

Report of External Evaluation and Review

Genesis Energy Limited
trading as Genesis Energy Private
Training Establishment

Highly Confident in educational performance

Highly Confident in capability in self-assessment

Date of report: 24 October 2014

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Final report

Purpose of this Report

The purpose of this external evaluation and review report is to provide a public statement about the Tertiary Education Organisation's (TEO) educational performance and capability in self-assessment. It forms part of the accountability process required by Government to inform investors, the public, students, prospective students, communities, employers, and other interested parties. It is also intended to be used by the TEO itself for quality improvement purposes.

Introduction

1. TEO in context

Name of TEO:	Genesis Energy Limited trading as Genesis Energy Private Training Establishment (Genesis Energy)
Type:	Private training establishment (PTE)
Location:	Main office: Corner Te Ohaaki and Heatherington Roads, Huntly
Delivery sites:	Genesis Energy delivers training across eight sites around New Zealand in energy-related areas, including electrical/mechanical, and thermal and hydro operations.
First registered:	26 February 2003
Courses currently delivered:	<p>Genesis Energy offers training in support of:</p> <ul style="list-style-type: none">• Electrical/Mechanical levels 2-5• Thermal Operations levels 2-5• Hydro Operations levels 2-5• Training Scheme: Knowledge, operation and earthing of 11 kV switching and metal clad switching (level 4) <p>Genesis Energy also offers all unit standards towards the National Certificate in Electricity Supply (Level 4) and the National Diploma in Electricity Supply (Level 5) on behalf of the registered industry training organisations.</p>

Code of Practice signatory?	No
Number of students:	Domestic: 24 employees currently in training agreements. One trainee identified as Māori; all ‘candidates’ (trainees) are Genesis Energy employees.
Number of staff:	Eight permanent full-time staff within the PTE branch of the company.
Scope of active accreditation:	<p>http://www.nzqa.govt.nz/providers/nqf-accreditations.do?providerId=829837001</p> <p>Genesis Energy has consents to assess in areas that can lead to the following qualifications:</p> <ul style="list-style-type: none"> • National Certificate in Energy and Chemical (Boiler Operation) (Level 2), (Process Operation) (Level 2), (Process Operation including Steam Strand) (Level 4) • National Certificate in Electricity Supply (Thermal Operator) (Level 4) • National Diploma in Electricity Supply (Level 5) • National Diploma in Engineering (Electrotechnology) (Level 6).
Distinctive characteristics:	<p>Genesis Energy Private Training Establishment (Genesis Energy) is the learning and development section of Genesis Energy Limited, a Government Mixed Ownership Enterprise. The PTE is responsible for delivering all the technical training required to support and run Genesis Energy’s operations.</p> <p>Genesis Energy’s role is to administer, coordinate and carry out training and assessment in support of company, individual, industry and national training requirements. Together with the delivery of units towards the national qualifications, the training team delivers compliance and regulatory training, supervises apprentices, and facilitates knowledge updates to permanent employees and contractors who work on site.</p>
Recent significant changes:	<p>The name of the parent company was changed from Genesis Power Ltd to Genesis Energy Ltd.</p> <p>Genesis Energy Ltd restructured in 2013 to ensure</p>

the training is geared towards a multi-skilled workforce. The restructure resulted in significant staff amalgamation across the organisation and within the management of the PTE component.

Genesis Energy established an NZQA-approved Training Scheme: Knowledge, operation and earthing of 11 kV switching and metal clad switching (level 4).

Previous quality assurance history:

NZQA's previous external evaluation and review (EER) visit was conducted in 2010. NZQA was Confident in Genesis Energy's educational performance and Confident in its capability in self-assessment.

Genesis Energy met the 2013 national external moderation requirements of NZQA and the industry training organisations: Competenz, The Skills Organisation, and Connexis (infrastructure), indicating that the PTE is assessing to the national standard.

2. Scope of external evaluation and review

The (EER) examined the following mandatory focus area:

- Governance, management, and strategy

The two other focus areas chosen encompass the training in support of Electrical/Mechanical (levels 2-5) and Thermal Operations (levels 2-5), and the core training and assessment arrangements for staff training towards the National Certificate in Electricity Supply (Level 4) and the National Diploma in Electricity Supply (Level 5).

These qualifications align with the training required to operate the units at the power plant at Huntly and other Genesis Energy sites around New Zealand.

3. Conduct of external evaluation and review

All external evaluation and reviews are conducted in accordance with NZQA's published policies and procedures. The methodology used is described fully in the web document Policy and Guidelines for the Conduct of External Evaluation and Review available at: <http://www.nzqa.govt.nz/providers-partners/registration-and-accreditation/external-evaluation-and-review/policy-and-guidelines-eer/introduction>. The TEO has an opportunity to comment on the accuracy of this report, and any submissions received are fully considered by NZQA before finalising the report.

The EER team spent two days on site at Genesis Energy's Huntly Power Station. Genesis Energy PTE supplied the evaluation team with a self-assessment summary and various documents pertinent to the training division of Genesis Energy Ltd.

During the visit, the evaluation team met with key staff, including the learning and development managers (technical and retail), the learning solutions manager, programme developer, operations manager, and managers from each aspect (thermal and renewable energy generation). Skype discussions were also held with managerial staff from various other Genesis Energy sites. One contracted trainer/moderator and three of each currently enrolled trainees and graduates were also interviewed along with managers within the organisation where the trainees work.

While on site, the evaluation team viewed key documents, for example the previous and new organisation charts, strategy documents, weekly reports, individual learning plans, course evaluations and learner feedback surveys, and the quality assurance document. A variety of academic, planning and review documents and NZQA and industry training organisation reporting documents were sighted.

Phone interviews were also conducted with the general manager generation assets (representing the stakeholder group), general manager corporate services (representing the executive) following the EER to encompass the executive and stakeholder roles of the organisation.

Summary of Results

Statement of confidence on educational performance

NZQA is **Highly Confident** in the educational performance of **Genesis Energy Limited trading as Genesis Energy Private Training Establishment**.

The reasons for this judgement are as follows:

- Genesis Energy is responsible for delivering all the electrical/mechanical and thermal operator and maintenance technical training required to support and run the Genesis Energy Ltd operations; over the past four years, 100 per cent of trainees have achieved the units and courses offered.
- Trainees are all employed in the organisation and are acquiring highly relevant skills, the latest technologies and a broad knowledge of the theory underpinning their on-job tasks, which increases their effectiveness, their remuneration and their employability outside the organisation.
- The training, delivered by competent, well-qualified staff, is fit for purpose, is completed on the job as and when needed, and equips the trainees to work effectively and safely on and around Genesis Energy power plants across the various sites nationally, and also equips the trainees with the knowledge to work on overseas power generators. The delivery includes a sophisticated 3D online learning tool (from the United States) and panel control simulators, which ensures the training is engaging and reflects authentic on site work.
- Updating of the courses is tailored to meet organisation needs and industry training organisation requirements, and the content of the training programme is adjusted as required to reflect international trends. Individual learning pathways are designed for all trainees and individual goals and progress are closely monitored through regular reporting and discussion.
- Genesis Energy's support of Māori and Pasifika learners has been in the form of community foundation programmes seeking to increase opportunities for employment within Genesis Energy and associated industries.
- Genesis Energy is meeting the most important needs of the learners and key stakeholders by providing training that results in a multi-skilled workforce for Genesis Energy Ltd and transferable skills for the trainees.

Statement of confidence on capability in self-assessment

NZQA is **Highly Confident** in the capability in self-assessment of **Genesis Energy Limited trading as Genesis Energy Private Training Establishment**.

The reasons for this judgement are as follows:

- Genesis Energy implemented an organisational change last year (2013) as the result of a review, to move towards a more flexible workforce from the previous dedicated roles of staff. This has resulted in improved outcomes as staff become cross-functional, and efficiencies for the organisation.
- Also as a result of the review, the focus of the training was shifted from the qualification to the organisation's operational needs in terms of the skills covered. This shift of focus had little or no negative impact on the training.
- Genesis Energy has improved its training arrangements as a result of the organisational restructure, and after analysis has put in place a new training regime around the skills covered to produce a multi-skilled, flexible workforce that can respond and adapt to the changing needs of the organisation.
- Positive outcomes and evidence of improvement as a result of the new multi-skilled training include:
 - Staff gaining promotions and moving to further study
 - Transportability of suitably trained and qualified employees across sites.
- Trainee achievement is closely monitored to review the progress of all trainees at an individual level, with individual training plans and records of regular updates where progress is reviewed and goals set for the next period. At-risk trainees are identified and strategies are employed by the trainers in conjunction with their managers for re-engagement or motivation.
- Staff, including executive and management interviewed at this evaluation, and documents reviewed, show a consistent focus on ongoing improvements and a cohesive approach to monitoring and reviewing the organisation's training outcomes.

Findings¹

1.1 How well do learners achieve?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Genesis Energy effectively carries out training and assessment that supports the requirements of the company, individual staff, industry, industry training organisations and the New Zealand Qualifications Framework.

Genesis Energy is meeting its aim of delivering training that is fit for purpose, equipping trainees to work effectively and safely on and around power plants. Trainee achievement is consistently 100 per cent. Over the last four years, 32 trainees have enrolled in the national certificate or diploma and have all completed their training and gained the qualifications. Human resources at Genesis Energy has only recently begun to capture ethnicity data, but with one – successful – Māori trainee, this is not seen as an issue.

Across the organisation a total of 900 trainees have undertaken training at Genesis Energy over the past four years, and all have gained national certificates, national diplomas and various compliance certificates around first aid, health and safety, working in confined spaces, forklift driving and various other training.

Excellent results from external moderation undertaken by NZQA and the industry training organisations demonstrate that Genesis Energy is assessing at the national standard across all areas, confirming that achievement is valid.

1.2 What is the value of the outcomes for key stakeholders, including learners?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Trainees at Genesis Energy gain valued qualifications that meet industry needs, both within their organisation and nationally.

The certificate and diploma qualifications meets the national requirements for controllers and maintenance operators, and trainees spoken to were confident that

¹ The findings in this report are derived using a standard process and are based on a targeted sample of the organisation's activities.

holding the qualifications improved their employment options nationally and internationally. Some staff have been offered attractive incentives from other companies to change employers. Anecdotal evidence was heard of fewer cases of human error than in overseas power companies.

Further value for graduates following qualification completion and achievement lies in pay increases and promotions. Trainees are also gaining confidence and transferable skills, which are useful in their day-to-day work. Staff are now multi-skilled and can assist in other work areas when needed. This results in less 'down-time' for staff as they understand each other's skills and can perform all roles. Comments from trainees included:

- '... now [I] don't just walk past a machine or process - now [I] can understand it'
- '... now [I] understand the whole picture rather than just my role'.

The value to the organisation, as a key stakeholder of the PTE, is the availability of a skilled, flexible workforce providing Genesis Energy with skilled and knowledgeable staff with wide experience across the country to safely maintain power plants.

Genesis Energy is connected with the community and is committed to offering training to those from the surrounding district, and spends some time training and upskilling the transient seasonal workforce.² The PTE has also completed work with Te Puni Kōkiri cadetship³ contracts and Ministry of Social Development training across the six local Waikato iwi. The ongoing relationship across local iwi around the seasonal maintenance work aims to create a labour pool and to identify any potential employees.

² Transient workers, including riggers, painters, etc from the surrounding district work at Genesis Energy during the height of the power season and during some shut-down operations. These workers are required to receive training in occupational safety and health and first aid, and in many other aspects of Genesis Energy's operations.

³ Te Puni Kōkiri (TPK) Cadetship Initiative – this is an agreement between Genesis Energy and TPK where candidates are supported in their apprenticeships or upskilling programmes while in employment with Genesis Energy Ltd. Funding from TPK goes to each business unit in support of their candidate to offset the costs of training and development. Genesis Energy gives feedback to TPK on candidate progress and has eight remaining candidates in 2014.

1.3 How well do programmes and activities match the needs of learners and other stakeholders?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

As a result of a restructure in 2013, and an analysis of the training offered, the organisation decided to better model the training around the company's needs. A review was completed and the PTE altered the training to complement the new organisational structure to enable operators and maintainers to work in both roles easily.

With the wide range of training being delivered, the organisation is moving the training to be more pragmatically focused on operations. The aim is a 'leaner, meaner' workforce whereby the training is structured around business-as-usual to maintain business flow to allow workers to complete their training while working on their normal shifts. Trainees are not expected to start training until they are seen to be ready, and a capability gap analysis is carried out on candidates prior to the commencement of training. This is proving to be very effective in ensuring that the training matches trainees' needs.

The training team works to deliver training that aligns with the goals and objectives of Genesis Energy, and ensures the content of the training programme is adjusted to reflect international trends. The trainers deliver a series of formal training and simulated activities alongside on-job training and assessment focused on meeting the educational requirements of staff across the organisation, leading to competency in various tasks and roles.

The teaching resources are well structured and meet the needs of the trainees. Online 3D learning modules on 'fundamentals' are effective in enabling learners to engage with the latest equipment. Trainees are able to study during work shifts at a time that suits them and the workflows of the plant. The simulators allow trainees to operate imitation control panels where they learn to deal with major shutdowns or hazards without danger to the organisation. This helps learners build a wider understanding of the electricity market.

Genesis Energy has well-established formal and informal systems to monitor how well it is meeting the needs of the organisation and trainees. There are mechanisms in place to capture feedback from trainees, and there is good evidence that improvements are made in response to this feedback. The training unit is small enough that any concerns are dealt with informally and quickly. Organisational training expectations are managed through a formal reporting process and regular weekly meetings.

1.4 How effective is the teaching?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

The high achievement of trainees is the result of effective teaching with appropriate and current resources, and ensuring the trainees are not enrolled for training until they are ready.

All training staff are qualified in their fields, are highly experienced, and have a good understanding of both adult learning and teaching and plant operations, and have an in-depth knowledge of the workings of energy generation. They are employed and work on the generation plant and are up to date and current with the latest technology and international standards around the equipment. They reflect regularly on how well they are doing by using peer review and team teaching, and also hold regular meetings to discuss delivery methods and the trainees' learning. Training staff review their assessment practices regularly, and frequently try new strategies. For example, they used helmet cameras on trainees to record their work practices and found this did not work as well as planned.

Trainers have links with industry and other key stakeholders and use these links to inform programme design and development.

Genesis Energy's managers and trainers understand the importance of checking that assessment practices are valid. Their assessment moderation practices are effective and ensure standards are maintained and assessments are valid. The organisation engages with its three industry training organisations for external moderation and results show that it is meeting industry standards.

Trainee feedback is collected and analysed after each module, and there is good evidence of improvements being made in response. The evaluation team heard from trainees (past and present) and the three industry training organisations that the trainers have an excellent understanding of the content, and managers confirm that the training improves the ability of staff to do their job.

Individual training plans are monitored for each staff member undertaking the learning. Reporting on training is formalised, with weekly updates and monthly manager briefings and an oral report to the trainee. Regular reporting of changes or actions required as a result of feedback from learners, tutors and internal stakeholders, and an overview of these and results from trainee surveys, are reported to management and the executive.

With the support of the board, Genesis Energy has recently updated all training resources in support of building a multi-skilled and flexible workforce.

1.5 How well are learners guided and supported?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Safety of the learner is paramount at each site in the organisation due to the risk level within the complex.

There is a learning contract between the trainee, trainer and their manager to ensure consistency, time allowance and monitoring of training; this is updated twice monthly. The trainees' previous experience and training needs are discussed before training starts. The learning contract sets clear expectations for all parties, and these are assessed and managed well.

Genesis Energy offers ongoing support for the learning from the training staff, managers and trainee colleagues and from anyone in close proximity to the trainee while they are undertaking any training or simulations. As the trainees and trainers work together, there is one-to-one support, and help is available at all times along with daily catch-up conversations. The individual, flexible approach is key to all trainees completing their training.

Trainees spoken to on site were clear about the units of training they were studying and were aware of the national qualifications embedded in their training. Trainees were also able to discuss the immediate benefits from the training, which included no down-time and the ability to understand previously less well-known machinery.

A standardised course feedback form has been developed to be completed by all trainees. Trainees' progress is tracked continuously through the database, which is also used to plan future training.

1.6 How effective are governance and management in supporting educational achievement?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Governance, strategy and planning are carried out by the executive team which has delegated authority over the PTE arm and the training. The team provides clear guidance to Genesis Energy management and monitors progress towards educational and business goals regularly. Extensive budgetary and human resources are invested in ensuring employees and contractors work competently and safely on the plant and machinery, with the investment in training being a key component of this.

In conjunction with changes in the overall management structure, the training has become more pragmatic to suit a more flexible workforce.

The reorganisation of operations has been well managed and there is no evidence of disruption to the day-to-day provision of training and assessment. Training is managed effectively and is well resourced in regard to educational facilities and teaching resources, and there is appropriate planning and finance in place for upgrading and renewal of resources. Preventative action around the mitigation of risk and ensuring the continuity of resources was shown by the decision to retain staff to allow the new training regime to be managed easily.

The flexible, multi-skilled approach to the learning has been more effective than expected, and the regular ongoing feedback from trainees is excellent. There have been many positive organisational outcomes, including shifting the focus of training from the qualification to the organisation's operational needs. This has enabled the gaining of a qualification during work time.

Engaging and identifying needs is done well, and there is good evidence that quality improvements are occurring in response to the needs of the various stakeholders, including the parent company, Genesis Energy Ltd.

Focus Areas

This section reports significant findings in each focus area, not already covered in Part 1.

2.1 Focus area: Governance, management and strategy

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Excellent**.

2.2 Focus area: National Certificate in Electricity Supply (Level 4)

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Excellent**.

2.3 Focus area: National Diploma in Electricity Supply (Level 5)

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Excellent**.

Recommendations

There are no recommendations arising from the external evaluation and review.

Appendix

Regulatory basis for external evaluation and review

External evaluation and review is conducted according to the External Evaluation and Review (EER) Rules 2013, which are made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister for Tertiary Education, Skills and Employment.

Self-assessment and participation in external evaluation and review are requirements for maintaining accreditation to provide an approved programme for all TEOs other than universities. The requirements are set through the NZQF Programme Approval and Accreditation Rules 2013, which are also made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister for Tertiary Education, Skills and Employment.

In addition, the Private Training Establishment Registration Rules 2013 require registered private training establishments to undertake self-assessment and participate in external evaluation and review, in accordance with the External Evaluation and Review Rules (EER) 2013, as a condition of maintaining registration. The Private Training Establishment Registration Rules 2013 are also made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister for Tertiary Education, Skills and Employment.

NZQA is responsible for ensuring non-university TEOs continue to comply with the rules after the initial granting of approval and accreditation of programmes and/or registration. The New Zealand Vice-Chancellors' Committee (NZVCC) has statutory responsibility for compliance by universities.

This report reflects the findings and conclusions of the external evaluation and review process, conducted according to the External Evaluation and Review (EER) Rules 2013.

The report identifies strengths and areas for improvement in terms of the organisation's educational performance and capability in self-assessment.

External evaluation and review reports are one contributing piece of information in determining future funding decisions where the organisation is a funded TEO subject to an investment plan agreed with the Tertiary Education Commission.

External evaluation and review reports are public information and are available from the NZQA website (www.nzqa.govt.nz).

The External Evaluation and Review (EER) Rules 2013 are available at <http://www.nzqa.govt.nz/assets/About-us/Our-role/Rules/EER-Rules.pdf>, while information about the conduct and methodology for external evaluation and review can be found at <http://www.nzqa.govt.nz/providers-partners/external-evaluation-and-review/policy-and-guidelines-eer/introduction/>.

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