



Figure 22.32 Prefabricated Japanese tilelike roof panel method with CdTe cells in Nie-ken (JA). Capacity of the system is 1.3 kWp. Reproduced with permission by MSK Corporation

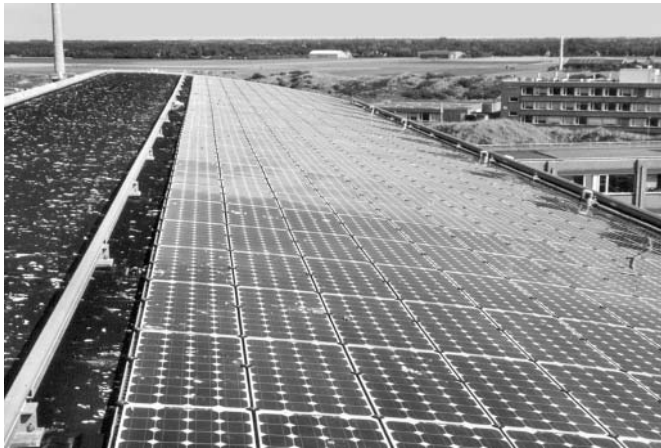


Figure 22.33 BP Sunflower system at the bent roof at ECN building 31, Petten (NL). Capacity 35 kWp. Reproduced with permission by BEAR Architecten H. Lieverse

22.3.1.4 *Function of the integration*

In addition to generating electricity, PV modules are also used as an integral part of the external skin (roof or façade), as sun protection (Figure 22.43) or as a daylight transmitter. Designing double functions and then integrating PV modules into buildings results in cost reductions on the investment in the building. Several buildings have been built that demonstrate PV systems as part of a passive cooling strategy [14].

The advantages in this specific case are

- the PV modules replace building elements,
- the PV modules are very well ventilated at the back,