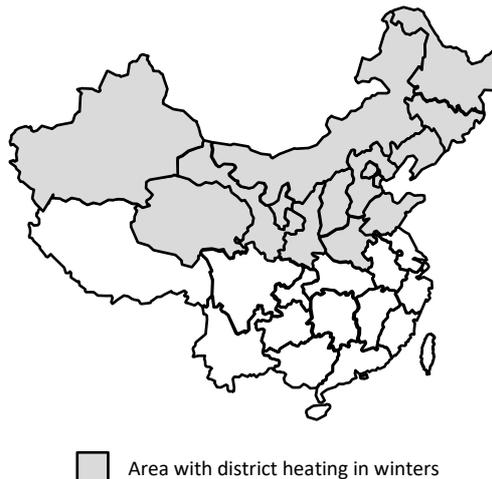


## Homeowners' participation in energy efficiency renovation in China's Northern heating region

**Keywords:** Building energy efficiency, Energy efficiency renovation, Behavioral factors, Decision-making

### OTB Department / Housing Quality and Process Innovation

**Area of Research:** Energy efficiency renovation of residential buildings



■ Area with district heating in winters

**Research Summary:** This research attempt to investigate homeowner's participation in government-led energy efficiency renovation of residential buildings in north China, where one of the most significant energy saving potential comes from floor heating in winters. Due to features of housing type and property rights, the governance of China's housing renovation has been acted up to a top-down model, and homeowners have been playing a relatively passive role. Meanwhile, their participation is critical to the depth and scale of renovation, because construction work can only be executed smoothly with their cooperation. Faced with the urgent renovation target, there is a growing demand for the government to encourage homeowners to contribute to the renovation, by cooperating with the government as well as making investments in the government-led projects. This study attempt to investigate homeowners' participation in renovation projects. Through a comprehensive understanding of the current nature, policy suggestions will be proposed to make a positive shift on homeowner's behavior in energy efficiency renovation.

**Research Methodology:** In order to get an overview of current status quo, relevant stakeholders and practitioners will be interviewed to collect their experiences of homeowner-related steps in renovation projects and opinions towards the process. Through questionnaire survey, this study will investigate reasons for homeowners to opt in or out for the renovation. Determinants of homeowners' decision-making will also be navigated from the questionnaire survey. Based on the findings of empirical study, suggestions of potential interventions will be proposed.

**Key Publications:** Ma, J., Qian, Q.K., Song, K., Visscher, H., 2017, Reluctance to Adopt Energy Efficiency Renovation in Chinese Households—A Behavioral Perspective, 40st IAEE International Conference, Singapore, 2017.



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**Main Question:**

How to improve homeowners' participation in government-led residential energy efficiency renovation in China's northern heating region?

**Deliverables:**

A comprehensive understanding of homeowner's participation and decision-making in government-led energy efficiency renovation in the north China, and several suggestions of potential interventions to improve the process and encourage homeowners' cooperation.

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