

Annual report Pico Sol Cambodia 2009



Empowering Cambodia with solar technology

November 2010

Table of contents

1	Introduction	3
1.1	Why Pico Sol Cambodia	3
1.2	Mission and vision.....	3
2	2009: First projects	5
2.1	Activities	5
2.2	Financial.....	7
3	Outlook 2010.....	9
3.1	Implementation of Showcases	9
3.2	Development of technical trainings	10
3.3	Upgrade the Solar Campus for training purposes.....	10
3.4	Improved financial management.....	10



1

1 Introduction

1.1 Why Pico Sol Cambodia

The sun is a free, inexhaustible resource of energy. Cambodia has great opportunities for solar energy. Although the country has very limited fossil fuel resources, it receives on daily base over five full solar hours, with a balanced distribution over the year, making it one of the sunniest countries in the world. Pico Sol Cambodia considers Cambodia's solar resources as an opportunity for a sustainable development of the rural areas.

Basic infrastructure like an electricity grid is mainly available in Phnom Penh and provincial towns. The majority of the population lives in the rural areas. Due to this, about 85% of the 13 million Cambodians have no access to a secure electricity infrastructure. Many of them live below the poverty line of less than \$1 per day. Providing these people with modern electric lighting is a small but important step to overcome their impoverished situation. In Pico Sol's vision, the introduction of solar power for Cambodia's rural population will contribute to bright and sunny perspectives to improvement.

1.2 Mission and vision

Electricity from sunlight is clean and renewable energy. Our vision is that the introduction of solar power will contribute to the sustainable development of rural areas, where an electricity connection is still beyond the horizon. Our aim is to connect Cambodia's rural areas to the sun in an affordable way. Our dream is that solar power will be used as a logical and credible energy source at a large scale.

Long term objective

Pico Sol Cambodia's long term programme is based on its objective to stimulate the use of solar energy in Cambodia's rural areas. Three sub goals can be distinguished:

- To demonstrate the advantages of solar energy to local communities
 - To increase the level of knowledge of organisations and individuals regarding the installation, operation and maintenance of solar power
 - To stimulate the establishment of small scale businesses in the field of solar energy.
-

Local ownership

Local ownership is the keyword for our project approach. Pico Sol Cambodia will not give presents, but we want to decrease the investment barrier to enable the realisation of projects. Local initiatives, local interests, a local supporting basis and partial local financing are central themes in our projects.

- Local initiative: Pico Sol Cambodia participates preferably in initiatives that are already taken. In many cases, it appears that these plans need to be adjusted due to lack of knowledge of the opportunities or over estimation of the possibilities.
- Local interests: Our project aim to satisfy a local interest:
- projects contribute to a social interest, for instance lighting to enable evening schools, or cooling to enable the storage of vaccines.
- We make use of the Cambodian solar power infrastructure. Except installation, the systems need to be maintained and serviced. To involve local capacity is good for the local economy and will improve the sustainability of our projects.
- Local participation: The partner is able and willing to participate with human power and money. Pico Sol Cambodia contributes partly to the material costs. Our expectation is that a local willingness to pay for the rest implies a local supporting basis to keep the system operationally. This is for instance necessary to be able to replace the batteries after some years.



From demonstration to capacity building

Pico Sol Cambodia focuses to projects with a communal interest. In this way, the Cambodian population will become acquainted with the advantages of solar power, and everybody will profit from it. Our expectation is that in a latter phase people will consider solar power as a solution for their power demand.

To enable the solar power sector to develop, it cannot stay with small strategically strikes. A credible solar power sector will only arise if capacity will be built. Pico Sol also wants to contribute to this. We established a solar training institute, where vocational solar trainings are organised.

In this way, our small scale projects will multiply. Projects will be scaled up. The sector will develop.

2

2 2009: First projects

After Pico Sol Cambodia's birth in March 2008 as a Cambodian NGO, 2009 was the first year to prove our added value. During this year, a director has been acquired to supervise the further development of the Solar Campus.

2.1 Activities

Mira, the new director

In June Mira Weber started her career at Pico Sol Cambodia as director of the Solar Campus. A new position, what needed some research to find out the exact duties. Mira found her way soon, together with Tra, the housemaster.



Up to a well organized guest house

As a first challenge Mira started to organize the Guest house facilities of the Solar Campus a little more. As a hands-on expert (she lived in the Solar Campus for some months with her family) it was clear to her that some issues needed attention.

Importing second hand Solar panels from the Netherlands

In June a container with donated materials was delivered. The contents included over 200 solar panels for charity purposes. The materials were donated by the Dutch utility Eneco, via Pico Sol Netherlands.



Technical training

In June/July a two-weeks technical training was given to employees of Kamworks. Two trainers with different fields of expertise of the Cambodian Technical Institute (ITC) were hired. It was a small class of 6 trainees.



Training needs assessment

During the summer, the Dutch educationalist Leonie van Eeten provided us with a training needs assessment. As starting up training institute, we were not fully aware of the specific need for trainings in the field of solar energy. Leonie visited solar energy companies, other training institutes, ministries, and some local and international NGO's. The interviews gave a good impression of the needs by these organizations. There is a clear demand for especially technical skills and information on solar power.

Noticeable is that the interviews also indicated another need: To increase awareness among the population on the opportunities of solar power. This could also be an interesting challenge for Pico Sol Cambodia.



First showcase project

In September a first showcase project has been implemented in the village of Bon La Shad (Kampong Speu). The village community jointly organized a fund-raising to make this project feasible. Four solar panels have been installed on a pagoda. The population not only contributed financially to the project, but also physically.



Preparations for market introduction project in Kandal

In May, it became clear that a subsidy request for the market introduction 'Solar Power for Kandal' was accepted by Agentschap NL, a Dutch funding organization. Together with Kamworks, the solar energy company next to us, we will be involved in this project. The funds provide in 50% of the total project budget. It will be a big challenge to find ways to get the rest of the budget allocated.

Pico Sol Cambodia will focus to two tasks in this project:

1. To develop a training for installers and to train vendors and technicians at the Solar Campus
2. To implement 20 showcase systems at community buildings, to create increased awareness among the population in the areas where Kamworks want to introduce their solar power products and systems.

With this project Pico Sol Cambodia's mission can be kick-started in 2010. For the second task (the showcases) the co-funding has been arranged. For the first task, it will be a major challenge to find resources.



Preparation of showcase projects with commune chiefs at Lvea Em District



Kick-off meeting Solar for Kandal with staff from Kamworks and Pico Sol Cambodia.
Left to right: Leap (KW/PSC), Jeroen (KW), Mira (PSC), Soklen (KW), Henry (PSC), Patrick (KW), Arjen (KW), Steve (KW)

2.2 Financial

Financially, the year 2009 appears to reflect a slow but surely start of activities. The project 'Solar Power for Kandal' was mainly in preparation, and not associated with high expenditures.

Balance sheet

Assets		Liabilities and equity	
Fixed assets		Liabilities	
Buildings	\$ 41.734,34	Accounts payable	\$ 986,80
Education Equipment	\$ 1.063,40	Prepayments for projects	\$ 31.483,24
Installations	\$ 17.337,40		
Inventory Solar Campus	\$ 4.839,01		
Kitchen equipment	\$ 204,50		
Office equipment	\$ 987,64		
Total fixed assets	\$ 66.166,29	Total liabilities	\$ 33.346,16
Current assets		Equity	
Petty cash	\$ 1.078,71	Opening balance equity	\$ 72.435,38
Bank account	\$ 9.735,01	Net result of 2009	\$ -3.799,56
Stock of goods	\$ 23.404,25		
Accounts receivable	\$ 721,60		
Total current assets	\$ 35.815,69	Total equity	\$ 68.635,82
Total Assets	\$ 101.105,86	Total liabilities and equity	\$ 101.105,86

In the balance, it is visible that resources for setting up the project `Solar for Kandal` have been partially available:

- Prepayments for projects (liabilities)
- Stock of goods (mainly solar panels)
- Bank account (first project payment)

Income statement

Compared to the starting-up year of 2008, the income statement is quite different. Income from room rent has been increased. We can say that the guest house made a good year. The increased salaries also indicate that rent from the rooms will not be enough for coming years to make organization break-even. To earn on the trainings will be a challenge for coming years.

Income	2009	2008
Room rent	\$ 4.335,91	\$ 1.985,00
Projects	\$ 2.642,61	\$ 36.685,27
Several	\$ 1.142,33	
	\$ 7.934,05	\$ 38.670,27
Expenses		
Salaries	\$ 4.748,35	\$ 686,83
Overhead costs	\$ 1.207,33	\$ 1.460,49
Guest house general and maintenance	\$ 953,07	\$ 83,11
Projects	\$ 2.642,61	\$ 2.508,59
Expenses passed to projects	\$ -680,00	
Depreciation	\$ 3.049,05	\$ 7.909,69
	\$ 11.733,61	\$ 12.648,71
Net result	\$ -3.799,56	\$ 26.021,56

3

3 Outlook 2010

For 2010 a further development of the Solar Campus as a solar training institute is projected. This will take place by setting up the organization and setting up showcase projects (3.1), further development of training products and to participate in a market introduction project with Kamworks (3.2), upgrading the Solar Campus to a solar training centre and improve financial management (3.4).

3.1 Implementation of Showcases

Mekong Riverguards: the fresh water dolphins in the Mekong River are protected by 16 river guards, who need power for lighting and communication. Pico Sol Cambodia is asked to support this solar power project with solar panels.

Samrong Learning farm: Samrong Learning Farm (near Phnom Penh) accommodates 60 children from very poor backgrounds. The organization WWCF wants to install solar panels for pumping and other power applications (lighting, computers). Pico Sol is asked to contribute to this project with solar panels.

Sunny Showcases at Lvea Em District: Lvea Em district is close to Pico Sol Cambodia. The district has no power lines. Kamworks wants to introduce solar power at this district. Pico Sol Cambodia will support the project with installation of 20 showcase systems at community buildings, like commune halls, hospitals, schools and pagoda's.

New Hope for Cambodian Children: This orphanage in Takeo also wants to install solar panels for general electricity purposes.

Peaceful Children's Home: Pico Sol Cambodia's hosting organization, the Khmer Foundation for Justice, Peace and Development, runs two orphanages. One of these orphanages is in need for new solar panels.

Solar battery charging station: Kamworks identified a promising application of solar energy in a village: To charge batteries for consumers. Pico Sol Cambodia will contribute to a pilot project intended to learn more on the benefits of solar panels for this application.

Solar power at solar demonstration shop: At a central place on Lvea Em district, Kamworks will open a combined solar shop with the micro financing organization CMSC. On this shop, a system for demonstration purposes will be installed with support of Pico Sol Cambodia.

3.2 Development of technical trainings

Within the market introduction project “Solar for Kandal” budget should be found to develop a modular technical training program. Also connection to educational faculties will be established to recruit students to support these activities.

3.3 Upgrade the Solar Campus for training purposes

The Solar Campus is currently mainly used as a guest house for housing internship students and other guests for Kamworks. The training purposes will be extended by an upgrade project intended to make the building a “look and feel” part of the whole training curriculum.

3.4 Improved financial management

The financial administration has been outlined in the program OneStep, what is unfortunately not supported anymore by the supplier for modern computers. We will set-up the administration in Quickbooks SimpleStart, what includes most of the features we used in OneStep.