

- Viable business models must be demonstrated to sustain market development for solar photovoltaics.
- Delivery/business model development, evolution and testing require time and flexibility.
- Institutional arrangements for project implementation can greatly influence the value of the project in terms of demonstrating viable business models and thus achieving sustainability.
- Projects must explicitly recognize and account for the high transaction costs associated with marketing, service and credit collections in rural areas.
- Consumer credit can be effectively provided by microfinance organizations with close ties to the local communities if such organizations already have a strong history and cultural niche in a specific country.
- Projects have not produced adequate experience on the viability of dealer-supplied credit under a sales model, and no project in the portfolio appears set to provide such experience.
- Rural electrification policies and planning have a major influence on project outcome and sustainability, and must be addressed explicitly in project design and implementation.
- Establishing reasonable equipment standards and certification procedures for solar home system components that ensure quality service while maintaining affordability is not difficult, and few technical problems have been encountered with systems.
- Substantial implementation experience is still needed before the success of the service approach can be judged.
- Postproject sustainability of market gains achieved during projects has not yet been demonstrated in any GEF project: it is too early in the evolution of the portfolio.

#### 23.3.4.2.2 *The social route*

Governments can act in several capacities along the social route. Financing the purchase of SHS for poor people is perhaps the most critical one, although consumer protection and market regulation are also of importance. Government financing of SHS is seen by some as an unnecessary nuisance that distorts the market and creates dependence in the user's minds (users will not buy once the government has provided systems for free, goes the argument). Most critics of government intervention seem to forget that rural electrification has been historically subsidized by governments not only in developing countries but also in some of the most advanced nations. In that sense, there is no reason to think that PV rural electrification has to be different altogether, as it is only the technology base that is changing; the rest of the landscape remains the same.

Direct government financing of photovoltaics for rural electrification is not necessarily a bad thing. Up to now, the largest volume of SHS installed around the world has been realized through government or donor-led programs. Government intervention may help aggregate markets, reduce transaction costs and, if properly done, can create a better setting for quality assurance and local industry development. At least, this has been the experience with government-financed PV projects in Mexico, where proper institutional mechanisms were implemented for this purpose, and as a result, a local industry has also emerged around government-financed projects, which now produces locally and