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CARBON CLASS



The University of
Houston debuts an
innovative course, among
the first in the nation

BY STEPHEN RASSENFOSS

The University of Houston is proud to be among the first colleges to offer a class on trading carbon emissions. But this is what's more notable: it's been a hit.

Even before the first class was held, representatives of more than 50 Houston-area companies called seeking to enroll employees in the "Practice of Carbon Trading" class.

It's not a catchy title and there wasn't much publicity, but this is a hot topic for energy companies. Trading is likely to be an important piece of the biggest regulatory change on the horizon—a law to reduce carbon dioxide emissions.

"What's amazing was they [interested companies] covered a spectrum in size from the biggest oil and gas firms down to the small boutique firms," said Praveen Kumar, the UH Bauer Finance Department Chair who helped create the class. "It tells me they are taking this seriously and preparing."

Though Kumar was thrilled by the response, there weren't any spots available in the class. The 35 students who made it into the graduate-level class are split between the university's business and law schools, which jointly sponsor it. They are working on offering a corporate program for this summer.

It's a natural next step for the University of Houston, which has begun a major initiative to make energy programs an area of strength. Within five years it plans to expand the number of students in energy-related programs from 1,500 to 4,000 and hire 100 additional faculty members. The program will have a strong technical bent—a petroleum engineering program has been created—but it will affect other schools like law and business.

"We are going to contribute to the economy with students prepared for the energy workforce and by establishing a business incubator to help turn promising ideas developed at the university into businesses," said Renu Khator, the Chancellor and President of the University of Houston.

The city also needs to be a spawning ground for new energy ideas.

"If you want to keep Houston as the Energy Capital of the World, you are going to have to be forward-looking. You will have to be ahead of the curve in terms of the knowledge generated," said Kumar.

The Greater Houston Partnership has designated carbon trading as one of the areas where the Houston region needs to make sure it is at the forefront. Its Energy Collaborative Cluster Council has identified a growing group of local players in that business.

"The Houston region possesses a strong pool of expertise in the field of energy trading," said Jeff Moseley, President and CEO of the Greater Houston Partnership. "We are proud to see the University of Houston taking the lead in this new wave of opportunity in rapidly developing carbon markets like ours."

In the area of carbon trading, what energy companies see on the horizon is a mandate from the federal government to reduce



carbon dioxide emissions, which scientists say are causing global warming.

Students are expected to demonstrate their understanding of this complex topic by coming up with practical ways to use trading to reduce carbon emissions.

The law limiting carbon emissions has yet to be written, but Kumar said trading will likely be part of it. Specifically, CO₂ would be reduced by using a cap-and-trade system. Each company with carbon dioxide emissions would be assigned a quota, a cap on its emissions that would be reduced over time. If the company emits less it could sell the difference.

The thinking here is that the ability to buy and sell carbon emissions allows more flexible solutions, rewarding those that emit less than their maximum amount and setting the price for

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those that exceed their limit.

"Cap and trade is politically where it will go. Now what is socially the best way to set up a cap-and-trade system in the U.S.?" asked Kumar. "That's the one-line description of the class."

Not everyone agrees with that thinking. Two speakers at the Greater Houston Partnership's recent energy forum argued that it would be better for business if a tax were levied on carbon emissions.

Either system would give companies a financial motivation to reduce carbon dioxide emissions. The argument for a tax on emissions is that the cost is more certain than the market price set in a cap-and-trade system, where speculation could lead to wild price swings.

"I'm not sure I want to give the AIGs of the world a new toy to



Preserving our environment
has become a priority

play with," said Christopher Ross, Vice President of the consulting firm CRA International.

The goal of the class is to consider the pros and cons, and find ways to make a cap-and-trade system work. The class has been divided into groups, each of which will turn in two papers during the semester. The second paper will be presented in a competition in May. The winning team will deliver its paper to an audience of legal, legislative and industry officials in Houston, Washington, D.C., and elsewhere.

Judging criteria reflect the complexities of regulating carbon emissions. The winning idea needs to help the environment, limit the economic impact, be politically palatable and stand up to legal challenges.

The facts in this course change daily. Students are expected to delve into nitty-gritty details, like the rules for carbon trading in Europe, and they also must follow the latest policy developments in Washington.

The topic for the first paper in the class helps explain why it has drawn so much corporate interest. The students were asked to write about offsets, which are actions a company can take to earn valuable credits for reducing carbon emissions. A common example is an electric power company that buys land in a rain forest that would otherwise be cut down. The idea of the offset is that they should get credit for reducing CO₂ in the environment because they preserved trees that absorb carbon dioxide.

Finding offsets could be a valuable way for big carbon emitters, like oil refiners or electric generators, to manage the cost of complying with CO₂ limits. Selling this kind of advice could be a growth business in Houston.

"This will spawn a whole new group of firms concentrating on offsets," predicted Kumar.

To cover the wide range of knowledge that goes into carbon regulation, the course is taught by three University of Houston professors: Kumar from finance; Victor Flatt, the A.L. O'Quinn Chair in Environmental Law; and Craig Pirrong, Professor and Director of Energy Markets for Global Energy Management.

Kumar said he attends the class even on days when he's not teaching because he's learning a lot and enjoys being a part of the discussions.

"I feel like a student again. I'm really energized by it," he said. ♦

