

<b>Type of project:</b> (tick off the type)	PV	Solar Thermal	Biomass to Energy		
			X		
<b>Project name:</b>	Community Based Renewable Energy Project				
<b>Location of the plant:</b>	Anlong Tamey Village, Bannan District, Battambang Province				
<b>Year of Implementation:</b>	2004				
<b>Operator:</b> (Name and address)	Community Energy Cooperative				
<b>Planner:</b> (Name and address)	Staff from SME Cambodia (Local NGO)				
<b>Detailed description of the installation:</b> (technology, function, benefit for users, etc. max 150 words)	<p>The project was implemented by SME Cambodia with financial support from the Canada Fund and US-AID for the first phase and from UNDP/GEF for expansion in the second phase.</p> <p>The system is a 100% renewable based technology. It uses Leuceana for the gasification. The engine appropriate for using with gas is imported from India. The fuel resource comes from the fast growing, tropical legumes trees (Leuceana) which are planted, harvested and sold by local farmers.</p> <p>The use of electricity generated from renewable source is an environmentally friendly energy service. This leads to reduced greenhouse gas emissions and pressure on local forests from firewood collection. The electricity price is much lower than that of the diesel based REE.</p>				
<b>Generated Energy service:</b> (tick off the energy type)	electricity	Heat	Gas	Light	
	X				
<b>Power output of installation:</b> (kWel, m <sup>3</sup> biogas, kW th, etc.)	9 KWe in the first phase and expanded to 29 KWe by adding a new 20 KWe engine				
<b>Financing</b> (tick off the financing type)	private investment	Loan	Donation	Grant	
				X	
<b>Investment costs in US\$</b>	Investment cost is 24,000 US\$ for the first phase and 76,600 for the second phase.				
<b>Maintanance costs in US\$</b>	<p>Direct Cost:</p> <p>Fuel wood \$47.00</p> <p>Labour \$80.00</p> <p>Lubricant \$15.00</p> <p>Indirect Cost</p> <p>Maintenance \$15.00</p> <p>Salary for accountant \$20.00</p> <p>Depreciation \$112.33</p> <p>Others \$8.00</p>				

	Total \$297.33 (This figure is only for the first phase project)
<b>Savings:</b>	Cheaper electricity price
<b>Energy sale income in US\$:</b>	<ul style="list-style-type: none"> <li>- 0.4 \$US/KWh and 0.3 US\$ per charging of a 50 Ah battery</li> <li>- The generator runs for about 4 to 5 hours per day</li> <li>- The average number of battery is around 30</li> </ul>
<b>Comments:</b>	The project provides electricity to 241 households among 290 households in the village who was not electrified prior the pilot project. The community Energy Cooperative (CEC) is the first Cambodian member owned energy cooperative that operates its own electricity generation and distribution system. The project has been recognized nationwide as an important demonstration that has wide application throughout rural Cambodia.

**Pictures and grafics**

