

# ADDISON COUNTY INDEPENDENT

Vol. 76 No. 49

Middlebury, Vermont ♦ Thursday, December 8, 2022 ♦ 42 Pages

\$1.50

## Local greenhouse gas emissions going up

Agriculture, heating are major sources of CO2

By **MARIN HOWELL**  
ADDISON COUNTY — Addison County is not making measurable progress in reducing its greenhouse gas emissions and now faces a tougher task in meeting local reduction goals by 2030 — according to a study published last month by the Climate Economy Action Center of Addison County,

or CEAC. The study, conducted largely by CEAC board member Richard Hopkins and Middlebury College junior **Duncan Kreps**, looks at the county's emissions of carbon dioxide (CO2), methane and nitrous oxide for 2020. They found that during that year, Addison County's GHG (greenhouse gas)

emissions rose to 694,000 tons of CO2-equivalent, an increase from 672,000 tons in 2017. "The big picture is that we're actually up 3% from our estimated GHG emissions from 2017 to 2020. I was hoping we'd be down 3%, or 5%, or at least be flat. But we're actually up a little bit and meanwhile, the planet is burning up," Hopkins said during a Nov. 30 presentation of the inventory, held

at Middlebury College. CEAC, a nonprofit organization working to promote a healthy local economy while achieving reductions in greenhouse gas emissions, published its first gas inventory in 2017. The resource is intended to address a lack of information on local emissions and to use in measuring the progress of local emissions reduction efforts. (See *Emissions*, Page 15A)

## County's nursing home eyed for big renovations

By **JOHN FLOWERS**  
MIDDLEBURY — Helen Porter Rehabilitation & Nursing next year will undergo an estimated \$4.5 million in exterior and interior renovations aimed at making the facility safer, more functional and more aesthetically pleasing to those

who reside, receive treatment and visit there. "Care has evolved, but the facility hasn't," Porter Medical Center President/COO Tom Thompson said of Helen Porter, which opened three decades ago. Project design and financing (See *Renovations*, Page 9A)

### Emissions

(Continued from Page 1A)  
"We intend that the analyses presented here will help motivate, direct and support necessary change in our county," Hopkins and Kreps write in the report. "As this greenhouse gas inventory is repeated every two years going forward, we will increasingly be able to document where we have made progress and where we still have the most work to do."

To compile the inventory, Kreps and Hopkins largely followed the methods used to create Vermont's Greenhouse Gas Emissions Inventory and work done by the Vermont Climate Council. Their findings are based on original research and calculations as well as data collected from state agencies, utilities and local organizations. The GHG inventory for 2020 found that, like in 2017, the main sources of the county's greenhouse gas emissions were agriculture, building heat and transportation.

**AGRICULTURE**  
Agriculture accounted for more greenhouse gas emissions than any other individual sector in 2020. Farming is a major industry in Addison County and, as cited in the inventory, the county makes up 20% of the value of Vermont's agricultural activity.

The study found that agricultural, CO2-equivalent emissions in 2020 totaled 257,000 tons, slightly lower than 258,000 tons in 2017. The release of methane from animals' stomachs accounted for 68% of those emissions, with manure management (19%) and fertilizer use (13%) making up the rest. Hopkins and Kreps attributed this slight drop in agricultural emissions to fewer animals on farms and fewer acres farmed in 2020.

The report also included an estimate for soil sequestration of CO2-equivalent by Addison County farmlands in 2020, based

on the county's share of statewide sequestration totals estimated by the U.S. Environmental Protection Agency.

Carbon sequestration is a process through which CO2 is removed from the atmosphere and stored in the soil. Farming practices like cover-cropping achieve this sequestration. The amount of CO2-equivalent sequestered in Addison County soil dropped in 2020, down to just over 14,000 tons from around 20,000 tons in 2017.

**BUILDING HEAT**  
Heating buildings accounted for the second-highest amount of the county's GHG emissions in 2020. This category tallies emissions from the use of natural gas, wood and delivered fuels like propane and fuel oil. These fuels are commonly used to heat buildings, but some are also used for industrial purposes. GHG emissions from fossil fuels and wood used to heat homes rose in 2020. The inventory notes that the majority of the natural gas distributed in Addison County is used by commercial and industrial producers, though the pool of residential customers has grown since 2017. The study found that despite installations of natural gas hookups and of heat pumps, the amounts of CO2 released by burning fuel oil, propane and kerosene were 9.7% higher in 2020 than in 2017.

Emissions from burning wood also rose, due to increases in wood use from pellets and cordwood. Hopkins and Kreps attribute this increase to more people staying home in 2020, due to COVID-19 restrictions.

**TRANSPORTATION**  
Pandemic restrictions also meant Addison County residents drove less in 2020. The study found that vehicle-miles driven in the county dropped by 74 million that year, from 410 million in 2017 to 336 million in 2020. The average

fuel efficiency for the county's 20,000 vehicles also increased from 22.1 to 23.1 miles per gallon and the number of plug-in hybrid and electric vehicles registered in Addison County more than doubled from 114 (69 hybrid and 45 electric) in 2017 to 380 (170 hybrid, 210 electric) in 2020. As a result of less miles traveled and greater fuel efficiency, CO2 emissions from Addison County vehicles dropped 22.5% in 2020 from 2017 levels. Though, future greenhouse gas inventories will reflect whether that trend continued past 2020, after the COVID-19 restrictions are lifted.

"More people are working at home than used to, even today. So, there's maybe some residual effect but until we get the new data, we won't be able to say," Hopkins said.

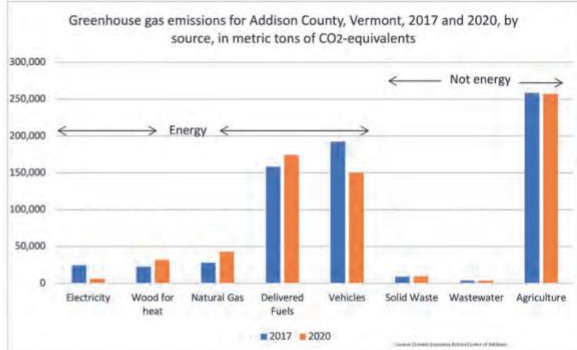
**MEETING LOCAL GOALS**  
Despite some perhaps positive shifts in the county's GHG emissions attributed to impacts of the pandemic, CEAC's inventory finds that Addison County is not moving in the right direction toward meeting its local GHG emission reduction goals.

In the Climate Action Plan for Addison County published earlier this year, CEAC set a goal for the county to reduce its GHG emissions by 50% below 2017 levels by 2030, based off the statewide climate reduction goals outlined in Vermont's Global Warming Solutions Act and Vermont's Climate Action plan. CEAC estimates that achieving that 50% reduction of GHG emissions by 2030 would fulfill Addison County's share of statewide reduction goals.

Hopkins and Kreps estimate that the county now needs to reduce its GHG emissions by 358,000 tons, nearly 45,000 tons per year, to reach that 2030 goal of 336,000 tons.

"If you only give yourself six

Addison Independent, Thursday, December 8, 2022 — PAGE 15A



years to achieve the same goal, then you've got to do more each year to get there. So, this is not particularly good news," Hopkins said. During a presentation on the new report last week, Hopkins and Kreps shared some of the things Addison County residents can do to start making more aggressive reductions in their GHG emissions.

"Thousands of people are going to make decisions in the next few years that will impact how much greenhouse gas we emit," Hopkins said. A lot of those decisions revolve around whether to continue investing in and relying on fossil-fuel equipment or to replace them with their electric equivalents when it's time, whether that be the car we drive or how we heat our homes. A transition away from fossil-fuel equipment should also be coupled with decarbonizing our electricity sources, according to the inventory.

"We at CEAC are not going to make decisions for people, what we hope we can do is change the environment in which people are making those decisions," Hopkins said. While individual decisions are important, Hopkins explained it's

also necessary for these efforts to be met by community organizations and government officials. "Town and city governments, school districts and public entities have an opportunity to lead by

example, by doing the right things with their buildings," he said. The CEAC's Greenhouse Gas Inventory for 2020 can be found online at [ceacac.org/ghg-emissions-data](http://ceacac.org/ghg-emissions-data).

## FIRE & ICE RESTAURANT

This holiday season...

### ENJOY YOUR FREE \$20.00 GIFT CERTIFICATE

when you purchase \$100.00 worth of Gift Certificates  
\*sale valid November 24 - December 24\*

Order online, call, or stop by to order yours!  
**802.388.7166**  
HOURS: WED-FRI 4-8PM, SAT & SUN 12-8PM

Certificates valid forever

26 SEYMOUR ST., MIDD., VT  
[FIREANDICERESTAURANT.COM](http://FIREANDICERESTAURANT.COM)