

Bilkent University

ENG 401

Technical Report Writing and Presentation

A Report to to Investigate and Produce Solutions to the Electricity

Waste in Bilkent Dormitory 78

Technical Report

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Abstract

The aim of this project is to provide solutions to the electricity waste in Bilkent University Dormitory 78. To this end, three root causes were identified as the source of the problem and three corresponding solutions were developed to address these causes. These solutions were then further assessed with respect to a set of criteria. Interviews were conducted and calculations were made to properly evaluate the solutions. Of the three solutions, two of them were found appropriate to be integrated into the dormitory building based on the criteria. The most convenient solution was replacing the fluorescent lights inside the building with energy efficient LED lightbulbs. The second-best solution was integrating sensors into the lighting fixtures inside the dormitory building. The last and least fitting solutions was the optimization and rearrangement of the lighting fixtures in the building. A plan of action was devised consisting of the combination of the first two solutions: installing LED lightbulbs and implementing sensors into the lighting fixtures.

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