



## ***EnergyManager* Professional Training Programme Overview**

### **Overview**

*EnergyManager* Professional will equip participants to develop and lead energy management and carbon reduction programmes in larger energy users in the public and private sectors. of the economy.

It has been developed specifically for New Zealand, in consultation with business and energy specialists. The course utilises real energy use data from the participant's organisation so successful completion of the course provides immediate and tangible productivity and business benefits.

As well as growing in-house energy management capability through skilled employees, the course outcomes include a customised energy management plan that has been expert-reviewed and is ready for implementation.

Attendees will typically have responsibilities for energy end-use and cost reduction as part of their workplace responsibilities. They may be developing a programme of continuous energy efficiency improvement and carbon reduction – especially those with higher or complex energy usage. There is expected to be especially strong interest from organisations associated with central and local government given the contribution robust energy management processes will make to New Zealand's climate change commitments made by the Government at COP21.

The *EnergyManager* Professional course was developed by the Energy Management Association of New Zealand (EMANZ) after extensive consultation with larger energy users, energy management practitioners, tertiary institutions and sector organisations. The 2016 pilot course was underwritten by the Energy Efficiency and Conservation Authority (EECA).

The course structure is aligned with the international Standard *ISO 50001- Energy Management Systems* and associated energy management standards. Completion of the course to individual Certification involves a combination of online pre-course preparation, a 4-day intensive study block and the completion of a detailed report and action plan for the organisation to implement this Standard.

Throughout the programme, individuals, with support, will be required to identify and address their own strength and weaknesses against the 30 plus criteria required.

### **Who will benefit most from *EnergyManager* Professional training?**

The *EnergyManager* Professional training has been designed to equip anyone responsible for energy use within an organisation with the insights, skills and specialist knowledge to understand what tools, technologies and services are available, how and when to engage qualified experts and how to manage significant energy programmes to maximise productivity and returns.

The course has been developed with a focus on organisations with larger annual energy bills to enable them to realise significant bottom-line benefits through greater energy productivity. It has also been structured to deliver value to any organisation with corporate goals and market activity requiring they demonstrate leadership on environmental, sustainability and climate change issues.

The types of business that are likely to realise the greatest benefits include food, forestry and other primary processing or manufacturing organisations, utilities and energy companies, property and facilities management, hospitality and health organisations, central and local government and larger tertiary education institutions.

Other organisations with environmental and sustainability programmes, process control, facilities and associated standards such as [ISO 9001 Quality Management System](#) and [ISO 14001 Environmental Management System](#) are also likely to find the course highly relevant.

## Further Information

For further details on the *Energy Manager* Professional, please contact programme coordinator Norman Smith on 021 499 031 or by email [norman@minz.org.nz](mailto:norman@minz.org.nz).

The course will appeal to all people employed or moving into positions responsible for optimising energy use, meeting sustainability targets goals or realising bottom-line benefits of reduced operating costs. Early indications are that while a small number of participants will be full time energy managers, for the majority, energy responsibilities will only form a part of their role with the balance involving one or more other management functions.

## Curriculum and Structure

The course curriculum covers three key topics:

- Management – Leadership General/Financial (45%)
- Managing Energy Tools and Processes (30%)
- Managing Energy Products and Technologies for Productivity (25%)

This is not a short course but an advanced Continuing Professional Development (CPD) programme which will enable an individual with work-based experience to gain a range of skills to undertake important new responsibilities. The ‘master-class’ approach to teaching and learning is highly participatory with considerable mentoring and support throughout.

## Timing, Commitment and Cost

Applicants will be assessed (by interview) for their suitability at the time of application and advised if their experience and current responsibilities means they require additional experience to undertake this course of study.

Participants will normally hold a tertiary level qualification and be employed in a position which includes responsibility for energy but depending on individual circumstances these requirements may be waived.

Course Timetable	Dates
Unit A: Workplace based pre-work module (40 hours preparation)	Participants complete assignments prior to the classroom-based study block
Unit B: Classroom based (Wellington - 4 days)	31 October - 3 November 2017
Unit C: Application for Certification (40 hours)	Mon, 6 November – Fri, 26 January 2018 (12 weeks)

The cost is broken into two components:

Investment (excludes GST) per person	EMANZ Members price	Non-members price
<b>Units A &amp; B</b> Preparation Assignments and four-day course	\$3,610	\$3,800
<b>Unit C - Accreditation</b> <i>Note: Certification will be based on individual assessment, documents submitted etc. There is no written examination.</i>	\$700	\$700
<b>Total Unit A, B &amp; C</b>	<b>\$4,310</b>	<b>\$4,500</b>

## Course Content Summary

Management – Leadership General/Financial (45% of programme)	Managing Energy Tools and Processes (30% of programme)	Managing Energy Products and Technologies for Productivity (25% of programme)
<p>While all case studies and presentations will reference energy management issues, topics in this section will be generic in the sense they address broadly applicable principles of middle level management.</p> <p><b>Topics include:</b></p> <ul style="list-style-type: none"> <li>● Strategy, advocacy, alignment with corporate strategy and drivers;</li> <li>● Senior management engagement;</li> <li>● Energy accounting and economics;</li> <li>● Financial analysis IRR/NPV;</li> <li>● Risk Management;</li> <li>● Non-energy benefits of EM;</li> <li>● Staff engagement programmes;</li> <li>● Project management;</li> <li>● Communications/presentation skills;</li> <li>● Business case development</li> <li>● Embedding 50001 in an organisation, new 50000 standards;</li> <li>● Job descriptions and KPIs;</li> <li>● Political context, internal context; and</li> <li>● Interface with other standards ISO 9001, 14001, e.g. carbon reporting.</li> </ul>	<p>The role of an Energy Manager is as a generalist – not to become an expert in any of the specialised EM tools and techniques but understand all, select those ‘best for purpose’ and manage the contracts, process (and external advisers) involved.</p> <p><b>Topics include:</b></p> <ul style="list-style-type: none"> <li>● Energy Performance Indicators</li> <li>● Energy services contractor management;</li> <li>● Energy auditing</li> <li>● Monitoring and targeting;</li> <li>● Post occupancy evaluation;</li> <li>● Energy procurement, invoice validation, metering;</li> <li>● Electricity/gas markets;</li> <li>● Demand response opportunities</li> <li>● Commissioning/IPMVP;</li> <li>● Energy Performance contracting;</li> <li>● NABERS; and</li> <li>● Industry benchmarking, e.g. TEFMA for tertiary education sector.</li> <li>● Transport efficiency</li> </ul>	<p>An Energy Manager needs to know enough about relevant technologies to manage their evaluation and adoption, identify credible information sources, research their performance and make the best investment/ purchase decisions.</p> <p><b>Examples:</b></p> <p><b>General Technologies</b></p> <ul style="list-style-type: none"> <li>● Light and controls, motors and drives, fans and pumps; and</li> <li>● Electrical systems.</li> </ul> <p><b>Commercial Facilities</b></p> <ul style="list-style-type: none"> <li>● Building envelope;</li> <li>● HVAC and BMS, cooling towers; and</li> <li>● Air quality.</li> </ul> <p><b>Industrial Sites</b></p> <ul style="list-style-type: none"> <li>● Boilers and steam;</li> <li>● Process heat/co-gen – CHP; and</li> <li>● Kilns and drying/Compressed air.</li> </ul> <p><b>On –site Generation/Disruptive Technology</b></p> <ul style="list-style-type: none"> <li>● Renewables/photovoltaics Batteries and storage.</li> </ul>

*"Being able to share in the experience of the presenters over four days is a big opportunity not to be missed .... the 50001 checklist presented as part of the course is alone worth the fee."*

**Frans Plugge, Energy Consultant and EnergyManager Professional**

*"I would highly recommend that businesses hesitating between one or two participants go for two ..... Much more valuable than just one person taking the knowledge back to the organisation and explaining to others the benefits of what has been learned. "*

**Roseline Klein, Sustainability Manager, Watercare Services Ltd and EnergyManager Professional**