

Connecting to New Zealand's National Grid

Transpower is keen to discuss potential new generation connections in New Zealand with prospective investors. The diagram (over) provides a high level overview of the process to assess connection with investors.

Because New Zealand has a small islanded power system, some technical requirements for generators can be more onerous than those found in larger, interconnected grids of other countries. However, Transpower is keen to assist parties by providing as much information as possible on these issues so that they do not become a difficulty for an investor.

Transpower will treat all enquiries and discussions over future generation connection confidentially.

Your initial contact to commence discussions with Transpower is the Customer Services Manager.

Further Information

Transpower makes available a significant number of publications on its website (www.transpower.co.nz) that provide more information on Transpower and connecting to the National Grid. Other websites to visit for information on New Zealand's electricity market and structure are:

SITE	PROVIDES
www.gridnewzealand.co.nz	– Information on Transpower's transmission projects
www.electricitycommission.govt.nz	– Statement of Opportunities by way of forecast demand and generation over the medium and longer term – Information on regulatory issues
www.med.govt.nz	– Energy and electricity market overviews and information – Government Policy Statements
www.ems.co.nz	– Market information provider
www.nz.m-co.com	– Electricity market administration information

CONNECTING NEW GENERATION IN NEW ZEALAND APRIL 2009

Keeping the energy flowing

TRANSPOWER



Connecting generation to the New Zealand power system

Owners of all generating units above 1 MW in size, connected to the New Zealand power system, are required under the Electricity Governance Rules to provide information to Transpower. The first point of contact is the:

Customer Services Manager
Transpower New Zealand Ltd
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Wellington
New Zealand
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Fax +64 4 495 7004

New Zealand is an OECD nation state, located in the South-West Pacific and consisting of two main islands – the North and South Islands. There is a total population of just over 4 million people, concentrated primarily in the main cities – Auckland, Wellington and Christchurch – the largest of which is Auckland (about 1.4 million people).



Key Facts on New Zealand's power system:

- It is an islanded and longitudinal system with generation commonly situated some distance from areas of demand.
- The total capacity of generation connected to New Zealand's National Grid is about 8,500 MW.
- More than 60% of generation is hydro-based, with the majority of hydro capacity in the South Island. Thermal generation (including geothermal, gas and coal) makes up about 36% of the total.
- There is a normal south to north power flow, utilising a 700 MW HVDC interconnector between the North and South Islands.

New Zealand's Electricity Market

The New Zealand electricity market is an openly contestable market at both a generation and distribution level. Electricity is bought and sold on a gross-pool, nodally priced, wholesale electricity market.

Market Regulation

Electricity industry policy is set by Government, with governance maintained through the Electricity Governance Regulations and Rules overseen by the Electricity Commission. The rules regulate:

- transmission investment by the incumbent transmission provider (Transpower);
- the quality and security of supply objectives to be achieved on New Zealand's power system; and
- the operation of the electricity market where electricity is bought and sold.

“The Electricity Commission will have responsibility for governance and regulation of the industry. Key roles for the Commission include... (m)aintaining a regulatory environment that is conducive to investment in all types of generation and that minimises any undue barriers to competition in generation and retail.” **New Zealand Government Policy Statement on Electricity Governance, October 2006**

Transpower

Transpower is the owner and operator of New Zealand's National Grid, and carries out two primary roles:

- Grid Owner** – plans, manages and maintains the transmission grid, including the assets used to connect generation; and
- System Operator** – contracted to the Electricity Commission to manage the real-time operation of the New Zealand power system.

Connecting New Generation

	PROPONENT	TRANSPOWER
ENQUIRE	<ul style="list-style-type: none"> – Project Description (High Level) – New Request Form – Initial Parameters and Models 	<ul style="list-style-type: none"> – High Level Response Report – Connection Policy – Connection Guidelines
NO COSTS		
COSTS INCURRED		
FEASIBILITY	<ul style="list-style-type: none"> – Design Parameters and Models – Initial Asset Capability Statement (ACS) 	<ul style="list-style-type: none"> – Detailed Solution Development Contract – Connection Design Report
CONTRACT	<ul style="list-style-type: none"> – Pre-commissioning ACS – Project Plan – Commissioning Plan for Connected Asset 	<ul style="list-style-type: none"> – Connection Contracts – Construction Contracts – Test Programme
CONSTRUCT		<ul style="list-style-type: none"> – Project Overview Document – Pre-commissioning ACS Report
COMMISSION	<ul style="list-style-type: none"> – ‘As Tested’ Parameters for ACS 	<ul style="list-style-type: none"> – Commissioning Programme Connection Assets – Commissioning Programme Connected Assets
OPERATE	<ul style="list-style-type: none"> – Post-commissioning ACS 	<ul style="list-style-type: none"> – Final ACS Assessment Report – Commissioning Certificate (for Transpower's Assets)