

Such PV systems are typically paid for by government programs, often supported by grants from donor agencies. These applications will require new forms of institutional financing as PV utilization increases in the future beyond the ability of grant agencies to pay.

### 24.5.2 Impact of Financing on Market Demand

Evidence from Asia, Africa, and Latin America indicates that market demand for PV systems in the developing countries increases by a factor of ten (10x) with the provision of reasonable levels of end-user financing:

*Latin America:* The pyramid in Figure 24.2 illustrates an estimate that was made by Soluz Inc., a leading PV company operating in Latin America, suggesting a tenfold increase in market demand if financing is available.

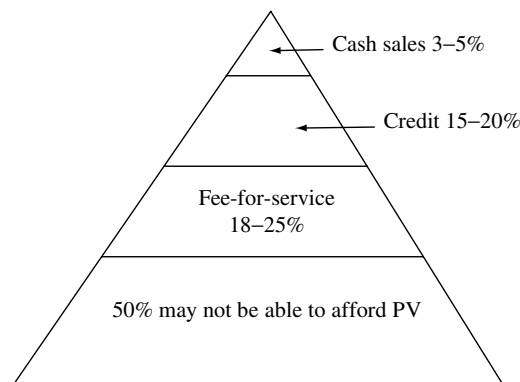
*Indonesia:* A PV developer in Indonesia estimated that the market would expand from 30% of the population for cash sales to 70% for the fee-for-service option (see Reference [16]).

*India:* A PV company in India has concluded that 5% of rural people in southern India can afford to pay cash, while 50% could afford to buy a PV system if they had a 1 to 2 year loan at market rates (see Reference [17]).

*Sri Lanka:* A leading microcredit lender in Sri Lanka concludes that over 50% of the people can afford an SHS with reasonable credit (see Reference [18]).

*South Africa:* The national utility Eskom conducted a field-survey-based market study in preparation for the Shell–Eskom joint venture and found that nearly 50% of the rural families in the Eastern Cape could afford monthly payments of 47 Rand (then about US \$10.00) per month, whereas very few could afford to pay for the system up front (see Reference [19]).

The findings are consistent around the world, that at least 50% of all rural households can afford to pay for a PV system given reasonable credit terms or the equivalent through a fee-for-service approach.



**Figure 24.2** Affordability of PV systems by rural people in Latin America