Live Green



Life Beautiful

Phos2light Company Live Green, Life Beautiful

Executive Summary:

In 2016, there are 304 million streetlights consuming global electricity, whereas these numbers contribute largely to the environmental pollution due to the energy used. Based on a research conducted by electrical engineers from the University of Washington found that *tree can store energy, tree power*. A tree can absorb a large amount of sunlight from the sun and uses this energy to survive. Researchers have found out that tree has a *few electrical tension* between *the tree trunk* and the *surrounding ground*. By implanting an electrode, we can recover a very low electric current enough to power simple electronic circuit.

Phos2Light (*Live Green, Life Beautiful*) is using tree power to light up the surrounding by the infusion of bioluminescence phosphorescence in tree. We provide phosphorescence infusion services into trees, which enable the trees to glow at nighttime, and light up the surroundings using its own tree power through *photosynthesis energy storage from the daytime*.

Phos2Light will work closely with *bioluminescence chemical supplier* mainly from Japan to obtain our *phosphorescence* component. Phosphorescence is extracted from a type of *phytoplankton* called *Dinoflagellates*, which contribute no side effect to human being. Once the component is transferred to our company, we will further modify it then later deliver service to our main target such as public, schools, parks, and residential area. Our main service will be provided according to the number of tree. We will advertise our product via social media such as, Facebook, Instagram, Twitter and our own **Phos2Light**'s website.

Our startup cost is \$57,000 with a gross margin of 62% in year one and loss in the first 3 years. However, we will earn profit from 4^{th} year and 5^{th} year.

Product and Services:

Phos2light Company implements the idea of having beautiful glowing trees come into practice. We offer phosphorescence infusion services into trees allowing the trees to convey its energy source for later uses in the nighttime. Our main component consists of phosphorescence fluids and the practical interjection will be made through syringes. To ensure the technical safety and efficiency of the procedure we will send our specialist to facilitate on-site services. This service model aims to promote great social impression and spread the idea of energy conservation, minimizing electricity usages as well as lowering expenses of the users.



Photo 1: prototype of phosphorescence tree at daytime and nighttime

Operations:

Chemical Supply Company will be our main supplier who will supply us with adequate amount of phosphorescence needed for our service.

Cost of Goods Sold	Amount	Standard Cost		# Usage of Tree	Unit Cost	
Phosphorescence	1kg	\$	448	250	\$	1.79
Material	1Unit	\$	0.10	1	\$	0.10
Labor Cost	1hour	\$	0.72	30	\$	0.02
Total COGS per unit					\$	1.92

Figure 1: Component of cost of goods sold per unit

$$6CO_2 + 6H_2O$$

Enzymes

 $C_6H_{12}O_6 + 6O_2$

6 carbon dioxide 6 water glucose 12 oxygen

$$\begin{array}{c} C_{e}H_{5}COC_{e}H_{5} \xrightarrow{h\nu} C_{6}H_{5}COC_{6}H_{5}^{*} \xrightarrow{crossing} C_{6}H_{5}COC_{6}H_{5}^{*} \\ S_{0} (1) & T_{1} (1) & T_{1} (1) \end{array}$$

$$\begin{array}{c} C_{e}H_{5}COC_{e}H_{5}^{*} \xrightarrow{crossing} C_{6}H_{5}COC_{6}H_{5}^{*} \\ T_{1} (1) & T_{1} ($$

Photo 3: phosphorescence chemical equation

It is vital to note that our company will keep the phosphorescence fluid which we imported are safely packaged and stored in our sanitized warehouse.

Our specialists will inject the phosphorescence fluid to the trees and give maintenance service accordingly to the contract we made with the customer.

Competitive advantage:

Our business is very unique because it is a new creative business idea by conserving energy and makes good use of the natural sources with existing trees to provide light energy as well as long as efficient uses of finite resources. By the way, our business is carefully think about humanity and living by saving energy, safe to use, and social responsibility.

Furthermore, we will supply handy maintenance service and professionals to consult directly with customers if necessary. Additionally, we will always make sure that we have a healthy supply chain assuring sufficient supply quantities.

Marketing:

In order to popularize our service, we will promote ourselves through social media such as Facebook, Instagram, Twitter, as well as our **Phos2Light** website and ads in apps. We will also cooperate with government to offer free trials by doing sample injections for 1-2 trees in the middle of the city.

Furthermore, we offer promotion as follow:

- 1% discount for 10 to 15 trees
- 3% discount for 20 to 40 trees
- 10% for 50 trees or higher

Our company will dispatch the salesmen to personally contact the owner of residential areas, resorts and malls to encourage them to implement our services for their benefit of energy conservation. Furthermore, we will cooperate with the government to apply our service.

Finance:

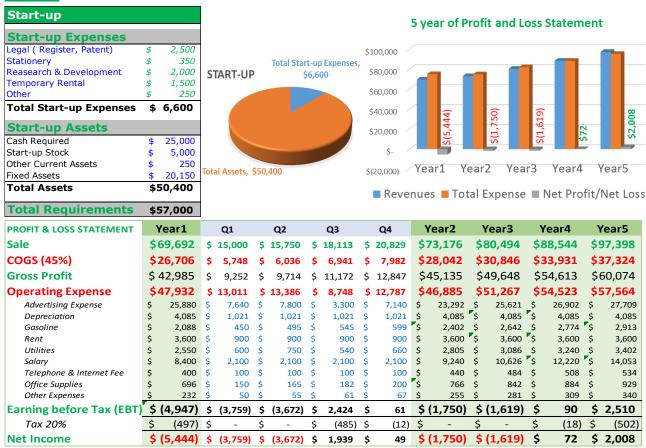


Figure 2: Startup Projection, Financial projection, and Profit and loss Statement in 5 years

Our business startup will be \$57,000 where 88% is our total startup assets. Our first year operating expense will cost approximately \$47,932 and whereas we cover 54% on advertisement and 18% on salary. As we will break-even in \$77,712. Even if our first three years will get lost but we will be expecting our profit in our fourth year and the year after.

Conclusion:

We strongly believe that our business will be successful because it is unique and smart for **saving energy**, **safe to use**, and **social responsibility**. This concept will be applicable for not only Cambodia but also globally.

