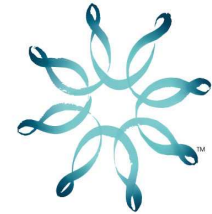


# Summary of CEMARS® certification:



## Meridian Energy Ltd

*Meridian Energy Ltd meets the requirements of CEMARS® certification having measured its greenhouse gas emissions in compliance with the requirements of ISO 14064-1 and committed to managing and reducing its emissions in respect of the operational activities of its organisation including Meridian Electricity, Arc Innovations and Agriculture facilities.*



meridian

**Introduction<sup>1</sup>** – Meridian Energy is a state owned enterprise and New Zealand's largest electricity generator, supplying electricity to over 180,000 residential, business and rural customers, and to the Tiwai Point aluminium smelter. Our primary business is renewable generation and retail of electricity. Through specific business units and subsidiary companies, we are also involved in a variety of other activities including smart metering, energy efficiency for both residential and industrial customers, share-milking dairy farms, online retailing of electricity and dam safety services.

Meridian Energy is committed to carbon reduction. Our decision to only generate using renewable energy sources has contributed to the low-carbon intensity of New Zealand's electricity supply. And we support our customers to be energy efficient at home and at work through advice, products and services. Reducing our internal carbon footprint is therefore very important to us. It demonstrates our commitment to sustainability and enables us to pass on what we learn through our own efforts to our customers.

As part of this commitment, the Meridian Group has two CEMARS® certifications – one for Meridian Energy Limited (the parent company) and one for our subsidiary company Energy for Industry Limited.

**Boundary** – The diagram below shows the organisational structure used for describing Meridian Energy Limited's greenhouse gas (GHG) emissions inventory. Meridian Energy Limited is the parent company of the Meridian Group and includes three facilities: Meridian Electricity, Arc Innovations, and Agriculture.

This CEMARS certification applies to the parent company only, and includes some generation asset holding companies. The other bubbles in the diagram below represent separate facilities (all subsidiary companies) not included in Meridian Energy Limited and not covered by this certification. Energy for Industry Limited has a separate CEMARS certification. Note that non-trading entities are not shown in this diagram. These do not have any GHG emissions associated with them.

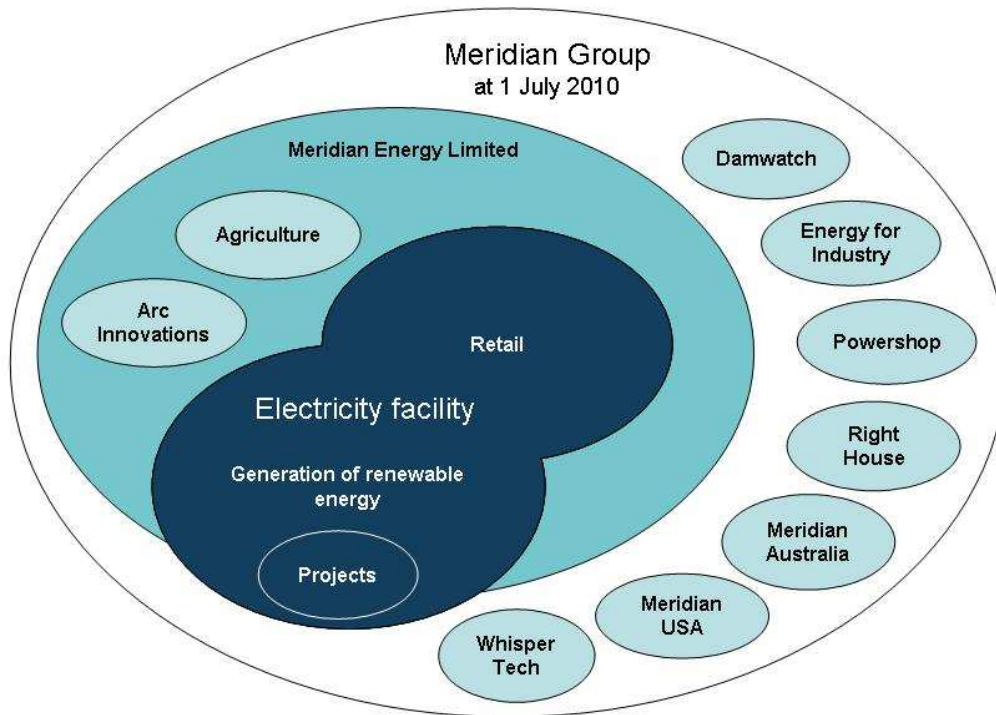
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<sup>1</sup> **Disclaimer:** This Disclosure Statement is a summary of the verified information considered for certification and the certification decision. It should not be taken to represent the full submission for certification. While every effort has been made to ensure that the information in this Disclosure Statement is accurate and complete, Landcare Research does not, to the maximum extent permitted by law, give any warranty or guarantee relating to the accuracy or reliability of the information.

# Summary of CEMARS® certification:



Meridian Energy Ltd



**Consolidation approach** – Equity share

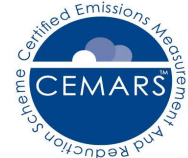
**Base year** – 01/07/2007 to 30/06/2008

**Measurement period** – 01/07/2009 to 30/06/2010

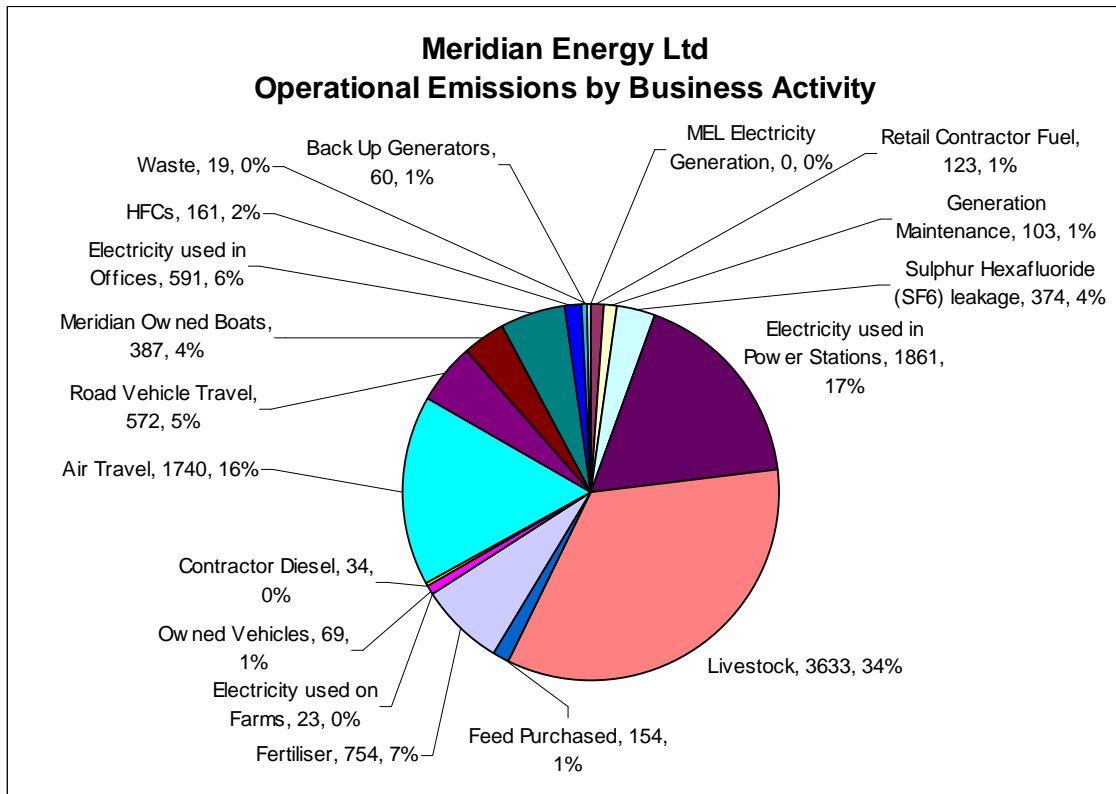
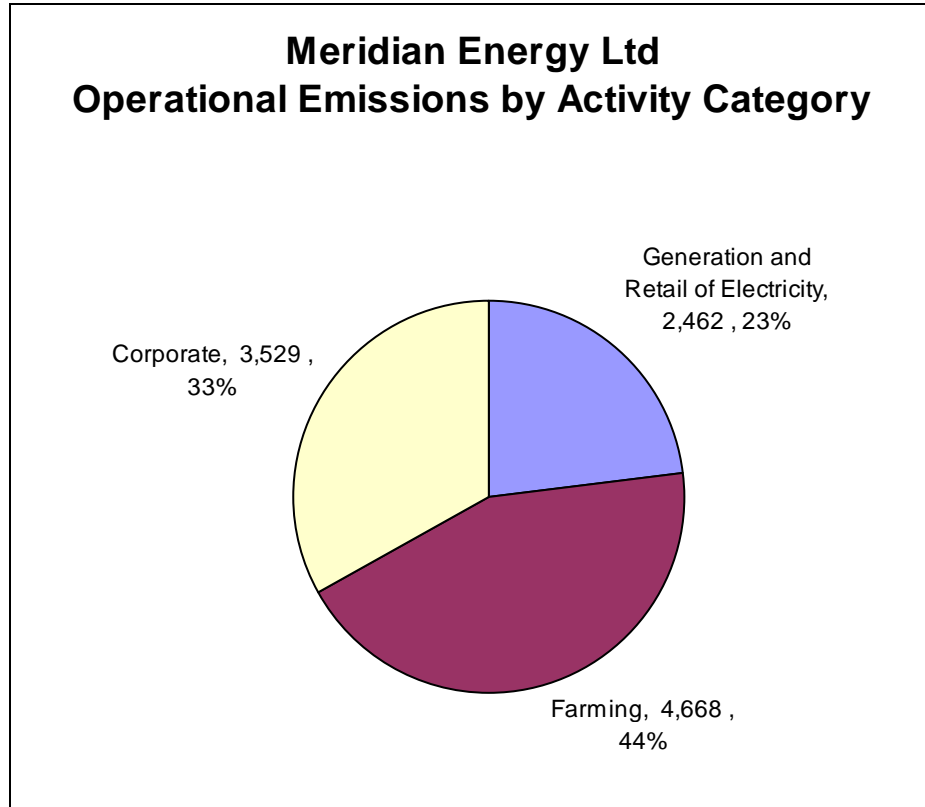
**GHG emissions source inclusions** – Total emissions for this period were 21,744 tonnes carbon dioxide equivalents (CO<sub>2</sub>e) comprising 5,915 tonnes CO<sub>2</sub>e Scope 1, 2,429 tonnes CO<sub>2</sub>e Scope 2, 2,315 tonnes CO<sub>2</sub>e Scope 3, and 11,085 tonnes CO<sub>2</sub>e One-Time Scope 3 emissions. In summary, there were 10,659 tonnes CO<sub>2</sub>e operational emissions and 11,085 tonnes CO<sub>2</sub>e non-operational emissions.

The diagram below shows the sources of operational GHG emissions for Meridian Energy Limited.

# Summary of CEMARS® certification:



Meridian Energy Ltd



# Summary of CEMARS® certification:



## Meridian Energy Ltd

**GHG emissions source exclusions** – The emission sources below have been identified and excluded from the GHG inventory. These emission sources are considered not material to stakeholders, not material in the context of the inventory, and/or quantification is not technically feasible or cost effective at the present time:

- Fugitive emissions (HFCs/PFCs) from air conditioning and refrigeration for some sites
- Electricity consumed at Manapouri as it is netted off before the electricity is exported to the grid
- Emissions embodied in minor construction and maintenance materials and the emissions from freight to deliver these materials to site
- Emissions from combustion of fuel used by contractors undertaking meter reading
- Emissions from fuel used by couriers.

**GHG emissions reduction commitments** – Meridian has developed a GHG emissions reduction plan that focuses on the emissions sources that are under our control. Some projects in this plan include:

- Reducing air travel in kilometres travelled per full-time employee (FTE)
- Maintaining the excellent efficiency of our new commuting boat at Manapouri
- Reducing travel by car in kilometres travelled per FTE
- Reducing taxi spend
- Maintaining our very low level of waste per FTE.

**GHG emissions reduction report against last year's plan** – Last year's Emissions Management Plan covered only the Meridian Electricity Facility, whereas this year's EMP covers three facilities (Electricity, Arc Innovations and Agriculture). In 2009/10 the Electricity facility achieved a 14% reduction in emissions per FTE (for those emissions included in target setting) when compared to its 2007/08 base year. This is largely attributable to the decrease in electricity used in offices between the base year (2007/08) and 2008/09.

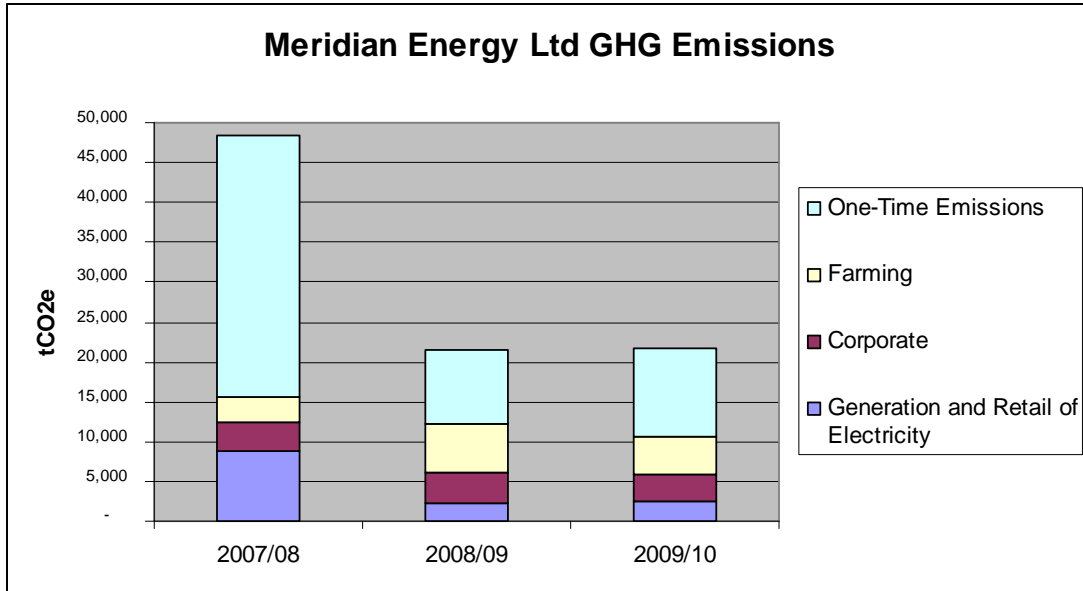
Overall, the emissions for Meridian Energy Limited fall into four categories:

- Emissions from the generation and retail of electricity include emissions from directly related activities (such as providing fast spinning reserve capacity to the electricity market) and are not wholly under Meridian's control. This emissions category was quite high during the base year of 2007/08 due to the dry winter conditions, but is now at more expected levels.
- One time emissions have reduced significantly this year by comparison with 2007/08. Volumes of one-time emissions depend on individual major refurbishment and generation development projects and can vary widely.
- Farming emissions are largely dependant on the number of dairy farms Meridian has under share-milking arrangements in the South Island. These emissions rose between the base year and last year due to a change in calculation methodology, and have fallen this year due to the sale of a farm.
- Corporate emissions are under Meridian's direct control, and are the focus of Meridian's emissions reductions efforts. These emissions have reduced 12% per FTE since the base year of 2007/08. There has also been an absolute reduction of just over 1%.

# Summary of CEMARS® certification:



## Meridian Energy Ltd



**Verified by** – Deloitte

**Threshold of materiality** – Excluded emissions do not exceed 5% of the total footprint for organisation stated.

**Level of assurance** – Reasonable assurance.

Please note: Deloitte have qualified the verification report on the basis that the inventory for Meridian Energy Limited for 2009/10 did not include Energy for Industry Ltd (EFI) as required under the equity share approach adopted for Meridian Energy Limited in accordance with measuring greenhouse gas emissions under ISO 16041-1.

The Deloitte report concluded that the emissions for the Meridian Electricity, Agriculture and Arc Innovation facilities shown above were fairly stated. This does not affect the CEMARS certification as from 1 July 2010 EFI is a separate stand-alone subsidiary. Furthermore, EFI was separately verified by Deloitte for the CEMARS scheme.

**Certification status** – CEMARS certified organisation including the Meridian Electricity, Arc Innovations and Agriculture facilities.

**Certificate number** – 2010115J

**Valid until** – 31 October 2013

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