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:能源消费特征研究

Urban Household Energy Consumption Structure in China

投稿时间: 2012-09-12

DOI.

中文关键词: 城市化 住宅能源 能源消费结构 模型研究

English Keywords:urbanization household energy consumption energy consumption structure model study

基金项目:教育部回国留学人员科学研究资助专项

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中文摘要:

通过对我国城市住宅能源消费情况的定量研究发现,自1995-2010年,我国城市住宅的能源消费量从1936.72PJ上升至3742.68PJ;能源结构也发生了较大变化:固体能源比重逐年降低,从45.6%下降到9.8%,电力和气体能源比重快速上升,其中电力由10.7%上升到28.7%,气体能源由3.9%上升到23.5%。构建城市住宅能源消费结构的数值分析模型,对我国城市住宅能源消费结构及能源消费效率进行了研究,在1995-2010年间,我国城市住宅能源消费结构发生了较大变化,1995年的能源消费结构中,厨房. 热水占66%,采暖占26%,制冷占1%,照明占2%,家用电器占6%;2010年的能源消费结构中,厨房. 热水占56%,采暖占25%,制冷占6%,照明占3%,家用电器占10%。1995-2010年,我国城市住宅有效能源消费量大幅增长,从878.64 PJ增至2 445.19 PJ,住宅能源利用效率提高明显,从45%上升至65%。

English Summary:

The results of quantitative studies of China's urban household energy consumption showed that China's household energy consumption rose from 936.72PJ to 3 742.68PJ in 1995-2010, and the energy consumption structure has also undergone a great change: the proportion of solid energy decreased from 45.6% to 9.8%, the percentage of electricity and gas energy increased rapidly, the percentage of electricity rose from 10.7% to 28.7%, the percentage of gas energy rose from 3.9% to 23.5%. A numerical analysis model of urban household energy consumption structure was devolved to study China's urban household energy consumption structure and energy consumption efficiency, and the results showed: during 1995 and 2010, China's urban household energy consumption structure in 1995, cooking & hot water supply took a proportion of 66%, space heating took a proportion of 25%, space cooling took a proportion of 1%, lighting took a proportion of 66%; in the energy consumption structure in 2010, cooking & hot water supply took a proportion of 56%, space heating took a proportion of 25%, space cooling took a proportion of 66%, in the energy consumption of 3%, and appliances accounted for 10%. The effective energy consumption of China's urban household sector increased from 874.64 PJ to 2 445.19PJ, and the energy consumption efficiency rose from 45% to 65% in 1995-2010.

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