System analysis on the policy issue of the heating industry using biomass solid densified fuel in China

S. Song¹, J. Xu², S. Lv³, M. He¹, P. Liu¹, L. Ma⁴, W. Ni¹, C. Chong⁵

¹Tsinghua University, China
²Jinan Vocational College, China
³Jinan University, China
⁴Tsinghua BP Clean Energy Research and Education Center, China
⁵Tsinghua university, China

Abstract

The problem of industrial organization and management is one of the main challenges for China to realize a rapid development of biomass solid densified fuel (BSDF) for heating following the targets of the 13th Five-Year-Plan. This manuscript developed a framework of system analysis, including the analysis on decision-making, execution, operation, market and information interactions, to identify key barriers existed in the organization and management of this industry and put forwards policy suggestions. The results present that China has already built an integrated organization and management system of this industry, and the key barriers include the contradiction between industry development and air pollution control, the weak economic competitiveness and the huge delay of information and feedback between the top decision-making and executive levels and the bottom engineering system level in the market. The main policy implications are that Chinese governments need to clearly define BSDF as a clean fuel or not, to enhance the financial support of BSDF for heating and to enhance market investigation by decision-making and executive levels.