

## Aspen Daily News

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### Study: Living fat is (greenhouse) gassy

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A large home currently under construction on Red Mountain dwarfs another house on the slope below. A recent study found that vacant vacation homes contribute more to Aspen's greenhouse gas emissions than homes occupied year round.

recent study on vacation homes in Aspen has found that they are responsible for the majority of residential energy emissions, even though they are unoccupied much of the time.

The study, entitled "Anybody Home?" found that 61 percent of Aspen's residential emissions come from vacation homes, which the study estimated were unoccupied 277 days per year. And because they're often larger and have more energy-intensive features like heated driveways and hot tubs, vacation homes emit 606 pounds of carbon dioxide and other gases per day, compared to the 144 pounds daily from resident-occupied homes, according to the study.

The Sopris Foundation, a local nonprofit, commissioned the study through local consultant Rick Heede's firm Climate Mitigation Services. The genesis of the idea, said the Sopris Foundation's Piper Foster, was the "concern over loss of community" because of the lack of affordable housing that's been the at the center of much of the local debate.

That led the Sopris Foundation to wonder how much of Aspen is owned by part-time homeowners and, since "this is a community that is aware of energy use," it was only natural to follow up with an analysis of residential emissions. The Sopris Foundation's mission includes livability and maintaining intact communities in the West.

By combing through records from the Pitkin County Assessor's Office, the study determined that there are 5,858 residential units totaling 12.9 million square feet within Aspen's urban growth boundary, which includes the city of Aspen proper plus residential areas nearby like Red Mountain, Mountain Valley, Highlands, Buttermilk, McLain Flats Road, Starwood and around the airport. The study found that 58 percent are secondary homes, 20 percent are employee housing and 20 percent are free-market homes occupied by year-round resident. According to Foster, 150 houses in the Aspen area occupy more than 10,000 square feet.

Aspen residential carbon emissions totaled 149,440 tons in 2004, according to Heede's study for Aspen's Canary Initiative, and account for 18 percent of Aspen's total emissions. An average primary home emits just under 24 tons of greenhouse gases per year, while the average vacation home emits 26 tons, according to the Sopris Foundation report. The disparity is larger with single-family homes – primary homes average 32 tons per year of emissions, while secondary single-family homes emit 44 tons – or 197 pounds versus 993

pounds per day. The conclusion, which startled Heede, is that Aspen's vacation residences emit 12 percent more CO<sub>2</sub> per year than resident-occupied homes, and there's a 35 percent differential between Aspen's primary and secondary single-family homes.

That's because many of the features in luxury homes – like entertainment systems and cigar humidors – are "just clicking along" when homeowners aren't there. Indoor heat, lights and heated driveways are kept at the same levels all the time in order to create a welcoming feel when the homeowners come. And because energy usage is naturally higher when people are in residence, that level of energy use during vacation may negate any savings when nobody is home.

As to what the Sopris Foundation is going to do with this information, "the first thing is to raise awareness because we feel this is the elephant in the room," said Foster. "So many people here are second-home owners and they're important in the community, but the second-home lifestyle needs to be looked at more critically. The purpose is not to vilify second-home owners."

The organization plans to present a final, refined report to valley governments and ask them to draft a policy that "reflects the energy intention of the area," said Foster.

Heede said there's not only a "clear opportunity" to reduce energy use in unoccupied homes – whether they belong to full-time or part-time residents – but that it often doesn't cost anything or saves the homeowner money in a short period of time. Turning down the heat from 60 to 55 degrees, for example, makes a big difference in a 10,000-square-foot home.

"We're just trying to reduce energy use," said Heede, adding that virtually every home in Aspen can be improved, but some more than others.

Halving emissions in unoccupied homes would save 33,600 tons of carbon from spewing into the atmosphere, which equals half of a coal car every day.

But while green technology and some level of common sense can reduce a homeowner's greenhouse gas emissions, some of the impact is directly related to a home's size. Heede's study found that condos in Aspen emit 15 tons of CO<sub>2</sub> per year, while duplexes and triplexes emit 30 tons and single-family homes, 44 tons.

Foster said she is hopeful things can change, given the technology and knowledge that is out there, and conversations with second-home owners who are truly interested in reducing their impact.

But, "we need to change the aesthetic from these gross monstrosities to a more livable scale," she said. "How green can you be at more than 2,000 square feet?"

Heede said that unoccupied vacation homes are just one area where Aspen can improve on its energy use.

"We should tackle every opportunity to reduce energy, whether primary secondary, commuting, hotels, restaurants ... ," he said. "We need to pull out all the stops."

Through its Canary Initiative, the city of Aspen has committed to reducing emissions to 30 percent below 2004 levels by the year 2020.

Asked if that's reasonable, given all the study of the Aspen area's energy issues he has done, Heede said, "I think it's going to be very tough and take some concerted effort by the business community, absentee owners and locals, and will take better transport solutions to reduce the need for commuting 20, 30, 50 miles to Aspen. I think we need to continue to focus on housing local workers here. We have a long way to go."

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