

BANGKOK BUSINESS CHALLENGE 2008

Influx Pvt. Limited

Summary Business Plan

Business Overview

With growing industrialization, the demand of energy is also growing very fast. It has been estimated that the demand for energy will increase by 60% in next 20 years. The global stock of non-renewable energy is also going down drastically and is likely become scarce by 2050. This situation has created the need to look for alternative energy sources like solar energy, wind power, hydro power etc. Already, solar cells have been used as convenient & economic sources of alternative energy.

Till now, silicon crystal solar cells have been dominating the market, but it involves high costs of manufacturing & set up and hence is not viable for the use as sources of energy in developing countries. Therefore, we believe our product will solve a big scarcity of energy in developing countries. Moreover, the product is going to act as an environment friendly innovation in the field of alternative energy.

Company description and business model

Our company is new start company with three promoters and one technical expert. Initially, the company is proposed to be started in an industrial park to avoid the high cost of commercial buildings. The product will be directly delivered to the target customer on the year one. Second year onwards, we will recruit distributors. R&D cost is associated as the product need continuous improvement. In most of the cases it would be a B2B type of business model, in few cases we need to operate in B2C models also.

Value proposition- financial

We will invest 10% from our own fund and 90 % fund requires to be collected from external sources. We are expecting a good amount government subsidy also as it is an emerging technology. Our total investment required to start our business is US \$

2190820. We are quite optimistic that we will make profit from second year onwards. It should help us to earn the subsidy early.

Value proposition- social or environmental

This is the most important part of our new business that we will produce technology which will contribute in lowering the environmental pollution as well as energy scarcity. In silicon crystal solar cell, it may release some toxic elements like cadmium, lead etc. when it is disposed off, but the desensitized solar cell is manufactured with the help of common dye (non-toxic) used in textile industry. The technology can be achieved in a very affordable price as per the income levels in developing countries. So, it will be surely be a good approach to fulfill the energy scarcity in such countries.

The Market Opportunity (the problem or need)

Most of the areas in Thailand are able to absorb sunlight in average $4.5 \text{ kw/h/m}^2/\text{day}$; therefore, a solar cell model 33 Mw can be installed in a single square meter that can produce $165,000 \text{ kw/h/m}^2/\text{day}$. Currently, the total demand in electric energy is approximately 250 million kW / hour, if we need to supply that energy by solar cell; we need to use the area of $1,500 \text{ km}^2$ or only 0.3 % of the total country area^[1].

In the past, solar cells are not very popular for both household and business units, due to the high price of initial installation and the apprehensive of product capability in compared with the electricity that has been using for age.

Solar home project has been established by Thai government since 2004, aimed to promote the use of solar energy particularly in remote areas where still no access points of electricity grid, and encourage both local and foreign investors realize the high opportunity to invest in solar cell industry.

In addition, solar cell technology has been continually developed by Institute of Solar Energy Technology Development (ISET), in order to find of the more efficiency solar cell technology and try to reduce the production cost, which it makes the product become competitive and affordable by local consumers.

The Ministry of Energy, the Kingdom of Thailand has set a national target to install 250 MW P/A solar cell systems in Thailand by the year of 2011. At present, there are five solar module manufacturing companies with the total production capacity of about 85 MW P/A^[2].

Remark: mc: multi crystalline; mc-Si: crystalline silicon; a-Si: amorphous Silicon

Regarding to the above table, it is clear that Solartron is the biggest module company with the capacity of 30 MW P/A, and it is the only renewable based company who is listed in the stock-Exchange of Thailand.

At present, Solartron holds about 80 % of the domestic market share. The company successful won the government's Solar Home Project to install solar home systems (54,400 systems, 6.52 MWp) in the remotest provincial areas where still no access points to the electricity grid in 2004.

Market Solution

We are planning to sell core technology as our main business product, but the total solutions would be provided as per the requirements of the customer. The accessories would be carried out from reputed suppliers to deliver the total solution. Installation and after sales services would be provided on site.

Identification of Customer

Our target customers will be commercial building authorities, large shopping malls, sports complex authorities, University & research authorities & government agencies.

TESCO LOTUS is one of many department stores in Bangkok that has implemented solar heating panels to produce 600,000 kw per year since November 2004 ^[3].

Market Entry Barriers:

Entering into Thai solar cell market can be a big challenge for a small start-up firm, due to the strong existing competitors, high marketing costs and consumer acceptance; those can be our entry barriers which we have to be sure that we are strong enough to overcome any difficulty situations.

Solartron is the most strongest competitor in Thai solar cells market, they have gain approximately 80 % solar cell market share and won the government projects which leaded them to be able to meet the economics of scale. Therefore, most of their revenue comes from government projects which take long time before cash being transferred into their back account.

In order to overcome those barriers, it is necessary to act as a small high tech start-up firm; instead of having a big building, we have planed to take a rented premise in industrial park for our company operation

Management Team

Chief Technical Officer - **Dr.Joydeep Dutta**, Associate Professor,
Micro-electronic Department,
School of Engineering & Technology
Asian Institute of Technology,
Thailand.

(He has been engaged in the related technology field for last 22 years)

Managing Partners/ Board of Directors:

Nabajyoti Acharya (5 years of Marketing
Experience)

Madhavi Vemuri (5 years experience in industrial
product marketing)

Amlan Dutta (5 years experience in the marketing
of High-tech Medical equipments)

MBA- Final Year

School of Management,

Asian Institute of Technology (AIT),

Pathumthani-12120, Thailand

Financial and Social Impact Summary:

The whole business is carrying a big social value proposition .people living in the remote areas of developing countries will be greatly benefited from this technology. Even those people can start small house hold industries with the application of this technology to generate power .Apart from this Thailand government has a nice policy for the users of the solar energy.

Narrative overview of financial summary

	Year 0	Year 1	Year 2	Year 3	Year 4
Company Valuation:					
Year 5 net income(after 33% tax)	(4,571)	403,615	1,334,782	1,623,650	1,060,274
Discount value of 12%					
Present value of earnings	(4,571)	360,371	1,064,080	1,155,682	673,823
Capital expenditure (Initial investment cost + fee)	2,190,820				
Equity Plan					
Technology promotion capital for Dr Dutta		55,000			
4 Promoters	10%	219,082	54,770.50		
Venture Capital ownership with buy back for 4 promoters	90%	1,971,738			
Total Equity		2,190,820			

We are very much confident to accumulate the initial investment from the four promoters to start the business. As per the industrial policy of the most of the government, they refund a particular amount in the form of subsidy once sales of the products start in the market. We are also highly optimistic about that policy to bloom our noble business as early as possible.