

EFNZ CONFERENCE ON CLIMATE CHANGE PROJECTS

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Energy Federation of New Zealand (Inc.)



What is the Energy Federation?

- The Energy Federation is a pan energy-industry organization providing opportunities for
 - ◆ Networking
 - ◆ Collaborative research energy related projects
 - ◆ Industry policy submissions
 - ◆ Information dissemination
 - ◆ New Zealand involvement in the World Energy Council

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EFNZ and WEC Aims

- **The Aim of the EFNZ is to promote the sustainable development and use of energy resources both in New Zealand and globally**
- **The Mission of the World Energy Council (WEC) is to promote the sustainable supply and use of all forms of energy for the greatest benefit of all.**

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Energy Federation Objectives

- Sharing of information
- Communicating and representing energy industry views
- Providing a forum for discussions and networking on energy matters
- The preparation and dissemination of information on matters of general interest to the energy industry
- Co-ordinating and assisting other organisations in the energy field
- Assisting Government to develop energy policies
- Encouraging and supporting energy research

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EFNZ Full Members

BP Oil (NZ) Ltd.

Contact Energy Ltd.

CRL Energy Ltd.

Energy Library & Information Services Ltd.

Meridian Energy Ltd.

Mighty River Power Ltd.

Natural Gas Corporation

Solid Energy NZ Ltd.

Shell Oil NZ Ltd.

Transpower NZ Ltd.

Trustpower Ltd.

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EFNZ Associate Members

Energy and Technical Services Ltd.

Gas Association of NZ Inc.

Industrial Research Ltd.

Institute of Geological and Nuclear Sciences

Landcare Research

Motor Trade Association Inc.

M-Co

National Institute of Water and Atmospheric Research Ltd. (NIWA)

Otago University-Department of Physics

WEL Energy Ltd.

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EFNZ Individual Members

Gavin Adlam
Jonathan Lermitt
Peter Read
Richard Thompson

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EFNZ Greenhouse Gas Reduction Current Research

- **Energy Federation of New Zealand (EFNZ)**
 - SMF Study developing technical guidelines for GHG Reduction Projects
 - SMF Study Educating Business Energy Consumers in Climate Change Solutions
- **WEC Asia Pacific Cross Border Projects Research Programme**
 - Joint Implementation/Emissions Trade feasibility Study
 - CDM Study in the Philippines involving several international and NZ companies

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Methodologies for Estimating Greenhouse Gas Emission Reduction from Projects

The purpose of the project was to encourage emission reduction project-based initiatives by energy suppliers and users by providing :

- Guidelines and the key concepts to consider when estimating emission reductions from projects
- A general template that can be adapted to estimate emission reductions from specific projects

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Project History

EFNZ recognized that

- Greenhouse gas emission reductions
Projects were likely to play an important role in Government policy
- New Zealand has no standard guidelines for estimating emission reductions from such projects.

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The Project

A Two Year Study funded by

- MfE's Sustainable Management Fund
- An EFNZ industry consortium of 14 companies

CRL Energy is the Research provider for EFNZ for this work

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Project Goals

- Identify options to reduce future costs imposed on GHG emissions
- Low cost participation in a commercially realistic project-based approach to quantifying emissions abatement from voluntary activities
- Develop guidelines and protocols for companies to achieve emission reduction credits from projects

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Membership

INDUSTRY

- New Zealand Steel
- BP
- Coal Association
- Contact Energy
- Golden Bay Cement
- Landcare Research
- M-Co
- Meridian Energy
- Mighty River Power
- Fonterra Research
- NGC
- NZ Refining Company
- Transpower
- Trustpower

GOVERNMENT

- MfE
- EECA

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What's in the Technical Guideline Publication?

- Defining a Project Boundary
- Project baselines
 - Assessing baselines
 - Types of baselines
- Project Lifetimes
- Additionality, Emission Factors, variability
- Monitoring and Verification
- Workbook with a template
- Case studies

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Completing the Workbook

Three main processes broken into 10 sections in the workbook

1) Describe the Project

- Project proposition or information about the proponents business activities
- Description of current operation
- Identification of relevant inputs and outputs from the project
- Definition of project boundary

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Completing the Workbook

2) Select Baseline

- Description of operation with and without the project and key factors influencing it
- Selection of the most probable scenario for the baseline

3) Estimating Emissions

- Calculation of the estimated baseline emission profile
- Calculation of the estimated project emission profile
- Calculation of emission change from the project
- Monitoring and Verification

Case Studies

Worked examples in the publication include:

- Wood waste utilisation project
- Waste heat utilisation project
- Landfill gas utilisation project
- Solar powers systems project
- Carbon sequestration project
- Energy efficiency project

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Measuring Emissions

- Simple to design and have low transaction costs;
- Environmentally credible;
- Verifiable and transparent to an independent auditor, and
- Give financial certainty to investors in projects.

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Baselines

A baseline is used to measure where a project or activity will result in emissions beyond business as usual

- Where to draw the boundaries for a project and whether a company should include joint ventures, contractors?
- Which emission factors should we use?
- What criteria to use for baseline evaluation, such as average or conservative?

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Additionality

Additionality is a test to ensure a project would not occur without additional revenue:

- Accept specific types of projects as additional by definition, for example the use of technologies such as photovoltaic or biomass
- Develop benchmarks for additionality
- Discuss and develop an additionality test through negotiation with industry.
- Crediting or financial incentive lifetime for a project?

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Launch of Guidelines

- Publication of guidelines in August
- Aim to launch the guide in September
- Useful guide for companies unfamiliar with projects and the process of measuring their emissions from projects

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SMF Educating Business Energy Consumers in Climate Change Solutions

- Aim to design an information kit, training programme and range of bubble mechanisms to help small to medium size companies implement climate change solutions
- Several companies involved in the study consortium including Meridian Energy, Might River Power, Westpac, MTA, Transrail, EECA, CCO, Dairy Insight, Wrightsons, NZ Steel, Holcim, NZBCSD

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