

## **Company: EcoElite – Product: Endo+**

### **Executive summary**

With the Earth's constant population growth comes increasing demand for energy. Electrical energy is a finite form of energy which we utilize most in our daily lives. Despite the abundance of electricity in our lives, more than half of the world lives without it. With no alternate source of energy, we will be heavily relying on electricity where many do not have access of which to utilize its effects. There is a vigorous insistence to find cleaner and healthier ways to generate power. Therefore, we have created Endo+.

### **Product and design description**

Endo+ is a system of heat conduction that allows our customers to cool their houses during the warmer periods of the year. Due to the solar-thermal nature of the product, it works best in areas with ample sunlight, and little precipitation during summer.

### *The Technology*

Essentially, the Endo+ complex involves two tanks of water, one above ground, and one below, connected by turbines which pump cold water through a series of small pipes in the house, cooling the house via heat transfer. The steam pressure built up by the sun heated water in the glass domed Hot Tank above ground spins a turbine inside, which in turn rotates another turbine in the Cool Tank underground. The Cool Tank feeds a constant stream of cold water through the special piping system in the house. Since the temperature of the house is greater than the temperature of the cold water underground, this would allow a transfer of heat from the house into the network of pipes in the walls of building, cooling the rooms down. The turbine also mixes the returned warmer water from the house throughout the Cool Tank. Assuming that the house is built on top of an area with moist and cool soil, the surrounding environment would be able to transfer out the thermal energy from the Cool Tank, thus allowing the underground tank to be cooled again. In the cooler evenings, the ground would further cool down sufficiently to allow the Cool Tank's water temperature to drop even more for daytime use.. Two valves will allow both tanks to drain completely as a winterization precaution before cooler weather, as to avoid damage to the internal mechanisms.



### **Operations**

Our operations will start in North America, before spreading to Europe and Asia. Due to the expensive nature of our product, our target audience will be in areas where they are financially capable of utilizing such a system. In the future as our company and the sales/demand of our product grow, we will have enough expenditure to increase the Research and Development of the product, resulting in a decrease of cost and increase in efficiency. With decreased costs, a wider range of countries would be able to use the system.

### **Financial Data**

Our costs total \$27 million in one year and \$117 million in year five. These sums include the production, storage and advertisement costs. These funds will be provided by investors and two companies which are interested in our product. By the end of Year One, we plan to sell 100 units all over the world with the price being between \$20,000 to \$25,000, depending on the size of the customer's need. By the end of Year One, we

will experience a loss of \$7 million. However, in year five, we will lower our costs by negotiating with our resource suppliers to provide a discount to our customers. More importantly, we persuaded the government to grant subsidies to help more households to purchase our product. Production will be done in our facilities by hired scientists and engineers, combing with tempered glass, steels, and pipes into a large water storage tank for water transportation. The unit will then be installed for our customers.

### **The Market**

Endo+ is going to be catered to customers who own an independent household in areas that are developed and have a stable economy. Since our product's initial cost is relatively high, our customer base will primarily be those of the middle- to upper-class. As the demand for our product increases, we are expecting a decrease in our fixed costs due to an increase in purchasing supplies. Thus, we will eventually be able to introduce our product to developing countries, providing them with discounts and negotiating with the government for subsidies.

### **Marketing Strategies**

To promote our product, we will be conducting a series of marketing strategies via social media and traditional methods such as print media. Through such channels, we will raise awareness of the issue at hand and showcase the effectiveness of our product. In particular, we will be partnering with TechInsider, a well-known page with over 11 million followers from all over the world, and Facebook as our main platform for promotion. As the company grows in sales, we will be taking feed-backs from our previous customer and make improvements upon or future product.

### **Competitive Advantage**

Our product has the ability to effectively use the most abundant natural resource: the sun. Not only does Endo+ cater to the utilization of solar power, but we also produce an energy source that is sustainable for our future generation. We eliminate any risk factors for toxicity found in similar performing materials, but still deliver the best product for our customers.

Costs	Year One		Year Five	
	Cash Needed	%in total	Cash Needed	%in total
Supplies	\$18,000,000.00	66.42%	\$72,000,000(20%discount)	61.30%
Advertisement	\$100,000.00	0.37%	\$400,000.00	0.34%
Installation fee	\$7,500,000.00	27.68%	\$37,500,000.00	31.90%
Scientists/Engineer Salaries	\$300,000.00	1.11%	\$1,500,000.00	1.28%
Inventory(Storage) Fee	\$1,200,000.00	4.43%	\$6,000,000.00	5.11%
<b>Total estimated costs</b>	<b>\$27,100,000.00</b>	<b>100%</b>	<b>\$117,400,000.00</b>	<b>100%</b>
<b>Sales</b>	<b>Amount</b>		<b>Amount</b>	
Unit Sold	1000 pieces		8000 pieces	
Sold Price	\$20,000.00		\$25,000.00	
	<b>Total sales</b>		<b>\$200,000,000.00</b>	
Gross Profit	\$20,000,000.00		\$200,000,000.00	
<b>Total Cost</b>	<b>\$27,100,000.00</b>		<b>\$117,400,000.00</b>	
<b>Profit</b>	<b>Amount</b>		<b>Amount</b>	
Profit before taxes	-\$7,100,000.00		\$82,600,000.00	
Taxes(20% estimated )	\$0.00		\$16,520,000.00	
Net Profit	-\$7,100,000.00		\$66,080,000.00	
Profit per unit	-\$7,100.00		\$8,260.00	
Return on investment	(-26%)		56.20%	