

Home Owner Focused Investment Analysis Tool for Energy Refurbishment

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Abstract : Despite strong efforts by the German government to make a transition to higher quality level of building stocks, the rate of renovation continues to remain below the proclaimed level of 2%. As the mandatory standards for residential retrofits are well-balanced in such a way that strict adherence to them guarantees profit from the investment, it becomes difficult to explain the reasons why there are so many people hesitant with their investments. Risks and transaction costs can be understood as socio-technical boundaries and have to be taken into consideration to be able to understand why a worthwhile investment is postponed or rejected. This paper therefore presents a method for investment analyses that is focused on such socio-technical constraints, which helps to reveal the strongest misconceptions of home owners. By depicting sensitivities and risk factors in an integrated and impartial way, such a tool can be utilized by home owners to address reservations and misunderstandings. In the end, this leads to an exploitation of smaller energy efficiency measures that makes up a big demand reduction in the residential sector altogether.

Keywords : energy refurbishment, investment analysis, residential buildings, risk-aware investment strategy

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