CHAPTER 11. CUSTOMER SUBGROUP ANALYSIS

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11.1 INTRODUCTION

The customer subgroup analysis evaluates impacts on identifiable groups of customers who may be disproportionately affected by a national energy efficiency standard. The U.S. Department of Energy (DOE) conducts the customer subgroup analysis in preparation for the notice of proposed rulemaking. DOE will conduct this analysis, in part, by analyzing the life-cycle cost (LCC) and payback periods (PBPs) for customers who fall into an identifiable group. DOE plans to evaluate variations in energy use and energy prices and use that might affect the net present value of a standard to customer subpopulations. To the extent possible, DOE will obtain estimates of the variability of each LCC and PBP input parameter and will consider that variability in calculating customer impacts. DOE plans to perform sensitivity analyses to consider how differences in energy use will affect subgroups of customers.

DOE will determine effects on customer subgroups using the LCC spreadsheet model, which allows for different data inputs. The standard LCC analysis (described in Chapter 8 of the Technical Support Document) focuses on various types of electric motors and the customers or users of those motors. DOE uses the spreadsheet model to analyze the LCC for any subgroup of customer-type by sampling only that subgroup. In the case of medium electric motors, some of the subgroups DOE may choose to consider are small businesses or firms that use covered motors in particular applications where energy savings are likely to be small.

11.2 IMPACTS OF PURCHASE PRICE

DOE is especially sensitive to increases in product purchase prices related to new standards. DOE wishes to avoid negative impacts on identifiable population groups that may be unable to afford significant increases in equipment price. Because increases in first costs of equipment can preclude the purchase of a new model, some customers may retain equipment past their useful life. Older equipment is generally less efficient to begin with, and the efficiency of such equipment may deteriorate further if it is retained beyond its useful life. Increases in first cost also can preclude the purchase of new equipment altogether, resulting in a potentially large loss of utility to the customer.