

Project Development in Wave Energy

Pacific Islands and Indian Ocean Studies

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Who we are...

- Created in 2005
- Specialised in Marine energy, Building Energy Efficiency and climate change services
- 3 engineers and a team assistant
- Both public and private customers

Our services



ENERGY	CLIMATE
<ul style="list-style-type: none">▪ Renewable Energy – in particular wave energy▪ Energy efficiency<ul style="list-style-type: none">- Energy Audits,- Building design▪ Project management for energy efficiency implementation▪ In situ measuring campaigns▪ Consultancy -Training	<ul style="list-style-type: none">▪ Carbon foot print assessments▪ French Agency for Energy management and environment Partnership with CITEPA▪ Carbon consultancy Partnership with South Pole Carbon

Our services

ENERGY

- Renewable Energy – in particular **wave energy**
- Energy efficiency
 - Energy Audits,
 - Building design
- Project management for energy efficiency implementation
- In situ measuring campaigns
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CLIMATE

- Carbon foot print assessments
- French Agency for Energy management and environment
Partnership with CITEPA
- Carbon consultancy
Partnership with South Pole Carbon

Wave energy feasibility studies

Project management skills and good technical knowledge in various areas

- Wave resource assessment
- Bathymetry
- Sea bed Survey
- Environmental impact assessment
- Cable dimensioning / cable route
- Grid connection
- Power Purchase agreements
- Allowing the use both on land and at sea
- Installation
- Operations and maintenance
- Business plan

Project development through case studies

- SRP as a consultant for the Pelamis wave Power to develop the Pelamis Project both in the Pacific and the Indian Ocean

Since early 2006 involved in :

- The Project Development in Maré – New Caledonia
- ◆ The Project Development in Wallis
- ◆ The Project Development in La Reunion

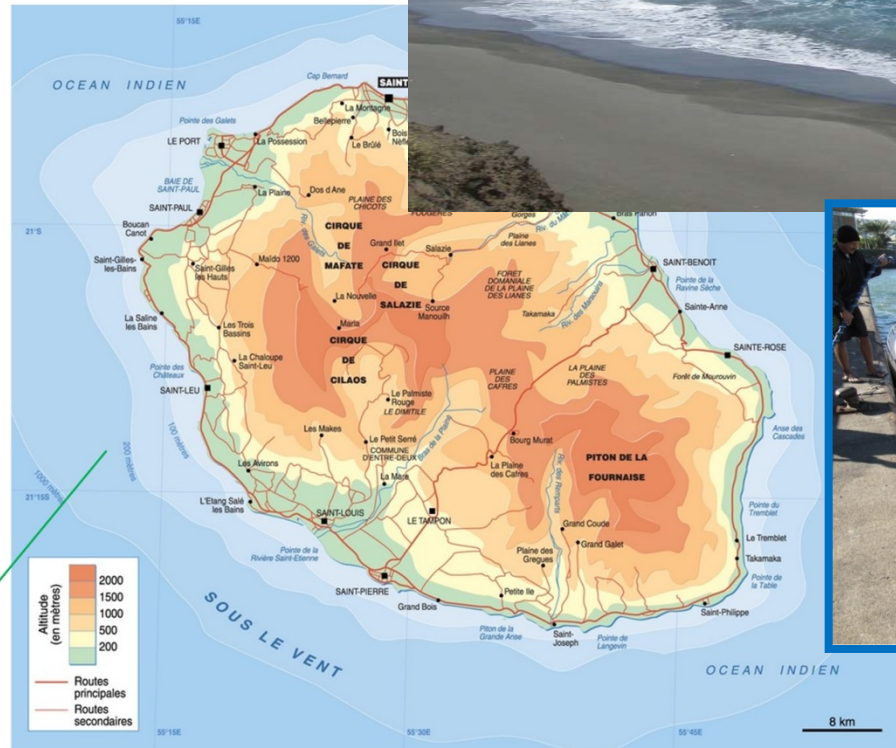
Maré in New Caledonia





Seawatt project – La Reunion

Saint Pierre – South of the island



SEAWATT

Project Development

Studies	Maré in New Cal	Wallis	La Reunion
Wave ressource	Completed	Desktop modelling	In progress
Bathymetry	Available	NOT AVAILABLE	Available
Sea bed survey	NOT AVAILABLE	NOT AVAILABLE	Completed
Cable route	80% completed	To be defined	Completed
Grid connection	20% completed	To be defined	Currently under study
PPA	To be negotiated	Regulation TBA	Still to be reviewed
Authorisation	80% completed	Long customary approach	EIA in progress
Operations Infrast.	80% completed	To be defined	Under study

Project Development :

Cost and time to business

1.5 to 2 million Euros - 1 to 3 years

(not related to the size of the final project)

Origin of fundings so far :

- Maré – private funds
- Wallis – 80% Private and support from Fonds Pacifique, France for 20%
- La Réunion – 30% ADEME, Region, City – 70% Private

Project development : Hurdles to overcome

Length and cost of studies involved :

Database to be developed by Countries on bathymetry, wave resource assessment, sea bed surveys...

- Publicly available
- Can be done in anticipation
- Can serve multipurpose (geoscience, security, other technologies or marine usage...)



Hurdles to overcome

- **Acceptation by local communities**
 - Weight of Customary aspects in Wallis, in New Caledonia
 - The lobby of the fishermen in La Reunion
 - The lobby of the surfers in the Cornwall project
- **Ensure early communication with all potential stakeholders**
- **Involve Government to set up rules and regulation**

Hurdles to overcome

Need for Regulation

- In anticipation of the first project
- To facilitate negotiations with stakeholders
- To ensure the best outcome for the Country versus private interest
 - In terms of use of space
 - In terms of environment...
- To facilitate time-to-market
- To guarantee revenue to Project developers and stability

Hurdles to overcome

Financing Issue

- Funding available to RE projects implementation requires strong business plan
- Difficulty to raise funds at this stage of the business plan
- Critical to develop these new technologies (devices and pilot projects).

Thank you for your attention.



SYNERGIE

PRESENTATION OF THE CLUSTER

PRESENTATION

- Created in 2009, SYNERGIE is an association gathering the major New-Caledonian companies involved in renewable energy (RE) and energy management.
- SYNERGIE is a cluster willing to bring the territory's institutional players towards implementation of policies dedicated to sustainable and structured development for the energy sector.
- SYNERGIE promotes technologies suitable to small islands and facilitate exports of skills in the South Pacific region.

WHY SYNERGIE?

SYNERGIE's major goals :

- become a key interlocutor regarding RE issues in New-Caledonia
- promote the New-Caledonian technical know-how in the South Pacific
- increase New-Caledonia independence towards energy, take advantage of the natural heritage, reducing CO₂ emissions.
- Work in favor of energy cost control.
- Participate in RE technical innovations et developments
- study and develop pilot projects...

THE MEMBERS

- 10 companies with wide skills and professions, from solar to marine energy
- appropriate and complementary interlocutor in RE matters
- encourage the development of RE and give greater priority to programmes aiming at the control of energy.



Some examples of the New-Caledonian know-how and projects driven by Synergie members:

The ground based solar farm of Helios Bay in la Tontouta 9560 solar panels/2,1 MW



The Kafeate wind farm.

- 42 wind turbines rated 275KW each, connected to the territorial grid.
- In operation since Dec 2005.
- Provides electricity to 3 municipalities: Voh, Kone and Pouembout.



The YATE dam

- 300 millions Kwh per year.
- Storage capacity : 315 M m³ of water
- Installed capacity: 68 MW
- Annual generating capacity : 307 GWh

