



Energy Efficiency and  
Conservation Authority  
Te Tari Tiaki Pūngao

# Distributed Generation Fund Fund Definition Document



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# Fund Definition Document

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This document provides information about the Distributed Generation (DG) Fund, and will assist potential respondents to prepare their proposals in response to the Request for Proposals (RFP).

## Introduction to EECA

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EECA is the organisation set up by the New Zealand Government to encourage, support and promote energy efficiency, energy conservation, and the use of renewable sources of energy. Further details on EECA can be found at [www.eeca.govt.nz](http://www.eeca.govt.nz)

Our programmes are designed to meet the needs of specific markets, often working in partnership with other organisations.

## What is Distributed Generation (DG)?

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Most of New Zealand's electricity is generated in large, centralised generation plants, such as hydro stations, geothermal stations, wind farms, and fossil fuelled plants. This is then distributed to electricity users around the country through the national grid and local distribution networks.

DG is different – it is a niche electricity supply, often for local needs, and connected to local distribution networks. DG can be used to generate electricity for homes, farms, businesses, and industries. DG projects include the use of wind turbines, photovoltaics (solar electricity), hydro turbines, geothermal heat, bio-energy (for example biogas, or biomass), cogeneration and diesel or gas turbines to generate electricity.

DG is connected to the local electricity distribution networks (not into the national grid) and is often capable of exporting electricity back into that network, sometimes for sale to an electricity retailer, other users, and in some situations into the electricity wholesale market. Users are still able to rely on their local network to supply electricity at times when their distributed generation plant may not be providing all of their electricity requirement.

Cogeneration is a form of distributed generation which involves the simultaneous production of electricity and useful heat (such as steam or hot water) in a single process. A cogeneration plant can use fuel sources such as woody biomass, geothermal steam, coal and natural gas to efficiently produce both electricity and heat.

Off-grid generation (also sometimes known as stand alone power systems, or SAPS) is closely related to DG, however such systems are not connected to the electricity network. Such systems are typically used in remote or difficult to access areas where it is costly to be supplied with electricity from a local distribution network. Batteries and back-up generators are often used with stand alone power systems to store electricity to improve the overall reliability of electricity supply.

# Potential benefits of distributed generation

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Distributed generation projects are typically very site specific, and the project design depends heavily on the resources available and the needs of the users. The attributes, costs and benefits of the project therefore always vary considerably. However, some of the potential advantages of DG include the following:

- Reducing on-site energy use and associated fuel costs
- Increasing the use of renewable energy to generate electricity for on-site use and/or exporting back into the electricity network
- Reducing CO<sub>2</sub> and particulate emissions
- Enhancing or creating an additional revenue stream for businesses, farms, communities, or individuals
- Creating a 'local' approach to an energy solution for communities, individuals, or households
- Improving security of energy supply by increasing self-reliance.

In addition, DG has the potential to contribute towards a more secure energy future for New Zealand by:

- Using renewable sources of energy, or in the case of cogeneration, using fossil fuels more efficiently
- Making our electricity supply more diverse and geographically dispersed
- Making local networks more reliable and resilient
- Deferring the need for future investment in our electricity distribution networks
- Improving the efficiency of the electricity system by reducing transmission and distribution losses.

## How the Distributed Generation Fund can help

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The Distributed Generation Fund is set up to assist potential DG project developers investigate a particular DG project in New Zealand. The Distributed Generation Fund can help verify whether the DG project in question can be a viable and sound investment.

Under the fund, EECA will provide part-funding to assist with the completion of feasibility studies to investigate DG projects which utilise renewable energy sources, for example, small-scale wind energy schemes, bioenergy, geothermal, solar, or hydro energy projects.

Proposals are welcome for projects that generate electricity, or both electricity and heat in a cogeneration process. Proposals covering off-grid generation projects, where there is no connection to the local distribution network, are also welcomed.

It should be noted that only one DG project per potential project developer will be assessed.

Project developers may choose to engage or subcontract professional assistance in order to complete the feasibility study of their identified project.

## Objectives of the fund

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The Distributed Generation Fund aims to identify and support DG projects that are close to being financially viable but have failed to attract investment as a result of undue barriers. One common barrier to the deployment of cost-effective DG projects is the difficulty that potential developers have in identifying and verifying the financial viability of the project in question.

In addition, the fund will help test the DG market to identify potential cost-effective niches and build up a body of real-world evidence and knowledge about barriers to the uptake of cost-effective DG.

## Fund priorities 2009/10

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The 2009/10 Distributed Generation Fund is open to all types of distributed generation, however potential applicants should note that EECA has established the following priority areas. During the Project Evaluation stage preference may be given to DG projects which are:

- Related to the New Zealand tourism industry
- Related to the dairy industry, or other primary export sector
- Potentially able defer or delay distribution line upgrade or maintenance in remote sites. Such projects may be 'off-grid' (i.e. the lines are no longer used) or retain network connection
- Community-owned or community-led projects.

## Previous rounds of the DG Fund

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In 2008/09 EECA launched the DG Feasibility Fund and funded 17 feasibility studies. The distributed generation projects ranged from (approximately) 35kW to 10MW in capacity and included wind, hydro, geothermal, biogas projects, and heat recovery engines. All were proposed by 'non-traditional' electricity market participants such as new independent electricity generators, local councils, lines companies, Trusts, and community boards.

The first round of the fund demonstrated that cost-effective DG opportunities exist in the New Zealand market. The original target milestone for the identification of at least 0.1 PJ p.a. of cost-effective DG was surpassed with a final total of approximately 25MW and 1.7PJ p.a. being identified.

## Who is the fund targeted at?

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Proposals are welcomed from potential developers from a range of sectors including, but not limited to, local authorities, Trusts, co-operatives, companies, lines companies, independent generators, individuals, farming groups, rural communities, or iwi or Maori Trusts. The fund is only available to potential developers of DG; that is, parties who will (assuming the project is commissioned) own and operate the project which is being investigated. The fund is not suitable for third parties who will not own and operate the project in question.

Because the fund is designed to help potential developers complete the final feasibility assessment of their proposed project, it is required that applicants have already undertaken some analysis of the project they wish to investigate further prior to applying for the fund. Responses to the RFP will be required to include detailed evidence of work completed to date on the project in question.

While the fund is open to all types of distributed generation, potential respondents should note that EECA has established priority areas and preference for certain types of projects. See Fund priorities 2009/10 above.

## Acceptance and evaluation criteria for projects

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EECA will conduct a review and evaluation of responses to the RFP. The review and evaluation process will have the following key stages:

### **Administrative review (mandatory requirements)**

To be able to be considered under the Distributed Generation Fund, the following criteria must be met:

- Projects must generate electricity or both electricity and heat in a cogeneration process. Off-grid generation projects, where there is no connection to the local distribution network, are also acceptable
- Projects must be likely to be close to being financially viable
- Respondents to the RFP must be the potential owners and operators, or part owners and operators, of the DG project in question
- Only one proposal per project developer will be accepted
- Respondents must have already conducted adequate assessment of the DG project in question. (The project must not still be at a purely conceptual stage).

## Proposal evaluation

Projects which pass the administrative review will then be evaluated against the evaluation criteria for the DG Fund.

Criteria	Weighting	Max points
Alignment with Fund priorities (see Fund priorities, pg 3)	30%	10
Capability of Project Developer and/or subcontracted third party to develop feasibility study	20%	10
Indicative cost-effectiveness compared to alternative energy supply options for particular situation	15%	10
Current status of project	10%	10
Likely energy output of project (kWh p.a.)	10%	10
Likely economic potential of project, or project type, in NZ, including long term potential renewable energy contribution	10%	10
Demonstration value	5%	10

## What is outside of the scope of the fund?

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Please note that the following are not eligible for the Distributed Generation Fund:

- Proposals that do not generate any electricity. Projects that produce heat only are not eligible
- Requests for financial assistance towards the upfront of capital grants of the installed cost of a distributed generation project
- Projects that are still largely conceptual, and for which insufficient previous investigation or assessments have been completed.

## What will be the value of the grant?

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Under the fund, EECA will contribute up to 75% of the cost of an approved feasibility study, with a maximum grant of \$20,000 per application. Note that an amount less than \$20,000 may be offered by EECA depending on the project in question. Applicants should note that grant funding is exclusive of GST.

EECA will make payments at agreed milestones for the project, subject to receiving and accepting the draft and final feasibility study, which must be completed to an acceptable standard. A retention payment of up to 10% may be held, and paid at such a time when EECA receives and accepts the final required information or deliverables.

Applicants will be required to propose their requirements for payment timing. The payment process will include a cross-check of supporting information to verify all aspects of the project.

# What is a feasibility study?

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The Distributed Generation Fund provides part-funding towards the completion of a detailed feasibility study. The feasibility study will assist the developer to further investigate their DG project.

The table below describes, in general terms, the stages that a distributed generation project may progress through. This process will vary considerably depending on the developer and the project in question.

It should be noted that the Distributed Generation Fund is not designed to assist with 'Concept Stage', or 'Pre-Feasibility Stage' studies or assessment of potential projects.

Stage	Description	Notes
Concept Stage	At the concept stage the developer determines in a broad sense whether the project is worth considering further. Analysis is typically based on limited available information and the decision is based on very broad assessment criteria	The developer of the project should have progressed through the concept and/or the pre-feasibility study stages, as appropriate, prior to applying for funding from the DG Fund
Pre-Feasibility Stage	If required, a pre-feasibility study is undertaken using existing information to develop a preliminary indication of project feasibility. This is then used to determine if it is worth investing funds and effort for a more comprehensive feasibility study	
Feasibility Stage	The objective of a feasibility study is to investigate in detail whether a proposed project is viable, and in some cases to recommend a development strategy to take the project further. Included in the feasibility stage is assessment of technical, financial, and environmental feasibility	The DG Fund can assist with this stage

Broadly, a feasibility study might include, but probably will not be limited to, some of the following:

- Analysis of the resource to determine volume and timing or its availability
- Assessment of cost estimates for construction and equipment
- Estimation of energy generation
- Analysis of energy value and markets
- Analysis of network connection costs and ongoing network charges or rebates
- Financial analysis including cost and benefits analysis
- Analysis of environmental impacts.

It should be noted that the list above is indicative only, and the actual requirements for all projects will vary. Expert professional advice and/or assistance should be obtained by project developers to ensure that the feasibility studies undertaken are sufficient and appropriate for your particular project.

Due to the varied nature of distributed generation opportunities, EECA takes a relatively flexible view with regard to what type of investigation will be included in a feasibility study. However, note that EECA will require the following as a minimum:

- The study should include an early 'go/no go' step, where investigation of the proposed DG project can be terminated if the project is conclusively shown to be unfeasible

- The study should conclude with a robust estimate of generation potential (kWh p.a.) of the project in question
- The study should conclude with a robust indication of the overall financial viability of the project
- The study must be completed within about 5 months of contracts being signed
- The study must include comment on the 'replicability' or national potential of project type
- The study must be provided to provided to EECA.

## Responding to this RFP

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The Distributed Generation Feasibility Fund uses a single-stage RFP process.

Applicants must fill out the RFP response form, which accompanies this document on the EECA website [www.eeca.govt.nz/node/1299](http://www.eeca.govt.nz/node/1299) and on the Government Electronic Tender Service site [www.gets.govt.nz](http://www.gets.govt.nz)

The response to the RFP should be brief and factual, and can include any supporting documentation as appendices.

Before submitting the response, applicants should carefully review the content of their response to facilitate ease of understanding by the Evaluation Panel, as the information supplied will be fundamental to the final assessment of the project.

The response must also nominate the person(s) who will conduct the feasibility study, and evidence of their capability and experience. Information on the proposed feasibility study timeline is also required.

Applicants should note:

- Applicants are responsible for providing sufficient, accurate, and reasonable information on the proposed project for their application to be considered. All values, inputs and assumptions used in project analysis must be stated and explained, as appropriate. Failure to do this may result the proposal being declined
- In all cases, all data, information, and key financial and project parameters provided to support fund applications may be checked and queried during assessment. EECA may contact applicants to seek clarification or obtain further information on the project and the key financial and project parameters provided. Use of assumptions, inputs, values, or other key information or data that is not considered reasonable may result in the proposal being declined. Respondents must acknowledge on their form that they will agree to all of the terms and conditions set out in this RFP.

Responses to this RFP **must be emailed and posted**. Email applications must arrive by the due date and time (see below). The email address to send applications to is: [distributedenergy@eeca.govt.nz](mailto:distributedenergy@eeca.govt.nz). Following the emailed copy, a signed hard-copy of the application must also be sent to:

**Attention: Joseph Mayhew**

Energy Efficiency and Conservation Authority (EECA)  
Level 8  
44 The Terrace  
Wellington 6011

Or

PO Box 388  
Wellington 6140

Posted applications must be clearly labelled "Distributed Generation Fund".

## Due date and time

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All responses must be emailed by **4pm NZT, Thursday, 8 October 2009**. The emailed application must be followed up by a signed hard-copy of the application.

Indicative timelines	
<b>RFP due date</b>	<b>4pm NZT, Thursday, 8 October 2009</b>
Expected contract offered date	by late October 2009
Feasibility studies completed	by late March 2010

## Publicity and Promotion

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Applicants should be aware that EECA may publish relevant information about participation in the programme and agreed non-commercially sensitive information about the successful applicant's distributed generation project, primarily on the EECA website but potentially elsewhere at EECA's discretion.

The information published may include information about the distributed generation project, activities and outcomes.

EECA may also publish information to inform decision making by other parties, or for other purposes related to the Government's work on distributed generation.

The contract negotiated between EECA and any successful applicant will address rights to any intellectual property arising. Note that any intellectual property developed as part of the feasibility study is likely to remain the property of the project developer, however some key information will have to be released to EECA.

## Contracts

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EECA will offer successful applicants a formal contract setting out the obligations of both parties. The project begins at the agreed start date once a contract is signed by EECA and the participant. A contract entitles the participant to financial assistance to contribute to the feasibility study.

The contract will end on the agreed completion of the feasibility study, including delivery of agreed information, but may be amended or terminated before that date.

EECA understands that the length of a contract will vary subject to its objectives and to the type of feasibility study conducted, but EECA is likely to require any project to be completed within approximately five months of contracts being signed. Applicants are required to outline their proposed timeframe for the feasibility study in their proposal.

The Distributed Generation Fund, and therefore any project and contract is subject to:

- Periodical review at EECA's discretion; and
- The availability of Government funding.

## Contact for Enquiries

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Any enquires or clarifications relating to the Distributed Generation Fund should be made in writing to: **[distributedenergy@eeca.govt.nz](mailto:distributedenergy@eeca.govt.nz)**

Applicants are responsible for ensuring that they understand the requirements and intent of the RFP and seek clarification in relation to perceived errors, inconsistencies or omissions. Any such enquiry must be made by email to the address given above, prior to submitting a response to the RFP. EECA's response to any enquiries may be distributed to all other respondents.

## Other EECA funding schemes

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Proposals submitted under the Distributed Generation Fund may also be considered alongside other EECA funding programmes to identify the best 'fit' for the proposal.

Businesses with distributed generation proposals that use wood as a fuel source may also wish to contact the Wood Energy Grants Scheme at EECA on (09) 374 3803 or by visiting **[www.eecabusiness.govt.nz/services-and-funding/wood-energy-grants](http://www.eecabusiness.govt.nz/services-and-funding/wood-energy-grants)**

Businesses may also be interested in the Technology Grants programme. Grants from EECA are available to organisations which implement measures to reduce energy consumption.

For more information, please see:

**[www.eecabusiness.govt.nz/services-and-funding/technology-grants](http://www.eecabusiness.govt.nz/services-and-funding/technology-grants)**

## Official Information Act 1982 and Privacy Act 1993

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The applicant acknowledges that EECA is subject to the Official Information Act 1982 and that all application information is official information. In addition, all personal information in this application form will be held by the Energy Efficiency and Conservation Authority (EECA), PO Box 388, Wellington. Under the Privacy Act 1993, all individuals have the right of access to, and correction of, their personal information held by EECA. EECA may use personal information collected for purposes related to the Distributed Generation Fund.



Energy Efficiency and  
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Te Tari Tiaki Pūngao

Level 8 · 44 The Terrace · PO Box 388 · Wellington · New Zealand

P: +64 4 470 2200 · F: +64 4 499 5330

[www.eeca.govt.nz](http://www.eeca.govt.nz)

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