

SCANNED



22128

Jill Bean

**From:** Sue Scott  
**Sent:** Monday, 13 June 2011 09:06  
**To:** Jill Bean  
**Subject:** FW: Stewart Island Wave Energy Conversion Operation



**From:** Facility Manager  
**Sent:** Monday, 13 June 2011 6:28 am  
**To:** Gwynn Collins; Jan Brown; Margaret Reed; Bronwyn McConechy; Sue Scott  
**Subject:** FW: Stewart Island Wave Energy Conversion Operation

**From:** Peter Clarke[SMTP:PMCCLARKE@HOTMAIL.CO.UK]  
**Sent:** Monday, June 13, 2011 6:28:21 AM  
**To:** Facility Manager  
**Subject:** Stewart Island Wave Energy Conversion Operation  
to forwarded by a Rule

Dear Sir/Madam,

I attach details below to support the application by Tangaroa Energy Rakaia Amps Limited for a Coastal Permit:

1 Name: Peter Clarke

Address: 90 The Sycamores,  
Milton  
Cambridge CB24 6XL UK

2 Application Number : T270-001

3 I strongly support this Application

4 I have been conducting some research, in a purely private capacity as part of an MSc thesis, into additional sources of renewable energy in the Southland region in order to supplement reduced power offtake from the West power station at Lake Manapouri during "dry" years.

I have examined wind, new hydro, run of river, solar and marine possibilities. The most promising are wind and marine - wave not tidal.

As the Applicant has identified, the potential wave source close to Stewart Island is most encouraging and, by working with an established Norwegian company, the risks of failure are significantly reduced.

Further, the cost of the power produced will compare very favourably with the current costs borne by Stewart Island.

Wave power will be more consistent and reliable than wind.

Finally it will be excellent for New Zealand to be one of the pioneers in this new technology because I judge that, in the very long term, the largest production of renewable energy worldwide will derive from solar and wave sources. Clearly both wind and hydro are also excellent but both have their limitations.

5 I therefore wish the Council to approve this Application.

6 I do not wish to be personally heard by the Council.

With kindest regards,

Yours sincerely,

Peter Clarke MA (Cantab) MBA (Manchester) C.Eng MIMechE MIET

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**Jill Bean**

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**From:** Sue Scott  
**Sent:** Monday, 13 June 2011 09:06  
**To:** Jill Bean  
**Subject:** FW: Coastal Permit Application T270-001

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**From:** Facility Manager  
**Sent:** Monday, 13 June 2011 6:36 am  
**To:** Gwynn Collins; Jan Brown; Margaret Reed; Bronwyn McConechy; Sue Scott  
**Subject:** FW: Coastal Permit Application T270-001

-----  
**From:** Peter Clarke[SMTP:PMCCCLARKE@HOTMAIL.CO.UK]  
**Sent:** Monday, June 13, 2011 6:36:12 AM  
**To:** Facility Manager  
**Subject:** Coastal Permit Application T270-001  
to forwarded by a Rule

Dear Sir/Madam,

In my e-mail supporting the above Application sent a few minutes ago I omitted to provide my telephone numbers. These are:

0044 1223 441927  
0044 776 1414915

Thank you and all best wishes,

Peter Clarke

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For more information please visit <http://www.messagelabs.com/email>

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SCANNED



22275

Jill Bean

**From:** Sue Scott  
**Sent:** Tuesday, 14 June 2011 08:45  
**To:** Jill Bean  
**Subject:** FW: Submission on Application T270-001: Tangaroa Energy  
**Attachments:** DOCDM-762384 Stewart Island Wave Energy DOC submission.dml



Receipt acknowledged

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**From:** Facility Manager  
**Sent:** Monday, 13 June 2011 5:16 pm  
**To:** Gwynn Collins; Jan Brown; Margaret Reed; Bronwyn McConechy; Sue Scott  
**Subject:** FW: Submission on Application T270-001: Tangaroa Energy

---

**From:** Chris Hankin[SMTP:CHANKIN@DOC.GOV.T.NZ]  
**Sent:** Monday, June 13, 2011 5:15:43 PM  
Facility Manager  
**Subject:** Submission on Application T270-001: Tangaroa Energy  
**Auto forwarded by a Rule**

To whom it may concern  
Please find attached the Department's submission on the above consent application.  
I attempted to contact Jason Domigan this afternoon with regards to making the submission closing date. Please acknowledge receipt and advise if you have accepted the submission

Regards, Chris Hankin

<<DOCDM-762384 Stewart Island Wave Energy DOC submission.dml>>

**Chris Hankin**  
Community Relations Officer - Planning  
Southland Conservancy Office

PH 03 211 2491 FX 03 214 4486  
PO Box 73, Invercargill 9840, New Zealand

**Conservation for prosperity *Tiakina te taiao, kia puawai***  
[www.doc.govt.nz](http://www.doc.govt.nz)

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**Attention:**  
This e-mail (and attachments) is confidential and may be legally privileged.

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Department of Conservation  
*Te Papa Atawhai*

File: SAR 05 83 19 18

13<sup>th</sup> June 2011

Environment Southland  
Private Bag 90116  
INVERCARGILL

ATT: Jason Domigan,

**Re: Tangaroa Energy Rakaia Amps Limited (T270-001)**

Please find attached a copy of the submission from the Director-General of Conservation on the above application.

You will note that the submission seeks that the application be declined. I would like to clarify that the Director-General acknowledges the benefits of renewable energy. The Director-General would like to work with the applicant to balance the development of renewable energy generation with the protection of the significant natural values of the coastal marine area of Stewart Island / Rakiura.

The Director-General is concerned that the application provides insufficient information from which to identify if the adverse environmental effects are more than minor, in accordance with the principles of the Resource Management Act (1991). This decision seeking the decline of the application is based on adopting a precautionary approach for avoiding, remedying or mitigating any adverse environmental effects of the application.

The Director-General would like the opportunity to discuss your proposal further. Please contact Chris Hankin at (03) 211 2491 or email [chankin@doc.govt.nz](mailto:chankin@doc.govt.nz) to arrange for a meeting, and/or have any comments or queries regarding the submission.

Yours sincerely

Beth Masser

Community Relations Manager (acting)

Department of Conservation, Southland Conservancy Office

cc: Tangaroa Energy Rakaia Amps Limited

## RESOURCE MANAGEMENT ACT 1991

**To:** Environment Southland  
**Submission on:** Tangaroa Energy Rakaia Amps Limited

**Land use consent:**

- Coastal permit to occupy up to 400m<sup>2</sup> or the coastal marine area with a Wave Energy Conversion Unit;
- To disturb the seabed of the coastal marine area with anchor and submarine lines for the purpose of mooring the Wave Energy Conversion Unit;
- To occupy the coastal marine area with a power transmission cable between the Wave Energy Conversion Unit and Stewart Island / Rakiura; and
- To disturb the seabed of the coastal marine area with a power transmission cable between the Wave Energy Conversion Unit and Stewart Island / Rakiura.

The proposal is a non-complying activity under Rule 11.2.6 of the Regional Coastal Plan for Southland 2007.

**Name of Submitter:** Al Morrison, Director-General, Department of Conservation.

**Address:** P.O. Box 743, Invercargill, 9840.

### STATEMENT OF SUBMISSION BY DIRECTOR-GENERAL OF CONSERVATION

Pursuant to section 96(1) of the Resource Management Act 1991, I, Beth Masser, Acting Community Relations Manager (Southland) of the Department of Conservation, acting upon delegation from the Director-General of Conservation, make the following submission in respect of the above application by Tangaroa Energy Rakaia Amps Limited for coastal permits for the construction and operation of a Wave Energy Conversion Operation in the coastal marine area of Stewart Island / Rakiura (the application).

I oppose the entire application.

**My submission is that:**

1. The coastal marine area (CMA) of Stewart Island / Rakiura is in pristine condition that possesses significant ecological and landscape values. These are identified and described in the Regional Coastal Plan for Southland 2007 (RCPS). The Director-General is concerned about the sustainable management of the natural resources of the Stewart Island / Rakiura CMA as required by the principles of Part 2 of the Resource Management Act (RMA).

**Insufficient Information**

2. The Director-General considers that insufficient information has been provided to allow a satisfactory assessment of environmental effects. The Director-General is concerned that without a full environmental assessment the application may fail to include sufficient measures that avoid, minimise or mitigate the environmental impacts of the proposed operation.

3. The Director-General considers there is insufficient information to assess if the application is contrary to the following:
  - a) Part 2 of the RMA, specifically sections 5, 6(a) (c), 7(c) (d) (f) and 14.
  - b) The New Zealand Coastal Policy Statement 2010 (NZCPS), in particular objectives 1 and 2; and policies 6(1)(h); 11(a)(i)(ii), (b)(iii)(v); 13(1)(a); 15(a) and 23(1), (5).
  - c) The RCPS, in particular objectives 11.2.1 and policies 7.3.2.1, 11.2.1, 11.2.16 and rule 11.2.10.

#### **Benthic Ecology**

4. The pristine state of seabed habitat within the majority of the Stewart Island / Rakiura CMA is a significant value for the area. Habitats of particular note include black coral colonies, brachiopod communities, intact oyster beds and a diversity of marine ecosystems surrounding offshore islands.
  - a) The NZCPS aims to safeguard the coastal environment and sustain its ecosystems, including marine and intertidal areas (Objective 1). The NZCPS further provides for the protection of indigenous biodiversity through avoiding significant adverse effects (and managing other adverse effects) on coastal marine habitats that are particularly vulnerable to modification (Policy 11(b)(iii)).
  - b) The RCPS requires that new structures are located in the most appropriate site so as to avoid, remedy or mitigate the adverse effects of their construction and presence (Objective 11.2.1, Policy 11.2.1). The RCPS also requires that the placement of submarine cables in, on or under the bed of the CMA should give consideration to any effects on benthic ecology (Rule 11.2.10).
5. The Director-General is concerned that should the consent be granted, the disturbance of the seabed from anchors, submarine lines and the power transmission cable may adversely affect important benthic habitats. The Director-General considers that the application provides insufficient information to identify any adverse effects and consider appropriate conditions.

#### **Marine Mammals**

6. The Stewart Island / Rakiura CMA is recognised as an important habitat for marine mammals. Fur seals are common and sea lions and leopard seals also visit the area. Bottlenose and dusky dolphins are often present in Paterson Inlet. Southern right whales visit the CMA of Stewart Island / Rakiura on their annual northward migration.
  - a) The NZCPS requires that adverse effects of activities on indigenous taxa that are listed as threatened or at risk are avoided (Policy 11(a)(i), (ii)). In particular, the NZCPS make particular mention of avoiding, remedying or mitigating adverse effects on the areas and routes important to migratory species (Policy 11(b)(v)).
7. The Director-General is concerned that should consent be granted that the infrastructure's "cross patterned" mooring lines may provide a risk of collision and entanglement for migratory whales. The Director-General is also concerned about the adverse effects of electromagnetic fields on the navigational behaviour of whales. The Director-General considers that the application provides insufficient information to identify any adverse effects and consider appropriate conditions.

#### **Natural Character**

8. The majority of the coastline and offshore islands of Stewart Island / Rakiura is unmodified by people and as such has extremely high natural character values. Together with the natural state of the landward catchments the Stewart Island / Rakiura CMA is one of a diverse and

outstanding coastal environment. While much of this amenity is sourced from visual aesthetics, the values of open space, tranquillity and remoteness are also significant qualities of the area. The landscape and seascapes of Stewart Island / Rakiura are highly valued by both residents and visitors.

- a) The NZCPS aims to preserve the character of the coastal environment and protect natural features and landscape values (Objective 2). The NZCPS provides for the preservation of the natural character, features and landscapes of the CMA and to protect areas with outstanding natural character from inappropriate development (Policy 6(1)(h), 13(1)(a) and 15(a)).
  - b) The RCPS requires that structures are located in the most appropriate site so as to avoid, remedy or mitigate any adverse effects of their presence (Objective 11.2.1). Furthermore, policy provisions of the RCPS aim to avoid, remedy or mitigate the adverse effects of structures on the natural character, amenity, landscapes, seascape and open space values of the CMA (Policy 11.2.16). The RCPS requires that the placement of submarine cables on the bed of the CMA should give consideration to any effects on amenity values (Rule 11.2.10).
9. The Director-General is concerned about the effects of the application on the natural character of the CMA of Stewart Island / Rakiura. Should the consent be granted, the operation may represent an artificial intrusion within a relatively unmodified marine environment. The Director-General considers that the application does not provide sufficient information to consider potential adverse effects and whether the operation may be situated in a manner more sensitive to the character of the Stewart Island / Rakiura CMA.
10. The Director-General considers this application an appropriate circumstance for requiring a bond as insurance against any future failure to remove equipment and structures should they become redundant, as stipulated by Policy 17.7 of the RCPS. This position is also consistent with the proposed National Policy Statement for Renewable Energy Generation, which requires consideration of the reversibility of the adverse effects of particular generation technologies.

#### **Discharge of contaminants**

11. The Director-General is concerned about the potential adverse effects on marine life of the discharge of contaminants used to protect plant from fouling organisms.
- a) The NZCPS requires that any contaminant discharge avoids significant adverse effects on ecosystems and habitats and that operators of marine facilities take all practicable steps to avoid contamination of coastal waters and substrate (Policy 23(1)(5)).
  - b) The provisions of the RCPS seek to avoid, remedy or mitigate the adverse effects of the discharge of contaminants into the Southland CMA (Policy 7.3.2.1).
12. The Director-General notes the application has not accounted for the any potential adverse effects from the discharge of contaminants into the marine environment.

#### **Further information**

13. In accordance with Section 18 of the RCPS the Director-General requests further information on the following issues to make a decision on the application:
- a) the potential for adverse effects on benthic habitats, marine mammals, marine plants and any other species that may be found within the footprint of the operation;



- b) the potential for adverse effects on the landscape's natural character;
- c) measures to mitigate adverse effects on the ecological and natural character of the Stewart Island / Rakiura CMA, including potential alternative locations; and
- d) whether the operation requires the discharge of contaminants into the environment.

**I seek the following decision from the consent authority:**

The Director-General of Conservation seeks that the application be declined.

I do wish to be heard in support of this submission.

The Director-General of Conservation has served a copy of this submission on the applicant.

A copy of the Instrument of Delegation may be inspected at the Office of the Director-General of Conservation, Wellington.

Dated at Invercargill this 13<sup>th</sup> day of June 2011.



**Beth Masser**  
Community Relations Manager  
Department of Conservation - Southland Conservancy  
pursuant to delegated authority on behalf of  
Al Morrison  
Director-General of Conservation

Address for Service:  
Southland Conservancy  
CUE on Don  
PO Box 743  
Invercargill 9840

Contact: Chris Hankin  
Phone: 03 211 2491  
Email: [chankin@doc.govt.nz](mailto:chankin@doc.govt.nz)

**Jill Bean**

---

**To:** CHANKIN@DOC.GOVT.NZ  
**Subject:** Submission on Application T270-001: Tangaroa Energy  
**Attachments:** DOCDM-762384 Stewart Island Wave Energy DOC submission.dml

Hi Chris,

I was unable to open your Submission – passed it into our IT Department and their response is: Sorry but you need to contact the person at DOC that has sent you this (it is a link to their document in their document management system).

They need to send a copy of the actual document (not a link - as you do not work at DOC).

So if you would be so kind to re-send your attachment as a Word document or pdf. Please and thank you :O)

Jill Bean ☺

Records Officer - Records Management  
Environment Southland  
Private Bag 90116  
Invercargill 9840

e-mail: [jill.bean@es.govt.nz](mailto:jill.bean@es.govt.nz)  
Ph: 2115-115

Was sent by fax 13 June 2011

This is the original



environment  
SOUTHLAND



22429



Cnr North Road and Price Street  
(Private Bag 90116)  
Invercargill

Telephone (03) 211 5115  
Fax No. (03) 211 5252  
Southland Freephone No. 0800 76 88 45

File No: \_\_\_\_\_  
Officer in Charge: \_\_\_\_\_

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: We (see attached list) (Name(s))  
of: Stewart Island (see attached for (Address)  
at: individual addresses and phone numbers)  
(Phone) (Fax) (E-mail)

Wish to support / oppose / ~~comment on~~ (circle one) the application of:

Name: Kevin Christopher McGrath

And/or Organisation: Tangaroa Energy Rakaia Amps Ltd

File number: T270-001 Location: Invercargill

My reasons for support / opposition / ~~comment~~ are: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

See attached.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

To refuse to grant the resource consent and that any hearings relating to this application be held on Stewart Island.

I, do not (circle one) wish to be heard in support of my submission

I, do / do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

\* [Signature]  
(Signature)

13/6/11  
(Date)


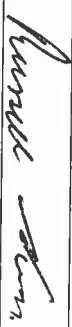


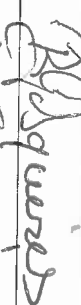

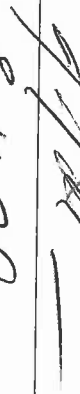



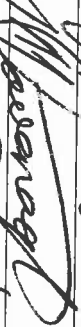



If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45

Submission Form 2000

Environment Southland is the brand name of the Southland Regional Council

\* Other signatures on attached pages.



Name	Address	Phone	Signature
Christine Fuller	Horseshoe Bay Rd	0272754402	
Russell Kern	Back Rd Stewart Island	0274387995	
Vicki Coats	24 Dundee St Stewart Island	0275211895	
JASON FORREST	24 Dundee St Stewart Island	0275211895	
Richard Spicers	22 Petersford Hill	02191141	
Carolyn Spicers	" "	" "	
Ian Murray	PO Box 99 Stewart Is	2191327	
Sue Murray	44 Excursion Rd Stewart Island	2191327	
Steph Clarke	18 Whipparee Stewart Island	2191299	
Tim Brown	<del>44 Excursion Rd Stewart Island</del>	2191265	
B Brown	14 Whipparee Stewart Island	2191465	
M Greenergh	104 Whipparee St	0276089007	
Bruce Donald	4 Smith Pl. 31	0276176957	
Peter Wilson	19 Miro Crescent 37	03 291077	

Name	Address	Phone	Signature
WAYNE FREL	16 Ringa Ringa Rd	2191138	W. Frel
OT Emlson	24 Mgapau Rd ST	2191124	O. Emlson
Wayne Skerrett	14 Horeshoe Bay Rd Stewart Island	2191195	W. Skerrett
EM PERIA	87 Johnsons Rd Stewart Island	0278655458	E. Peria
Stuart Ross	12 Rankin St Stewart Island	032191466	S. Ross
Elvin Holt	12 B Whip Place	Stewart Island	E. Holt
Law Senter	9 Parker St	ST Island	L. Senter
Dawn Dickens	1 Rata St Stewart Island	2191552	D. Dickens
ANNA BROWN	9 Kaohoi hane Stewart Is.	0274476977	A. Brown
Mark Coats	27 Maram Rd Stewart Island	2191192	M. Coats
Tony Nelson	14 Runder Street Stewart Island	2191421	T. Nelson
Doug Beck.	c/o Stewart Isl Post Office	2191187	D. Beck
Laura Gavanagh	6 Whip Place, Stewart Island	2191070	L. Gavanagh
STEVEN KERNY	23 Rankin St. S. I	0273678616	S. Kerny







Ref: File T270-001

Reasons for opposition to the Application for Resource Consent by Tangaroa Energy:

1. There is concern about the potential negative financial repercussions for the Community as a whole. This scheme will not reduce the Island's dependency on diesel fuel, or reduce the price of electricity.

There is a danger of detracting from other renewable sustainable electricity options and the funding thereof.

2. We oppose any restrictions to fishing in the Paterson Inlet Mataitai Reserve area and the areas around the Barclay and Fast rocks.
3. We have concerns regarding the proposed siting of this device in the Carter and Abbott passages causing a marine hazard.
4. Following the public meeting held on the Island with the Applicant, and general discussions held afterwards, we have concerns that Tangaroa Energy does not have the necessary experience or expertise to undertake the proposed project. The Director was unable to answer many of the pertinent questions/concerns raised at the meeting.

Was faxed in 13 June 2011



environment  
SOUTHLAND

SCANNED

ENVIRONMENT  
SOUTHLAND  
15 JUN 2011  
File T270-001



22426

nd Price Street  
ate Bag 90116  
Invercargill

Telephone (03) 211 5115

Fax No. (03) 211 5252

Southland Freephone No. 0800 76 88 45

File No: \_\_\_\_\_  
Officer in Charge: \_\_\_\_\_

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

#### Submission on a Notified Application for a Resource Consent

I: Graham Davis (Name(s))  
of: Hicks Road, Stewart Island (Address)  
at: 0274590054 (Phone) (Fax) (E-mail)

Wish to ~~support~~ / oppose / ~~comment on~~ (circle one) the application of:

Name: Tangaroa Energy

And/or Organisation: \_\_\_\_\_

File number: T270-001 Location: Invercargill

My reasons for ~~support~~ / opposition / ~~comment~~ are: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

From my experience in the marine Engineering Industry I do not consider that the <sup>proposed</sup> moorings are sufficient to safely retain the structure in the proposed location.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

To refuse to grant a Resource Consent

I, do do not (circle one) wish to be heard in support of my submission

I, do do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

Graham Davis  
(Signature)

12/6/11  
(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45



22164



environment  
SOUTHLAND

ENVIRONMENT  
SOUTHLAND  
13 JUN 2011  
File T270-001

Cnr North Road and Price Street  
(Private Bag 90116)  
Invercargill  
Telephone (03) 211 5115  
Fax No. (03) 211 5252  
Southland Freephone No. 0800 76 88 45  
Mail to: service@es.govt.nz

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

File No: \_\_\_\_\_  
Officer in Charge: \_\_\_\_\_

### SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: Helen Cave  
of: 325 Horseshoe Bay, Stewart Island (Name(s))  
at: 03 2191 368 (Phone) 03 2191 349 (Fax) helen.cave@xtra.co.nz (E-mail)

Wish to ~~support~~/ oppose/ comment on (circle one) the application of:

Name: \_\_\_\_\_  
And/or Organisation: Tangaroa Energy Waikaitia Amps Ltd  
File number: 13044 Location: Bench Is / Stewart Island.

My reasons for support/ opposition are: (State in summary the nature of your submission and give clear reasons.  
Continue overleaf if necessary)

Stewart Island is in desperate need of a solution to its power problems. Unfortunately this proposal seems unlikely to help us, and I am concerned that support may jeopardise a more realistic solution for our problems.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

Oppose this application

I, do  do not (circle one) wish to be heard in support of my submission

I, do  do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

Helen Cave  
(Signature)

13/6/11  
(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45

Faxed in 13 June 2011

SCANNED



environment SOUTHLAND



22428

ENVIRONMENT SOUTHLAND 15 JUN 2011 File T270-001

Cnr North Road and Price Street (Private Bag 90116) Invercargill

Telephone (03) 211 5115

Fax No. (03) 211 5252

Southland Freephone No. 0800 76 88 45

File No: \_\_\_\_\_

Officer in Charge: \_\_\_\_\_

To: The General Manager Environment Southland Private Bag 90116 Invercargill

SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: STEWART ISLAND COMMUNITY BOARD (Name(s))

of: AYR STREET, STEWART ISLAND, 9846 (Address)

at: 0800 732 732 (Phone) 080 732 319 (Fax) jspivagg@sic.co.nz (E-mail)

Wish to support/oppose/comment on (circle one) the application of:

Name: KEVIN CHRISTOPHER McGRATH

And/or Organisation: TANGAROA ENERGY RAKAIA AMPS LIMITED

File number: T270-001 Location: INVERCARGILL

My reasons for support/opposition/comment are: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

- Community Board as an interested party (Stewart Island Electrical Supply Authority) should have been notified. Applicants application contains errors in detail and contains insufficient information. - Lacks detail

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

REFUSE GRANTING OF RESOURCE CONSENT ON PRESENT APPLICATION

I, do / do not (circle one) wish to be heard in support of my submission

I, do / do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

Signature of Kevin McGrath, Chairman of Stewart Island Community Board

13/06/11 (Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45

# SCANNED

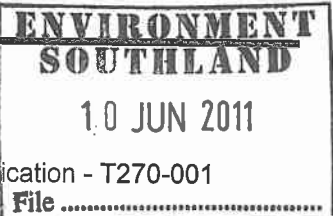


22054

**Jill Bean**

---

**From:** Sue Scott  
**Sent:** Friday, 10 June 2011 15:12  
**To:** Jill Bean  
**Subject:** FW: Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001  
**Attachments:** Environment Southland submission to premit application.docx



---

**From:** Facility Manager  
**Sent:** Friday, 10 June 2011 3:08 pm  
**To:** Gwynn Collins; Jan Brown; Margaret Reed; Bronwyn McConechy; Sue Scott  
**Subject:** FW: Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001

---

**From:** Nick Inskip[SMTP:NICK.INSKIP@HERA.ORG.NZ]  
**Sent:** Friday, June 10, 2011 3:07:06 PM  
Facility Manager  
**Cc:** Tangaroa Energy  
**Subject:** Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001  
**Auto forwarded by a Rule**

To whom it may concern,

Please find attached our submission on the Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001

Regards

**Dr Wolfgang Scholz**

**Director**

RA, P.O. Box 76 134, Manukau City, New Zealand

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E-mail: [exec@hera.org.nz](mailto:exec@hera.org.nz) Website: [www.hera.org.nz](http://www.hera.org.nz) <<http://www.hera.org.nz>>

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## NZ Heavy Engineering Research Association

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Auckland, New Zealand

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Fax: +64-9-262 2856  
Email: [admin@hera.org.nz](mailto:admin@hera.org.nz)

The Chief Executive  
Environment Southland  
Private Bag, 90116  
Invercargill

10 June 2011

### **Re: Tangaroa Energy Rakaia Amps Limited - Coastal Permit Application - T270-001**

I am writing in support of the application by Tangaroa Energy for a Coastal Permit -T270-001. Marine energy is an emerging clean technology that fits particularly well with New Zealand's wave and tidal resources.

Our organization has had significant involvement in the wave and tidal energy industry including a visit to the European Marine Energy Centre (EMEC) in Scotland's Orkney Islands. EMEC is the world's preeminent wave and tidal device testing centre. They have substantial experience in testing marine energy devices and conduct extensive environmental monitoring as part of the testing facilities they provide. It is heartening to note, that they have observed no negative environmental effects from the devices tested. We see the deployment of marine energy as providing an excellent basis for establishing a marine energy industry in New Zealand driving economic development and providing job opportunities.

We believe that the future security and affordability of energy for Stewart Island will be supported by this development.

I encourage Council to grant the Coastal Permit as requested in the application –T270-001 submitted by Tangaroa Energy Rakaia Amps Limited

I do not require to be heard in support of this submission.

Yours sincerely

**Dr Wolfgang Scholz**

**Director**

HERA, P.O. Box 76 134, Manukau City, New Zealand  
Phone (direct): +64 9 262 4848, Phone (main switchboard): +64 9 262 2885, Fax: +64 9 262 2856, Mobile: +64 21 945 159  
E-mail: [exec@hera.org.nz](mailto:exec@hera.org.nz) Website: [www.hera.org.nz](http://www.hera.org.nz)

2011 / 22055



environment  
SOUTHLAND

ENVIRONMENT  
SOUTHLAND  
14 JUN 2011  
File T270-001

Cnr North Road and Price Street  
(Private Bag 90116)  
Invercargill

Telephone (03) 211 5115  
Fax No. (03) 211 5252  
Southland Freephone No. 0800 76 88 45

File No: \_\_\_\_\_  
Officer in Charge: \_\_\_\_\_

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: GEORGE STEVEN LAWRENCE (Name(s))  
of: 19 KAMAHU ROAD, STEWART ISLAND (Address)  
at: 03 2191173 (Phone) N/A (Fax) ISLAND MAINTENANCE EXTRA (E-mail) .CO.NZ

Wish to support  oppose comment on (circle one) the application of:

Name: KEVIN CHRISTOPHER M'GRATH  
And/or Organisation: TANGAROA ENERGY  
File number: T270-001 Location: INVERCARGILL

My reasons for support/ opposition/comment are: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

PLEASE SEE ATTACHED

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

I WISH THE COUNCIL TO REFUSE RESOURCE CONSENT

I, do not wish to be heard in support of my submission  
 I, do / do not wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.  
G Lawrence (Signature) 10/06/2011 (Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45





I wish to oppose to the application being granted for the following reasons:

It is impossible to ascertain the environmental impacts or the financial implications to the local community without further explanation or clarification of many aspects of the application. Affected persons or parties should be able to reach an objective decision, based on the information supplied by the Applicant.

Particular concerns are as follows:-

**The Resource Management Act 1991 Fourth Schedule - Assessment of effects on the environment.**

Section 1 sets down matters that should be included in an assessment of effects on the environment.

The applicant has not covered matters described at (g) and (i). Details of mitigation measures and of monitoring have not been supplied. Mitigation measures are obviously of particular importance, environmentally, and are referred to in “Awatea Environmental Impacts of Marine Energy Converters” section 3.6.5 (hereafter referred to as AEIMEC) which was included with the submission. There is insufficient information supplied by the Applicant in relation to matters described at 1(d) of the fourth schedule.

**Navigation and exclusion zones.**

(refer to page 5 of submission, second bullet point)

From my own experience as a recreational fisherman and my consultation with local recreational and commercial users this statement is not be correct. It requires further investigation and possibly notification to other affected parties. (This issue is also addressed in the AEIMEC paper under the heading at 3.7.1 Navigation).

**Proposed Project.**

( refer to page 11 of submission, item 3.2b)

It is misleading to refer to Stewart Island’s power network as a grid. There is also confusion created here when Langlee Wavpower media releases refer to the E1 prototype as being especially beneficial to Islands without a grid connection.

“The grid” normally refers to the efficient management of power production by switching between multiple permanent sources of power generation and, on occasion, combining this with sporadic power generation (wind, wave & solar etc.) Given that the Island does not have a conventional grid there are potential financial repercussions for the community from trying to integrate intermittent power into the network. Potential problems may include premature failure of generators from phase imbalances or running engines below optimum efficiency). This has not been sufficiently addressed in the Applicant’s submission.

### Assessment of Environmental Effects.

(refer to page 16 item 6.1 of the application – Effects on local community)

It is claimed that the project will increase the power supply to the Island by up to 500MWh of electricity annually, based on current generation 50 kw Langlee E1 prototype Unit

Because of the lack of technical information supplied it is difficult to address or understand this part of the submission. We have to assume that 50kW is the maximum generation capacity of the E1 prototype in ideal conditions. If the E1 prototype generated 50kW for 365(days) x 24(hours) ie:  $365 \times 24 = 8760(\text{hours}) \times 50\text{kW} = 438000\text{kW}$  divided by 1000 = 438MW would be the total output ?.

The Langlee Wavepower stated 280MW as the estimated annual generation (see appended Renewable energy focus article marked “A”), which when expressed as a percentage of the maximum generation capacity of 438MW would equate to the E1 prototype operating at 64% of the maximum output obtainable in a continuously ideal wave environment. This figure seems unlikely given the low wave energy of the location (see Wave Climate), its sheltered position and generation from similar technology. This again requires further clarification.

### Subsea footprint

(refer to page 1 of the applicant’s submission at 1.1 – first bullet point)

The dimensions of the Langlee E1 prototype gives a surface area of  $225\text{m}^2$  (15m x 15m). The subsea footprint is stated as  $400\text{m}^2$  (20m x 20m) and the mooring chain length is stated as 160m per chain in around 48m of water. Approximately 49 meters of chain would be required to reach the outside corners of the stated footprint and this leaves approximately 110m of chain over. The Applicant’s undated letter (stamped as received by Environment Southland on 9 May 2011 and appended to the submission) states that 160m of chain represents an average of 5 times the depth (48metres). This would equate to a chain length of 240m. You can only therefore assume that the subsea footprint is far greater than estimated by the Applicant. This part of the Applicant’s submission requires clarification. From a marine/environmental safety perspective the inclusion of a recreational boating magazine article from Practical Sailor November 2008, being used to validate the selection of the anchoring system is inadequate, especially as the authors of the article and their qualifications have been omitted from the submission.

### Wave Climate

The proposed location for the Langlee E1 prototype is **not** in an area defined by AWATEA (Aoteraroa Wave and Tidal Energy Association as being commercially viable. (see attached extract from Power Projects, Development of Marine Energy in New Zealand see appended page marked “B”). If this is unlikely to be commercially viable it could have negative financial repercussions for the Island Community.

### Affected Parties and Consultation

(refer page 24 of Applicant’s submission)

The Applicant has not accurately represented the views of the members of the community who attended the public meeting at Stewart Island on 17 April 2011. (The Applicant does not have appeared to have complied with 1. h. of the application form regarding describing consultation and responses.)

### General Comments

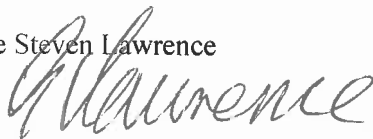
#### Minimising Environmental and other impacts.

The Langlee E1 prototype is described as an experimental device or prototype. At present as far as we are aware, the Langlee E1 prototype only exists as a 1:20 scale model confined to a tank in a Danish University. This makes it very difficult to assess the environmental and socio-economic impacts at this point. However, Langlee Wave Power is to trial an identical prototype around September 2011 at Runde Island off the coast of Norway (see attached extract from their website appended and marked "C"). Runde Island has set up a facility specifically to test and monitor marine generation devices. They are able to identify technical, environmental and mechanical (anchoring etc.) problems in a controlled environment with quick access if needed. Is there any point in taking any environmental risks by duplicating this research in an uncontrolled remote location? Would it not be better to use the Runde Island data (assimilating the differences in seabed type and wave height) to help control or mitigate risks at a later stage? Is there any advantage to be gained by premature entry into this market when this could involve environmental and/or socio-economic risks?

It has been stated that this prototype project is dependent on an ECCA grant. The grant specifically targets isolated coastal and island communities. There appears to be a danger here that the location/community may be chosen to fit the grant, whereas the Island needs a grant to fit the needs of the community. One of the criteria of ECCA is that there are supply contracts in place. Given that the Director of Tangaroa Energy stated during the public meeting on Stewart Island that the company would not be able to supply cheaper power, it is not likely that he will be awarded a contract by SIESA.

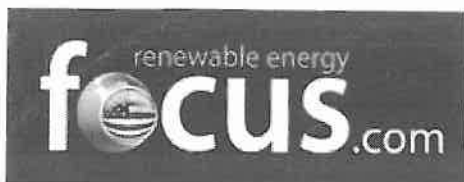
There is concern in the wider community that if Resource Consent is granted and an ECCA grant subsequently awarded that there is a danger that this will detract attention away from finding a workable/affordable solution to the price of electricity on the Island. This project will not reduce dependence on diesel generation whereas there are other options involving renewable energy, which are being explored and which would reduce the reliance on base load diesel generation to a minimum.

George Steven Lawrence



Date:

10<sup>TH</sup>. JUNE 2011



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A  
u

## News

# All-Energy: Langlee Wave Power's device to New Zealand

19 May 2011

Langlee Wave Power will deliver a test wave power device to be deployed off Stewart Island, New Zealand, in 2012 for Tangaroa Energy.

*By Renewable Energy Focus staff*

The 50 kW *Langlee E1* is expected to generate 280 MWh annually, and the plan is to deploy three more wave devices in the following year – which could be enough to supply the whole island with electricity.

The project is estimated to cost £900,000.

Founder and CEO Julius Espedaal, said at All-Energy: "Stewart Island is an area of natural beauty with 85% dedicated as a nature reserve, but it suffers from a diesel generated power supply. Our Wave Energy Converter technology is ideal for the size of waves experienced around Stewart Island and will provide a sustainable, clean energy solution."

*This article is featured in:*  
Wave and Tidal Energy

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**All-Energy**

**Langlee Wave Power**

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## Related Stories

**All-Energy: EMEC to bridge gap between tank and full-scale wave and tidal testing**

The European Marine Energy Centre (EMEC) is opening two test sites to bridge the gap between tank testing and full-scale offshore trials for wave and tidal power.

**Energy Storage – A Growing Reality for the Grid**

A series of energy storage projects over the last five years demonstrate the potential value streams available from distributed storage solutions. Bradford P. Roberts at S&C examines the various options available.

**Great Lakes – Great Wind**

Canadian Trillium Power's offshore wind projects for the Great Lakes are great indeed – and could even beat Cape Wind to become North America's first offshore wind project. Renewable Energy Focus U.S.' Kari Williamson talks to Trillium Power CEO John Kourtoff.

**Soitec Provides 150 MW of Solar CPV to California – Builds Manufacturing Facility**

Soitec will provide 150 MW of its Concentrix solar concentrated photovoltaic (CPV) technology to Tenaska Solar Ventures.

**US Speeds Up Offshore Wind Development**

The Departments of the Interior (DoI) and Energy (DoE) are announcing US\$50.5 million for offshore wind energy deployment as well as several high priority Wind Energy Areas in the mid-Atlantic to spur offshore wind developments in the US.

## Comment on this article

## Aker Solutions prepares the Langlee E2 for construction

2010-05-11

Aker Solutions has been chosen as our strategic partner to complete the design of the Langlee E2. With core competence within offshore engineering and construction, Aker Solutions will complete engineering and prepare for construction based on DNV standards. The Langlee full-scale demonstration unit will be installed at Runde Island, Norway, in the fall of 2011.

Article in oilinfo.no 11-05-2010  
[press here](#)

Article in Fiansavisen 10-05-2010:



**STRØM I BØLGENE:** Langlee-kraftverket skal testes utenfor Runde på Sunnmøre. ILLUSTRASJON SELSKAPET

## Aker går i bølgene

**ENERGI: Aker Solutions skal utvikle en prototyp av bølgekraftverket til Langlee Wave Power.**

**MORTEN HOFSTAD**  
 MORTEN.HOFSTAD@FIANSAVISER.NO

Langlee Wave Power i Aker har utviklet et konsept for bølgekraftverk som nå skal testes ved øya Runde utenfor Ålesund. Aker Solutions skal prosjektere prototypen som skal være klar i september.

For Aker Solutions er dette første gang selskapet prosjekterer et bølgekraftverk, og det føyer seg inn i rekken av teknologier selskapet utvikler innenfor fornybar energi, ifølge teknologidirektør Valborg Lundegaard.

### 50 millioner

Langlee har gjennomført tester av teknologien ved universitetet i Aalborg. Piloten ved Runde er planlagt å koste rundt 50 millioner kroner. Avtalen med Aker Solutions skal sikre kvaliteten og yt-

terligere til at selskapets teknologi blir kommersialisert. Hvem som til slutt får selve byggeoppdraget er foreløpig ikke avklart, ifølge Langlee gründer Julius Espedal. Langlee har i tillegg en intensjonsavtale med en tyrkisk partner om å bygge en pilot på et bølgekraftverk i Tyrkia, som vil generere lisensinntekter for Langlee.

### Emisjon

Langlee har benyttet Fearnley Fonds som finansiell rådgiver. Første kvartal har selskapet reist 5 millioner kroner i en emisjon. Målet er å hente ytterligere 80 millioner i andre halvår for å bygge Runde-anlegget og videreutvikling av selskapet neste to år.

- Målet er en bredere eiersammensetning, men børsnotering er ikke planlagt, sier Espedal.

Blant eksisterende eiere i Langlee Wave Power er svenske Färna Invest AB. Bølgekraftselskapet har dessuten fått offentlig støtte gjennom Skattefunn, Forskningsrådet, og Innovasjon Norge.

## Meet us at All-Energy 2010!

2010-05-10

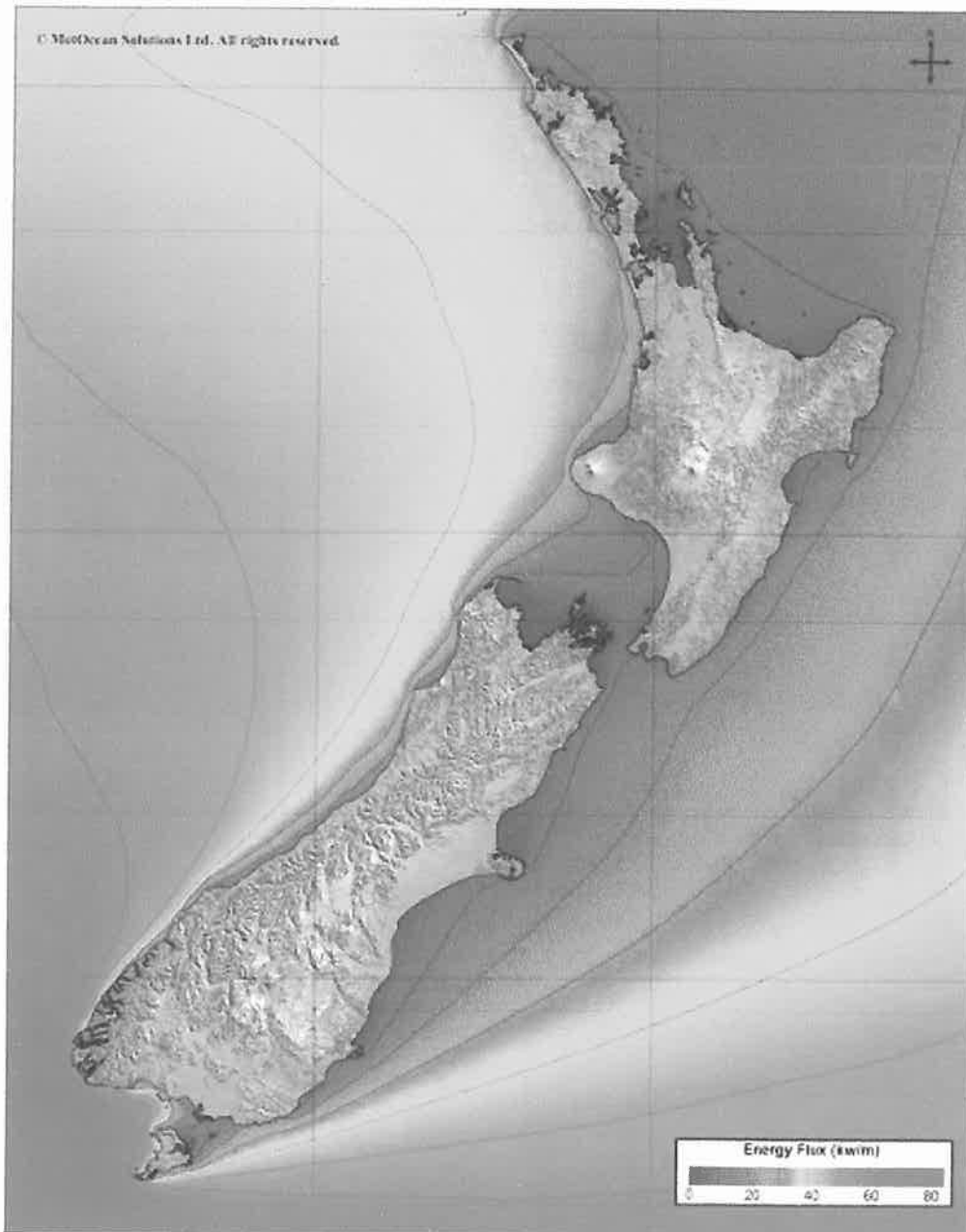
Langlee Wave Power is for the fourth time exhibiting at the All-Energy show. The 19 & 20th of May 440 exhibitors are participating in one of the world largest renewable energy exhibition held in Aberdeen. You will find us in the Norwegian Pavillion at stand J80. We look forward to see you, welcome!

## Share issue of 5 MNOK completed in March 2010

2010-05-11

"C"

"B"



**Figure 5.2: National Mean Spectral Wave Power (1997-2007)**

The mean spectral wave power is a measure of the wave energy flux at any location (Figure 5.2). Mean spectral wave power is measured in units of kW per metre of wave front (kW/m). It is also common to cite the mean spectral wave power, usually measured from a wave buoy, for any measured location. Note that the figures on this map have been validated against six wave buoy locations: the hindcast data are an accurate reflection of the measured wave resource (see Appendix C, Section 3.4, for validation details).



environment  
SOUTHLAND



22062

Jason

and Price Street  
vate Bag 90116  
Invercargill

13 JUN 2011  
T270-001

SCANNED

Telephone (03) 211 5115  
Fax No. (03) 211 5252  
Southland Free Phone No. 0800 76 88 45

File No: \_\_\_\_\_  
Officer in Charge: \_\_\_\_\_

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: Raewyn + Daryl Barge (Name(s))  
of: 413 Wright Rd, RD2, Whangarei 0172 (Address)  
at: 09 4306941 (Phone) \_\_\_\_\_ (Fax) bargedfarmers-co.nz (E-mail)

Wish to support / oppose / comment on (circle one) the application of:

Name: Kevin Christopher McGrath  
And/or Organisation: Tangaroa Energy Rakaiia Amps Ltd  
File number: T270-001 Location: 3.2 km East of Ackers Point, Stewart Island  
(Mapref: NZMS 260 E48 445 572 Foveaux Str.)

My reasons for support/ opposition/comment are: (State in summary the nature of your submission and give clear reasons.)

*Continue overleaf if necessary*  
We believe that wave power has a real place in the generation of electricity for Stewart Island. - Wave Power as a renewable resource needs to be utilised.  
The successful installation of wave energy generation at Stewart Island would lead the way to similar renewable, reliable operations elsewhere in New Zealand.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)  
To grant resource consent to Tangaroa Energy Rakaiia Amps Ltd for a wave Energy Conversion Operation in Foveaux Strait, Stewart Island (location as above).  
No conditions sought.

I, do / do not (circle one) wish to be heard in support of my submission

I, do / do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

R Barge  
(Signature)

9, 06, 2011  
(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45



environment  
SOUTHLAND



22432

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SOUTHLAND

15 JUN 2011

File T270-001

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(Private Bag 90116)  
Invercargill

Telephone (03) 211 5115  
Fax No. (03) 211 5252  
Southland Freephone No. 0800 76 88 45

File No: T270-001  
Officer in Charge:

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

#### Submission on a Notified Application for a Resource Consent

T. We Martinius Geraldus Pepers QSM and Deborah Rose Dillon QSM (Name(s))  
of: 7 Argyle Street, Stewart Island (Address)  
at: \_\_\_\_\_ (Phone) \_\_\_\_\_ (Fax) Deborahrose@xtra.co.nz (E-mail)

Wish to support/ oppose/ comment on (circle one) the application of:

Name: Kevin Christopher McGrath

And/or Organisation: Tangaroa Energy Rakaia Amps

File number: T270-001 Location: 3.2 Kilometres East of Ackers Point, Stewart island

My reasons for ~~support~~/ opposition/ ~~comment are~~: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

We oppose the application on the grounds that the consent will result in detrimental socio-economic effects.

We believe that the grant would be better spent investigating and implementing a more practical solution to the immediate need to reduce the energy costs to Stewart Island consumers.

Granting this application "defocuses" the government's attention to this issue.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)  
We ask that the council not grant this consent.

I, do / ~~do not~~ (circle one) wish to be heard in support of my submission

I, do / ~~do not~~ (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

D R Dillon  
(Signature)

9 / 6 / 2011  
(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45





21939

environment  
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09 JUN 2011

File T270-001

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Telephone (03) 211 5115  
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Southland Freephone No. 0800 76 88 45

File No: T270-001  
Officer in Charge:

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: Christopher John Dillon (Name(s))  
of: 7 Horseshoe Bay Road, Stewart Island (Address)  
at: 64 3 2191427 (Phone) (Fax) chris.dillon@xtra.co.nz (E-mail)

Wish to ~~support~~ / oppose / ~~comment on~~ (circle one) the application of:

Name: Kevin Christopher McGrath

And/or Organisation: Tangaroa Energy Rakaia Amps

File number: T270-001 Location: 3.2 Kilometres east of Ackers Point, Stewart Island

My reasons for ~~support~~ / opposition / ~~comment on~~ are: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

I oppose the establishment of any cable exclusion zones in, or construction on the shore or on the seabed within the area of the Paterson Inlet Mataitai Reserve (Te Whaka a Te Wera Mataitai Reserve).

As a long term resident and recreational fisherman I believe that the area between Ackers Point and Ringaringa Passage to be the only place available to catch Paua or Rock Lobster in the mataitai reserve.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

I ask that the council not grant any consents that affect the recreational access to, and the use of the Te Whaka a Te Wera Mataitai Reserve.

Additionally I wish to express my concern regarding the intended mooring of this device in a recognised shipping and boating route.

I, do / ~~do not~~ (circle one) wish to be heard in support of my submission

I, do / ~~do not~~ (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

COJ  
(Signature)

7 / 6 / 2011  
(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45

My reasons for ~~support~~/ opposition/comment are (continued): Te Whaka a Te Wera / Paterson Inlet Mataitai Reserve area encompasses all the internal waters of Paterson Inlet, lying to the southwest of a straight line drawn from Ackers Point to Bullers Point on the Neck, excluding the Ulva Island / Te Wharawhara Marine Reserve and Big Glory Bay.

Paterson Inlet has long been prized for its fisheries by tangata whenua, the Stewart Island community, and recreational fishers from further afield. The Stewart Island community values and is very supportive of the mataitai reserve.

On page 5 of the consent application it is stated that there is "minimal human use of the coastal and beach zone" at the landfall site this is incorrect for the coastal area as it forms a significant part of the Te Whaka a Te Wera Mataitai Reserve and the beach zone has a track provided and maintained by the Southland District Council

In the consent application it is stated that the deployment site " is out of recognised shipping or recreational boating routes" this is incorrect as infact it is in two accepted shipping passages , the Abbot and the carter passages. Both passages are identified in The New Zealand Pilot as the directed passage for vessals aproaching from the south, infact Whero rock has the alternative name of Passage islet.

On page 18 of the consent application it tates that the Lanlee E1 would have a surface dimension of 15 metres x 15 metres and a subsea footprint of 400square metres. basic mathematics would indicate the surface area to be 225 square metres and the subsea footprint ( allowing for standard anchor slope of 3 to 1, in 49 metres of water ) of 309 metres x 309 metres or 95,481 square metres As the carter passage is only 1.6 kilometres wide it seems that any restiction or obstruction to clear passage would be dangerous.

I wish the Council to make the following decision (continued): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Jill Bean



21230

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**From:** Sue Scott  
**Sent:** Tuesday, 31 May 2011 15:23  
**To:** Jill Bean  
**Subject:** FW: Submission in Support of Tangaroa Energy Coastal Permit.doc  
**Attachments:** Submission in Support of Tangaroa Energy Coastal Permit.doc

Receipt acknowledged

31 MAY 2011

T 270-001

---

**From:** Facility Manager  
**Sent:** Tuesday, 31 May 2011 2:37 pm  
**To:** Gwynn Collins; Jan Brown; Margaret Reed; Bronwyn McConechy; Sue Scott  
**Subject:** FW: Submission in Support of Tangaroa Energy Coastal Permit.doc

-----  
**From:** Bruce and Sue Ford[SMTP:BRUCEF@SOUTHNET.CO.NZ]  
**Sent:** Tuesday, May 31, 2011 2:36:25 PM  
**To:** Facility Manager  
**Cc:** [tangaroaenergy@farmside.co.nz](mailto:tangaroaenergy@farmside.co.nz)  
**Subject:** Submission in Support of Tangaroa Energy Coastal Permit.doc  
**Auto forwarded by a Rule**

Dear Sir,

Please find attached a submission in support of Tangaroa Energy. Please advise if you require "hard copy" in addition to this electronic copy.

Regards,

Bruce Ford

[brucef@southnet.co.nz](mailto:brucef@southnet.co.nz)

Ph: (03) 2191 282

Stewart Island

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---

The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

Submission on a Notified Application for Resource Consent  
in Support of Tangaroa Energy Coastal Permit

File No. T270 – 001 – Stewart Island

Submitter: Bruce James FORD  
5 Argyle Street  
Stewart Island 9846  
Ph: (03) 2191 282. Fax: (03) 2191 382. Email: [brucef@southnet.co.nz](mailto:brucef@southnet.co.nz)

I commend the initiatives of Tangaroa to progress this energy proposal. It is imperative that approval is granted, for the following reasons:

1. This R&D is of significant importance to the ongoing sustainability of Stewart Island.
2. The potential to stabilise the cost of electricity in the long term is very obvious.
3. It is not an option to expect stability in the price of oil and the subsequent relation to diesel-generated electricity.
4. The advent of ETS repercussions is a major inducement to harness renewable and sustainable energy methods.
5. The scope of the proposed site is minimal and creates no significant marine disturbances. The device is of lesser size than many vessels that ply the area, as is the anchoring factor. Vessel anchoring is a regular and normal procedure and compared to oyster dredging would not create bottom disturbance. The associated cable to shore – as described – could likely be submerged as standard and accepted practice, and consequently, a regular seabed occurrence.
6. This opportunity is not to be missed as many other R&D projects are conducted overseas with no local benefit or involvement from this region.
7. Stewart Island is the ideal environment for these types of testing and should be encouraged, as does currently happen in the North Sea area for example. An excellent example being [emec.org.uk](http://emec.org.uk) – a two-fold facility that provides marine energy testing AND sustains a community.

I request a favourable approval be the best benefit to Southland and beyond.

I would like to speak to this submission if required.

I wish to be involved in any pre-hearing meeting that may be held.

Bruce J. Ford  
Stewart Island  
31 May 2011

Jill Bean



20904

SCANNED

**From:** Sue Scott  
**Sent:** Monday, 30 May 2011 08:45  
**To:** Jill Bean  
**Subject:** FW: Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001



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**From:** Facility Manager  
**Sent:** Sunday, 29 May 2011 4:22 pm  
**To:** Gwynn Collins; Jan Brown; Margaret Reed; Bronwyn McConechy; Sue Scott  
**Subject:** FW: Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001

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**From:** Wendy Bailey[SMTP:ICANDOIT@XTRA.CO.NZ]  
**Sent:** Sunday, May 29, 2011 4:21:58 PM  
**To:** Facility Manager  
**Cc:** Kevin McGrath  
**Subject:** Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001  
**Auto forwarded by a Rule**

Dear Sir/Madam

**Purpose:** Wave Energy Conversion Operation  
**Location:** 3.2 kilometres east of Ackers Point, Stewart Island at or about Map  
**Reference** NZMS 260 E48:445-572.  
**Legal Description of Property:** Foveaux Strait, Stewart Island.  
**Address for Service:** Tangaroa Energy Rakaia Amps Limited, 333 Wright Road, Titoki, RD 2, Whangarei 0172

With regard to the above Tangaroa Energy Rakaia Amps Limited Coastal Permit Application - T270-001, I wish to make the following submission in support of the application.

I am a new fulltime resident of Stewart Island and thus have limited knowledge of the power situation/management here. However, one reason for moving to the island was to reduce my footprint on our earth's resources and to live as sustainably as I can, thus any power-generating capacity that doesn't use fossil fuels is worthy of consideration. Whilst there may be fossil fuel available now, we have a responsibility to future generations to live more sustainably and what better way for our island to do this than wave power.

During the late 1980s, I was involved with a 12 month Electricorp project - data processing wave, wind and current data from Foveaux Strait and word processing interim and final reports. My understanding was that the wave energy had potential for power generation because of the big swells and long period waves that were present in the strait. Unfortunately no pilot study eventuated and I wasn't involved in further data processing for wave power in New Zealand; however, compared to projects in the South China Sea and Malaysia, nothing came close to the wave energy of Foveaux Strait.

We have a unique opportunity to test this Wave Power Device outside of laboratory conditions; the Langlee structure has many advantages over fixed structures and although the proposed pilot unit will only provide half of the island's requirement, it would be a great start and, if successful, put Stewart Island on the map for a clean, green-energy focal point for tourists and sustainable business. Rakiura will be known as the wave-powered capital of New Zealand.

I would like the Council to approve this application to prove that sustainable power alternatives are cost-effective solutions that comply with the Kyoto Protocol and provide a cleaner environment for future generations.

Thank you for your time. I do not wish to be heard in support of this submission.

Yours sincerely

Wendy Bailey  
Halfmoon Bay PostCentre  
Stewart Island 9846  
Ph 027 255-0422

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**environment  
SOUTHLAND**

Cnr North Road and Price Street  
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Invercargill  
Telephone (03) 211 5115  
Fax No. (03) 211 5252  
Southland Freephone No. 0800 76 88 45  
Mail to: [service@es.govt.nz](mailto:service@es.govt.nz)

File No: \_\_\_\_\_  
Officer in Charge: \_\_\_\_\_

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

## SUBMISSION FORM

### Submission on a Notified Application for a Resource Consent

I: CRAIG HARRIS, CHAIRPERSON

of: CRUISE NEW ZEALAND INCORPORATED, C/- ISS-MCKAY LTD, 2 AKAROA ST, PARNELL, AKL

at: 09 3740351 09 3020087 craig.harris@iss-mckay.co.nz  
(Phone) (Fax) (E-mail)

Wish to support / oppose / comment on (circle one) the application of:

Name: KEVIN CHRISTOPHER MCGATH, DIRECTOR

And/or Organisation: TANGAROA ENERGY RAKAIA AMPS LIMITED

File number: T270-001 Location: Latitude 46°53'33.62"S Longitude 168°12'13.45"E

My reasons for support opposition / comment are: (State in summary the nature of your submission and give clear reasons.  
Continue overleaf if necessary)

The applicant's submission presented as environment friendly.

The applicant's submission presented as supplying 'green' power for Stewart Island.

No adverse effects for the safe navigation & passage of cruise vessels.

I wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

To determine a decision based on the applicant's submission which, if favourable, to include provisions for:

- Internationally accepted day, night & reduced visibility identification markers & signals

- Discuss with applicant the fitting of an electronic real time signalling device to determine the static, or otherwise

location of the moored unit. By extension, the ability to advise a competent authority to issue a navigational warning

in the instance of the mooring positions encountering an unplanned change of location.

I, do do not (circle one) wish to be heard in support of my submission

I, do do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

(Signature)

19 / 05 / 2011

(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45

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SCANNER



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Fax No. (03) 211 5252  
Southland Freephone No. 0800 76 88 45  
Mail to: service@es.govt.nz

File No: \_\_\_\_\_

Officer in Charge: \_\_\_\_\_

To: The General Manager  
Environment Southland  
Private Bag 90116  
Invercargill

### SUBMISSION FORM

Submission on a Notified Application for a Resource Consent

I: Heather Jean Tauri (Name(s))  
of: Campbelltown Seafoods Ltd (Address)  
at: (03) 212 8011 (Phone) (03) 212 7208 (Fax) Campbelltown@clear.net.nz (E-mail)

Wish to support/ oppose/ comment on (circle one) the application of:

Name: Tangaroa Energy Rakiura AMPs Ltd.

And/or Organisation: \_\_\_\_\_

File number: T270-001 Location: Ockers Point, Stewart Island

My reasons for support/ opposition/ comment are: (State in summary the nature of your submission and give clear reasons. Continue overleaf if necessary)

Support endless renewable energy projects

Wish the Council to make the following decision (Give precise details, including the nature of any conditions sought)

Grant the application.

I, do  do not (circle one) wish to be heard in support of my submission

I, do  do not (circle one) wish to be involved in any pre-hearing meeting that may be held for this application

I have served a copy of my submission on the Applicant.

[Signature]  
(Signature)

19/05/11  
(Date)

If you have any queries about this form or its purpose please contact the Resource Consents Section of Environment Southland (03) 211 5115 or 0800 76 88 45