

Great products, exceptional service and very competitive pricing

A GENKIT ALTERNATIVE POWER SYSTEM CASE STUDY ON BEAUTIFUL MOTUKIEKIE ISLAND

AT A GLANCE

CHALLENGE:

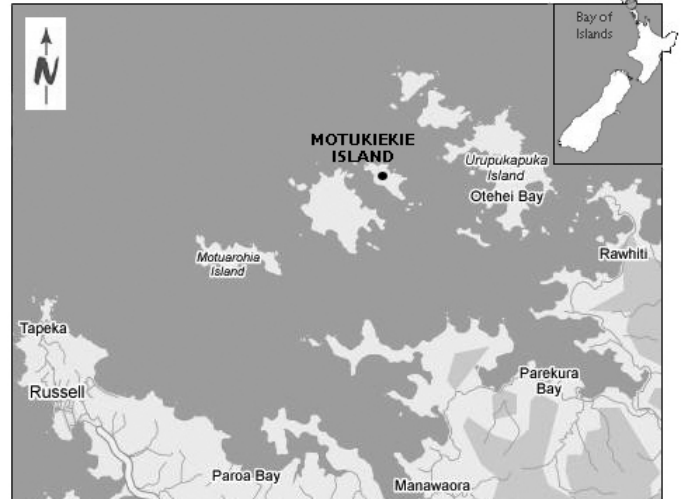
Identifying, sourcing and supporting the installation of appropriate equipment to upgrade a remote area power system.

SOLUTION:

Genkit supplied batteries, diesel generator and first-class after sales support.

OUTCOME:

A fully automated and reliable power system meeting power needs for the next 12-18 years.



Powering a remote Motukiekie Island property in the Bay of Islands from the national grid is simply not a practical option. Nestled in bush on the western side of the island, the modern house provides holiday accommodation for the property owners, as well as a self-contained apartment on the ground floor. Finding the best vendors to supply and support installation of alternative power system components was crucial to project success.

THE CHALLENGE

After 7 years of operation, the existing alternative power system at the property was performing poorly and had reached the end of its useful life. Made up of solar panels, backup diesel generator, battery bank and inverters, much of the system required upgrading to ensure it functioned automatically, reliably and effectively.

It was important to the property owners that the right equipment was sourced at the right price and be successfully installed to meet their needs. It is also imperative that such a system has automated generator control to extend battery life.



IMG1: MOTUKIEKIE ISLAND HOUSE NESTLED IN THE BUSH



GENKIT'S SOLUTION

QUALITY PRODUCTS:

Genkit supplied 24 x 2-volt 600 amp/hour *Gennergiser* battery cells and a fully automatic Lister Petter 2-cylinder 1500rpm diesel generator in a sound attenuated canopy for the Motukiekie Island power system project.

“With our previous batteries being 6-volt cells configured in 48 volt nominal, the new *Gennergiser* batteries were a complete change in voltage, capacity and size” says Property Manager, Peter Hunt. “However, the conversations I had with Nick Tones of Genkit very quickly gave me confidence to proceed with this style and configuration of batteries and they are working extremely well. They were also very competitively priced”. *Gennergiser* batteries are manufactured to German standards especially for Genkit and come with a full 2 year warranty and a further 3 year pro-rata warranty.

Peter Hunt also placed an order for Genkit to supply the silent type Lister Petter generator. “Again Genkit’s pricing was very competitive and their knowledge and advice very forthcoming. I have been very pleased with the unit supplied”. Lister Petter are known worldwide for their clean, reliable and long-lasting engines, generators and pumps. Peter Hunt’s generator is guaranteed for 2 years or 1,000 hours, whichever occurs first.

Genkit organised transportation of all the supplied equipment to the Bay of Islands property, which Mr Hunt found of great help. Following installation by local contractor Greenfield Electrical (T/A Wattshop), Genkit ordered additional components from the Lister Petter factory in the UK to further enhance the generator’s performance. These were also delivered to the Motukiekie Island property within a very short timeframe.

KNOWLEDGE AND EXPERTISE:

Peter praises Genkit’s technical knowledge and freely available expert advice: “Nick Tones always makes himself available to answer questions and is extremely helpful”.

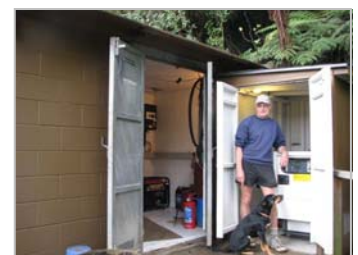
“Although we purchased our Outback brand inverter/chargers and distribution boards from the local Northland supplier, Nick was extremely obliging in providing us with extensive information about these units. He also advised us on how best to set-up the programmable computer controller within the inverters, in order to automate generator start-up should the battery bank power levels become low.”



IMG2: PETER HUNT WITH HIS GENNERGISER BATTERY BANK



IMG3: GRANDSON JOSH DOES A POWER STUDY



IMG4: THE GENERATOR ROOM



IMG5: THE ELECTRICAL CONTROL ROOM

INSTALLATION SUPPORT AND AFTER-SALES SERVICE:

The local Northland electrical contractor was hired by the property owners to carry out the installation of the upgraded power system components, however Genkit’s input didn’t stop at the point of delivery.

“There was much discussion between Genkit and the local contractor to ensure the best possible result was achieved for our installation”, says Peter. Genkit confirms they are flexible in approach for those that want to manage the installation aspects themselves, but take an ongoing interest to ensure components supplied are installed absolutely correctly, so as not to void any product warranties.

BENEFITS AND OUTCOME

Property Manager Peter Hunt and the property owners are pleased with the results of their new power system and happy to recommend the services of those that helped them to achieve it. They now have a fully automated and reliable power system, with good energy storage levels to meet the property’s needs over the next 12 to 18 years.

“Nick Tones from Genkit has fantastic technical expertise and has been extremely helpful from beginning to end. I like his honest approach and he’s very competitive on price for top quality products”.

ADDITIONAL INFORMATION

FURTHER REFERENCES:

- <http://www.genkit.biz/batteries>
- <http://www.genkit.biz/generators>
- <http://www.genkit.biz/solar>

LOAD PARAMETERS AND LIMITS:

The Motukiekie Island power system has been designed to supply electricity for the following appliances and equipment:

- Internal lights – 1000 watts, using energy efficient bulbs
- External lights – 3600 watts
- 1 x fridge freezer
- 1 x fridge
- 1 x freezer
- 1 x dishwasher
- 2 x microwave
- 2 x washing machine and 1 x clothes dryer
- 4 x heated towel rails
- Various household appliances (toaster, clothes iron, vacuum cleaner, electric blanket, portable hairdryers, grillers, etc)



IMG6: ADJUSTING THE SOLAR ARRAY ANGLE



IMG7: THE WIND TURBINE

- Telephone/fax system - the house has normal phone outlets and uses the Telecom 027 network, via a Hi Gain aerial feeding into a CDMA fixed wireless unit
- 1 x effluent treatment plant – includes aeration pump @ 65 watts @ 16 hours per day, submersible pump @ 600 watts, level probe control
- Computer and printer – both laptop and normal printers, internet via Wireless Air Card using an external aerial

PROJECT CREDITS:

Genkit credits the following organisations and individuals who contributed to the successful outcome of the Motukiekie Island project:

- Darren Hill, Greenfield Electrical Ltd T/A Wattshop
- Anthea Whitlock, CharlieHorse Business and Technical Communications – <http://www.charliehorse.co.nz>