and adjusting for losses.*

To ensure accuracy of the data, we use both the meters on each of the turbines and the total generation including losses.

(8c) Advice on the quantity of electricity generated or exported. *Attach a relevant statement (or statements) from the Reconciliation Manager or an Electricity Commission Approved Half Hour Data Administrator identifying the volume of electricity used in determining the net emission reductions in section 6.*

Letter attached.

(9) Evidence that the metering and recording equipment has been certified by a reputable, independent quality assurance service provider. *Attach copies of relevant certificate(s) of compliance for meters/metering installations for the full 12 months of the reporting year.*

See attached certificates.

(10) A statement detailing anything that has, or has the potential, to be an impediment to achieving the agreed emission reductions during commitment period one. *This should include circumstances where the final milestone is achieved later than the final milestone date.*

TrustPower is not aware of any impediments to the delivery of Eligible Generation during commitment period one.

(11) A verification report for this year (if undertaken by the participant)

A verification report is to be completed by DNV.

(12) A statement identifying that this report:

- **has been prepared using the methodology of Schedule 2 – Measurement of Emission Reductions (or otherwise where another measure is used as a proxy measure as detailed in section … of this report)**
- **meets all other requirements of Schedule 4 - Contents for Annual Reports,**

of the Project Agreement.

The information in this report meets all the requirements of schedule 2 of the Project Agreement. And a letter is attached from our Data Administrator to meet the requirements of Schedule 4 of the Project Agreement.

Signature:

Position: Peter Calderwood
Strategic Business
Development Manager

Date: 22/1/10

Unit Transfer Details

Please Note: To obtain the emission reduction units you will need a NZEUR account to transfer the agreed/allowed Emission Units.

1	Project name:	Tararua Wind Farm III
2	Date of project agreement:	29 March 2005
3	Name of the project developer/company:	TrustPower Limited
4	Project ID:	NZ- 1000004
5	Calendar year for which units are being transferred:	2009
6	Participant's account identifier:	NZ- 1060 TrustPower Limited
7	Project Participant (investor):[1]	Kansai Electric Power Co. Inc.
8	Quantity of units (7):	174,462
9	Type of units:	ERU

Note: Units can only be awarded for Emission Reductions during CP1, i.e. from 2008 to 2012.

[1] Project Participant (investor) is a party that the project developer/company has an agreement with to transfer emission reduction units (ERUs) or assigned amount units (AAUs) to.

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19 January 2010

The Manager - Climate Change Implementation
Ministry for the Environment
PO Box 10362
Wellington
New Zealand 6001

Subject: Verification of Annual Generation from Tararua Wind Farm Stage III In Total

Dear Philip,

As required in schedule 4 of the Tararua III in Total , Project Agreement with the Crown, this letter is to verify the total electricity generated from the Project into the national transmission system in 2009.

As an Electricity Commission Approved Half Hour Data Administrator, responsible for TrustPower's submissions to the Market I can confirm that the following Energy data (below) is an accurate reflection of volume submitted to the Market for the 2009 year for Stage III of the Tararua Wind Farm in Total, this data is for both New Zealand Wind Farms and TrustPower Generation. TrustPower does not submit NZ wind Farm Data but does read the metering that is used for data Submission.

Annual Generation	
kwh	**Description**
389,057,021	TARARUA III Total MID 7096
kwh	**Description**
56,749,381	NZWF MID 7111 and MID 7115
kwh	**Description**
332,307,640	TRUSTPOWER

Yours sincerely,

Matthew James
Manager Data Management

AccuCal

Certificate of Compliance

This is to certify that

TWF III - 33kV Incomer 1 - CB3062

ICP No. N/A

Revenue Metering Installation

Certified for

TrustPower Limited

Complies with

The Electricity Governance Rules – 16 December 2003.

Certification Date: **6 December 2006**

Certification Expiry Date: **24 November 2009**

R Mann – Technical Manager
AccuCal

The record of certification tests is contained within Certification Report No: **CERT-2006-214**

Electricity Commission
Te Komihana Hiko

This Laboratory is registered with the Electricity Commission as a class A approved test house.

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calibration laboratory

The tests reported herein have been performed in accordance with the laboratory's scope of accreditation.

AccuCal
14 RIVER OAKS PLACE, HAMILTON, NEW ZEALAND
PHONE: (64) 7 849 5503 • FAX: (64) 7 849 5502

AccuCal

Certificate of Calibration

This is to certify that

TWF III - CB3062 - T1 Incomer

ICP No. N/A

Revenue Meter

Calibrated for

TrustPower Limited

Has been calibrated to Internationally Traceable Standards.

Calibration Date: **17-Nov-2009**
Calibration Expiry Date: **17-Nov-2012**

R Mann – Technical Manager
AccuCal

The record of certification tests is contained within Calibration Report No: **CAL-2009-317**

Electricity Commission Te Komihana Hiko

This Laboratory is registered with the Electricity Commission as a class A approved test house.

761 calibration laboratory

The tests reported herein have been performed in accordance with the laboratory's scope of accreditation.

AccuCal
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AccuCal

Certificate of Compliance

This is to certify that

TWF III - 33kV Incomer 2 - CB3122

ICP No. N/A

Revenue Metering Installation

Certified for

TrustPower Limited

Complies with

The Electricity Governance Rules – 16 December 2003.

Certification Date: **6 December 2006**

Certification Expiry Date: **24 November 2009**

R Mann – Technical Manager
AccuCal

The record of certification tests is contained within Certification Report No: **CERT-2006-215**

Electricity Commission
To Komihana Hiko

This Laboratory is registered with the Electricity Commission as a class A approved test house.

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calibration laboratory

The tests reported herein have been performed in accordance with the laboratory's scope of accreditation.

AccuCal
14 RIVER OAKS PLACE, HAMILTON, NEW ZEALAND
PHONE: (64) 7 849 5503 • FAX: (64) 7 849 5502

AccuCal

Certificate of Calibration

This is to certify that

TWF III - CB3122 - T2 Incomer

ICP No. N/A

Revenue Meter

Calibrated for

TrustPower Limited

Has been calibrated to Internationally Traceable Standards.

Calibration Date: **17-Nov-2009**
Calibration Expiry Date: **17-Nov-2012**

R Mann – Technical Manager
AccuCal

The record of certification tests is contained within Calibration Report No: **CAL-2009-318**

Electricity Commission
Te Komihana Hiko

This Laboratory is registered with the Electricity Commission as a class A approved test house.

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calibration laboratory

The tests reported herein have been performed in accordance with the laboratory's scope of accreditation.

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