**Sundows Limited | Business Plan**

October 2015

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**Sundows Limited Business Plan**

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**Introduction:**

This is our Business Plan for our company Sundows Limited. Sundows limited was set up by 3 entrepreneurs – Sean Rooney, David Gray and Mubarik Nassir. The goal of our business is to break into the renewable energy sector in the Republic of Ireland and the United Kingdom. We supply homes and businesses with an environmentally friendly, sustainable and functioning alternative to meet their energy demands. Our product is a transparent solar panel fitted in-between the glazing of windows. Enabling the customer to power their home or office building for example with their windows as well.

|  |  |
| --- | --- |
| Company Name | Sundows Limited |
| Address | Unit 11 North City Business Park,  North Road,  Dublin 11 |
| Telephone | 01-555-4200 |
| Company Registration No. | 2937493V |
| VAT No. | IE 326748693E |
| Accountant | Adam Fox, ACCA,  Swords Business Park,  Co. Dublin |
| Bank | Bank of Ireland,  IFSC,  Dublin 1 |

Our business objectives include the following:

* To successfully break into the renewable energy sector in Ireland.
* Achieve our sales targets of minimum €250,000 a month.
* Provide the highest quality of service and reliability for our customers.

**Overview:**

We decided to go begin our venture when we noticed the gap in the market for the technology that Sundows has to offer. There are solar panels on buildings everywhere but mainly on the roofs of buildings where there is always limited space.

Our products enables more solar panels on buildings where the sunlight hits, harnessing the maximum energy possible from natural sunlight. This will decrease Co2 emissions, lower energy bills and still provide a transparent window to look out of.

From our market research we learned that we will be the only company in Europe to provide these products to consumers and businesses. We predict the market potential and demand for Sundows, or products similar in the renewable energy industry, will continue to grow with the current trends. With the problem of global warming and greenhouse gas emissions the globe is currently facing, companies like us will lay the foundations of alternative energy at affordable prices.

We have gathered a team of competent workers to meet the demand for our products. A typical job will last 3 days maximum once begun

The work will entail:

* Assemble windows to specifications
* Bringing the product to the customer
* Installing the Sundows
* Ensuring their functionality

**Marketing**

The Market:

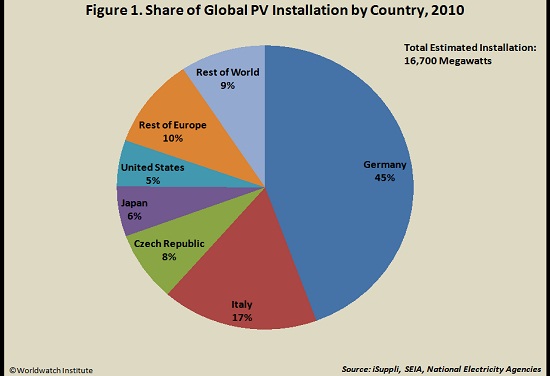
Sundows Limited will be operating in the renewable energy market within the renewable energy industry.

**Overview**

We are marketing first of its kind electricity producing see-through windows (solar PV system) that generate astonishing amount of clean power.

**Market trends**

Market trends shows that renewable energy is rapidly becoming a globally essential for source of power. This is mainly due to largely decreasing amounts of fossil fuels and also a global importance of alternative sources of energy to contribute to reducing greenhouse gas emissions.



**Size of market**

After conducting my research in the area of renewable energy it is estimated that       the global solar PV market continued its growth with 6.5 GW in the USA partly due to ITC (investment tax credit) to boost the market. In Europe, the UK and Germany lead the solar market with 2.4 GW in the UK due to government incentives and a decreased from 2.4 to 1.9 GW in Germany due to reduced incentives.

**Potential**

The potential for solar power in Ireland is huge as you be surprised to know that south of a line from Dublin to Kenmare islands have the same potential to produce as much solar electricity as of that Germany and UK. The only differences is that Germany and the UK have installed tens of thousands of megawatts of solar which are currently producing 6% of its electricity with plans of increasing to 20%. The highest solar yield in Ireland (1000kw) is the same yield that is being achieved in southern Germany near Munich as well as on the south coast of England. Solar is predicted to become the most economically viable source of energy in the coming years worldwide.

**Competition**

The renewable energy market in Ireland is where our company will be operating in as we are offering state of art solar see-through technology with minimum impact on the environment. There isn’t a direct competition for us as there is no other company offering the same product but research found that there are two Irish based companies offer and operating in the Irish solar market. The two companies are solar electric Ireland and electric Ireland, “solar electric Ireland” offer solar panels which are attached on the roof to generate revenue. Electric Ireland are offer solar power water heater which will cover 50% of the household hot water heating requirement. Even though the two companies are in the solar market there is threat as we are offer see-through solar windows which is leaps ahead its completer’s technology.

**SWOT Analysis:**

Strengths

The solar windows are going to produce solar PV (photovoltaic) electricity which is renewable energy once installed. Think of this a typical 2.5kwp system can easily provide 50% of a household yearly electricity, this will be clean energy with no CO2 emission and savings of 50% on household electricity bill which would provide protection Avery rising energy bills. The cost of making the PV solar windows has declined around 75% in the last few years making our product affordable for our clients.

Weaknesses

The main weakness of our product is that it be more efficient in such climates like the Mediterranean climate that acquire high level of sunshine annual, .i.e. Spain, Italy etc. The capital to fund the business was tricky to rise due to the lack of government incentives to companies like ourselves. Even the higher cost of production due to the EU maintaining of import tax on modules from china required for the solar cells of the windows.

Opportunities

The immediate plan is to achieve the identified targets in the Irish solar market for the first two years. After we establishment ourselves in the Irish market we are think of expanding into the UK market and on to the EU market. That I pretentions of 700hundred million client if targets we set are achieved.

Threats

The single greatest threat to the company is that there is another group with similar idea from Michigan state university to ours that is operating in the USA, they have not made their manufacturing stage but experience carried our have confirm that there product produced results. The aftermath is if they reach the manufacture stage with their product that it will imply share market. Although their technology is similar to our there aren’t consider major threats due to the distance and different markets.

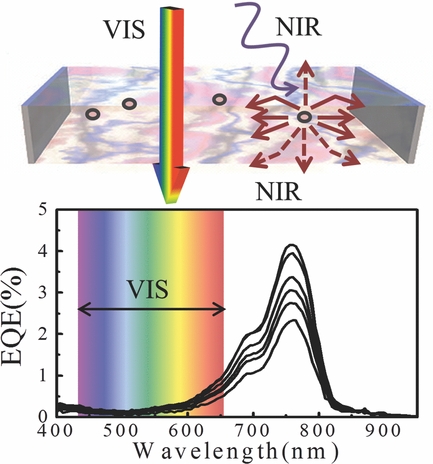
In order to reach our sale target as per the enclosed projection the following methods has been planned.

Objectives.

1. To successfully break into the renewable energy sector in Ireland.
2. To achieve our sales targets of 15 units per months for year one.
3. To achieve our sale targets of 21 units per months for year two.
4. Long term – to move into a larger more modern premises to cope with the product demand.

Product

The product is a see-through solar concentrator which could turn any windows into renewable power producers. How it works is when light shines on the window it create an electric field across the layer causing electricity to flow on the solar cell on the window. The sizing for the windows are going to vary depending on the client which is going to be customized for their needs.



**Price**

Currently there is no other product like ours being provide to market. We gauged our price based on labour, manufacture and price of Martials. Detail of how we charge our customer can be found in the finance of this business plan.

**Place**

The selling is going to be carried out in three way, Frist way is we have a web set were client can make inquiries about our products and make purchase’s using our secure server. Second way is over the phone where the clients get to ring in for free and ask any information regarding our product which will be carried out by sales and marketing directors. Last but not least we have a show room in the company’s premises where client can come in and view a selection of our product.

**Promotion**

We are promote our product through the Irish solar energy association were we planning to launch our product January 1st 2016, doing this will help the Irish solar energy association achieve its 2020 renewable energy targets set by the EU. Also were employing promotion methods such as discounts on industrials buildings as in they get a discount of 10euro per square meters to encourage new clients.

**Organisation/Management**

**The organisation:**

Sundows Limited is a private limited company, founded and run by the three shareholders and promoters of the company. A copy of the Certificate of Incorporation is appended and a copy of the Memorandum and Articles of Association will be made available to the Bank in the normal course.

Sundows Ltd aim to provide windows of the highest quality that do not only insulate and keep in heat for better household efficiency, but also harness the power of the sun, Earths greatest natural resource. In doing so it will help reduce greenhouse gases, carbon footprint and electricity bills. It is our hope that by 2025 the majority of households will be partly, if not fully run on the power of Sundows.

**Management Overview:**

Key staff and their activities.

The three promoters, founders and shareholders are lucky, and tactful, that their respective areas of expertise do not conflict, which allows for the workload and day to day running of the company to be easily divided and accomplished. It results in efficient management in all areas of the company, with high profit turnover and low un-necessary expenditure.

**S. Rooney, Director**

*Operations and engineering management***:**

* MSc in Engineering and Management at Trinity College.
* BSc Engineering in Energy and Environmental Engineering, ITT.
* OHSAS Occupational Health and Safety Management Certification.
* 12 years manufacturing experience in renewable energy.
* Production scheduling.
* Resource Allocation.

**D. Gray, Company Secretary**

*Administration and Control.*

* BA in Accounting and Finance, UCD.
* MA in Human Resource Management, DIT
* BScEngineering in Energy and Environmental Engineering, ITT.
* 9 Years Assistant Manager in Lloyd’s Solicitors & Accountants Ltd.
* 4 Years Human Resources Manager, Dunnes Stores.

**M. Nassir, Managing Director**

*Sales and Marketing.*

* MSc in Marketing, NCI.
* BA in Business Entrepreneurship, DCU.
* BSc of Engineering in Energy and Environmental Engineering, ITT.
* 5 Years Marketing Executive for Sky.
* 10 Years self Employed.

**Staff requirements.**

|  |  |  |
| --- | --- | --- |
|  | **Year 1** | **Year 2** |
| Directors | 3 | 3 |
| Glass Fabricators | 2 | 3 |
| OPV Fabricators | 4 | 6 |
| Installation Experts | 4 | 6 |
| Secretary/Administration | 2 | 2 |
| **Total** | **15** | **20** |

Fabrication staff will be spotted and recruited from the best in their respective fields, upon joining the workforce they will be briefed and inducted. All fabricators will be chosen for their experience, competence and ingenuity. They must all carry a current degree in their respective expertise, and or, 5 years’ experience in the field.

Installation staff will be chosen from a variety of fields, including window installers, electricians and environmental engineers. These combination of skills will allow for a competent and excellent workforce that will deal will customers directly and promote the good name of Sundows.

**Production and Operations.**

*Premises:*

Sundows Ltd will commence operations within our new facility in North City Business Park. This location, being 252 sq m, will have plenty of space from which to successfully run our business, for the time being.

A goal of the company is to move into a larger more modern premises within 3-6 years, and to expand operations thusly. This move will be heavily reliant on the success of the company within the first couple of years, which we expect will be substantial. This is due to the green energy sector, which is rapidly growing, and necessary in modern society.

The existing space will need some modification and improvements to make it fit for operations. The main changes being equipment needed to create OPV (Organic Photovoltaics). Organic Photovoltaics Solar Array being the ingenuity behind our product, will be prioritised, secondly we will need to bring in equipment for the fabrication and alteration of glass.

**Health and Safety/Employment and Tax Legislation.**

At Sundows Ltd we are very conscious of the health and safety of our employees, and we are very aware of the Health, Safety and Welfare at Work Act 1989 and of the dangers present in the work environment. The promoters will be preparing a Safety Statement which will be implemented and ensure safe working practices and environment for all employees, and visitors alike.

The various provisions under Employment legislation, Working Time Directive etc. are known to the promoters and will be adhered to by the company. Each employee will be given a contract of employment upon recruitment and proper books and tax returns will be maintained.

Insurances.

The promoters have taken advice on insurance provisions as required. Items such as Employer liability, Public Liability, Fire and All Perils insurance etc. have been quoted and are covered in the projected financial statements appended.

**Plant and equipment.**

The premises will be fitted with the following equipment and assets:

1 x Bosch Rexroth Pneumatic Cutting Machine

2 x Quattrolifts Nomad 400

1 x Quattrolifts Vector

2 x Quattrolifts Manual Drive Horizon 300

1 x DOC Wide Flame Burner

1 x Kapton sheet printing press

1 x Angstorm EVOVAC PVD PLATFORM deposition tool

**Production/Operations**

The series of events leading to an order being completed are quite common in manufacturing industries, and include the following steps:

* An enquiry commonly in the form of blueprints or sketches, are viewed. Upon this description an estimate is made, it is determined by amount of materials and labour needed and what profit margin there is. A detailed quotation is prepared and given to the customer.
* Upon receipt of an order, the project is then scheduled for production. During this process any and all influencing elements are taken into account, such as materials deliveries, availability of labour and customer delivery date.
* The project will then be put into production and the various stages involved in creating the product will be undertaken.
* Finished products will then be packaged and sent to the customer. Our team of expert installers will then finish off the final part of the process (if needed) by installing the delivered product.

**Quality control:**

To achieve ISO 9000 accreditation for the manufacturing process, the promoters have experience in the implementation of this standard and will be writing procedures to perform a quality audit before production takes place. All our products are thoroughly inspected, tested and quality insured before being sent to a client, and we pride ourselves on having 100% customer satisfaction.

**Finance & Cost:**

The following information is how we intend to fund our business venture. The technology we require is quite expensive as it has only been recently developed. We have trained employees to fit the solar panels to the windows without damaging the solar cells or window itself.

**Sales:**

From our market research we gathered that Sundows will be one of the first businesses of its kind. So we will rely on our advertising online, in newspapers and general word of mouth to get the product out there. The Green Energy industry is one that is becoming more and more essential in modern business and life so we can therefore predict our sales will gradually increase overtime. The importance of having new, sustainable and clean solutions for our energy requirements is growing and we intend on changing how residential and commercial properties are powered.

We aim to sell at least 170-180 units in the first business year. Gradually of course we hope for this to rise by 10%-15% per year after the first. We aim to achieve this goal by investing in advertising, hiring new employees to deal with the extra workload and extra vehicles to reach our customers nationwide.

**Expenses:**

*Materials:*

Every month we require to purchase new materials for our products. These materials include our Transparent Solar Cells, window frames (for residential properties) and the materials required to make the Organic Photovoltaic Solar Array (OPV). Most importantly, our liquid coatings are primarily made of hydrogen and carbon – two of the most abundant materials found in nature.

*Equipment:*

In the first month of operations we will need to spend €250,000 to purchase all the equipment we will require to produce our Sundows. After the first month the costs of equipment will drop as we won’t need new equipment for a few years at least. Maintenance will be done on all our equipment to ensure we can maintain our machines and make our product to the highest quality and standards.

*Vehicles:*

To get our products to the customers we will need vehicles for transportation. We will purchase 4 Ford Transit vans for a bulk deal of €85,000 in the first month. Every 6 months after this (depending on the growth of the business) we plan on purchasing a new van/truck to transport our Sundows to the customers no matter where in Ireland they are.

*Office Supplies:*

We will require to spend €5,000 on our office supplies such as furniture, PC’s printers, paper and general stationary. We will need 4 computers to start off with. The computers will be used for contacting our clients, invoices, managing our customer account database and for specifying on product requirements.

*Advertising:*

Since Sundows is the first business of its kind we really rely on our advertising mediums to get the word out for our products. During the winter months we will spend more on advertising (€7,500-€10,000) than the summer months (€5,000). This is because our market research showed that most windows are purchased during colder weather spells.

*Rent:* The premises we require will cost the company €30,000 per annum. The premises is situated in North Dublin and has immediate access to the M50 which is perfect for our national orders. It has 252 square metres in total which includes 67 square metres of offices and staff facilities plus a 164 square metre warehouse. For the first few years of business this

A full list of the rest of our expenses is included in the Appendices.

**Job Overview:**

We have complied some information to give an overview of how each job cost is calculated. As of January 2016, we sell 2 products: (i) Residential Sundows and (ii) Industrial Sundows.

( i ) : The price of Residential Sundows is capped at a maximum of €30,000 (12 units). This is to ensure that our installers can do the job in the 3 days and ensure their functionality so we can get to more jobs. Customers can pay by credit as long as an initial deposit of €10,000 is made. Thereafter they can pay minimum of €1000 a month until the amount is paid in full. We presume most customers will pay the amount in full but the option is there just in case.

**3 day** **Labour: €2,000**

**3 day Materials: €2,000**

**Price per Window: €2,500 (minimum of 4 per order)**

( ii ) : Our industrial rates for Sundows differ to our residential rates for obvious reasons. We charge the customer per square meter of Sundows required for their specifications. We feel this is a fair and sustainable pricing strategy for both the customer and Sundows Limited. Most of our industrial customers will have invoices of €200,000+ so we offer a credit system where they can pay an initial €100,000 (or more) down-payment then a minimum of €4,000 every month until the bill is finally paid.

**Labour: €4,000/week**

**Materials: €2,000/week**

**Price/metre.sq: €1,500**

**Grants and Loans:**

We can assume that the Enterprise Board grant of €13,505 will awarded to us. We applied for a bank loan of €300,000 to be paid back over a 3 year period. After paying back the loan the cost of it will be €368,275.

**Capital:**

The total capital expenditure required for starting the business is €501,725. This will be spent to start up Sundows, by purchasing the equipment required to manufacture our products.

**Funding:**

Shown below is how we intend to fund the start-up of the business. Our sources include a loan from Bank of Ireland equalling €350,000.

*Use of Funds:*

Capital Expenditure: € *501,725*

Working Capital: € *663,075*

*Source of Funds:*

Bank Loan € *350,000*

CEB Grant € *13,075*

Personal Savings € *300,000*

**Sensitivity Analysis:**

**Year 1**

**As Projected Sales (-10%)**

*Cash Balance* €3,088,943 €2,780,049

*Profit* €*1,844,175* €1,659,758

We have a projected profit of €1,844,175 for the first business year. We have estimates of our sales -10% in case the business does not take off as we would hope. This is attributed to the demand for renewable and clean energy in Ireland today. We hope to expand our customer base to the United Kingdom in the first 4-5 years of operations because of the increased customer base.

**Appendices:**

Appendix A: *Financial Projections – Year 1*

*Profit and Loss; Cash flow*

Appendix B: *C.V’s*

Appendix C: *Typical Product Drawings*

Curriculum Vitae

**Name:** Sean Rooney

**Phone:** 0878438483

**Address:** 12 Mountain View drive

**Age:** 35

**Third Level Education:**

* Masters degree in Engineering and Management at Trinity College
* Bachelor of Engineering in Energy and Environmental Engineering, ITT
* OHSAS Occupational Health and Safety Management Certification

**Work Experience**

* 2 Years Operations Manager at Bord na Mona
* 5 years Assistant Director at Airtricity
* 5 Years Managing Director at Hibernian Wind Power

**Skills**

* Production scheduling
* Resource Allocation
* Operations management

Curriculum Vitae

**Name:** David Gray

**Phone:** 0879539439

**Address:** 45 Sea View Lane

**Age:** 32

**Third Level Education**

* Certified Diploma in Accounting and Finance, UCD
* Diploma in Human Resource Management, DIT
* Bachelor of Engineering in Energy and Environmental Engineering, ITT

**Work Experience**

* 9 Years Assistant Manager in Lloyd’s Solicitors & Accountants Ltd
* 4 Years Human Resources Manager, Dunnes Stores

**Skills**

* Finance Management
* Record and book keeping
* Employee Management

Curriculum Vitae

**Name:** Mubarik Nassir

**Phone:** 0874385435

**Address:** 7 Valley View Avenue

**Age:** 40

**Third Level Education**

* Masters Degree in Marketing, NCI
* Diploma in Business Entrepreneurship, DCU
* Bachelor of Engineering in Energy and Environmental Engineering, ITT

**Work Experience**

* 5 Years Marketing Executive for Sky
* 10 Years self Employed at CushLawn Enterprises

**Skills**

* Ingenuity/Creativity
* Decision Making
* Marketing and Advertisement