Gone with the wind: an empirical analysis of the renewable energy rent transfer

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Matti Liski and Iivo Vehviläinen

Abstract Subsidies to renewable energy are costly and contentious. We estimate the reduction in prices that follows from the subsidized entry of wind power in the Nordic electricity market. A relatively small-scale entry of renewables leads to a large-scale transfer of surplus from the incumbent producers to the consumers: 10% market share for wind generation eliminates one-half of the total electricity market expenditures. The subsidies generate net gains to consumers. We develop an approach to analyzing storage and renewable energy in equilibrium, and provide an anatomy of a market dominated by such technologies.

Keywords Electricity, renewables, storage, climate policies

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Contact matti.liski@aalto.fi
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