

Push toward carbon neutrality

BY KATHY HOOGEBOOM
Editor in Chief

“What would it take to make Calvin carbon neutral?”

Every year engineering professor Matt Heun poses such a one-sentence question to his Engineering 333 class, questions which will require the effort of the whole class for a full semester.

For this question, though, it took these engineers along with the biologists of professor Dave Warners' Biology 354 class.

Their main conclusion? “Achieving carbon neutrality is possible but quite a challenge,” says their report.

To come to this conclusion, the project carefully examined Calvin's existing carbon footprint and carbon sequestration possibilities, and then outlined detailed strategies for both fully offsetting Calvin's emissions and financing the whole process.

The first order of business was detailed accounting of Calvin's current standing. The classes broke the project into five sections inspired by Calvin's Statement on Sustainability: Energy Use and Purchasing, Land Use and Waste Management, Recycling and Solid Waste Management, Construction and Renovation, and Transportation.

Transportation and Energy Use dominated emission with a combined 95 percent, and they became the focus for strategies to cut down Calvin's emissions. The total emissions came to the equivalent of 66,400 metric tons of carbon dioxide emitted (MTCE) per year.

Of course, numbers are not very meaningful without comparison. So, the total sequestration (absorption of greenhouse gases) possible on Calvin's campus comes to 51 MTCE per year.

“The big shocker was when we realized how little we sequester and how much we emit,” said senior Dan VandenAkker,

one of the engineers on the project. “I don't think any expected [emission] to be so much.”

“Because Calvin's sequestration potential is so much lower than its emissions, reducing Calvin's carbon footprint required creativity,” says the report.

Since increasing sequestration potential is very difficult, the neutralization project focused on decreasing emissions.

All ideas, both frivolous and realistic, were up for consideration. Some students working on the financial plan then filtered the ideas, selecting projects and objectives that were “both feasible and marketable.”

The final plan combines the installation of wind turbines on Calvin property, purchasing carbon offsets for a time, and a number of smaller projects.

“The biologists hated the idea of carbon offsets. It doesn't change your lifestyle at all, doesn't change your mindset,” said VandenAkker. “We can pay someone else to justify our sins.”

The financial plan schedules carbon neutrality after 11 years of building funds. The fund could be started with a parking fee increase, a \$250 tuition increase, government grants and/or donations.

The first 11 years would then involve saving 82 percent of the funds generated per year and using the remaining 18 percent on green energy projects. At year 11, \$8.5 million would have been saved to fund the combination of projects and carbon offset purchases to achieve carbon neutrality. After that, the money saved from lower energy costs and the like could fund other green projects, and slowly the number of carbon offsets required would be decreased.

“It doesn't take any extreme measures for it to be done,” said VandenAkker.

But it does require commitment.

“I do see hope for Calvin improving,” said junior Jessica Driesenga, a biologist on the project, but for an institution as big as Calvin to become carbon neutral would take a huge commitment.

“The project we did made us all aware — that was the first step. The second step is committing to the lifestyle change. The rest of the steps follow after that,” said VandenAkker.

The knowledge is important. An honest accounting of where Calvin is now makes it much more difficult to ignore the problems, described Heun.

“This class was the first time Calvin has had a comprehensive estimate of its carbon footprint,” he said.

“Everyone can know what the footprint is; it doesn't matter until something is done with [the information],” said VandenAkker. “[Carbon neutrality at Calvin] is possible, but there needs to be a commitment by the administration.”

Clearly there are obstacles. The up-front cost is high. But VandenAkker believes “if Calvin commits to it, the financial part will come along.” He pointed out that Calvin does a great job of investing and of fundraising, particularly with President Byker at the head.

“In my mind, the biggest obstacle is the change in lifestyle required,” said VandenAkker.

“Our society has gotten to the point we're at without thinking about the implications,” said Heun.

“You can't expect people to change overnight,” said Driesenga, because consumption is ingrained into our lifestyles.

Yet there is reason for hope for Calvin's carbon neutrality. While the top-down leadership may not yet be strong at Calvin, Heun points out that the bottom-up grassroots efforts are very present and growing.

“I think there will be continued mounting evidence for global climate change and continued mounting pressure for the college to do something,” said Heun. “There is resistance in some quarters, and we need to keep the pressure on to keep this issue elevated in people's minds.”

The students involved in the project had some impetus for lifestyle examination and changes as they exchanged carbon credits in a simulated carbon market. A growing number of Calvin students seem to be caring about environmental issues. And Driesenga highlights how “it says a lot” that a new creation care floor will accompany floors dedicated to academics and diversity in the new wing on KH.

There is also a growing number of colleges and universities signing onto the American College and University Presidents Climate Commitment.

“If the Commitment is signed, something will definitely happen. Steps in the right direction will happen,” said VandenAkker.

Furthermore, Heun described how the Reformed faith professed by Calvin College

SENATE Corner

BY MIKE FABER

Hello Student Body, A few things you should be up to speed on:

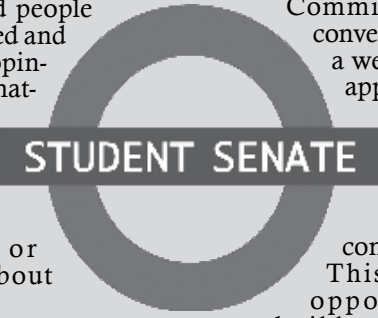
First, be sure to keep up with our proposal to Faculty Senate regarding the inclusion of students in that body. This is a crucial step toward furthering student participation on campus, and we need people to get involved and voice their opinions on the matter. E-mail ideas@calvin.edu if you have any ideas, questions or thoughts about the process.

Second, we know that students have been interested in increasing the opportunities for studying on Sundays. Student Senate has answered that call — DeVos Communications Center is now open from 1-8 p.m. every Sunday. All you have to do is bring your

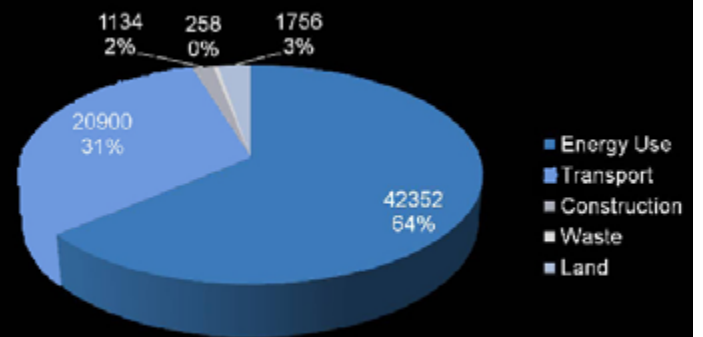
student ID to swipe. (Please, to those who use this service, be courteous to maintenance staff and keep the area clean.)

Finally, we want you to be aware of one of the best ways to be involved on campus next year. The Student Senate Appointments Committee will be convening in about a week to review applications and hold interviews for faculty governance committees.

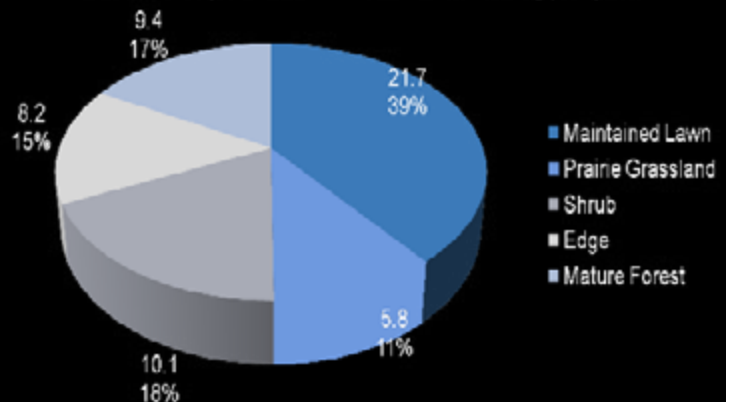
This is a great opportunity to build some Calvin contacts, stay engaged and make a difference on campus. Applications will be available next week Monday at the Student Senate office. Please contact me (senateVP@calvin.edu) if you have any questions regarding these positions.



Carbon Emissions in Metric Tons CO₂ per year



Carbon Sequestration in Metric Tons CO₂ per year



GRAPHICS COURTESY OF MATT HEUN

If these two charts were on the same size scale, the sequestration pie, representing a total of 51 MTCE per year compared with 66,400 MTCE per year of emissions, would be over 1,300 times smaller. The careful accounting that went into these calculations comprises the first comprehensive look at Calvin's current carbon footprint.

lends itself well to concern for environmental issues with its high view of creation, of redemptive activities and of humanity's role in redemptive activities.

“All that sort of language lends itself to action — to activism toward where the world ought to be,” he said.

Fuel is going to be one of the premier issues of this generation of students, said Heun, and it is the college's responsibility to educate for a lifetime, not just for the present.

“This is a compelling reason for us to be leaders — to show the way to the rest of society,” he said. “Other educational institutions take seriously their mandate to educate for a lifetime.”

Of course, “we never want to follow for the sake of following,” said Heun. “We do what we think is right.”

For more information including the full report from the project, see www.calvin.edu/academic/engineering/about/sustainability.

ANNOUNCEMENTS can be submitted by Calvin students, faculty and staff to be printed in *Chimes* at no cost. Announcements can be sent via e-mail to chimes@calvin.edu or dropped off at the *Chimes* office during the week. Announcements must be received by 5 p.m. Tuesday to run in Friday's paper. Please limit them to 150 words and send with the subject line “Announcement.”

CORRECTIONS

The editorial in the April 18 issue of *Chimes* included a quote attributed to President Bush from World Magazine's article “Cold shoulder” (6/4/05). The quote, “What [is] happened to Calvin College?” should have been attributed to CRC pastor and Bush supporter Chuck Walton, not Bush.

The article in the April 18 issue of *Chimes*, “Newest Calvin team earning clout on campus,” provided the wrong address for the Calvin rugby team's April 26 match. It is actually taking place by U.S. 131 and 84th, not U.S. 131 and 76th.

The third Letter to the Editor under the title “Communist controversy” in the April 18 issue of *Chimes* was incorrectly attributed to Mark Mulder, assistant professor of sociology. It should have been attributed to the student Mark Mulder. We apologize for any confusion this may have caused.

