

Do costs fall faster than revenues? Renewable electricity subsidies.dynamics

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Abstract

Two conflicting force affect the evolution of subsidies to renewable electricity producers. Learning by doing and economies of scale reduce the cost of deploying renewable technologies, that constitutes the main justification for subsidies. However, the value of the electricity produced by renewables falls as more renewables are installed. As the level of renewables increases, this second effect dominates. This article develops a dynamic model of an electricity market that captures this trade-off. The model is tested on the case of Great Britain, which is committing to an ambitious program to subsidize wind generation.

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