

Development of Specific National Energy Benchmark Model for Sri Lankan Apparel Industries

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The development of specific national energy benchmark model for apparel industries is a fundamental requirement for efficient assessment and monitoring of energy consumption of the Sri Lankan apparel sector. Thus, this model could be used as a base for the energy labelling and energy star programs, which would be implemented for the apparel sector in the near future. In the context of this study focuses on analysing the energy consumption data of significant number of reference apparel industries have been analysed in order to construct a relationship between the energy consumption and the significant factors, which would affect to the final energy consumption. The total energy consumption of the apparel sector does not only depend on its total production (output) and/or operating hours, but also several other factors such as age of the building or factory, the outside weather conditions, number of floors, occupants' behaviour, general maintenance, etc. The mostly used simple benchmarking method, which is normalized by means of the total production and/or operating hours, is not adequate in the process of effective recognition of the energy efficient apparel industries. Hence, the regression model developed with the above explanatory factors is necessary for identifying the energy performance. The final model developed with the above explanatory factors facilitates to determine whether an apparel industry uses energy more efficiently than other similar industries. And also the model could be used to encourage the poor energy performers in the apparel sector to improve their efficiency.

Keywords: Energy benchmark, Energy efficiency, Apparel industry