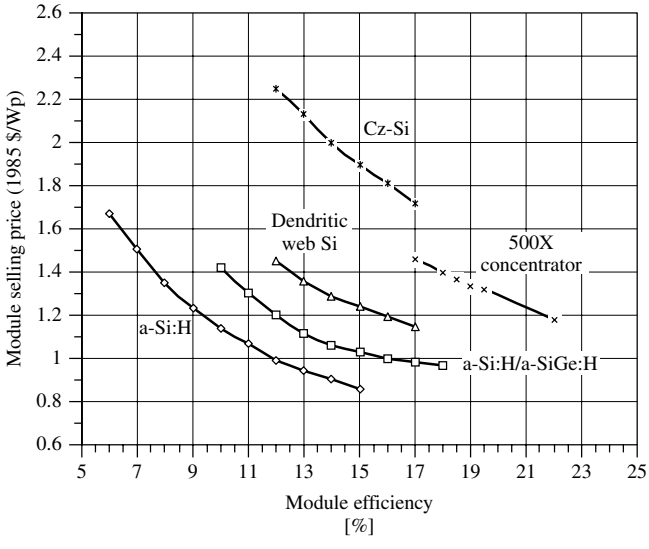

Figure 1.15 Effect of cell technology and efficiency on module price. (Source: Whisnant *et al.* in Chapter 21)

Table 1.4 Annual performance and energy cost summary for central station plants. Calculations for constant 1990$, for a 50 Mw_p plant in Central California, USA. Source Whisnant *et al.*, Chapter 21

	Fresnel lens concentrator	CIS Flat-plate
Energy output (MWh)	140 100	112 000
Capacity factor	32.0%	25.8%
Annual energy efficiency	18.8%	9.9%
Annual expenses (10^6)		
Capital charge	16.69	11.95
Operation & maintenance expense	0.61	0.18
Total	17.30	12.13
30-YR Levelized energy cost ($/kWh)		
Capital charge	0.119	0.106
Operation & maintenance costs	0.004	0.002
Total ($/kWh)	0.123	0.106

electricity. Photovoltaics is more than twice as expensive. However, this cost can be attractive for a part of the electricity generated by a utility, such as when it meets peak power demand.

For the end-user, the cost of the conventional electricity can be very similar to the one in the table. The cost of installing a PV grid-connected system in a house or building is not much more expensive than the centralized power plant presented in the table but the marketing cost of this distributed residential product will increase the final installation cost. It is to be stressed, that the costs used here are merely an indication