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Claire GAVARD | ZEW – Leibniz Centre for European Economic Research

Local economic impacts of wind power deployment in Denmark

Authors: Claire Gavard and Jonas Göbel

ABSTRACT

In order to support economic recovery in a context of ambitious climate and environment targets, the argument of a potentially positive effect of renewable energy on growth is often used. However such technologies also face oppositions, in particular at the local level with the so-called "not-in-my-backyard syndrome". We analyse the local economic impacts of wind power development in Denmark. We construct a municipal level panel dataset covering wind turbines installed in Denmark between 1993 and 2006, the time period with the largest expansion. As independent variable representing the connection of new turbines to the grid, we use the electricity revenues from them. We employ a first-difference approach to assess the effect on personal income, the budget of municipalities and sectoral employment. We find the addition of new turbines in a municipality is reflected by a rise in entrepreneurial income, explained by the fact that two-third of turbine owners were individuals. This is also associated with an increase in the local municipal budget. However aggregate employment is not impacted as employment increase in some sectors is compensated by the reduction in others.