



Phishing, Bribery and Falsification: Combating the Complexities of Carbon Fraud

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Early this year, a group of rogue traders took advantage both of lax Internet security and Europe's burgeoning carbon trading system to steal as much as \$4 million. The crooks, posing as regulators, set up a fake but official-looking website, and used it to obtain carbon trading account information from companies and traders who thought they were complying with government requests. The scheme forced the German Emissions Trading Authority to suspend trading, but not until 250,000 permits (each allowing the emission of one ton of carbon dioxide) had been stolen.



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This is a variation of the classic "phishing" Internet scam, with a carbon twist, but it's hardly an isolated incident. On June 3, London police arrested Mike Foster, director of Carbon Harvesting Corp., and charged him in connection with an alleged scheme to bribe officials in the African country of Liberia. Foster was reportedly ready to pay \$2.5 million to "rent" a fifth of Liberia's forests and profit by selling the credits that could be obtained from the carbon-absorbing trees.

Phishing and third-world bribery are hardly new crimes, but the often unwitting carbon markets can be seen by thieves as unexplored territory. According to the European law enforcement agency Europol, before a crackdown last year, tax fraud associated with carbon trading cost \$6.5 billion over 18 months, and in some countries up to 90% of total trading volume was a result of fraudulent activities. The tax schemes involve buying carbon credits without paying Europe's value-added taxes (VAT), which are similar to sales taxes, then selling them to a third party with taxes attached. The culprits disappear after they have been paid, without compensating the governments involved. VAT swindles are very common, but authorities say that carbon permits are a tempting target because no actual goods have to be shipped.

Under so-called "cap and trade" systems, a ceiling is put on the carbon dioxide emissions that companies can emit. Corporations that exceed their allotment are allowed to purchase certificates from others with low emissions -- thus giving polluters a financial incentive to reduce their output by installing green technologies and other methods. But if cap and trade is poorly managed, it results in a lot of sound and fury -- including potential for fraud -- but little actual climate benefit.

"One of the questions that's raised is whether the general cap and trade and carbon markets solutions make the most sense for dealing with the climate change problem," says [Eric W. Orts](#), a professor of legal studies and business ethics at Wharton. "Is it possible to get a sufficient handle on the kind of fraud that is going on so we can trust these kinds of markets?"

Fraud in the U.S.

Since carbon trading was launched in Europe in 2005, "coal-burning utilities have earned windfall profits from the system, while the prices of credits have never been high enough for long enough to force utilities and businesses to replace conventional power with significant amounts of renewable energy and other clean sources," according to a February blog post on the website of *The New York Times*. The United States does not have national carbon trading, but it does have regional efforts that have fallen victim to fraud schemes. In 2005, an entrepreneur named Anne Masters Sholtz pled guilty to committing wire fraud in Southern California's smog exchange, and was sentenced in 2008 to a year of home detention and a trading ban. The charges related to a multi-million-dollar transaction in which Sholtz reportedly not only faked sales documents and invoices, but also e-mail exchanges with an oil company executive.

The European Union has had its Emission Trading System in place for five years, and this extremely complex effort to reduce the continent's carbon burden has been hit with a huge amount of fraud and corruption. A similar program would be launched in the United States if legislation currently in a Congressional holding pattern is finally passed. But experts in federal law enforcement, environmental advocacy groups and academia are concerned that the same pattern of fraud could mar emissions trading in the U.S.

That concern set in motion a working group meeting titled, "Fraud and Corruption in the Carbon Trading Market," held at the World Bank Institute in Washington, D.C., on April 30, and organized by the Federal Bureau of Investigation, Wharton's [Carol and Lawrence Zicklin Center for Business Ethics Research](#), the Hills Program on Governance at the Center for Strategic and International Studies (CSIS), the World Bank and the law firm Ballard Spahr. The group will prepare a set of public policy recommendations (there is no set deadline) to guide Congress and other stakeholders as they prepare carbon trading legislation, which is currently pending as part of overall climate bills in both the House and Senate.

"We're wrestling with how big a problem this is," notes organizer [William S. Laufer](#), the director of the Zicklin Center and a professor of legal studies and business ethics at Wharton. "The meeting was both remarkable and successful in a number of ways. First, a committed group of strange bedfellows -- including regulators, the enforcement community, NGOs [non-governmental organizations], lobbyists, academics, representatives from the international organizations and development banks, and a wide range of private sector participants -- exchanged views on the nature and extent of the risks associated with carbon trading. And, second, the sponsors agreed to hold a series of follow-up working group meetings in countries with developing carbon markets."

Some potential carbon trading countries in the developing world lack relevant law enforcement expertise, Laufer notes, and that means any oversight will likely be handled by such non-state regulators as NGOs. That's better than unhindered markets, but nonprofit groups lack police powers, he adds. The NGO role is being analyzed as part of the working group process.

According to Ron Sarachan, a partner at Ballard Spahr and a lecturer in the ethics program at Wharton, "Our purpose is to reduce vulnerability to fraud and corruption. I think we can have a very significant impact. There is, by some estimations, a significant amount of European carbon trading that is tied to tax fraud, and the system does not include anyone with an incentive on a self-interested level to police the offset projects. It is important that the U.S. markets be structured to include that policing."

Europe's Cautionary Tale

The FBI had sought the Washington meeting, which was attended by a range of federal enforcement officers at the bureau, the Department of Justice and the Environmental Protection Agency. According to Thomas Harrington, executive assistant director of the FBI's criminal, cyber, response and services branch, "Understanding threats and risks requires a fact-based approach to achieve success. Success in the future is best achieved through the collaboration between law enforcement and the academic community." Laufer says that the working group will be reconvened annually "to track the risks of fraud and corruption as these markets grow and mature."

Djordjija Petkoski, lead specialist in private sector development at the World Bank, thinks the European experience is "a cautionary tale." From practical experience, he says, "we have come to realize that there are issues of fraud and corruption that have to be dealt with. This is not unique to carbon trading, but people should have no illusions that there will be attempts to game the system. We have the advantage of a late start in carbon trading. The lessons are there, and we can learn from them and not repeat the mistakes."

Petkoski says that the working group is addressing what he calls "the knowledge gap on these issues." Accounting firms, he notes, don't have trained staff to fully detect and report the many different forms of fraud that carbon trading is vulnerable to. In some cases, the fraud is detected by external watchdogs. The Foster bribery case in Britain, for instance, was uncovered by the anti-corruption campaign group Global Witness, which then tipped off law enforcement. "In meetings with Global Witness, Foster made reference to irregular payments made to a Liberian government official and a politician via a middleman,"

according to the group. "Global Witness then felt obliged to notify the police."

Petkoski thinks the complexity and variety of carbon fraud demands serious academic study. "This information needs to be incorporated into business and law school curriculums," he says, "and it needs to be part of a global conversation." According to Petkoski, the European experience should not be viewed as simply a failure, because it "gave us an opportunity to learn how movements like this operate. Even good regulations can be misused if they're not properly implemented. From that point of view, carbon trading is a success story."

The nonprofit group Friends of the Earth warns that U.S. legislation could encourage fraud of the type encountered in Europe by allowing widespread use of "offsets" -- which are credits that can be purchased to negate a carbon footprint. If a tree is planted, it offsets some small fraction of a plane trip, for instance.

The European effort was definitely pioneering, which led to some mistakes with offsets and other aspects, notes Roderick M. Hills, founder and chairman of the Hills Program on Governance at CSIS and a former chairman of the Securities & Exchange Commission. "The Europeans didn't have enough information when they began their effort," he says. "We can learn a lot from what they did. We know that verification is very important: Who decides if a proposed carbon offset qualifies a good deal? In the European system, the verifiers are chosen by the participants, which can lead to problems. I'd have to say that I'm not wise enough to know if indeed cap and trade with carbon offsets can work. It has been fraught with fraud, and the issue is: What kind of verification system can you create that will avoid such problems? "

Verification is indeed a thorny issue, and a vulnerability point for fraud. According to Sarachan, "If the entity verifying the project is employed by the developer, they don't have an incentive to police it. There is a potential conflict of interest based on who is paying for the verifier to do the work."

Transparency International described that same risk to offset projects in an analysis of bribery dangers in the Clean Development Mechanism (CDM), the world's largest offset market. "In order to obtain carbon credits," the group said, "project buyers need host- and investor-country approval, validation of the project documentation by an accredited third party, international UN approval and third-party verification or project operations compared to the plan. The 'street-level' staff in some of these organizations are not paid particularly well, and can be inexperienced due to the rapid development of the market."

'Truth-stretching and Outright Lies'

Concern about offsets is seconded by Michelle Chan, a Friends of the Earth campaigner. "Carbon offsets are especially prone to corruption and fraud because they involve representations that greenhouse gas emissions have occurred -- and that ultimately can't be proved," she notes. "You're saying, 'My emissions would have been so much, but my offsets reduced it by this much.' In many cases, the emissions reduction ... would have happened in any case. The offsets market is inherently rife with opportunities for truth stretching and outright lies."

Chan, who was at the April meeting, is the author of the May 2010 Friends of the Earth report, "Ten Ways to Game the Carbon Market." Trading systems, she points out, "are complex, and the more complex they are, the easier they are to manipulate." The 10 "scams" the report identifies:

1. **Boost the baselines:** Industries facing carbon limits can inflate their projected emissions levels to claim a greater government allocation of carbon permits (preferably free). The report says that electric utilities in five EU countries could generate from \$36 billion to \$111 billion in windfall profits from 2008 to 2012 from free permits.
2. **Ponzi carbon:** As in any pyramid scheme, you pay off old investors with the proceeds from a new one, all in the absence of any authentic purchase agreements for carbon. This was reportedly Anne Sholtz's tactic. Investors filed more than \$50 million in claims against her.
3. **Sell fake carbon offset credits:** This scheme involves selling investors on an offset project, often far away, that either doesn't exist or doesn't do what is claimed. Offset problems aren't always the result of fraud. Heather Rogers' recent book, *Green Gone Wrong*,

documents the serious problems with a 2002 project that was to have planted 10,000 mango trees to offset the emissions from the British band Coldplay's album, *A Rush of Blood to the Head*. "Offset brokers," she wrote, "are not compelled to meet any standards, have no required inspections, project approvals or reviews, and no obligatory follow-up assessments to ensure the efficacy of the carbon remediation."

4. **Carbon bribery:** Targets of bribes could include the verifier who is supposed to measure actual carbon reductions, or an agency that issues carbon credits. Host countries are also vulnerable to accepting payments, as in the Foster case. Some verifiers also serve as consultants to those same projects, creating a potential conflict of interest.
5. **"Carousel" fraud:** In this common crime, rogue traders buy credits tax free, then charge tax to paying customers. Taxes are never paid to the government, and the traders disappear after the transaction is complete.
6. **"Phishing" for carbon:** This is the Internet-based crime described in the lead of this story. In a fraud with many variants, traders tell companies they need to re-register their permits, and then use dummy websites to steal account data.
7. **Falsify information:** Carbon offset developers need to prove "additionality," or that their projects avoided carbon emissions. They can do this by demonstrating, perhaps falsely, that the project would not have happened without the offset revenue.
8. **'Round-trip' your carbon:** In this variation of the classic tax scam, a new company is set up specifically to create carbon offsets. It then deliberately over-charges for the carbon, allowing an existing entity to claim the excess as revenue.
9. **Recycle your carbon:** Traders buy credits or permits that have already been used for a low price, then -- even though the credits or an equivalent number were supposed to be retired -- sell them anyway at a tidy profit. This crime was discovered on two European exchanges in March.
10. **Manipulate carbon prices to enrich your business:** Companies could theoretically bid up carbon prices at their trading desks, then profit in their offset divisions when a trigger price is reached and the government releases extra carbon from the strategic reserve. Variations on that reserve are elements of both the Waxman-Markey climate bill that passed the House and the Kerry-Lieberman bill pending in the Senate.

The British Sandbag Climate Campaign has identified the Top Ten "Carbon Fat Cat" companies that it said profited from the EU Emissions Trading Scheme in 2008. The company with the largest number of surplus permits, 14.4 million, was ArcelorMittal, the world's leading steel producer, with operations in 60 countries. Second, with 4.2 million surplus permits, was Lafarge, a global cement company. U.S. Steel was in ninth place, with 1.6 million permits. Because of over-allocation, the report said, these 10 companies now have 35 million surplus permits, equivalent to the annual emissions of Latvia and Lithuania. The permits are worth an estimated \$600 million.

Laufer says the next step for the working group is to split into smaller groups to work on the set of policy recommendations, noting that "Interpol had a working group that struggled with the same issues."

A Tricky Question to Answer

The complexity of fraud schemes related to carbon trading make it difficult to develop, and then enforce, policies that ensure the markets combat global environmental issues in the way they were intended, experts say.

According to Wharton's Orts, one of the key challenges is deciding who should have jurisdiction over regulating carbon markets and investigating suspected trading schemes. In the United States, "it's probably not something that the SEC would take jurisdiction over.... These are securities in the basic sense, but the expertise needed to ascertain whether it's fraud or not is really science- and environment-based."

Governments must also determine if those found guilty of carbon fraud would face civil or criminal penalties. Complicating the issue is the fact that most schemes are partially carried out in other countries, where local and national laws don't apply. "[People] are saying they're doing an [offset] project in another country but then, in fact, they don't plant a bunch of trees, or they do and say that it is 'sequestered carbon,' and then three years later [the trees are] cut down," Orts says. "That's not exactly helpful. But the question is: How do you reach these other places [through regulation]?"

Carbon markets and cap and trade have significant transaction costs, Orts notes, and governments must determine if they are the right tools to effectively tackle the world's climate change problems. "Maybe we should look at a simpler, more direct approach, which is to put a tax, or charge, on carbon emissions," he notes. "The problem with that, of course, is as soon as you utter the three-letter word 'tax,' it becomes politically unpopular. But from an economic perspective, the cleanest and most direct way to regulate the problem is to put a tax on activities that cause carbon emissions."

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