Abstract

For households, taxing carbon raises the cost of the energy they use to heat their home and to travel. This paper studies the distributional impacts of the recently introduced French carbon tax and the design of compensation measures. Using a microsimulation model built on a representative sample of the French population from 2012, I simulate for each household the taxes levied on its consumption of energy for housing and transport. Without recycling, the carbon tax is regressive and increases fuel poverty. However, I show how compensation measures can offset these impacts. A flat cash transfer offsets tax regressivity by redistributing <60% of households' contribution. This result falls to 17% when the transfer is targeted at low-income households. Furthermore, I find that targeting the cash transfer reduces fuel poverty by up to 50% below its pre-tax level with a 30.50€/tCO2 carbon tax. These results demonstrate compensating households is achievable at reasonable cost relative to carbon tax revenues. Carbon taxation even constitutes an opportunity to finance ambitious policies to fight fuel poverty.