

2012 -2013

# Biomass energy

Olive Stone

Export process

OliveHeat S.L.

Author: MARIA LUISA LOPEZ VIRGIL

26 / September / 2013

Master in International
Business Administration
and modern languages

# Table of contents

Abstract	2
Introduction	3
The Product	5
Main uses of Olive stone	6
Production	7
Production process	9
Internationalization Plan	
1. International Diagnosis	
2. International Market Selection	
Markets Selected - UK & The Netherlands	
-Climate - UK & Netherlands	18
- Barriers to access- UK &The Netherlands	18
3. Competitors	
4. Entry Modes	24
5. Communication Strategy	26
Fairs	
Telepresence	29
Other Medias	30
6. Transport & Logistics	
INCOTERMS	32
Commercial documentation	34
Transport documentation	34
Customs formalities	35
Other formalities	35
Other documents	35
7. Financing	37
ICO FINANCING LINES	37
Appendix	38
Appendix 1	38
Appendix 2	43
Appendix 3	46
Bibliography	47

#### **Abstract**

The olive oil is one of our products most appreciated with Spanish stamp. In its production process, is produced some waste such as orujillo (water, pulp, bone) or olive pits (after washing process).

Both have an important energetic content, but the olive pit has higher quality and higher calorific than the orujillo. A small part of the waste product is consumed by their own self facilities where oil is extracted, the rest is sold to other industries. Traditionally, the orujillo is used as fuel by local industries, as brick ceramic factory, but the recent years, is used in a domestic way.

More and more people are interested in using this type of biomass for their heaters, and here is the key of its importance. Spain is the largest producer of olive oil in the world, and that makes it the largest producer of olive pits. According we read in various forums on the internet, people wonder if it would be possible to export olive stone as biomass, it means, if there is sufficient production for export. The answer is affirmative, there is enough to export. In addition, the Mediterranean countries have olive cultivation, so the amount that could be exported would be higher, if we buy olive stone from other Mediterranean countries.

In Spain there are many companies that are dedicated to selling orujillo and olive stone, without naming the cooperatives that also sell to their own memberships and to the general public. A good deal can be exported and highly paid by countries, either because of its cold climate, or to obtain energy for industrial activities, that increasingly make use of this product, becoming it a source of energy.

In this final dissertation, we are going to deal with this product, (called olive stone by some, and olive pit by others). Its production process, and as a new company could export it, to countries where the use of green products is increasingly requested. We will study what countries have been chosen for introducing our product, which variables have considered for the choice, such as how is introduced the product in the market, competitors, logistic and finally the financing.

#### Introduction

#### What we understand by Biomass

Definition

We can find different definitions depend of the source where we look for. According to Wikipedia Biomass "is biological material from living, or recently living organisms, most often referring to plants or plant-derived materials" for the use of the term as renewable energy.

Generically, biomass is the whole of renewable organic material whose origin can be vegetable, animal or came from the natural or artificial transformation of itself.

The plant to perform photosynthesis, they use the sun's energy to form organic substances. After animals feed on that plants and incorporate and transform that energy. The products of this transformation, which are considered waste, can be used as an energy resource.

## **Types of Biomass**

There are different types of biomass that can be used as an energy resource. Although can be many classifications, this is the most accepted, which divides the biomass into 4 different types:

- Natural biomass- is produced in the nature without human intervention.
- Dry and wet residual biomass- waste generated in various activities such as: agriculture, livestock, forestry, timber and agribusiness.
- Energy crops- These crops are created for the sole purpose of producing biomass to be transformed in fuel.

Advantages and Disadvantages of use waste as biomass

#### Advantages

- Until recently, getting rid of this waste was a problem for the mills and cooperatives.
- Decrease the dependence of using fuels to supply.
- It may cause an increase in rural economic.
- Not emit sulphur or nitrogen pollutant or just solid particles.
- Using waste as biomass to get energy means recycling, therefore the waste volume decreases.
- Decrease of CO2 emissions. The CO2 emissions sent out to the atmosphere during the combustion (to get energy) is the same that the plants absorb during its growth. In other words, the carbon emitted is the same which naturally will return to plants by photosynthesis, so it does not alter the balance in the atmosphere, something that happens in the combustion of fossil fuels such as oil or coal.
- When burning biomass, ash occurs, depending on the type of biomass, there will be more or less ash. This Ash is not polluting, quite the opposite it can be used for fertilising the garden.

Nowadays the technology applied to biomass is suffering a great development. It is focusing on the following points:

-To Increase energetic performance.

- -To minimize the environmental negative effects of the waste use.
- -To increase market competitiveness of the products.
- -To make possible new applications.

## Disadvantages

- It has a higher cost of production compared to the energy that comes from fossil fuels.
- It takes more biomass to achieve the same amount of energy from other sources low energy efficiency- . The yield of biomass boilers is lower than those using fossil fuel.
- Seasonal production.
- The raw material is of low energy density which means it takes up much volume and therefore may have problems with transport and storage.
- -Need to packaging or processing for use.

#### **The Product**

Biomass obtained from Olive Stone. Where did it get from?



#### Olive Tree

If we consult any book or encyclopaedia, we can find some definitions about what Olive tree is. According to some books, the olive tree is an evergreen tree that can reach up to 49 feet high (15 meters). It is belongs to the botanical Oleaceae family (*Olea europaea*). Some characteristics from this tree are longevity – there are many hundred-year- old, and its high resistance to drought. It has high facility to regenerate thanks to new shoots that born from its old trunk and get that the plant regain life and may survive diseases and epidemics. Because of its strength, in the past, olive tree was considered as immortal.



## Olive fruit, the olive

The olive is the fruit of the olive tree. It is a small drupe ovoid, very bitter, yellowish-green or purple with a big bone hard. Its main function is the production of oil, but can also be consumed. After the extraction of the oil, the stone is obtained, among other as residue. In order to take biomass, this part is the most important, since it is a source of renewal energy. To make us an idea of its calorific value, 2 kg of olive stone (previously dried) equal 1 litre of fuel.



#### Olive Stone, as a biomass

The olive stone is an excellent fuel for special biomass boilers which can be used with more than one biofuel, for example, almond shells or wood pellets), because it is a renewable energy and an economic way to save on energy bills.

The carbon dioxide released during combustion is set by the olive crop cycle, while fossil fuels increase the level of CO2 in the atmosphere.

### Olive Stone data sheet- Analysis on gross:

Calorific value (kcal / kg) 4087 (4.75 kWh/ kg)
Air dry humidity (%) 8.11
Total Moisture (%) 9.34
Volatile (%) 69.10
Ash (815 ° C) (%) 0.34
Carbon (%) 43.50
Hydrogen (%) 6.87
Nitrogen (%) 0.04
Sulfur (%) 0.00

Comparison table between biomass and fossil fuels:

Central heating oil	€ 8.71 cents /kWh
Natural gas	€ 5.75 cents / kWh
Olive stone	€ 2.87 cents / kWh
Electricity	€ 15.09 cents / kWh

Some disadvantages of using fossil fuels as coal or oil:

- non-renewable- it can be exhausted in future.
- Combustion generates environmental problems, especially if contains a high rate of sulphur and it contributes to the greenhouse effects and acid rain.

To make us an idea of its calorific value, 2 kg of olive stone (previously dried) equal 1 litre of fuel. This make the solid biomass become the most competitive energy source for the end user, and the most important, the price does not change.

#### Main uses of Olive stone

In Spain, the olive pit is used primarily for biomass boilers for its high calorific value, and low price, and we have to remember that is a waste product in the process of making olive oil. Biomass boilers are boilers that can use more than one fuel, such as wood shavings, wood pellet, wood logs, almond shells, among others. Besides use in household heating, also used in industrial facilities for getting energy. Through the page "Green Ecology" we know that the University of Cordoba has made a research to give more autonomy to electric cars. During the project, have created batteries manufactured with coal from olive pits. The coal from olive stone, drives electricity better that graphite, therefore it makes increase the autonomy of electric cars.

#### **Production**

According to sources as ICEX and Ministry of Agriculture, Food and Environment, Spain is the largest olive oil producer of the world and therefore the main producer of olive Stone followed by Italy. The olive grove in Andalusia surface reaches 1.5 million hectares. The "axis of olive" is formed by Jaen, Cordoba, Granada, Malaga and Seville. In the last Agricultural Census counted 169,459 olive farms in Andalusia.

The average production of olive groves in Andalusia stood at 5,171,551 million tons of olives, 1,096,819 million tons of olive oil, 424 389 tonnes of table olives. Both sectors generated a production value of 2,215 million euros.

We can find olive cultivated field, around Mediterranean basin.



Source: Wikipedia

Several countries such as Italy, South of France, northern Morocco, Algeria, Tunisia, part of Libya, Egypt, Jordan, Israel, Lebanon, Syria, western half of Turkey and Greece, all of them have in common a climate conducive to the development of the olive tree, the Mediterranean climate, but in addition we also find them outside Mediterranean countries. South Africa, Peru, Chile, Australia, and California and in areas with different climates temperate and New Zealand, under irrigation in the Cuyo region in Argentina

which has a desert climate there are olive trees. It is also grows in Cordoba, Argentina, where the climate consist in rainy summers and dry winters.

As we can see in the chart belongs to Agency for olive oil from the Ministry of Agriculture, Food and Environment, during **2012-2013** season collect olive, an amount of **613,600** tons were obtained, which is below other campaigns. For example, during the campaign 2011- 2012 an amount of 1615,000 olive tons were produced, being January and December the months with the highest production. Because of last winter rains, are expected that the olive picking for this year 2013 is much higher.

Period	Initial existence	Production	Import	Market apparent	Export	Stocks
OCTOBER	692.5	6.6	6.7	39.0	68.6	598.2
NOVEMBER	598.2	87.4	6.1	39.1	62.3	590.3
DECEMBER	590.3	296.4	10.1	42.9	47.4	806.5
JANUARY	806.5	158.8	8.5	42.8	43.6	887.4
FEBRUARY	887.4	49.2	13.9	45.3	38.6	866.6
MARCH	866.6	10.2	14.8	27.3	38.0	826.3
APRIL	826.3	5.0	12.3	44.6	41.0	758.0
TOTAL	692.5	613.6	72.4	281.0	339.5	758.0
Olive Campaign 2012- 2013, Source: Ministry of Agriculture, Food and Environment- Agency for olive						

Olive Campaign 2012- 2013. Source: Ministry of Agriculture, Food and Environment- Agency for olive oil.

#### **Production process**

Olive oil mills receive what have been collected during the day, the olive fruit. It is cleaned, weighed and a sample for analysis is taken, then the product is washed.

During the oil extraction process, it generates a subproduct called "alpeorujo" (is the solid liquid waste generated by the new two-phase method of olive oil extraction), remains of skin, bone and pulp and olive and fruit water is added to the process. In this product, the mills themselves extract the crushed olive stone by stoners wet, they get away from the other components and drying, greatly reducing the initial moisture content of bone. Subsequently, during the summer months, the olive stone loses quite dampness.

After the loss of the dampness, the percentage of the olive stone weight with respect to the total weight of the olive is different, given that it will be determined by variety of the olive tree, hydric conditions during its growth and olive average weight. This percentage can vary from 15 to 25 % of the total olive weight processed in the mill. For example, if the percentage swing around 19 % (picual variety), from each tone, would be obtained 190 kg of dried olive stone.

The product still wet, has to pass through by a dried process in order to get an optimal degree of moisture. An optimal olive stone, 100% clean and dampness below 15%," characteristics that make our product can offer the best performance with the maximum respect for the environment.

This will make that the product be ready to be packed in bag of 15 kg and distributed internationality.

For use it, is necessary to have an appropriate boiler, specially designated to be used with olive stone or pellets.

A complete system of heating with biomass can amount to 7,000 €, corresponding to  $5,000 \in \text{(heater)} + \text{€ } 2,000 \text{ (radiators or air distribution system hot)}.$ 

The price increase is amortized with an annual savings of  $\in$  1,000, and allows in less than three years has been amortized the heater system change.

#### **Internationalization Plan**

Despite the situation that is going through the international economy and especially the Spanish economy, one of the greatest crisis in its history, the companies that have decided to go abroad, have experienced the benefit obtained in the search of new markets, expanding its presence in foreign markets.

"The basic element of internationalization is the exchange, which is the base material, as general way, internationalization means the exchange of goods and services between agents belonging to different nations" (Guisado Tato, Manuel 2002).

A Company can internationalize in two ways, selling its usual products and services, or selling new product / services.

The main advantages of the internationalization are:

➤ Productivity advantages – When a firm decide to internalize, either selling its product / services in a different country of origin, or moving part of its production to another country, can use the total of its productivity capacity, because the unsold excess, can be sold in any other place, outputting the excess production from others seasons.

Economies of scale would be used, considering that if we increase production volume, unit cost would decrease.

In the case that the company establish some production centre / factory in a place where labour force or raw materials are cheaper, this would bring to the company a competitive advantage from the point of view of production.

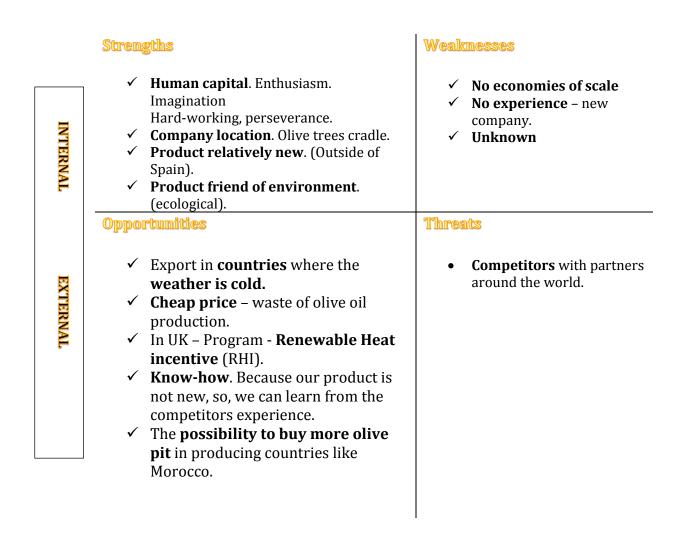
Regarding the commercial, the company would have access to a wider market and therefore a greater number of consumers, undoubtedly improving its image. It would make that its products were known by possible consummators, being this very positive for the company.

About the idea of setting up the headquarters of the company in a new country, as well as perform some production there, it would eliminate cultural barriers such as trade barriers, eliminating or decreasing the cost of international transport.

With regard to the financial side, the risk would be diversified, thus compensating results and evading taxes.

# 1. International Diagnosis

In order to maximize and take advantage of our strengths and opportunities, and face to weaknesses and threats, we need to know both internal and external situation of our company. Therefore is necessary to make an analysis-SWOT.



Let's go to put ourselves in the place of our company situation. New company start-ups. No one knows us. Our product is relatively new, though (come see below) some companies already sell it, but the majority do not export it. There is a company (as we can see in the section competitors), "Garcia Munte GME". This company export many products, one of them is biomass. The true is that it is an established company in the market for many years, as specialist in solid fuels, but this company is not specialist in biomass. So, what we can do to face all the weaknesses and threats is:

- Promote our product.
  - Product totally ecological.
  - We work directly with cooperatives.
  - o Our company is located in the cradle of olive trees, in the region of Jaen. Where are the best olives in the world.

- o In Addition of crushed olive pits, also we have olive stone, neither ground nor powdered, which also can be used in boilers, heaters, like wood briquettes.
- o To stop being known, we will announce in local newspapers, web biomass installers in the UK and will attend international fairs biofuels, so that people know us and trust us.

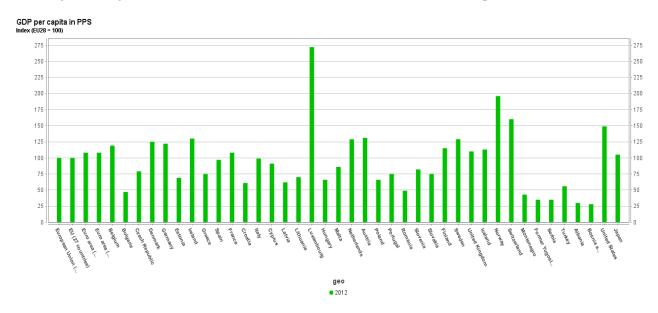
# 2. International Market Selection

The market selection is one of the most important parts in order to get success with our product. To select the destination country of exports, is a decision that the company should take before to decide how to entre in the new market. This choice could set up the foundations for future international expansion; therein lies its importance, considering that a poor selection of market can be very expensive for SMEs. To try entering in a highly competitive market or low potential can carry the firm to fail.

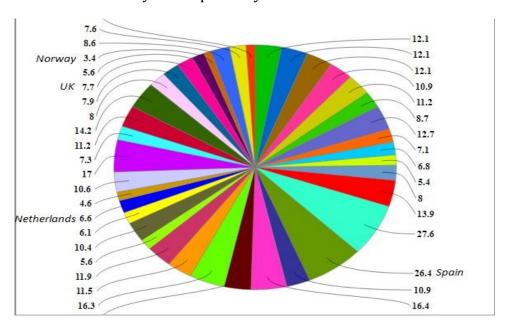
To identify such markets, it must take into account, a number of variables. The following data table, is a compilation based on the different information sources like ICEX, EuroStat, market researchs for example "Energias renovables y eficiencia energetica en Noruega" by Economy and trade office of the Spanish Embassy in Oslo.

FACTORS TARGET MARKET	UK	The Netherlands	Norway
Geographical and cultural distance	4	4	3
Competition Natural Resources - Fuels	4	3	1
Economic and Political Risk GDP, Income per capita	3	4	5
Unemployment Rate	3	4	5
Market entry barrier	5	5	5
Possibility of physical distribution	3	5	3
Accessibility distribution channels	3	5	4
Ecological awareness - Program to encourage the use of renewable energy	5	4	5
Climate	5	5	5
Language	5	4	3

In the following bar chart from the **European Commission Website** – **EuroStat**, we can see GDP per Capita expressed in Purchasing Power Standards<sup>1</sup> of 2012. The highest level of GDP per capita in the EU27 was recorded in Luxembourg with a level of more than two and a half time the EUR average, followed by Norway, Switzerland, Austria and **Netherlands**. **United Kingdom** ranks 13th.



In regard to the Unemployed rate graph<sup>2</sup>, (EuroStat source) corresponding to May of 2013, we can distinguish as Spain is one of the countries with the highest unemployment rate. On the other hand, Norway has the lowest unemployed rate 3.4, if we compare among others European countries. Netherlands and UK have a rate of 6.6 y 7.7 respectively.



 $<sup>^1</sup>$  GDP at purchasing power parity (PPS) allows comparison between countries removing distortions generated by different price levels between them. In this way we can know how much money would be necessary to buy the same goods and services in different countries.

<sup>&</sup>lt;sup>2</sup> The unemployment rate represents unemployed persons as a percentage of the labour force based on international labour office (ILO) definition. The labour force is the total number of people employed and unemployed. Unemployed persons comprise persons aged 15 to 74 who:

<sup>-</sup> are without work during the reference week.

<sup>-</sup> are available to start work within the next two weeks.

<sup>-</sup> and have been actively seeking work in the past four weeks or had already found a job to start within the next three months.

**Norway** is a major Oil exporting countries in the world. Its oil industry is so important that it occupies a 1/4 of its GDP. Besides, it is the 2nd largest producer of renewable energy in Europe. Norway happened of having no knowledge about oil reserves, to be a major exporter of both oil and natural gas. This fact explains the socioeconomic growth nationwide experiment from the 60s. But despite having this resource, Norway is also a pioneer in Renewable Energy. Being aware that fossil resources are limited resources, has developed and invested in research and development of new renewable energy sources. Ex. more than 99% of the energy used in Norway, comes from the flowing water. This makes Norway besides being self-sufficient, it can export large amounts of energy, becoming in the 2nd natural gas supplier, since Russia ranks first.

With respect to barriers to imports, since 1973, the EU had with Norway a Free trade Agreement until, in 1994, adopted the European Economic Area agreement, which involves the participation of Norway, Iceland and Liechtenstein in the internal market (free movement of goods, services, people and capital).

In spite of there are no barriers for export our product to Norway, we decide do not select this country. Its GDP is one of the best, and the majority of the people speak English as second language, but this country exports oil, and produces its own renewable energy. The most probably is that our product would not be successful in that country.

## **Markets Selected – UK & The Netherlands**

#### **United Kingdom**

Section of the control of the contro

Earli | 14th Biennial Conference

Source of the map: <a href="http://www.earli2011.org/">http://www.earli2011.org/</a>

Capital: London

Language: English

Currency: Pound Sterling £

GDP: 0.6 % (percentage change on previous year)

Consumer Prices Index: 2.8 % (July 2013)

Total Population: 63.7 million

Area: 243,610 km<sup>2</sup>

Source of dates: Office for National Statistics

https://www.ons.gov.uk

In spite of this country is not one of the countries with the highest GDP per Capita in PPS, as is showed in one of the previous graph, UK is a good option as a market for introduce our product. Its economy grew by  $0.6\,\%$  in the second quarter of the year. It is the  $6^{th}$  economy in the world by ICEX and is one of the world leaders in the area of financial services.

Its unemployment rate, is one of the lowest (by Eurostat Chart), with an average value of 7.7 for the 1<sup>st</sup> quarter 2013. It is below of Czech Republic (7.1%), Denmark (6.8 %), Germany (5.4 %), Luxembourg (5.6%), Malta (6.1%), Netherlands (6.5%) and Austria (4.7%).

Regarding Energy Sector, in recent decades, UK has seen its oil and gas reserves have declined by 1.8% of GDP. In recent years, there have been government policies to encourage the use and expansion of renewable energy, thereby reducing CO2 emissions. For example, in the Spanish economy newspaper "5 días" dated 17th may 2011, we can read the headline: "UK is committed to reduce its CO2 emissions by 50% by 2025, through Emissions Reduction Action Plan". UK is committed to reducing its CO2 emissions by 50% by 2025, through Emissions Reduction Action Plan", so that would reduce dependence on fossil fuels and measures will be taken in favor of renewable energy. Some of the measures that are being taken are for example, the use of electric cars, thermal insulation housing, and the use of biofuels instead of fossil fuels. By 2020, the UK target is to achieve that 15% of all its energy comes from renewable energy sources, like biofuels, biorefineries and recovery of energy from biomass portion of waste.

In UK exists a program called Renewable Heat incentive (RHI). It is the world's first long-term financial support programme for renewable heat.

In November 2011, it was launched for the non-domestic sector. Now it is set plans for providing longer term support for homeowners. It is the first step to transform the way to heat homes. The household scheme will be opened in spring 214, but in the meantime householder voucher scheme is currently available. "The RHI pays participants of the scheme that generate and use renewable energy to heat their building by increasing the generation of heat from renewable energy sources (instead of fossil fuels), the RHI helps the UK reduce greenhouse gas emissions and meet targets for reducing the effects of climate change".

Source: <a href="http://www.gov.uk">http://www.gov.uk</a> Policy increasing the use of low-carbon technologies. Department of Energy & Climate change and Department for transport. (See Appendix-1 for further details)

#### The Netherlands



Capital: Amsterdam.

Language: Dutch (a significant part of the population speaks English).

Currency: Euro €.

GDP: - 0.8 (percentage change on previous year).

Consume Prices Index: 2.8 % (July 2013)

Total population: 16,730,632 (July 2012)

Area: 41,528 km<sup>2</sup>

 $Source\ of\ the\ map:\ Travel. state. gov\ U.S.\ Department\ of\ State.$ 

A service of the bureau of consular affairs.

The Netherlands is one of the EU countries with the highest GDP, surpassed only by Luxembourg, Norway, Switzerland and Austria. With an unemployment rate of 7.0% according Eurostat (July 2013). The Netherlands is an important distribution center, not only for its geographical position, the port of Rotterdam is one of the largest and most important ports in Europe. With a length of 40 km, whereby annually pass more than 400 tons of goods, which make it the 4th most important port in the world as regards to transit of goods.

It is the country with the largest distribution centers, although but lately the traditional distribution chain is shortened (exporter-Agent-Importer-Wholesaler-Retailer-Consumer). Large chain stores and supermarkets, in many cases negotiate directly with exporters, importing themselves directly, without so many intermediaries. Only in the case of products with special specifications, using the services of an importer.

Through The Netherlands, we can get our product to neighboring countries like Belgium, Luxembourg and Germany.

According ICEX, the Dutch admire deeply United Kingdom. This is an advantage for us. This good relationship between the two countries could help us giving us a good image, since the other market that we want to introduce our product is United Kingdom.

#### -Climate - UK & Netherlands-

Both countries have a similar weather, called oceanic climate, with cool winters, mild summers and plenty of rainfall. The weather is quite changeable. The average temperature is 2 degrees in winter and 16 degrees in summer. England has a temperature very similar to The Netherlands, being much cooler in the north of the Country split.

#### - Barriers to access- UK &The Netherlands

Being both EU countries, there is any kind of barrier or tariff or commercial. Although the UK prohibits the importation of certain products, due to health, safety, environmental protection, but this does not affect our product.

# 3. Competitors

Both UK and Netherlands, most of the company work as seller or distributor, they commercialize biomass from agricultural residues and / or wood residues.

Some competitors from UK:

The Bríquette Company

Location: Preston, Lancashire (UK)

Products: wood pellets. Bag of 10 kg – 10 £. (Delivery + VAT

include).

Delivery: within 3 working days. (this delivery time is just around the area. It say anything about abroad delivery.

As well as producing briquettes, The Briquette Company sell traditional kiln dried logs and kindling. Coming soon hard and softwood logs.

It is also possible to order a mix of Briquettes and Logs.

http://www.thebriquettecompany.co.uk



Location: Berkshire, UK.

National distributor of household solid fuels in the UK. Its products include firewood, briquettes, wood pellets and coal. Its mission is to provide excellent value high quality product

at an affordable price with excellent customer service.

## Warranty:

- Money back if the customer is not satisfied.
- Ensure that they have the lowest prices, if you do not reimburse 150% of the difference.
- Option of delivery within 24 hours.
- Free Delivery. Free standard delivery throughout mainland England and Wales. If the order is placed before 3pm the same day send him.
- Track your order until delivery.
- Save 5% on your first order from us when you use the coupon 'FirstOrder' during checkout.
  - Only valid on your first order from us, and only available on online orders. T&C's apply.
- Summer Sale. Due to an on-going mechanical failure at Land Energy (Woodlets' manufacturer), we are currently out of stock. After further delays we anticipate stock being available on the 6th of September. If you'd like to reserve stock at the £225 offer price, please do so by the end of the 2nd September by emailing us on sales@whitehorseenergy.co.uk with the volume you'd like us to reserve for you. If you haven't reserved stock, a limited quantity (200 tonne) at £225 will be available on a first come first served basis from the 6th of September.

#### VAT information:

Intended use: Fuel

Fuel supplies for domestic use incur VAT at the reduced rate of 5%. Business customers may apply the reduced rate for some deliveries provided the satisfy the requirements in the Legislation. Where Business customers do not satisfy these requirements they are obliged to pay the standard rate of VAT.

Intended Use: Other

All other supplies are made at the standard rate of VAT. Please ensure you make a purchase with the appropriate rate levied.

#### Best seller products:

- ➤ Wood pellets. Full pallet (96 x 10 kg bags) 258.00 £ (5% VAT) / 294.85 £ (20% VAT).
- ➤ XL Briquettes. Full pallet (100 x 10 kg bags) 280.00 £
- ➤ EU Kiln Dried Ash Firewood. Full crate (2.05m x 1.16m x 0.85m) 245.00 £

# TEXBRIQ

Location: Douglastown (closet o Forfar), UK.

Strathmore Briquette Ltd, is a family business based in the heart of the valley of Strathmore in Angus. They are specialized in producing high quality ecological briquettes. They have been producing briquettes, using sawdust and shavings from his fabrication shop, to heat their facilities for more than 20years. Strathmore Briquette Ltd has invested in modern recycling technology, to produce profitable new ecological briquettes - using wood waste, which if not used would be brought to landfills. The green briquettes are sealed in polyethylene bags so they are always dry and ready for use whenever needed. The briquettes are clean and easy to use, fast to light and packed in bags of 10 kg or 20 kg suitable for storage to be simple.

Products: Seasoned hardwood. 2 bulk bags  $(1m^3)$  140.00 £ (collection); 150.00 £ (inside 15 mile zone); 190.00 £ (outside 15 mile zone).

There are semi season hardwood. 2 bulk bags 170£ (outside 15 mile zone).

Others products: larch logs, rock salt, kindling.

http://www.strathmorebriquette.co.uk

Some competitor from The Netherlands:

# Strathmore Briquette Ltd

Location: Texel, The Netherlands.

"Texbriq Texel" is a company that "briketje" trying to contribute to the objectives of the

municipality to be in 2020, an energy neutral island.

They started with the manufacture of briquettes for sustainable wood stove and  $\/$  or boiler.

The success of these briquettes has led to having our total product portfolio.

Products: This company sells from Briquette, made of sawdust, to solar panels, heater among others.

Sawdust briquettes 20 kg box (crate) 6.50 € Delivery (Shipping charge):

- Up to 8 crates 5 € (only in Texel area).
- More than 8 crates, the delivery cost is include (Texel area).

Deposit per crate 2.50 €

# -Spanish competitors -

#### **EcoKcal combustibles Solidos**

In Spain there are many of companies dedicated biofuel and biomass trade. The majority of them sell the product directly to the consumer and very few companies export their products.



Location: La Guardia, Jaen.

This company provide:

- -biomass (olive pit, wood pellets, Crushed almond shells, woodchips).
- -machinery for thermal system (silo, transporter, etc.)

Its clients are both industrial and domestic market.

Price of biomass: 170 €/ Tm. (without VAT and shipping charge).

According its website <u>www.ecokcal.es</u>, this company was created to meet specific needs. To supply biomass for thermal systems, both industrial and domestics.



#### Managua S.L. Instalaciones

Location: Villanueva del Trabuco, Malaga.

This company sells thermal systems (boilers, heaters,) and biomass (wood pellets, olive stones). Their customers are companies, individuals and public institutions.

#### Price:

- 10 kg. olive stone 0.17€/ kg (packing).
- 15 kg. wood pellets 3.90 € / bag.

Its website <a href="http://managuainstalaciones.es">http://managuainstalaciones.es</a> says nothing about shipping charge.

**Garcia Munte GME energy people** <a href="http://www.garciamunte.com/en/">http://www.garciamunte.com/en/</a> It is a company, worldwide distributor.



#### **Products:**

- Any solid fuel (petcoke, coal, anthracite agent....).
- Biomass: almond shell, olive pit, wood chips, among others.

Product Price: olive stone approximate average value  $\leq 110$  / Tm (delivery in Spain). For shipping outside of Spain, the price will depend on many factors such as port charges, loading and unloading rates, freight costs, so on. Processed olive pit is 100% domestic product, although they work also with raw material from North African countries such as Morocco.

It is a leader in the distribution of solid fuels in Spain, Portugal, Mexico and Morocco. GME manages the logistics of more than 4 million tons of raw material, micronization plant. This company buy more and less the 50% olive pit production of the region.

It has extensive infrastructure (see infrastructure map below) of port terminal (in several cities), stockyard and biomass plant, in addition of a large sales team, subsidiaries, as maritime logistics (Bai Sea Chartering), or GME like logistics road transport operator. Just like that, it can offer a guarantee in all their products and delivery times.

A key of its success is the relationship with several partners and human resources that it has around the world (see GME partners map below). Source: GME Garcia Munte's website.



GME's partners map around the world. Source: GME Garcia Munte's website.



# 4. Entry Modes

There are some factors that have to be taken in account, which affect the entry mode decisions:

#### **Internal Factors**

- firm size
- international experience
- nature of the product
- company resources

#### **External Factors**

- sociocultural distance
- country risk
- competitors
- demand
- market
- trade barriers

The market we wish to enter, United Kingdom and The Netherlands, are developed countries, where the economy is liberalized, the cultural distance is not so great, no political or economic risk, and no trade barriers, so any mode of entry is valid.

Considering internal factors, and in spite of our company is not large, and has not experience in exporting, the best option is direct exporting.

The main advantages of direct export are:

- Having a greater control over our brand and operation.
- The potential profits are greater.
- We will know who our clients are.
- Our customers will know who we are. They will feel more secure doing business directly with us.
- Our business trips will be much more efficient and effective, because we will be able to meet directly with the customer responsible for selling our product.
- We will develop a better understanding of the marketplace.

#### Disadvantages:

We have to be able to handle all the logistics of the transaction.

It requires more time and money to make a customer data base.

We will be responsible for whatever happens.

To introduce our product in the market, we must to make first than the other companies as biomass selling companies know our product. We will contact with them, since they can sell our product and to recommend it among its clients (clients with biomass boilers). On this way, some competitors can become clients, since they sell biomass, and that kind of biomass does not exist in UK or The Nederlands. Also We can to contact with local distributors. For example here in Spain some companies buy the product directly to other companies that are in charge of drying and packaging. An example is the company Garcia Munten. They buy olive pits to cooperatives, then the product is dried and packaged . One of his clients is EcoKal, company that buying dried and packaged olive stone and sells it to the final consumer.

We will launch an exceptional marketing campaign, explaining that our product is 100% vegetable and natural, free from pollutants. Explaining its features that make it so different from other types of biomass, such as its high calorific value, and low polluting power, since the CO2 expelled during combustion, is counteracted by the oxygen fixed by olive tree in the photosynthesis .

#### To make the first contacts:

We will participate in international fairs. Other way to get clients is offering product samples, so that our future customers can try it without any kind of commitment.

In the website <a href="http://www.whitehorseenergy.co.uk/boiler-installers">http://www.whitehorseenergy.co.uk/boiler-installers</a> we can find a large list of boiler installers in UK. Every red marker belongs to a boiler installer company from different places. (see appendix 2).

# 5. Communication Strategy

The first step towards the development of a communication strategy is to determine the reason why the communication is important and to have cleared the objectives. An enterprise can be well known in the own country, but being completely anonymous in another country. The main aim would be to make known our enterprise abroad.

In ICEX website, point of international development, we can find several instruments for international promotion:

- Fairs
- Comprehensive plans for market development \*
- Forums Investment and Business Cooperation \*
- Business Meetings\*
- Investors Missions\*
- Plans country\*
- **4** Telepresence

\*not available at present

#### **Fairs**

International fairs are a good tool to introduce our company and our product among entering people, and other participants, through promotional talks, will foster the development of international trade relations.

At these fairs attend numerous entrepreneurs with new projects, promoting their products, making contacts, and the result is that it produces an exchange of information in internationally way.

The advantages are numerous, so the Secretary of State for external trade, expect to spread as much information as be possible about these events. <a href="http://www.comercio.gob.es"><u>Http://www.comercio.gob.es</u></a>

On this website we can find the list of all institutions related to these fairs, with their corresponding links and the official schedule of international trade shows of recent years.

#### **EXPOBIOENERGIA 2013**

It is the 8th edition of the international fair specializing in bioenergy. It's a very important fair for the energy sector. Year after year, has had a huge success due to its high degree of specialization in the field, especially practical where we can find business opportunities, opening the doors to an international market.

#### <u>Information</u>

Place and date: Valladolid, Spain. 22 - 24 October, 2013

Regularity: annually.

#### Sectors:

- Use of forest and agricultural biomass
- Energy crops
- Domestic Heat
- Generation of electricity and heat
- Biofuels
- Biogas
- Solid Biofuels
- Bioenergy Services, etc..

Organizers: Avebiom and Casefor.

## Complementary activities:

• Connect Bioenergy: BioBUILD and BioFINANCE

• BIOMUN: Bioenergy for townships

- Technical sessions
- Technical presentations
- Demonstrations of machinery at the fairgrounds
- Professional visits to facilities of use and production of biofuels
- 8th Technological Innovation Award.

http://www.expobioenergia.com/

## **GENERA 2014**

International Fair of Energy and Environment 17 th Edition.

International Trade Fair for Energy and the Environment, which brings together professionals from renewable energy and energy efficiency, along with the construction and architecture (energy rehabilitation and bioclimatic architecture).

#### Information:

Place and date: IFEMA - Madrid, Spain. 6 - 8 May, 2014.

Regularity: annually.

Character: Exclusive Professional

Sectors:

- Biofuels
- Biomass and Waste
- Coal
- Cogeneration
- Energy Efficiency
- Geothermal Energy

- Wind
- Gas
- Hydraulics
- Hydrogen and Fuel
- Mobility
- Oil
- Energy services
- Solar PV
- Solar Thermal
- Solar thermal
- Other energy

#### Organizers:

• IDAE (Institute for Diversification and Saving Energy).

#### Team members:

- A3e Association of Energy Efficiency)
- ACOGEN (Spanish Association of Cogeneration)
- ADHAC (Association of Heating and Cooling Networks)
- AEE (Wind Business Association)
- AEF (Photovoltaic Business Association)
- AEH (Spanish Association of Hydrogen)
- AMI (Business Association of Maintenance Enterprises and Energy Services)
- ANESE (Association of Energy Service Companies)
- AOP (Spanish Association of Oil Product Operators)
- APPA (Association of Renewable Energy Producers)
- ASIF (Photovoltaic Industry Association)
- ASIT (Association Solar Thermal Industry)
- ATECYR (Spanish Technical Association of Air Conditioning and Refrigeration)
- CIEMAT (Centre for Energy Environment and Technology)
- COGEN SPAIN (Spanish Association for the Promotion of Cogeneration)
- CENER (National Renewable Energy Centre)
- ENERGY NATIONAL COMMISSION
- NUCLEAR INDUSTRY FORUM SPANISH
- · Autonomous Community of Madrid
- Hon. City of Madrid
- REE Electric Network of Spain
- SPANISH OFFICE OF CLIMATE CHANGE
- UNEF (Spanish Photovoltaic Union)

UNESA (Spanish Association of the Electrical Industry)

http://www.ifema.es/Institucional 01/noticias/INS 021633

#### **ALL-ENERGY 2014**- The renewables show in the energy city

"All-Energy is the only face-to-face forum in the UK that brings together all sectors and elements of the renewables/ sustainable energy industry and provides the best platform for the industry's business professionals, academia, finance community and government to drive innovation, business and investment opportunities across the sectors; buy and sell products and services; and engage in outstanding networking. All-Energy is where busy people come to do business."

Information:

Place and date: Aberdeen, UK. 21 - 22 May, 2014.

Regularity: annually.

Sector:

Offshore maintenance

Offshore wind

Bioenergy, biomass

Renewable heat

Etc.

http://www.all-energy.co.uk/

#### **Telepresence**

"The Spanish Institute for Foreign Trade (ICEX) offers new services to support the internationalization via an innovative communication platform:

Telepresence. This new technology allows you to hold meetings in different parts of the world without traveling, video and sound with very high resolution, rapidly and efficiently. As real as if they were all in the same room. Telepresence provides a unique experience of virtual meeting, in real time, without delays or interruptions. With many additional benefits".

Possibility of holding meetings with customers, partners or suppliers in different countries simultaneously without geographic or time limitations.

Ability to share documents, presentations and videos.

Agility in making-decision." <a href="http://www.icex.es">http://www.icex.es</a>

The price is set according to the service hired by the client and Telepresence rooms used.

You can:

- ✓ Sharing documents, presentations and videos.
- ✓ Agility in decision-making.
- ✓ Optimizing costs and increase productivity.

- ✓ Boosting energy efficiency.
- ✓ Improving overall management.

(Rates without VAT).

Prices	Time
180 € / h	1 hour
150€ / h	2 hours
75 € / h	3 hours

The Price include only the utilization of the connection room and the own room. The other services are not included services (such as preparation of agendas, identifying contacts or any other non-essential service that can be offered by ICEX by customer demand, such as translation services, recording, etc..)

Special discount of 30% if the enterprise is membership of PIPE club.

The rooms are ICEX 3000 CTS model, and can accommodate between 6 to 10 people.

There was a special promotion until 31<sup>th</sup> July.

"The use of TelePresence network abroad is free with no additional cost to the company as long as the connection is made with ICEX room in Madrid. If the company wants to connect with a living network not associated with ICEX, must pay the cost set by the operator concerned in each case".

#### **Other Medias**

We can create a web site and add a link on the website of companies that install biomass boilers in both UK and The Netherlands.

We can also to put an advertisement on the local newspapers, billboards (outdoor advertising), International Newspapers like Journal of Chemical Technology & Biotechnology which is a monthly scientific journal, and so on.

# 6. Transport & Logistics

We could define the term "logistics", as all actions aimed at controlled, transport and storage of goods, from their point of manufacture to the final consumer.

The key to getting a good logistics process is:

- Delivering the right product.
- In required quantity and quality.
- At Right place and on time.
- At lowest total cost, but always satisfying consumer needs.

Transport is part of the logistics process, having a great importance. In this section we will see how our product would arrive to our foreign customers.

The product is bought from the various cooperatives (see appendix 3) in the region. Normally the cooperatives sells bulk olive stone at a price of  $\leq 0.06$  / kg. Following an agreement with them, we will buy it for  $\leq 0.04$  / kg, ( $\leq 40$  / Ton), our company will purchase it by tons.

To transport the goods (in bulk) to our facilities, will do it by lorry.

The company will be located in the town of Martos, province of Jaen, where we will rent (with option to purchase), a warehouse at the site of the same locality. This town has several mills (it is the place where the olives farmers bring the goods after collection in the field) to be processed.

Our warehouse will have the following services:

- Office
- Loading and unloading area of the merchandise.
- Storage. Where the dried olive stone sacks, packaging and in pallets, be stored to be sold.
- And an important part which is the area where the product should be dried to achieve the optimal level of moisture.
- -Packing and palletizing area.

Once the product has been wrapped and packaged and palletized, the pallets will be transported in containers. Example, a type of container is appropriate that we use Dry-VAN 40 '. where each container can store approximately 30 pallets.

When choosing how to get our product to the customer, we need to consider the most appropriate mode of transport. In spite of what it is believed, for example in the transport of fruit and vegetables, lorry is not the best way to carry our products, because it is designed only for trips not too long, for example, in the distribution within the country.

In our case, we can use ship, as the best way to transport our products. Ship is one of the cheapest transports. We can do it in several ways.

If the load is fractional (a few containers) or if instead of that, it is massive load (a lot of containers).

• Fractional load – when the load to transport is partial that is to say, several containers, but no too much, it is transported by regular line. The conference lines are those in which a series of ship owners join their interests in order to offer a regular traffic with common standards and

established boarding rules called "liner terms" and with freight is agreed for all carriers operating under this conference. Some of the most famous lines are:

- o MAERSK
- SEA LAND
- SPANISH TRANSATLANTICA

In contrast, massive load, are normally carried in the called tramp traffic. In this case the charterer hires the services of an appropriate vessel in the called SPOT market. With the help of a shipbroker, (is the person who looks for an appropriate ship, reaching an agreement between the charterer and the shipowner and agreeing the general conditions of the policy charter.)

Should be mentioned that working with a conference line is much easier, because they are regular lines with a predetermined schedule, with all agreed, and the regular line is responsible for all commercial and customs documents, but has one large disadvantage, and it is its price. The freight charge cannot be agreed, and it is quite expensive, so to hire the transport services with a regular line is a good option if the load is a few containers, but if there are many containers to transport, would become too expensive and it would not be profitable.

To determine the customs legislation of a country (when we export to some country not member of the European Union) for a particular product, we must first encode our product. There are various coding systems, but one of the most used is the TARIC code system. Usually a customs agent is who helps or directly performs encoding. Is important to encode properly, because we can save tariff costs that are not needed to pay. Between EU countries there are no problems, since there is no tariff barriers, as mentioned previously (Barriers to access). The TARIC code consists of 10 digits in total. The nomenclature is divided into 21 sections, which are further subdivided into 96 chapters. The following website shows an example: <a href="http://ec.europa.eu/taxation customs/dds2/taric/taric consultation.jsp?Lang=en&Taric=&EndPub=&MeasText=&Area=&Regulation=&LangDescr=&MeasType=&SimD">http://ec.europa.eu/taxation customs/dds2/taric/taric consultation.jsp?Lang=en&Taric=&EndPub=&MeasText=&Area=&Regulation=&LangDescr=&MeasType=&SimD</a>

Once our product has been coded, we must see what kind of transport to use for sending our goods to the destination country. Transport documents are different; it depends on the mode of transport we use. But before explaining what kind of transport we will use, let's talk first about INCOTERMS.

#### **INCOTERMS**

It is a set of international rules that are intended to clearly define the obligations of the various parties to an international contract for sale of goods. This will reduce the risk of legal complications may arise. INCOTERMS were established in 1936 by the International Chamber of commerce (ICC) with office in Paris. From then, ICC adapts them to current practices. INCOTERMS are composed of three letters (initials), and some of them are specific to a particular kind of transport, but also there are multimodal INCOTERMS (used for more than one transport).

They are divided into 4 big groups:

**E Group.** EXW (Ex Work) Minimum obligation for the seller. The buyer has to collect the goods in seller's storage facilities, assuming all costs and all risks.

**F Group.** The seller is responsible for delivering the goods to a carrier, which has been designated by the buyer. This group is divided in FCA, FAS, and FOB.

- FCA (free carrier). It is used for all types of transportation, except for sea transport. The seller only pays for export custom fees.
- FAS (free alongside ship). It is used only for maritime transport (much like the FCA). Buyer pays for export custom fees, and has deliver the goods to alongside of the ship, which has been chosen by the buyer. The remaining expenses are borne by the buyer: load the goods on the ship, transported it to destination and pay the insurance.
- FOB (free on board). The seller is required to pay the costs of loading the goods on board of the ship, but does not include stowage. (He also has to pay for export customs).

**Group.** The seller has to pay only the costs until the delivery place previously agreed with the seller. From there the buyer assumes the risk of loss pack or deterioration. This group is divided in CFR, CIF, CPT and CIF.

- CFR (cost and freight). It is used just for maritime transport. The seller has to hire and pay the ship services, until destination port, but the responsibility about the load (goods) is transferred when the load is alongside of the ship. Expenses unloading have to be paid by the buyer.
- CIF (cost, insurance and freight). It is one of the most INCOTERMS used in the maritime transport. The seller has to hire and pay the ship services (freight), until destination port. He has to pay too export customs fees and insurance, being the beneficiary the buyer. The load responsibility is transferred when the load crosses ship board.
- CPT (carriage paid to). For intermodal transport. The seller hires and pays the freight, until any place that previously has been agreed with the buyer, and is in that place where the responsibility is transferred from seller to buyer. Seller pays export customs fees.
- CIP (carriage and insurance paid to....). Seller hires and pays the freight until prearranged place. He has to support expenses until delivery (customs fees for export, insurance buyer would be the beneficiary). The risk is transferred when the load is delivered to the carrier.
- **D Group.** The seller support all expenses and risk, until the load arrives to the destination.
  - DAT (delivered at terminal). This INCOTERM is new (2010). It is used for multimodal transport. The seller pays customs fees for export, freight until arrived at destination terminal, (this include loading and unloading of the load).
  - DAP (delivered at place) New 2010. It is used for multimodal transport. Seller pays for carriage the load to the named destination place, and assumes all risks prior to the point that the goods are ready for unloading by the buyer (Pays export duty but not import duty).
  - DDP (delivered duty paid). Maximum obligation for the seller. It is the easiest for buyer, because the seller pays for export and import duty, freight and supports the risk until

the load is in the named place in the import country. Before to use this INCOTERM the seller must to be sure that he can get directly or indirectly import license.

#### **Commercial documentation**

**Proforma Invoice.** provisional Documentation sent by exporter to the buyer with all necessary information about the ordering. It is same as the commercial invoice.

**Documentary credit.** "International trade procedure in which the credit worthiness of an importer is substituted by the guaranty of a bank for a specific transaction. Under documentary credit arrangement (also called letter of credit arrangement) a bank (usually in the importer's country) undertakes to pay for a shipment, provided the exporter submits the required documents". - http://www.businessdictionary.com

**Commercial invoice**. It is very similar to proforma invoice. It is prepared once the sale is confirmed. It is used as an accounting document and for customs duties.

**Paking List**. It is a document which details the entire order, number of packages, boxes, bags, etc.. that make up a shipment, as well as the weight of each, identifying them with a reference number.

## **Transport documentation**

**CMR** (consignment note). "Standardized document for cross-border transport of cargo by road" <a href="http://www.businessdictionary.com">http://www.businessdictionary.com</a> this document is issued by the transport companies and freight forwarders. It is proof of the contract, and includes data on the goods, the origin. It is necessary for the international carriage between 2 states and at least one of them must have signed the "Convention relative au contrat de transport international de Marchandises pair route". The carrier is liable for damage caused to the goods from the point of collection to the point of delivery, except in cases of force majeure. Are issued three original copies of document signed by the consignor and carrier. A copy would be for the sender, the other accompanies the goods and one for the recipient. It is not receivable (debenture), so that is not negotiable.

**Bill of lading (B/L).** It is a necessary document when the goods will be transported by water in regular line, like MAERKS, for example. It is issued by the shipping company or its agent. 3 copies of it are usually issued, and they are non-negotiable copies. Unlike the CMR, B / L is title of credit, therefore it is negotiable.

It has three basic functions:

- acknowledgment of receipt
- Contract of Carriage.
- Title of credit that allows the holder to remove the goods.

There are different types of bill of lading, depending on the delivery form and transhipment of goods.

**Chartering policy.** As previously is explained, when the load is massive, for example many containers to transport, hire a shuttle with a regular line would come out quite expensive. So in these cases through our shipbroker, would charter a ship, can be for a partial load (load sharing with another load belonging to another person) or for total load. In this case would have to negotiate the freight, how much money it would cost us our load reaches its destination, and a policy of chartering. There are thousands of types, one of the most used is the GENCON policy.

## **Transport Insurance**

The document that obligates the insurer to indemnify the insured or beneficiary in the event of load suffers some damage or deterioration. In the policy will appears determined a limit compensation for any damage that may happen.

#### **Customs formalities**

**Single Administrative document (SAD).** Usually made by a customs agent, is a document for customs authorities, for export transactions, import, between EU countries and third countries. It consists of 9 copies, but for export, of those 9 copies, only is used:

1st - to the customs office of issue

2<sup>nd</sup> - for statistical use.

3<sup>rd</sup> - for the exporter (seller).

9<sup>th</sup> - is the shipment authorization (exporter) or authorization for taking the load (importer - buyer).

#### **Other formalities**

**INTRASTAT**. For export and import activities between EU countries, as we have said, it is not necessary SAD document. Therefore, it established a data collection system called Intrastat, which requires any natural or legal person residing in any country of the EU has to provide commercial information to INTRASTAT office. Due to the volume of operations interstate trade, in 2001 established a single threshold. Those natural or legal persons in its operations, import and export, equal or exceed the amount of 110. 000 € per month, must communicate it in the first week of following month.

#### **Other documents**

**Certificate of origin.** It is a document with character recommendable, but not mandatory. It aims to determine the origin of the goods being exported and imported. It serves to condition treatment in customs tariff, as they apply different tariff rates depending on the country from which the goods come. It is issued in the Chambers of Commerce. In countries with which the EU has agreements preferably, the certificate of origin is replaced by a movement certificate. There are different models of movement, for example EUR-1, EUR 2.

When we attend fairs with our samples product, to allow us to travel with the goods temporarily without having to post bonds or make other processed, there are some customs documents called ATA that would allow temporary travel with the goods. Check that destination countries have ratified ATA Convention on temporary admission of goods. In Spain are issued at the Chamber of Commerce.

**Phytosanitary certificate.** Documents are intended to ensure pest control in import or export of plant products origin.

## 7. Financing

The Official Credit Institute (ICO) and the German Bank KfW, have agreed to finance the Spanish SME investment, with different lines of financing.

Through these lines of funding, both free-lancer and enterprises will have financing in favourable conditions:

- different repayment period.
- different interest rates depending on the instalments.

In 2012, more than 160,000 enterprises had the benefit of these financing lines.

ICO Lines are applied for in the Banks and saving banks.

The ICO will determine the amount of economic and maximum amount technical and financial conditions of the different financing lines, being the bank and saving bank who analyse the operation, determining the guarantee and will decide about the lending concession.

#### **ICO FINANCING LINES**

	Companies and Entrepreneurs 2013	Exporters 2013
Clients	Spanish free-lancer and enterprises	Spanish free-lancer and enterprises.
Amount	Maximum € 10 million	Maximum € 5 million
Fundable Concept	<ul><li>Liquidity.</li><li>Productive investments within the country.</li></ul>	Export operations. (It is mandatory sending a foretaste of the export invoices).
Interest Rate	Fixed or variable interest rate (EURIBOR 6 months), + spread+ maximum margin provided by the repayment period.	Fixed + variable interest rate (EURIBOR 6 months), + spread <sup>3</sup> + maximum margin provided by sort of operation.
Loan and grace periods	Investment financed: 1, 2, 3, 5, 7, 10, 12, 15 and 20 years + 2 years of grace period. Financing 100% liquidity: Repayment period 1, 2 and 3 years + 1 grace period year.	
Commissions	Credit institutions can not charge any commission.	Credit institutions can not charge any commission.
Guaranties	to be determined by the credit institution	To be determined by the credit institution and may be guaranteed by an insurance company.

<sup>&</sup>lt;sup>3</sup> Spread is the cost on EURIBOR / LIBOR which ICO may have agreed in gaining funds at financial markets.

# Appendix

## **Appendix 1**

#### Renewable Heat Incentive (RHI)

The Renewable Heat Incentive (RHI) is the world's first long-term financial support programme for renewable heat.

We launched the RHI in November 2011 with a scheme for the non-domestic sector that provides payments to industry, businesses and public sector organisations. We have now set out plans for providing longer term support for homeowners in 'Renewable Heat Incentive: the first step to transforming the way we heat our homes'.

We plan to open the household scheme in spring 2014, but in the meantime domestic customers should read <u>our guide on the Renewable Heat Premium Payment scheme</u> for details of the householder voucher scheme that is currently available. The RHPP scheme has been extended for a further year to March 2014 to provide continued support for households until the domestic RHI is introduced.

The RHI pays participants of the scheme that generate and use renewable energy to heat their buildings. By increasing the generation of heat from renewable energy sources (instead of fossil fuels), the RHI helps the UK <u>reduce greenhouse gas emissions</u> and <u>meet targets for reducing the effects of climate change</u>.

The RHI is the main scheme of our heat strategy.

The non-domestic RHI scheme

The non-domestic RHI scheme supports renewable heat installations in business, industry and the public sector, as well as heat networks.

Find out more about the non-domestic RHI scheme, including eligibility and how to apply

Consultation

Expanding the non-domestic RHI

In September 2012, we published our plans for expanding the existing non-domestic RHI scheme and this included the introduction of additional technologies. We are progressing with work and aim to publish our plans for scheme expansion in the autumn alongside the outcomes of the 2013 Non-Domestic Tariff Review. The consultation document on <u>expanding the non-domestic RHI can be found on the GOV.UK website</u>.

Improvements to the non-domestic RHI

In 2012 DECC consulted on proposals for introducing greater certainty to organisations who are either wanting to join the RHI or existing participants', as well as improving the application process. <u>The Government response</u> was published outlining how DECC plans to implement these proposals by ensuring the scheme:

remains financially sustainable

offers good value for money for the tax payer

meets previous commitments to introduce biomass sustainability by setting out sustainability criteria for fuel source and greenhouse gas emissions and air quality emissions limits reduces administrative burdens to Ofgem and applicants.

Following consultation we are implementing a number of changes to the non-domestic RHI. These changes will come into force on 23 September and details are set out below.

Simplification of the metering requirements: Stakeholders raised issues about the complexity of the metering requirements and the high proportion of complex systems compared with simple systems. Under the changes it will only be necessary to install meters necessary for the RHI payment formula. In addition heat loss from external pipework can be disregarded in specific circumstances (ie if properly insulated) under the new changes. If an applicant can prove that it is either physically or financially problematic to install a heat meter, they will instead be allowed to submit a heat loss calculation.

Air quality (AQ) compliance: All applicants with biomass burning installations will now need to submit an RHI emission certificate or an environmental permit with their application. If an applicant is submitting anRHI emission certificate it will need to show that the boiler complies with the required AQ limits.

Minor regulatory amendments:

The current regulations stipulate that heat must be used in a building. The new regulations will allow processes to occur outside of a building in certain circumstances.

Accredited installation will be able to be relocated and continue receiving RHI payments, providing the relocated installation meets the necessary requirements at its new location.

Air quality emissions limits for biomass boilers and CHP

In March 2011 the Government published its policy for the non-domesticRHI, including the intention to introduce air quality emission limits for biomass boilers (including CHP) that participate in the scheme. Proposed limits were first published for consultation in 2010. These limits were confirmed earlier this year, with the maximum permitted emissions being 30 grams per gigajoule (g/GJ) net heat input for PM and 150g/GJ for NOx.

If you are planning to apply for the non-domestic RHI with a biomass boiler (including CHP) on or after the 24 September 2013 your installation will need to have emissions levels no higher than 30 grams per gigajoule (g/GJ) net heat input for PM and 150g/GJ for NOx. Proof that your system does not exceed these limits will need to be provided to Ofgem on application and be in the form of either an RHI emissions certificate or an environmental permit. Ofgem will contact you if this certificate is incomplete, which could delay your accreditation process. Ofgem will also retain the information on the certificate to support their auditing process in the future.

Our air quality factsheet answers a number of frequently asked questions and an example of an emissions certificate so you can ensure that the certificate you plan to submit meets the scheme requirements. If you submit an incomplete certificate it will delay your accreditation, therefore it may be advisable to check with your installer or boiler manufacturer to confirm your boiler's RHI emissions certificate meets the requirements of the scheme.

Air quality factsheet [MS Word Document, 488KB]

The 2013 Non-Domestic Tariff Review

In response to industry and market feedback, DECC has looked at the evidence on cost data and heat usage assumptions used to set the levels of tariffs when the non-domestic scheme was launched alongside the level of uptake so far under the scheme and evidence from the renewable heat industry and market.

As a result of this, we launched the Non-Domestic Scheme Early Tariff Review consultation in June which set out how the Government proposed to respond to the low up take of some technologies in the scheme so far, to ensure that renewable heat can make an effective contribution to our 2020 renewable energy targets, support the UK renewable heat industry and achieve decarbonisation of our heat supply by 2050. The consultation has now closed and we plan to announce the outcomes this autumn.

It is DECC's intention that where tariffs increase as a result of the consultation, and subject to State aid requirements and other approvals, installations with a date of accreditation from 21 January 2013 would benefit from that increase for heat generated after the new tariffs come in to force. The following table sets out the tariff and technologies affected by the 2013 Tariff Review.

#### Tariffs and technologies affected by the 2013 Tariff Review

If you use assistive technology and need a version of this document in a more accesible format please email <u>correspondence@decc.gsi.gov.uk</u> quoting your address, telephone number along with the title of the publication ("Tariffs and technologies affected by the 2013 Tariff Review").

#### The domestic RHI scheme

On 12 July 2013 we set out the policy framework for introducing longer term support for households 'Renewable Heat Incentive: the first step to transforming the way we heat our homes'. Alongside this we published the government response to the consultation, RHI: proposals to launch a domestic scheme, and the associated impact assessment.

The scheme is for householders looking to replace their current heating system with a supported renewable heat technology and householders who have installed a renewable heat technology since 15 July 2009. The domestic RHI will pay owners the following:

Technology	ASHP	GSHP	Biomass boilers	Solar thermal panels
Tariff	7.3p/kWh	18.8p/kWh	12.2p/kWh	At least 19.2 p/kWh

The announcement follows extensive consultation on how a financial incentive would work best for householders and takes into account lessons learned from the Renewable Heat Premium Payment grant scheme (RHPP) and the non-domestic RHI.

Other documents published alongside the domestic RHI policy framework and government response include two technical guidance documents which provide further information on metering 'Metering for Payment Technical Supplement' and the 'Metering and Monitoring Service Packages Technical Supplement'. We have also published a guidance document which sets out the process by which

technologies become eligible for the RHI, Renewable Heat Incentive New technologies: process towards eligibility

If you have any questions about the domestic RHI scheme please contact the Energy Saving Advisory Service on 0300 123 1234.

**Budget management** 

Funding the RHI

As the RHI is a demand-led scheme, we need a way of incentivising deployment whilst controlling costs to ensure the scheme remains affordable within the budgets agreed across Government. After consulting last summer, we implemented in April this year, a transparent budget management mechanism which ensures that budgets are sustainable over the period April 2013 – March 2015. We publish monthly data on scheme uptake and reduce tariffs, where necessary, on a quarterly basis. We will make any necessary adjustments to our approach to budget management in response to decisions on:

the proposals for tariff increases in the 2013 Tariff review consultation;

expansion of the current non-domestic scheme proposed in September 2012 consultation;

introduction of the domestic RHI; and DECC's budget for 2015/16 Budget management of non-domestic RHI.

In February 2013, within the <u>Government response to the 'Providing Certainty, improving performance' consultation</u>, we announced the implementation of a long-term budget mechanism for the non-domestic RHIscheme. The degression mechanism is now in force and is designed to ensure the RHI remains financially sustainable and provides value for money to the taxpayer.

Under this mechanism we will reduce the tariffs paid to new RHI recipients if uptake of the scheme is higher than what we have forecast is needed to achieve the heat proportion of the UK's <u>2020 renewable energy targets</u>.

The expenditure thresholds (or triggers) which can lead to reductions to tariffs are set out in Regulations, and are available here – <u>Amended Regulations</u> and <u>Expenditure Schedules</u>.

We publish updated estimated expenditure for the scheme based on RHIaccreditations and applications every month so that it will be possible to track deployment levels in relation to the expenditure limits. Quarterly announcements will specify any tariffs that will be reduced. A one month notice period applies after the announcement before any reductions come into effect.

This system of budget management for the non-domestic RHI scheme will be in place until the end of the 2014-15 financial year. DECC will internally review and update triggers alongside the conclusions of the RHI early tariff review, decisions on the proposed extensions on the current scheme and DECC's budget for 2015/16 and provide an update in Autumn.

Quarterly forecasts, including previous publications, and monthly updates are available on the 'RHI mechanism for budget management: estimated commitments' page. You can also find the methodology which DECC will use to determine whether any tariff reductions are needed.

The <u>Department of Energy & Climate Change</u> (DECC) produces monthly and quarterly statistical updates on uptake of the RHI and <u>Renewable Heat Premium Payment</u> schemes.

## See our statistics on RHI and RHPP uptake.

The Office of the Gas and Electricity Markets (Ofgem) also provides <u>information on actual payments to date and numbers of accredited installations.</u>

Further information and how to apply

Visit the <u>Ofgem E-Serve</u>: <u>Renewable Heat Incentive</u> website for more information on the programme, including how to apply and eligibility.

## **Appendix 2**



## Boiler installers list in UK

## M Bufton's Renewable Heating Systems Limited

Unit 55 Mochdre Industrial Estate, Mochdre, Newtown, Powys SY16 4LE

## Oxford Renewables Ltd

The Old Diary , Path Hill, Goring Heath, Reading RG8 7RE

## Piping Hot Cookers Ltd

Unit 23 Cottesbrooke Park, Heartlands Business Park, Daventry, Northampshire NN11 8YL

## Castle Heating and Gas Services

9 Brogorwel, Bryngwyn, Newcastle Emlyn, Dyfed SA38 9PJ

## Colne Biomass

Brookhill Park, 42 Halstead Road, Earls Colne, Colchester, Essex CO6 2NL

## Wilts Electrical Contracting Limited

Unit 10 Harris Road, Porte Marsh Industrial Estate, Calne, Wiltshire SN11 9PT

#### Wessex Biomass Ltd

St Ediths, Stanton St Quintin, Wiltshire, SN14 6AB

#### Eco Green Energy

Harts Farm, Bolham Water - Clayhidon, Cullompton, Devon EX15 3QB

#### **Eco Engineering Ltd**

Greenshop, Cheltenham Road, Bisley, Stroud, Gloucestershire GL6 7BX

## Purple Energy

10 King Street, Newcastle Under Lyme, Staffordshire, ST5 1EL

#### Easy Heat Systems Limited

Inveralmond Place,, Inveralmond Industrial Estate, Perth, Perthshire PH1 3TS

## Earlswood Services Ltd

15 Bulwick Avenue, Grimsby, South Humberside, DN33 3BH

## Blake Ecotec Ltd

1 Blake Mill Business Park, Brue Avenue, Bridgewater Somerset, TA6 3LZ

## Bioheat Ltd

Unit 5 Kingsmead Business Park, Gillingham, Dorset, SP8 5FB

#### Biofutures Ltd

CDN Offices, Ethos, Kings Road, Swansea SA1 8AS

## Bioenergy Technology Limited

Farley Farm, Muddles Green, Chiddingly, Lewes, East Sussex BN8 6HW

## Belfry Group Ltd

Unit 12 Cameron Court, Calver Road, Winwick Quay, Warrington WA2 8RE

## Barrier Energy Ltd

Unit 7, All Saints Industrial Estate, Shildon, County Durham DL4 2RD

## Aston Cord Limited

 $112\ Windmill\ Road$  , Sunbury-on-Thames, Middlesex, TW16 7HB

## Artizan Heating Ltd

Unit 46 Longshot Lane, Bracknell, Berkshire, RG12 1RL

## **Providers**

List of some of the cooperatives in the area.

Productora Distribuidora de Aceites. P.Y.D.A.S.A.

C/ Tte General Chamorro Martínez, 32-Martos Telf: 953 70 29 06 Fax: 953 70

E-mail: pydasa@infonegocio.com Marca comercial : PYDASA

Sdad. Cooperativa Andaluza Virgen de la Villa Tte General Chamorro Martínez, 4 Martos, Jaén

Telf. Fax 953 55

E-mail: virgenlavilla@eurociber.es

Marca comercial: Oleomar

Sdad. Cooperativa Andaluza Domingo Solís Ctra. De Monte Lope Álvarez, 8 Martos, Jaén

Telf. 15 51 Fax: 953 55

E-mail: domingosolis@prosur.com

Marca comercial: La Marteña

SL Aceites Monte Lope C/ Granada 95 Monte Lope Alvarez Martos Jaen

Fax 953570069

Marca commercial: Olimonte

Extractora de aceite de orujo Ecologica Lamarca S.A

Carretera de Martos a Santiago de Calatrava, Km 1,7 Martos Jaen Tfno 953550108 Fax 953554404

E-mail: ecologicamarca@lobaton.com

Aceites Vado Jaén, S.A.

Ctra. De Monte Lope Álvarez, 6- Martos

Telf. y Fax: 953 55 10 50

E-mail:aceitesvado@telefonica.net

Marca comercial: Vado y Aelo

Sdad. Cooperativa Andaluza San **Amador** C/ Príncipe Felipe, 20 Martos, Jaén Telf. fax: 953 55 00

E-mail: amadorsca@teleline.es

Marca comercial: Peña de Martos

Sdad. Cooperativa Andaluza Sagrado Corazón de

C/ Llano de la Dehesa, 100. Las Casillas.

Martos, Jaén

Telf. y Fax: 953 55 80 36

Marca comercial: Sierra de Víboras

Extractora de aceite de orujo semillas oleaginosas **ESMARSA** S.A

Carretera Monte Lope Alcarez 32 Martos Jaen 953554404 953551008 Tfno Fax

E-mail: flm.emsa@telefonica.net

## Bibliography (other literature consulted)

- Manuel Guisado Tato Internacionalización de la empresa. Estrategias de entrada en los mercados extranjeros. Pirámide 2002.
- ❖ John Westwood Como crear un plan de marketing. Gedisa 2001.
- ❖ Agencia andaluza de la energia- la biomasa en Andalucia. <a href="http://www.agenciaandaluzadelaenergia.es/">http://www.agenciaandaluzadelaenergia.es/</a>
- Agencia para el aceite de oliva Ministerio de agricultura, alimentación y medio ambiente. Spain Government.
  <a href="http://aplicaciones.magrama.es/pwAgenciaA0/General.aao?idioma=ING&control\_acceso=S">http://aplicaciones.magrama.es/pwAgenciaA0/General.aao?idioma=ING&control\_acceso=S</a>
- Food and Agriculture Organization of the United Nations (FAO). <a href="www.fao.org/">www.fao.org/</a>
- ❖ Rural Development Programme for Andalucia 2007 2013.
- Saloua Ben Driss Alami- Tesis doctoral sobre hueso de aceituna. http://hera.ugr.es/tesisugr/18935916.pdf
- ❖ El mundo del olivar- <a href="http://elmundodelolivar.blogspot.com.es/">http://elmundodelolivar.blogspot.com.es/</a>
- Ministerio de agricultura, alimentación y medio ambiente- Agencia para el aceite de oliva. Balance campaña.
- ❖ ICEX <a href="http://www.icex.es">http://www.icex.es</a>
- ❖ Biodiesel Spain- <a href="http://www.biodieselspain.com/">http://www.biodieselspain.com/</a>
- Svend Hollensen- Financial performance of entry mode decisions. Published in: International Journal of Business and Management, 2012.
- Svend Hollensen- Global marketing. Pearson education, 2008.
- Instituto de crédito oficial (ICO)- www.ico.es/
- ❖ Technical Manual on foreign trade- Pedro Artero Pérez, 2010.
- ❖ Biecomasa <a href="http://www.bioecomasa.com">http://www.bioecomasa.com</a>
- Ecoticias <a href="http://www.ecoticias.com">http://www.ecoticias.com</a>
- Market research- Energias renovables y eficiencia energetica en Noruega, 2010. Economic and commercial office of the Spanish embassy in Oslo. http://www.oficinascomerciales.es/icex/cma/contentTypes/common/records/mostrarDocumento/?doc=4404118