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Economic Analysis of Policy Instruments for Energy Efficiency

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Abstract : Energy efficiency improvement is one of the means to reduce energy consumption and carbon emissions. Recently, some developed countries have implemented the tradable white certificate scheme (TWC) as a new policy instrument based on market approach to support energy efficiency improvements. The major focus of this paper is to compare the White Certificates (TWC) scheme as an innovative policy instrument for energy efficiency improvement to other policy instruments: energy taxes and regulations setting a minimum level of energy efficiency. On the basis of our theoretical discussion and numerical simulation, we show that the white certificates system is the most interesting policy instrument for saving energy because it generates the most important level of energy savings and the least increase in energy service price.

Keywords: energy savings, energy efficiency, energy policy, white certificates

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