



Climate-Friendly Housing Production Strategies Executive Summary

Oregon communities are working to increase housing options that address shortages and reduce greenhouse gas pollution. Many policies on housing, land use, and urban form support both outcomes.

This study from the Department of Land Conservation and Development summarizes research about the relationship between housing attributes (land use patterns, design, and building components) and greenhouse gas pollution to help cities use the updated Housing Production Strategy (HPS) menu of tools, actions, and policies. It focuses on the factors that affect pollution from housing production, primarily the type of housing (detached or attached), the size of housing, the distance to destinations, and the presence of diverse modes of transportation (walking, biking, and transit). It also focuses on adaptive reuse of buildings to produce additional housing.

This study found three key concepts that will help cities select Housing Production Strategy actions to increase housing and reduce greenhouse gas pollution:



Infill development offers the greatest benefits.

The greatest reduction in climate pollution comes from increasing housing in areas that already have dense housing, diverse uses, good active transportation networks, and good access to daily needs. Supporting infill development will reduce pollution.



Neighborhoods with diverse transportation options are key.

Neighborhoods with higher density, diverse uses, good active transportation—improve the potential for reducing climate pollution. Density and small housing in auto-oriented neighborhoods far from most destinations does little to reduce transportation-related greenhouse gas pollution.



Smaller, attached housing reduces climate pollution.

Compared to large, detached homes, smaller attached homes consume much less energy and are built with less material per unit. These benefits increase when housing is attached and are highest for apartment buildings with five or more units. Policies that encourage or incentivize smaller, attached housing—particularly when located in areas that reduce car dependence—reliably and measurably reduce pollution from the residential sector.