

3rd Australasian Engineering Heritage Conference 2009

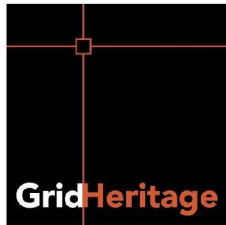
From the Corporate Dump to a National Resource

By Tony Silke, Chair of GridHeritage, and the GridHeritage Team.

SUMMARY: *Corporatisation of the electricity industry in New Zealand produced a culture of “Out with the old and in with the new”. This paper will cover the early collection of valuable artefacts from the industry, the establishment of an incorporated society to protect and store the collection, and the development of the various aspects of our activities. The GridHeritage Society now holds what is possibly the largest collection of its type in New Zealand, and it is growing steadily. The themes for this presentation will be our ongoing emphasis on achieving a high profile within the industry and on creating a resource that will be of value to future generations.*

We are slowly becoming a familiar and respected entity within the electricity industry. GridHeritage is now a trusted organisation for the safe-keeping of memorabilia and for retaining the corporate memory of the early electricity industry.

1 THE BEGINNINGS



An unfortunate by-product of corporatising the electricity industry in 1987 was the introduction of a culture of ‘old is bad, new is good’. This culture idolised the new management ideals and rubbished traditional methods.

Along with this culture change came the closure of numerous workplaces and the downsizing of staff numbers. Previous organisations had retained artefacts, equipment and records dating back many years. Many of these ‘treasures’ were found dumped in rubbish skips. Perhaps the new culture was good for restructuring the industry, although this is still being debated. What it certainly did was to provide a unique opportunity to gather and build a collection.

At the time, I was the manager of a large building and almost by accident this building became a repository for the safe-keeping of historic equipment. This presentation will describe how I was reluctantly dragged into the mysterious world of historic collecting and how GridHeritage has gradually developed as a valuable resource for future generations.

2 THE NEED TO SECURE OWNERSHIP

Many small collections in New Zealand are owned by just one person, and in the event of the death of that key person the collections are broken up and sold off. It was seen as vital that the growing collection should become an integral part of the industry and be owned by an independent legal entity. Massey University designed a paper that proposed the structure for transferring the ownership of the collection into an Incorporated Society.

The GridHeritage Society was formed in 2002 with a membership of 35 people, mostly from the industry and

with some funding from Transpower. Currently, the membership stands at around 50, and there are others who regularly contribute to our work.

3 SCOPE OF THE COLLECTION

Perhaps the most difficult challenge for any small collection is to agree on its scope. Without a well defined scope the collection could become too large and lose the focus of its primary purpose.

GridHeritage’s Draft Scope includes:

- Transmission equipment relating to the primary electricity system, including line construction and maintenance
- Control Centres and associated equipment
- High-voltage Substations
- Metering equipment
- Protection equipment
- Communications equipment
- Staff and the histories of people involved in the industry

Unfortunately GridHeritage, like most collections, does not have infinite storage and some of the items we would like are very large and weighty. Being the only major collection in our industry also means that we are offered equipment that does not fall within our scope. In some cases, we have accepted these donations but only if they are unique and run the risk of being destroyed. GridHeritage stores them in the hope that in some future date there will be other similar collections in the industry to accept and protect them. Examples could include a specialised power-station governor and water measuring equipment.

4 GRIDHERITAGE’S ACTIVITIES

Over the past seven years GridHeritage has become involved in a wide range of activities to ensure that the history of the industry is preserved. It is acknowledged

that the Society may ultimately not be the main beneficiary of the collection. GridHeritage members accept that much of what is done is to provide a resource for others to use in the future. We do not care who holds our heritage; we simply want to know that it is in safe hands.

4.1 Cataloguing, storing and protecting the collection

After a great deal of research a standard museum software package was purchased from the USA and installed. This PastPerfect software holds descriptions of each item, along with photos and other information.¹ It is also able to be connected to web based software for an Internet site². PastPerfect has been excellent for our uses and is ideal for a small collection which is managed by non-professional people. However, there are many aspects of the software that we have not used as yet. Training of users is an issue for part-time volunteers.



Figure 1 Working on the collection at Bunnythorpe

Currently the collection contains over 400 items that are photographed, catalogued and safely stored in a temperature-controlled building. There are hundreds of items still requiring this work which seems to be unending. There are also thousands of documents and personal collections that are stored but uncatalogued. These are held in a separate building that is equipped with temperature and humidity control. Resourcing this work is time-consuming and requires a dedicated pool of volunteers.

4.2 Oral Recording

Retired people are a major historic resource that is often overlooked. Since 2002, GridHeritage has had a goal of recording 5 persons a year. To date, we have recorded 55 persons from across a wide sector of the industry. In all cases we have used a professional oral historian to make our recordings. However, our approach to the selection of interviewees has been a little unusual. Traditionally, oral histories are made of just very senior staff. Although we have also recorded senior personnel,

we have found the richest recordings have come from people further down in the organisation. We have also recorded the lives of the wives and partners of ex-staff and these have given a wider dimension to the oral histories.

All of our tapes and their abstracts are safely stored with the National Oral History Association of New Zealand in the Alexander Turnbull Library.

4.3 Maori Linemen Project

Maori Linemen have had a unique place in the development of the New Zealand high voltage transmission system.



Figure 2 Maori line-crew

Maori excel in this type of work and their culture adds a depth to the way they work together. The Ministry for Culture and Heritage has funded a project to record the lives of 10 Maori Linemen and their partners. It is hoped that this information will be used for the making of a documentary on the subject.

4.4 Group Oral Recording

GridHeritage has recorded groups of people who have all been involved in the same type of work over many years.



Figure 3 Group oral recording session

A group oral history recording session is usually more dynamic because conversations develop. One person may recall something and another adds to it and this

helps develop the memory. This method has often produced better results than single interviews.

4.5 Video and Oral recording

GridHeritage has done a trial combining video/oral recording. While the use of video does add a further dimension to the oral history, the Society feels that the extra cost and difficulty involved is not justified, except in special cases.

4.6 The book "Connecting the Country"

Transpower commissioned Helen Reilly to write a history of the electricity system in New Zealand.



This was a major work that took nearly three years of research and writing. Transpower engaged one person part-time to liaise with the author. From this work GridHeritage amassed a unique collection of industry information and photographs. Some were used in the book but most are safely stored for future reference.

4.7 Preservation of Industry Films and Videos

GridHeritage has some sixty films and videos showing the history of the transmission system and the organisations involved. Some of the early films were 8mm and 32mm and were extremely frail.



Figure 4 Arapuni grocer's shop

The initial effort was to copy the films onto a studio-quality video. A project was recently completed to transfer all of our videos to DVD and to a separate permanent data storage system. Our original media plus a copy of the DVD sets will be stored in the New Zealand Film Archives. The DVDs are now used for

presentations to staff and for training, especially of new recruits into the industry who have not seen line construction or work in the field.

4.8 Permanent Displays

GridHeritage currently has three permanent displays of historic equipment and artefacts. The displays are all in areas that are accessible by people from the industry and they create a great deal of interest. Display sites are:

- Power System Consultants in Tawa, Wellington
- Transpower System Operation, 96 The Terrace, Wellington
- Transpower South Island Area Control Centre at Islington, Christchurch

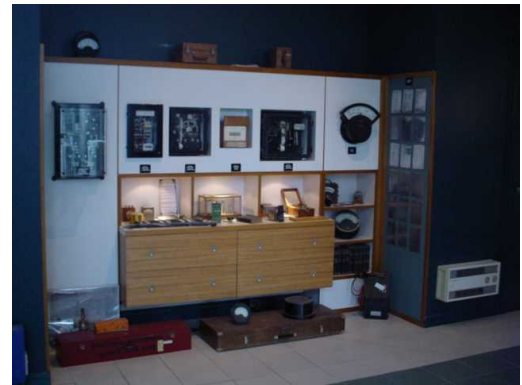


Figure 5 Islington display

There is a growing trend towards introducing new staff to the displays as much of the equipment comes from the days of electro-mechanical technology which is easier to understand than its modern day electronic equivalent.

4.9 Mercury-arc valve decommissioning

A major opportunity for Transpower and GridHeritage is the upcoming decommissioning of the original Inter Island High Voltage Direct Current scheme.



Figure 6 Mercury-arc valves

This scheme has been in service since 1965 and, at the time, it utilised world-leading mercury-arc valve

technology. The benefits of electrically linking the two islands thereby enabling the transfer of low cost hydro power from the South Island to the North have been significant to New Zealand's economy.

When the mercury-arc technology is decommissioned, finding a secure way to display the valves, which are heavy, will be challenging.

4.10 The Virtual Museum

Much of what GridHeritage collects may be great value to students and to the electricity industry, but it is of limited interest to the general public. A lot of the equipment is large and heavy so difficult to display. Early on, GridHeritage members decided to work towards a 'Virtual Museum' that was easily accessible via the Internet.

One of the benefits of PastPerfect Museum software is its relative ease of building web-based displays by using its Virtual Exhibit software. This software simply picks up selected information and pictures from the main PastPerfect system and assembles them into a website. Our display is accessible from our GridHeritage website³.

4.11 The damaged ECNZ Collection

Unfortunately, what was perhaps the most important collection of electricity memorabilia in Australasia was severely damaged in storage before it was rescued by GridHeritage.



Figure 7 The water-damaged ECNZ collection

The collection came from the Electricity Corporation of New Zealand's Wellington Head Office where it was carefully put into a container, catalogued and stored in a storage shed in the South Island. Unfortunately the roof of the shed was damaged by snow and the container was left exposed to the weather. The equipment suffered extensive water damage and much of the valuable paper records were turned into a porridge-like mess.

A professional conservator was hired to provide an assessment of the damage and to assist with ongoing restorations. Almost 90% of the equipment had to be written off and dumped. One seriously damaged piece of equipment was restored and is now proudly on display in Transpower's Wellington Office. This involved the professional restoration of the cast iron base, the woodwork, clock mechanism and specialist paper conservation.



Figure 8 The ex-Waitaki water-flow meter

The future of the remainder of the damaged collection is uncertain, largely due to the cost of restoration and the lack of resources to do the highly specialised work.

5 RELATIONSHIP WITH TRANSPOWER

GridHeritage continues to have a very good relationship with Transpower as our work is mutually beneficial to both parties. Transpower provides office space and resources for one member of GridHeritage (myself), and I usually work four part days a week in the office. This location has been essential to keep the Society's profile high among staff and to foster the acquisition of redundant equipment to our collection. GridHeritage provides an historic resource to Transpower and is frequently used for dealing with public enquiries about historical matters.

Permanent storage for our collection is provided free of charge at Bunnythorpe, near Palmerston North, in the Transpower store which is highly secure and safe from the elements.

6 CHALLENGES FOR SMALL ORGANISATIONS

As in all voluntary organisations, GridHeritage faces difficulties in getting people to work on the collection. We rely on people wanting to be involved and in their deriving personal satisfaction from their efforts. In our case, finding volunteers is made worse by having our storage two hours drive from where most of us live. The cost of our accommodation each trip is an added drawback. We cannot see this changing in the future.

We rely on a core group of 5 enthusiastic people to do most of the work. We are also reliant on the generosity of Transpower for funding our special projects. Without their assistance we could not have achieved much at all.

7 WHERE TO FROM HERE?

In 2004, GridHeritage produced a publicity brochure that included a list of goals. Most of these goals have already been achieved, and it is now time to set some new and challenging goals.

We have gone through a change from electro-mechanical technology to modern computer technology. Previously we were able to acquire old equipment as it was replaced with newer models. Unfortunately, modern equipment undergoes little visible change although it seems to require increasingly frequent updates. Recently the System Operation branch of Transpower did a total replacement of the Electricity Market operating system. Everything has changed but the appearance. We are left with just the out-of-date procedure manuals and training documents.

Our world may never be the same.

The GridHeritage Society has an ideal place for storing equipment, but it may not be the best location for our documents and photographs. These may need to be transferred to a museum or place that is more easily accessible to the general public. Perhaps the future is for GridHeritage to collect the electrical equipment and to work in conjunction with an organisation such as The National Library of New Zealand to store the documents and photographs.

We have always felt that GridHeritage would be just one of a number of collections in the electricity industry. We envisaged an 'Umbrella' organisation with smaller collections under the umbrella. Sadly this has not yet happened.

8 CONCLUSIONS

GridHeritage has been fortunate in being involved in the industry in a time of immense change, both in technology and in the structure of the industry. We have amassed a large collection that we hope may be of value to historians in the future. Our core objectives of 'collect and protect' have served us well and will hopefully provide future generations with access to a slice of early history of the New Zealand electricity industry that would otherwise have ended up in the dump.

It is easy to think of history as a thing of the past. We must never lose sight of the fact that history is being made today, and we have to be in a position to keep adding to the collection, and ensuring its safety.

"We owe it to our Grandchildren"

9 ACKNOWLEDGMENTS

GridHeritage wishes to acknowledge the following:

- Transpower New Zealand Ltd
- GridHeritage Executive and members
- Helen Reilly
- Massey University, Museum Studies.

10 REFERENCE

Reilly, H, *Connecting the Country. New Zealand's National Grid 1886 – 2007*, Steele Roberts, Wellington, 2008.

11 APPENDICES

Footnotes:

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- ¹ PastPerfect Software Website.
<http://www.museumsoftware.com/>
 - ² VirtualExhibit website.
<http://www.museumsoftware.com/ve4.shtml>
 - ³ GridHeritage website.
<http://www.gridheritage.org.nz/index.html>