

Beyond Kyoto: Why Climate Policy Needs to Adopt the 20-Year Impact of Methane

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Current accounting protocols for greenhouse gas emissions fail to address the short-term risks and opportunities of methane (CH₄) emissions. To achieve the immediate, substantial greenhouse gas reductions that must occur within the next 10-15 years, not over the next century, we need to revise our analytical tools and adopt the 20-year time horizon for assessing global warming potential. Correcting the time horizon—a policy, not scientific decision—launches methane abatement from a climate afterthought to an essential first step forward, and recognizes landfill methane emissions as a source equivalent to 20% of U.S. coal-fired power plants.

The largest source of human-caused methane in the U.S. is landfills. Landfill methane results from the anaerobic decomposition of organic materials underground and can be completely prevented by keeping these materials out of the landfill through recycling and composting. These policies have been pursued across the European Union and in parts of Canada for more than a decade. On the national and local level, policymakers should prioritize programs that keep organic materials out of landfills and incinerators as a critical first step in immediately curbing greenhouse gas emissions in order to avoid potentially abrupt and dangerous implications of climate change.

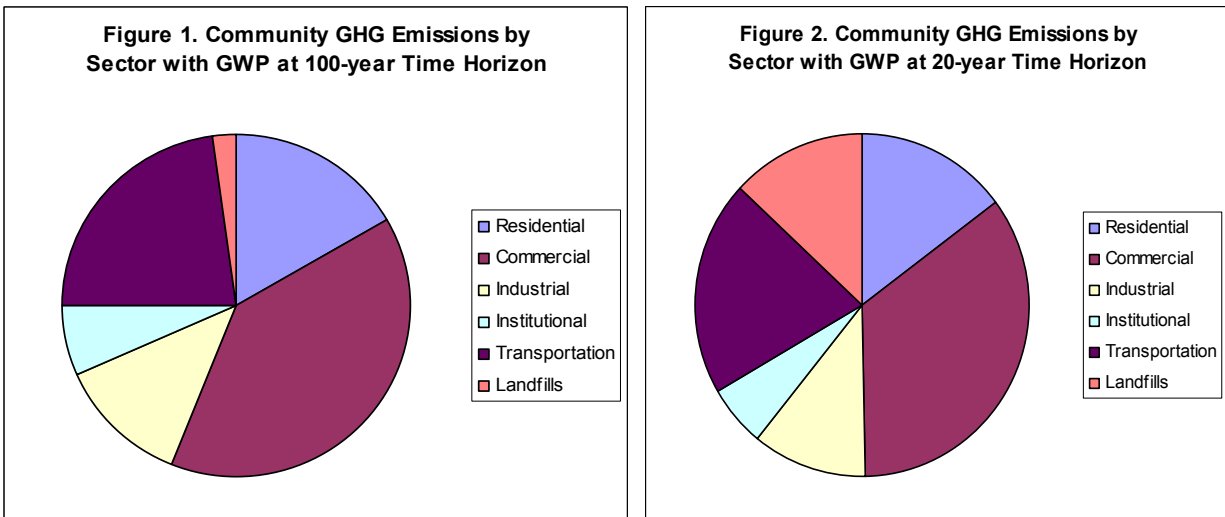


Figure 1. Illustrates the greenhouse gas breakdown by sector for an example community based on the 100-year time horizon for global warming potential (GWP) values.

Figure 2. Recalculates the emissions using the 20-year time horizon for GWP. As shown, the contribution of landfills to total community greenhouse gas emissions increases substantially when considered over the 20-year period. At this magnitude, landfill emissions are on par with emissions from the residential and industrial sectors and may warrant increased attention from community planners looking to decrease overall climate impacts, particularly over the short term.