

## 7. CONCLUSIONS AND RECOMMENDATIONS

### 7.1 THE FUTURE DOE ROLE VIS-A-VIS THE TWELVE INNOVATIONS

The 12 innovations studied in this report vary markedly in terms of the potential future role for DOE. In several instances, the private sector is well on its way to successfully commercializing the innovations, and while DOE might address several minor market imperfections, no major public effort is necessary. Such is the case for the flame retention head oil burner, the supermarket refrigeration compressor system, low-E windows, solid-state ballasts, dielectric coatings, DOE-2, and CIRA. Current market shares for these innovations are either significant or growing rapidly and there are no major technical or market-related problems to be resolved (Table 7.1). The future DOE role in these instances can be narrowly and specifically defined.

**Table 7.1. Summary of market penetration and energy savings for selected case study innovations<sup>a</sup>**

Innovation	Market share of new units in 1987 (%)	Cumulative energy saved by the year 2000 (in Quads)
Flame Retention Head Oil Burner	100 <sup>b</sup>	1.4
Supermarket Refrigeration Compressor System	54	n.a.
Low-E Windows	20	0.1
Solid-State Ballasts	3	0.5
Heat Pump Water Heater	less than 1	n.a.
Radiant Barriers	less than 1	n.a.

<sup>a</sup>"n.a." indicates that energy savings estimates are not available.

<sup>b</sup>100% of the residential market. Market penetration in the commercial sector is much smaller.