



PVMTI News

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PVMTI Portfolio Grows to Nine Projects

Following the recent approval of a US\$ 2 million loan to Barclays Bank of Kenya, PVMTI has now committed over US\$ 19 million to nine investments. In this issue of PVMTI News, we are pleased to report on the progress of our portfolio and to share some of the lessons learned to date.

It is now four years since the start of our investment process, and we believe that PVMTI is making good progress in reaching its objectives:

☐ **Stimulating Private Sector Activity.** PVMTI has reviewed over 60 business plans for ventures in the solar electricity market. By undertaking commercial due diligence on potential investments and liaising closely with entrepreneurs, the PVMTI team has sought to prepare the ground for a portfolio of successful ventures. We expect to make up to five additional investments before the end of 2002, taking the portfolio to a maximum of 14 projects.

☐ **Supporting Replicable Business Models.** In

Launched in 1998, PVMTI is an initiative of the International Finance Corporation (IFC) and the Global Environment Facility (GEF) to accelerate the sustainable commercialisation and financial viability of energy services based on solar electricity ("photovoltaic" or "PV") technology in India, Kenya and Morocco.

- US\$ 25 million of funds are available for investment in equity, debt or partial guarantee structures to private sector PV market development ventures.
- Investment proceeds will be returned to GEF during 2008.
- IFC has designated Impax Asset Management Ltd. and IT Power Ltd. as External Management Team (EMT) for PVMTI.

reviewing our deal-flow, we have attempted to channel support to innovative business ideas. For example, following the slow-down in the government's solar rural electrification programme in Morocco, the PVMTI team counselled local PV suppliers in their review of alternative strategies and has since committed funds to facilitate credit-based business for two of them.

☐ **Attracting Significant Co-Finance.** Despite their huge potential, PV markets in developing countries are at an early stage of development, and mainstream investors are often cautious to enter. In an attempt to explain and partially offset the risks of PV investing, the PVMTI team has maintained a dialogue with banks, rural credit providers, and equity investors, and is currently expecting third party commitments of over US\$ 40 million to existing PVMTI projects. For example, by providing partial guarantees or direct loans, PVMTI has attracted financing for solar customers from mainstream lenders such as SREI International Finance (India), Salafin SA (Morocco), and Barclays Bank (Kenya).



Shakti Energy Store in Coimbatore, India

India - Shri Shakti



PVMTI's first investment, Shri Shakti Alternative Energy Ltd. (SSAEL) is a sister company to Hyderabad-based Shri Shakti LPG Ltd, a successful bottler and distributor of gas for cooking and transport. By extending the Shakti

network of energy stores to sell consumer products based on PV and other alternative energy products, SSAEL is establishing a new sales channel for PV devices such as lanterns, power packs and home lighting systems. In parallel, the company is marketing larger PV systems to provide back-up power and mini-grids to remote areas.

PVMTI has committed US\$ 2.2 million to SSAEL (predominantly as a loan and equity). After two years of operation, the company is now firmly established and is rolling out new stores in major towns in the north, north east and south of India.



India - SREI Renewables

The Srei Renewable Energy Unit (SREU) is a new business division of SREI International Finance Ltd., a leading leasing and hire-purchase company based in Calcutta. SREU is providing consumer finance for the purchase of solar home



systems in West Bengal, with a particular focus on the islands in the Sunderban delta, where the population density is high and extension of the electricity grid has been limited. SREI is partnering with the Ramakrishna Mission (RKM), one of India's strongest rural development NGOs. RKM is responsible for identifying borrowers, co-ordinating installation and after-sales service, and collecting dues.

PVMTI has committed US\$ 3.5 million to the venture (predominantly as a loan and partial risk guarantee). Sales of PV products have commenced, and SREI is currently looking to expand its activities.

India - Shell Solar



Headquartered in Bangalore, Shell Solar India is marketing, installing and servicing solar home systems, shop lighting and other PV products in rural areas of south India. The company is building a network of retail outlets and has partnered with Vysya Bank to offer loans to customers. Shell has also partnered with Udaya Semiconductors Ltd. to



assemble solar panels in the region using Shell's solar cells.

PVMTI has committed US\$ 4 million to Shell's venture (predominantly as a loan and partial risk guarantee). The company has now opened ten outlets, and is reporting strong sales growth.



India - AquaSolar

Aquasolar aims to build and franchise a network of stations to pump and purify drinking water using solar electricity in populated areas of India that do not have a reliable grid connection. Franchisees sell the bottled water direct to the public and also to businesses and medical centres. In



addition to sponsor equity (from Microsol Power Ltd.), the project has mobilised franchisee finance from BASIX, a micro-finance company based in Hyderabad.



PVMTI's investment is US\$ 3 million (predominantly as a loan and equity). The company is currently planning to extend its network beyond the initial pilot sites.

India - Sunlit Media



Sunlit Media generates revenue from selling advertising space on PV-powered lighting systems. When installed on private property such as college campuses, parking lots or petrol stations, the product offers free lighting, making these outdoor spaces safer at night and

provides a new channel for advertisers. The pilot sites in southern cities in India have been very successful.

PVMTI has committed US\$ 2.3 million to Sunlit Media (predominantly as a loan and equity). The company has already installed more than 100 lights and has a full order book.



Kenya - Muramati SACCO



Savings and Credit Cooperative Organisations (SACCOs) have provided savings and loans services to Kenyans for over a century. As the largest SACCO in the tea sector, Muramati SACCO is extending its loan products to offer solar home system finance to its 15,000 members. PV products will be supplied, installed and serviced by ASP (Kenya) Ltd, an equipment supplier based in Nairobi.

PVMTI has committed US\$ 600,000 to Muramati SACCO's venture (predominantly as a loan). By demonstrating that a SACCO can service a solar loan over an extended period of time, we hope to demonstrate that the SACCO sector offers an attractive channel to the PV market.



Kenya - Barclays Bank



Building on the concepts developed by PVMTI and Muramati, Barclays Bank is currently implementing a

program to channel funds for solar lending to multiple Savings and Credit Cooperative Organisations (SACCOs). Barclays will screen SACCOs nominated by KUSCCO, the principal SACCO umbrella organisation. The early applicants are SACCOs representing teachers, agricultural workers and civil servants. Solar home systems will be installed by Solagen Ltd. and other equipment suppliers.

The PVMTI investment committee has recommended an investment of US\$ 2 million in the Barclays venture (predominantly as a loan).



Morocco - Salafin

Salafin SA, a subsidiary of the BMCE Bank, is a mainstream provider of finance to Moroccan consumers. Following the downsizing of the Moroccan government's solar



rural electrification programme, the company has identified an

opportunity to extend its product range to offer loans to finance the purchase of solar PV products, particularly solar home systems, fridges and water pumps. Initially, PV products will be supplied, installed and serviced by Afrisol SA, the country's largest PV retailer.

PVMTI has invested US\$ 1 million in the project (predominantly as a partial risk guarantee).

Morocco - Al Amana & Noor Web



Al Amana, the largest non-profit micro-finance institution in Morocco, and Noor Web, a leading supplier of PV systems and related energy services, are joining forces to offer credit to solar energy consumers initially in the Taroudant region of Morocco. Since 1999, Noor Web has provided solar energy services



under a fee-for-service scheme established by the national electricity provider (O.N.E.). The new credit scheme will extend this O.N.E. project and pioneer credit lending in the region.

PVMTI has invested US\$ 720,000 in the venture (predominantly as a partial risk guarantee).



What are Investors looking for?

2002 looks like being another good year for the solar electricity sector. Worldwide shipments of PV modules have been growing at over 30% per annum; new, high-capacity facilities producing at ever lower costs are being brought on-stream; and financial institutions in many parts of the world see "solar lending" as a growth opportunity.

To the corporate managers and entrepreneurs committed to growing their solar sales, service and/or financing businesses, the scope for building a successful operation has never been greater. Nevertheless, many still find that raising capital can be difficult and time-consuming.

Throughout the PVMTI investment phase, we have discussed financing issues with a wide range of stakeholders. To help companies make their search for capital as efficient and successful as possible, most commentators seem to agree that the following seven points are important.

1. **A strong track record so far.** Investors like to back winners! A management team which has already demonstrated that it can deliver on its promises will usually be well-received. If that team has already built a successful PV business, so much the better.
2. **Committed core shareholders.** As the owners of the business, the shareholders are likely to have similar interests to any new investor. If the new investor is being asked to provide debt, the presence of a group of well-known shareholders who are willing to support the company as it executes its plan will give comfort. Investors usually look closely at the board of directors, seeking out experience of directing similar ventures or companies.
3. **Ambitious but credible business concept.** Capital tries to seek out the best potential returns for a given level of risk. Investors in the PV sector typically look



for business plans based on a clear "winning" idea, for example "creating first mover advantage by building a solar franchise in a new, high-potential area of the country". The business plan document should explain how this idea is to be implemented.

4. **Favourable market conditions.** A persuasive business plan should explain how the forces shaping the market are creating a supportive environment for the proposal. For example, clear government policy on rural electrification may permit entrepreneurs to identify households that will not receive a grid connection for many years. Similarly, a healthy financial sector in the country is likely to improve the probability that consumer finance for the company's products will be available.
5. **Clearly defined objectives.** Investors like to measure results. The business plan should describe milestones such as sales, profits, stores constructed and/or new supplier agreements for the company, preferably for at least 3-5 years. In most circumstances, investors understand that the business plan should be a living document, updated to reflect experience in the "real" market.
6. **High quality technical standards.** Businesses that sell reliable products are likely to build a strong reputation and make future sales. The international market for PV products and systems is now competitive, and companies should wherever possible seek to source products that comply with PV standards and have appropriate warranties.
7. **Appropriate financial structure.** For businesses seeking relatively small levels of capital, investors may not be willing to commit the time up-front to assist the company develop its financial structure. Therefore, managers who can identify the financial risks in their proposal and illustrate how potential returns to investors can justify them taking a share in those risks, should be well-placed. Making sure that equity investors have a realistic prospect of being able to sell their investment in future, and providing potential lenders with low gearing targets and high debt service coverage is recommended.

For more details on the PVMTI investment process and PVMTI investments to date, please log on to the PVMTI website www.pvmti.com.

GEF



The Global Environment Facility assists developing countries to protect the global environment in four areas: global warming, pollution of international waters, destruction of biodiversity, and depletion of the ozone layer. The GEF is implemented by the World Bank, the United Nations Development Programme and the United Nations Environment Programme.

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IFC



The International Finance Corporation, part of the World Bank Group, fosters economic growth in the developing world by financing private sector investments, mobilising capital in international finance markets and providing technical assistance and advice to governments and businesses. PVMTI has been prepared by IFC's Environmental Project Unit as part of the Corporation's effort to engage the private sector in sustainable commercially-based development projects.

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IMPAX ASSET MANAGEMENT



Impax Asset Management Ltd is a multi-disciplinary fund manager and strategy advisor specialising in environmental infrastructure and technology. London based Impax manages over US\$100 million, investing in companies and projects in the sector. Its sister company, Impax Capital, has raised US\$ 500 million for companies and projects in the sector.

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IT POWER



IT Power is a leading international energy consultancy which specialises in renewable energy engineering and related economic, financial, commercial and environmental considerations. Since its formation in 1981, IT Power has completed more than 700 projects in over 90 countries around the world for numerous institutional and private clients.

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