What is the future potential for imports of combustible municipal waste to countries with extensive district heating networks? - A case study of Denmark

In Europe landfilling is the most widely used method for managing municipal solid waste. By contrast, the northern European waste market is characterized by high capacities from energy recovery plants, mostly incineration in cogeneration facilities. In Denmark, there is an overcapacity of incineration plants and this study aims to analyse if import of waste is beneficial during an interim period to divert landfilling or if it might be profitable to invest in overcapacity in the long-term in those countries where heat from incineration can be recovered. The energy and waste management system are described through linking of mathematical models, taking a holistic approach. In the short-term it pays off to import waste, avoiding landfilling; however, in the longer-term, benefits from waste trading will depend on the price of heat markets.