

situation when the NAHB license with AIM, Inc., expires, to determine whether or not DOE should support this development work.

The Wisconsin audit's high cost to potential users is inhibiting its diffusion. DOE should enhance the current audit by including the analysis of cooling measures and then make the audit available at a less expensive price, perhaps through a carefully designed licensing strategy.

## **7.2 LESSONS LEARNED FOR FUTURE DOE TECHNOLOGY TRANSFER ACTIVITIES**

Of the six generic technology transfer strategies available to OBCS, one dominates as a route to successful commercialization, based on our small sample of case studies. Contracting R&D to industrial partners was by far the most commonly used strategy among the fully-commercialized innovations studied here. A common sequence of events (illustrated by the heat pump water heater, the supermarket refrigeration compressor system, low-E windows, and the solid-state ballast) is for a national laboratory to issue a Request for Proposals for prototype development in hope of attracting a major manufacturer who will cost share. Only small manufacturers (or small research firms with minimal manufacturing capabilities) respond. Through a subcontracting arrangement to the national laboratory, the selected small company is supported (with some cost-sharing) to develop a prototype. The national laboratory evaluates the prototype and either the laboratory or the small firm completes a market study. Field tests and demonstrations are conducted jointly by the laboratory and the small firm.

At this point the DOE involvement typically ends. The small firm that developed the prototype begins commercial production. After a few years, the innovation is then added to the product line of one or more major