

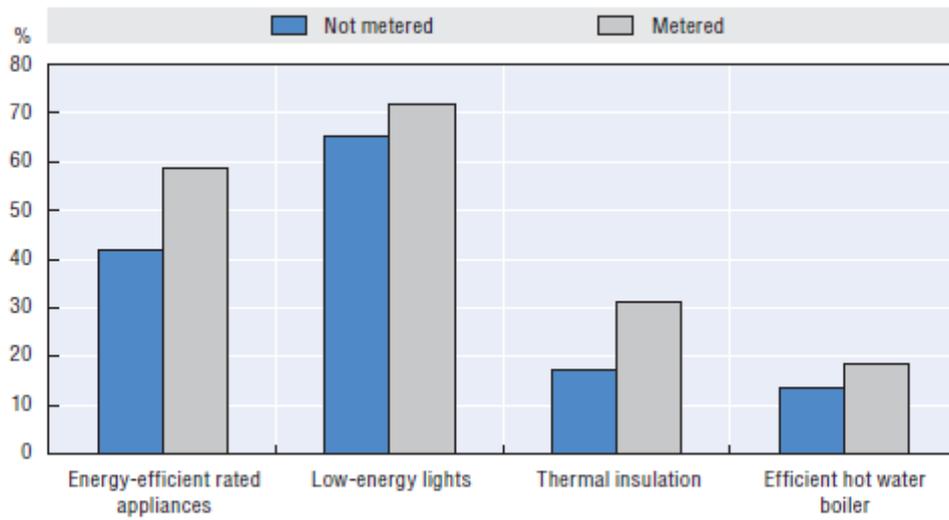
Residential Energy Use

Growing world energy demand, including from the residential sector, is putting increasing pressure on the environment and is key to addressing climate change. This book looks at the effect of measures available to policy makers to promote energy efficiency and the use of renewable energy. These range from economic incentives, such as energy taxation or grants for investment in solar panels, to energy efficiency labelling and communication campaigns. The main factors influencing energy-saving behaviour at home and affecting investments in energy-efficiency equipments are analysed, with particular attention paid to the role of energy pricing. The role of respondents' level of environmental concern is considered. The publication also examines the determinants of demand for renewable energy and how much more households are willing to pay to use renewable energy.

Drawing upon observations from over 10 000 households in ten OECD countries, analysis of the survey results provides insights into key issues including:

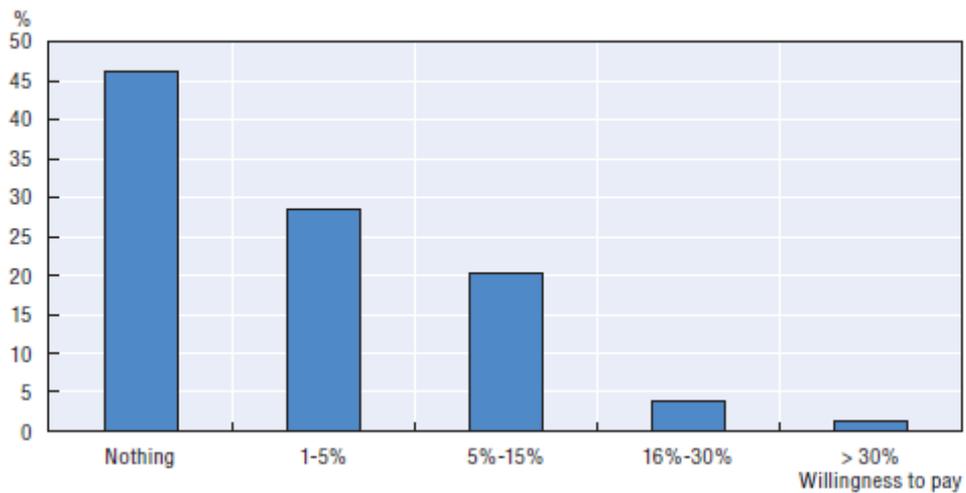
- *Main factors influencing energy-saving behaviour at home.* Results confirm the impact of economic incentives on household behaviour. Respondents who are charged for the energy they use are more likely to undertake energy saving activities such as turning off lights. Being concerned with environmental issues also appears to have a positive effect, highlighting the significant role of information tools.
- *Main factors affecting investments in energy-efficiency equipments.* Energy metering is also found to induce more frequent investment in energy-saving equipment. Stated concern for the environment also increases the likelihood of making such investment. In addition, results show that homeowners are more likely than tenants to invest in thermal insulation and energy-efficient appliances as well as low-energy lighting.
- *Main factors motivating demand for renewable energy.* The survey results indicate that general attitude towards the environment (environmental awareness, membership of environmental organisations, etc.) strongly influences demand for renewable energy. However, the results confirm the finding from previous studies that households are not willing to pay much to use renewable energy. While there is significant variation across countries, in general respondents display a price premium of less than 5% of their bill.

Figure 3.7. Investing in energy-saving equipment: Impact of metering



Source: OECD Project on Household Behaviour and Environmental Policy.

Figure 3.15. Willingness-to-pay for renewable energy



Source: *Greening Household Behaviour: The Role of Public Policy* (OECD, 2011)