

Sustainable Energy Supply in Social Housing

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Abstract : The final energy use can be divided mainly in four sectors: commercial, industrial, residential, and transportation. The trend in final energy consumption by sector plays as a most straightforward way to provide a wide indication of progress for reducing energy consumption and associated environmental impacts by different end use sectors. According to statistics the average share of end use energy for residential sector in the world was nearly 20% until 2011, in Germany a higher proportion is between 25% and 30%. However, it remains less studied than energy use in other three sectors as well its impacts on climate and environment. The reason for this involves a wide range of fields, including the diversity of residential construction like different housing building design and materials, living or energy using behavioral patterns, climatic condition and variation as well other social obstacles, market trend potential and financial support from government. This paper presents an extensive and in-depth analysis of the manner by which projects researched and operated by authors in the fields of energy efficiency primarily from the perspectives of both technical potential and initiative energy saving consciousness in the residential sectors especially in social housing buildings.

Keywords : energy efficiency, renewable energy, retro-commissioning, social housing, sustainability

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