

US housing policies increase carbon output, research finds

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Land use policies and preferential tax treatment for housing – in the form of federal income tax deductions for mortgage interest and property taxes – have increased carbon emissions in the United States by about 2.7 percent, almost 6 percent annually in new home construction, according to a new Georgia State University study.

Economist Kyle Mangum, an assistant professor in the Andrew Young School of Policy Studies, measures the effect of various housing policies on energy use and carbon output in "The Global Effects of Housing Policy," which he recently presented at the IEB III Workshop on Urban Economics in Barcelona.

Mangum's empirical study uses data on local construction activity, housing consumption and density, labor and materials cost, and local populations and incomes for the nation's 50 largest metro areas, ranking them by annual carbon output per person.

Policies that affect the amount of housing consumed per capita and housing density are the two major drivers of carbon savings, he finds.

"Larger homes consume more energy," Mangum said. "Lower density home sites increase gasoline use. Also, many 'easy-building' Sun Belt regions that have attracted more new home building are higher energy-use locations."

His research suggests removing federal tax subsidies for housing and

updating land use regulations to encourage higher density in higher energy-use locations would lower the country's overall energy use, reducing its [carbon emissions](#).

"I find that the federal tax treatment of housing has added a nontrivial amount of carbon output by increasing [housing](#) consumption," he said. "Also, imposing stricter land use regulations in high carbon output cities would decrease the nation's overall amount of carbon output by approximately 2.2 percent – about 4.5 percent in new construction – primarily by decreasing the amount of house used per person and then by encouraging movement to more efficient low-carbon cities."

More information: Download a copy of Mangum's working paper at www.ieb.ub.edu/files/PapersWSUE2014/Mangum.pdf

Provided by Georgia State University

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