distinguishable submarkets. The heat pump water heater and low-E windows, for instance, are used in both the residential and commercial sectors. Since the same manufacturers tend to serve all the submarkets, contracting R&D to single industrial partners and working with individual trade associations were effective approaches.

6.2.5 Nature of the Information: Proprietary vs Nonproprietary

Proprietary information is said to exist when the possessor of the information can prevent others from copying it without permission. Most developments from OBCS-supported research are nonproprietary. Indeed, more than half of our 12 case study innovations are unprotected by patents or copyrights.

Where patents are involved, it is not always clear that the information can be protected, due to reverse engineering and industrial spying. Many of our industrial contacts indicated that patents were not important in their product lines because of these protection problems, and over time, information tends to become less proprietary as rivals invent around patents. Nevertheless, patents and copyrights were closely guarded and influential in several of our case studies: low-E windows, solid-state ballasts, the Wisconsin audit, and tracer gas testing. The most successful of these involved contracting R&D to industrial partners, while the Wisconsin audit and tracer gas were promoted by "key decision-makers." In the future, OBCS should consider licensing as a technology transfer strategy when R&D results are proprietary. Where the nature of R&D is proprietary, dealing with a unified entity such as contracting R&D to industry or an industrial consortium seems appropriate. On the other hand, in cases where property rights are hard to define, as with software, influential key decision-makers may be more effective (Fig. 6.7).