

Optimal Diffusion of Green Technology with Market Power

Abstract

The government or regulator incentivizes the green technology diffusion process by market pull policies with the intent of internalizing the positive externality generated by green goods. Consumers make their adoption decision of the green technology based on adoption cost and realized utility. There is vast literature on other unpriced social factors that can also affect the consumers' adoption decision. However, market structure also has a crucial implication on the diffusion of green technology. The policymaker's intent is to maximize social welfare from the new green technology irrespective of the market structure. This paper examines the social outcome in this setting, by accounting for both the pollution externality and market power, first in a simple model without any policy intervention, and then with policy intervention.