

The Modified WBS Based on LEED Rating System in Decreasing Energy Consumption and Cost of Buildings

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Abstract : In compliance with the Statistical Centre of Iran (SCI)'s results, construction and housing section in Iran is consuming 40% of energy, which is 5 times more than the world average consumption. By considering the climate in Iran, the solutions in terms of design, construction and exploitation of the buildings by utilizing the LEED rating system (LRS) is presented, regarding to the reasons for the high levels of energy consumption during construction and housing in Iran. As a solution, innovative Work Break Structure (WBS) in accordance with LRS and Iranian construction's methods is unveiled in this research. Also, by amending laws pertaining to the construction in Iran, the huge amount of energy and cost can be saved. Furthermore, with a scale-up of these results to the scale of big cities such as Tehran (one of the largest metropolitan areas in the middle east) in which the license to build more than two hundred and fifty units each day is issued, the amount of energy and cost that can be saved is estimated.

Keywords : costs reduction, energy statistics, leed rating system (LRS), work brake structure (WBS)

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