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Not the Only Game in Town: The Complementary Roles of Public & Private Environmental Governance

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Summary

This Brief focuses on ways in which private firms are adopting tools that mirror public law instruments—such as internal carbon fees (similar to a public carbon tax) and private cap-and-trade schemes (like public emissions trading schemes)—to reduce greenhouse gas emissions and address climate change. These private case studies suggest that significant progress in reducing emissions can come from embedding emissions reduction programs into core business strategy. Moreover, these case studies indicate that climate change, as a global issue, requires public regulators to recognize the potential contributions of global multinational firms.

Keywords

EPA, Clean Power Plan, emissions, greenhouse gas, carbon, cap-and-trade, climate change

Disciplines

Business Law, Public Responsibility, and Ethics | Environmental Policy | Public Policy

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Not the Only Game in Town: The Complementary Roles of Public & Private Environmental Governance¹

Professor Sarah E. Light

ISSUE BRIEF

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On August 3, 2015, the Environmental Protection Agency (EPA) issued a final rule, known as the Clean Power Plan (CPP), to curb greenhouse gas emissions from coal-fired power plants.²

Acting pursuant to its authority to regulate “any air pollutant” under the Clean Air Act, the CPP calls for a 32 percent reduction in carbon dioxide emissions from coal-fired power plants (compared to baseline 2005 levels) by 2030.³ Part of the Obama Administration’s comprehensive Climate Action Plan, the CPP further propels the country towards meeting the EPA’s goal of reducing economy-wide emissions to 17 percent below 2005 levels by 2020 and 26-28 percent by 2025.⁴ The electricity/power-generation sector is the nation’s largest contributor to greenhouse gas emissions—responsible for approximately one third of all carbon dioxide emissions, followed by the transportation sector, industrial sources, and other commercial and residential sources (see Figure 1).⁵

These emissions reduction targets set by the U.S. government reflect the Administration’s deep concern about climate change and its negative environmental, social, and economic effects.⁶ The CPP affords flexibility to the states in how to meet these targets, including through the use of efficiency improvements, switching to natural gas generation, and increasing the use of renewables to generate power. The CPP also provides flexibility to states to use different policy approaches

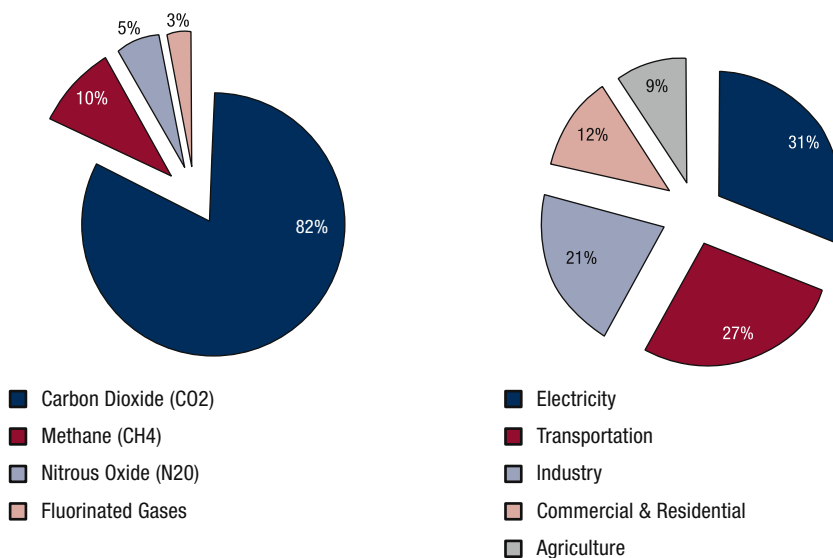
SUMMARY

- This Brief focuses on ways in which private firms are adopting tools that mirror public law instruments—such as internal carbon fees (similar to a public carbon tax) and private cap-and-trade schemes (like public emissions trading schemes)—to reduce greenhouse gas emissions and address climate change.
- These private case studies suggest that significant progress in reducing emissions can come from embedding emissions reduction programs into core business strategy. Public regulators therefore should consider the importance of making regulations an integral part of business strategy, rather than solely an environmental “compliance” issue.
- Moreover, these case studies indicate that climate change, as a global issue, requires public regulators to recognize the potential contributions of global multinational firms. The EPA’s Clean Power Plan allows for flexibility in the policy approaches and levers that states use to reach their emissions reduction targets. Private environmental governance solutions could be encouraged to complement efforts like the CPP.
- Combating climate change will require multiple approaches. Public and private actors should each pay greater attention to and learn from each other’s practices and experiences.

to achieve these goals, including the adoption of cap-and-trade programs or joining existing regional cap-and-trade schemes.

Yet even this ambitious rule—perhaps the most significant regulation to date in the United States aimed at curbing greenhouse gas emissions—cannot solve the global climate change problem on its own. International governments, states, regions, local governments, and private actors, including multinational firms, must also play a role. This Issue Brief will focus specifically on the ways in which private firms are adopting tools that mirror public law instruments and incorporating them into core business practices. It will focus in particular on the ways in which private actors have adopted internal carbon fees (similar to a public carbon tax) and private cap-and-trade schemes (like public emissions trading schemes) to reduce greenhouse gas emissions. Such private environmental governance has a role to play in addressing climate change. Public and private actors should each therefore pay more attention to what the other is doing, and also consider new ways to link systems and create hybrid governance models.⁷

FIGURE 1: U.S. GREENHOUSE GAS EMISSIONS IN 2013



Source: All emission estimates from the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013.

PUBLIC AND PRIVATE PARALLELS

When one thinks of environmental regulation, one often assumes that the government—federal or state—is the regulator, with private firms as the primary regulatory targets. In the heyday of environmental legislation beginning in the 1970s, the federal government not only created the EPA, but adopted significant national legislation on pollution control to protect the nation’s air, water and land from the disposal or improper releases of pollutants. These

laws, and the regulations that followed, utilized different public policy instruments to achieve environmental goals, including prescriptive rules, property rights, market-leveraging solutions like taxes and subsidies, tradable permits, informational governance, procurement and insurance, among other approaches.⁸ But Congress has not enacted any major new (or amended any major existing) pollution control statutes since the 1990s. Other government actors—states, municipalities, and regional compacts—have stepped in to fill the void. And another

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¹ The primary source for this Issue Brief is Sarah E. Light, *The New Insider Trading: Environmental Markets within the Firm*, 34 *Stan. Envtl. L.J.* 1 (2015). We are grateful to the editors of the *Stanford Environmental Law Journal* for their permission to use this material. On the parallel ways in which public and private actors employ tools to address environmental harms, see also Sarah E. Light & Eric W. Orts, *Parallels in Public and Private Environmental Governance*, 5 *Mich. J. Envtl. & Admin. L.* (forthcoming 2015).

² Carbon Pollution Emission Guidelines for Existing Stationary

Sources: Electric Utility Generating Units, (Aug. 3, 2015) (to be codified at 40 C.F.R. pt. 60). The final rule has not yet been published in the *Federal Register*. The text of the rule is available at <http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants>.

³ Carbon dioxide accounts for 82% of all greenhouse gas pollution in the U.S. See <http://www3.epa.gov/climatechange/ghgemissions/gases.html>.

⁴ The administration’s Climate Action Plan is available at <https://www.whitehouse.gov/sites/default/files/image/>

[president27sclimateactionplan.pdf](http://www27.sclimateactionplan.pdf).

⁵ EPA, <http://www3.epa.gov/climatechange/ghgemissions/sources/electricity.html>.

⁶ The ten warmest years on record have all occurred since 1998. (Source: <https://www.ncdc.noaa.gov/sotc/global/201413>).

⁷ Light, *supra* note 1; Light & Orts, *supra* note 1.

⁸ Light & Orts, *supra* note 1.

⁹ For a general explanation of this theory, see Light & Orts, *supra* note 1.



set of actors—private firms and non-governmental organizations—have likewise begun to adopt environmental standard-setting, either as part of their own environmental governance, or to set and enforce broader standards as third-party enforcement agents.

Private firms may view environmental standard-setting as an opportunity to earn goodwill and additional profit, or perhaps they are preparing for increased government regulation in the near future. Regardless of motivation, private firms, including large multinational corporations, are making strategic business choices to address environmental harms such as climate change. One way in which private firms are acting is by adopting practices and private “instruments” that mirror public regulatory approaches, despite the private actors’ very different end goals and scope of governance.⁹

Such private environmental governance solutions can have a significant, possibly global, impact in fighting climate change because of the multinational nature of the firms involved, as well as the magnitude of the greenhouse gas emissions they can affect. A non-governmental organization, the CDP (formerly known as the Carbon Disclosure Project), provides both a reporting platform for firms to disclose

their greenhouse gas emissions annually, and data analysis of that reporting. Recent analysis revealed that the top fifty out of more than four hundred private firms reporting to the CDP in 2013 accounted for roughly 75 percent of all reported emissions.¹⁰ Consider a multinational firm like British Petroleum (BP), a firm that I analyze below for its adoption of a private carbon emissions trading platform in the early 2000s. In 2013, BP reported a carbon footprint larger than the reported 2012 emissions within each of sixteen U.S. states.¹¹ Thus, private environmental governance can play a significant role in addressing greenhouse gas emissions globally in the absence of a single, international regime requiring emissions reductions. A closer inspection of private environmental governance seems warranted in light of this fact, so I now turn to two examples of firms taking different approaches to reducing their carbon footprints that mirror mechanisms used and advocated by public regulators.

BP AND THE NEW “INSIDER TRADING”

Tradable permit systems, also called “cap-and-trade” schemes or emissions trading in the climate context, are

often proposed as an efficient public policy solution to reduce greenhouse gas emissions. Under a tradable permit system, emissions are “capped” within a jurisdiction through the creation of a finite number of emissions allowances. Often the number of allowances decreases over time to encourage continuing reductions. Firms can trade allowances based upon their calculus of whether it is cheaper to reduce emissions or purchase an allowance on the market. Such a system minimizes the overall cost of abatement by guaranteeing that emissions reductions will proceed from cheapest-to-reduce sources first to most-expensive-to-reduce sources last. On the flip side of these efficiency and cost benefits, existing cap-and-trade systems have mixed records, with some instances of the oversupply of emissions allowances, the grandfathering of high, existing pollution levels which undercut the programs’ goals, and the high administrative costs of creating, running, and policing the system. The United States, for example, has successfully used emissions trading to reduce sulfur dioxide (a component of acid rain) under the Clean Air Act. Sub-national bodies, including the Regional Greenhouse Gas Initiative (a consortium of nine states) and the

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¹⁰ CDP GLOBAL 500 CLIMATE CHANGE REPORT 2013.

¹¹ The sixteen states are: AK, CT, DE, HI, ID, ME, MT, NE, NV, NH, NM, ND, OR, RI, SD, and VT, as well as DC. BP SUSTAINABILITY REVIEW 2013 (2013); EPA, CO2 Emissions from Fossil Fuel Combustion (2014).

¹² David G. Victor & Joshua C. House, BP’s Emissions Trading System, 34 ENERGY POL’Y 2100, 2101 (2006).

¹³ The specific focus here on BP’s emissions trading should not be read as an endorsement of BP’s environmental policies or practices more broadly, which must be read in context,

including in the context of the 2010 Deepwater Horizon Oil Spill.

¹⁴ S. 2940 (113th Cong. 2015).

¹⁵ I note that other private institutions have adopted or announced their intention to adopt internal carbon pricing, including the Disney Corporation and Yale University. See CORPORATE CITIZENSHIP REPORT, THE WALT DISNEY COMPANY (2014); Yale University, Presidential Carbon Task Force Report (2015). I distinguish the adoption of a carbon fee from the use by a firm of a “shadow” carbon price in

the context of investment decisions, where no fee is actually “collected” from business units. More than 150 firms worldwide have begun to incorporate shadow carbon pricing into their investment decisions. CDP, GLOBAL CORPORATE USE OF CARBON PRICING: DISCLOSURES TO INVESTORS (2014).

¹⁶ TAMARA “TJ” DICAPRIO, MICROSOFT CORP., BECOMING CARBON NEUTRAL: HOW MICROSOFT IS STRIVING TO BECOME LEANER, GREENER, AND MORE ACCOUNTABLE (2012), available at <http://tinyurl.com/n26rxcx>; TAMARA



state of California have implemented tradable permit regimes specifically to address greenhouse gas emissions. The new CPP expressly permits states to adopt tradable permit systems or to join existing regional systems to meet their emissions reduction goals.

Before the establishment of the European Union's Emissions Trading System (EU ETS), and UK public laws regulating emissions, BP adopted an internal, private emissions trading program within the firm. In 1999, BP launched the system as a "pilot" initiative, and in 2000, the firm implemented the policy firm-wide. Its goal, as stated publicly by the CEO, was to reduce emissions by 10% (relative to a 1990 baseline) by 2010. Several motivations prompted the adoption of this internal trading scheme. Firm managers wanted to develop expertise in emissions allowance trading prior to the implementation of any public regulation; to gain credibility when they lobbied on behalf of emissions trading as the best public policy alternative; to craft a solution for its decentralized and diverse business units; and to drum up goodwill and reputational benefits as a result of its efforts. By 2002, BP terminated the program, having already exceeded its 10 percent reduction target—nearly

eight years ahead of schedule.

The design of this internal trading system came with challenges similar to those faced by public regulators when crafting a public emissions trading platform. BP's managers had to determine an appropriate cap, establish an administrative infrastructure (i.e., collection, reporting, and data management), and allocate initial emissions allowances at the outset—all of which are politically and operationally complex tasks. To administer the program on an ongoing basis, the firm centralized some operations. It created a Climate Steering Group responsible for all climate policy and employed experienced oil and gas traders to construct the actual trading platform. But the firm left the actual "insider trading" to its various business units, each of which could determine on its own whether to designate traders with a commercial background, as opposed to a background in the environment, health, or safety. It also authorized managers in the different business units to enforce compliance, and this became part of each manager's performance contract.¹² Business units did not exchange money when permits were traded, so as to avoid unwanted tax consequences. Likewise, the firm did not want this effort to affect how

its managers deployed capital, so BP created a special fund for emissions-reduction investments that might not otherwise meet BP's return on investment criteria.

Originally inspired by public cap-and-trade systems, BP's emissions trading platform now has lessons for public regulators, as well as other private actors. The commitments created by the CEO's public statements (the 10 percent reduction plan) provided accountability. Partnering with the Environmental Defense Fund, a respected non-governmental organization, to craft the emissions trading system provided additional credibility. On the flip side, managers tolerated non-compliance when the price of emissions allowances rose more than expected, and the firm ended the program when it could have continued to reduce emissions further. Despite the imperfect design and other limitations of this "insider trading" (e.g., speculative trading, price spikes, and toleration of non-compliance), BP's platform for emissions trading allowed it to reduce emissions significantly.¹³

MICROSOFT'S INTERNAL CARBON FEE

Another approach to addressing

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"TJ" DICAPRIO, MICROSOFT CORP., THE CARBON FEE: THEORY AND PRACTICE (2013), available at <http://tinyurl.com/lotams6>.

¹⁷ The CDP estimates that Microsoft's carbon fee is in the \$6 to \$7 per ton range, notably less than the roughly \$10-\$80 per ton "fees" utilized by the more than 150 global firms that use shadow carbon pricing systems to make investment decisions. (Source: CDP) The company's Chief Environmental Strategist, Robert Bernard, has explained that Microsoft sets the fee by examining the price for carbon offsets on a

quarterly basis.

¹⁸ A good example of greenwashing is Volkswagen's recent touting of its diesel engines as "clean diesel," notwithstanding its use of defeat devices to cheat on emissions tests for nitrogen oxides.

¹⁹ New Jersey's decision to withdraw from the Regional Greenhouse Gas Initiative in 2011 is an example of a public parallel. (Source: REGIONAL GREENHOUSE GAS INITIATIVE, www.rggi.org).

²⁰ EPA, <http://www2.epa.gov/clean-air-act-overview/prog->

[ress-cleaning-air-and-improving-peoples-health](#).



climate change is the use of carbon taxes, which put a price on the negative externalities caused by pollution, and thus force firms to internalize these costs. The United States has never adopted a carbon tax. Previous efforts, for example, to propose a “BTU tax” under President Clinton, demonstrated significant issues of political feasibility, although two Senators recently introduced a new carbon tax bill called the American Opportunity Carbon Fee Act.¹⁴ In addition to these political feasibility challenges, carbon taxes have design, implementation, and durability challenges, though many economists would agree that these issues are less complex than those posed by emissions trading. Interestingly, despite the political feasibility limitations in the public sphere, a number of private actors have recently adopted private carbon fees to reduce greenhouse gas emissions.¹⁵

In the summer of 2012, Microsoft announced its goal to become carbon neutral in its data centers, software development labs, offices, and employee business air travel.¹⁶ The company decided that the best way to provide incentives for emissions reductions within its business units was by using a carbon fee, but only if the mechanics were simple and did not distract employees from their primary value creation activities. The added benefit was that implementing a carbon fee could raise funds for other emissions-reduction activities.

The issues with designing this private, internal carbon fee mirror those of establishing a public carbon tax. Microsoft had to set the correct “price” for each marginal unit of emissions,

determine the scope of emissions covered by the fee, and administer the system, which included creating processes for collection, management, and enforcement of compliance.¹⁷ The fee is collected through the company’s existing “chargeback” system, mirroring how government regulators could rely on an existing tax system to collect a carbon tax. Using an existing system reduces administrative costs. The administration is handled by a partnership between the company’s Environmental Sustainability team and its Corporate Finance department. And this is a crucial point: by not isolating the carbon fee program as a “sustainability” measure, but rather classifying it as a strategic financing and accounting measure, Microsoft has embedded the carbon fee into its core business practices. This could have a public parallel, as I discuss in the Policy Recommendations section below.

Unlike BP’s emissions trading program, Microsoft’s carbon fee did not allow for the grandfathering of existing emissions levels. The business units responsible for carbon emissions feel the financial impact of the fee in direct proportion to their emitting activities, as an incentive for innovative reduction strategies. But similar to BP, Microsoft is a global firm and operates in over 100 countries. Though its carbon fee does not apply to all of its divisions, the transnational scope of this internal policy is significant. By the end of the program’s first year (June 2013), Microsoft had met its goal of becoming carbon neutral in its selected business units. The majority of reductions resulted from purchases of renewable energy.

As with the BP case, there are some interesting lessons here. Reputational (and environmental) benefits aside, Microsoft has figured out that its use and promotion (to other firms) of a carbon fee program has the potential to create new business opportunities for the firm. Many of Microsoft’s suggestions for how other firms could administer a carbon fee would create new customers for Microsoft’s core business of software and technology. This bodes well for the durability of its use of the fee. For example, if another private firm seeks to purchase Renewable Energy Certificates or carbon credits to offset emissions, Microsoft now hosts a platform for such transactions on its cloud. This is a clear example of how thinking about the long-term benefits of carbon-emissions reductions may be worthwhile from a business standpoint. Furthermore, the continued use of the carbon fee by Microsoft sends the expressive message that private firms have a responsibility to combat climate change, even (and perhaps especially) in the absence of public prescriptive rules.

POLICY RECOMMENDATIONS: A MULTI-FACETED BATTLE AGAINST GLOBAL CLIMATE CHANGE

The adoption of public law concepts by private firms shows that public environmental governance has had a significant influence over private environmental governance decisions. As the tables are turned, there are two takeaways from the private application of carbon taxes and cap-and-trade systems that policymakers and regula-



tors should consider in their ongoing attempts to combat climate change. But first, the caveats.

There are many forms of private environmental governance, and each requires evaluation along a number of key dimensions. For example, all private environmental governance approaches are susceptible to “greenwashing,” which occurs when an entity makes misleading public statements or otherwise creates a falsely positive impression about its environmental performance.¹⁸ In addition, there is a concern that since private managers are often motivated by short-term profits, private governance solutions can be terminated on a whim (though there are public parallels here, too).¹⁹ Such limitations of private environmental governance must be considered alongside the following recommendations.

The first implication from these private case studies is that significant progress in reducing emissions can come from embedding programs like emissions trading platforms and carbon fees into core business strategy. Employing fees and trading—core functions of many businesses—can help to avoid the “siloining” of carbon reduction programs as health, safety, and environmental issues. Based on Microsoft’s example, public regulators should consider the importance of making regulations feel like a core part of business strategy, rather than a “compliance” issue. Here, the public lesson may be to create a partnership

and shared jurisdiction between the EPA and another agency that already has authority and credibility with the financial side of private firms (for example, the Securities and Exchange Commission or the Internal Revenue Service), when it comes to the administration of public law environmental regulations, thereby broadening the goal of emissions reduction from an issue solely of environmental concern to one of business and financial concern.

The second lesson here is for business leaders. While “tax” may be a four-letter word in the United States as a matter of policymaking, the fact that more than 150 firms globally have adopted shadow carbon pricing to make investment decisions, and several leading firms and now Universities have adopted carbon fees, suggests that private carbon pricing may be a strategy that is gaining credence in the fight against climate change in the private sphere.

The second implication reiterates a common thread from this brief, specifically that climate change, as a global issue, requires public regulators to recognize the potential contributions of global multinational firms. The Clean Power Plan’s flexibility, including its recognition that increased energy efficiency in electric power generation is a building block to meet its goals, suggests that private environmental governance solutions could help firms reduce emissions. Policymakers, regardless of what

happens with the rollout of the CPP, should be hesitant to employ technology-based prescriptive standards to achieve emissions reductions in the future because this type of regulation discourages the use of innovative private governance solutions.

CONCLUSION

Since 1970, air pollution in the U.S. has decreased by roughly 70 percent while gross domestic product has grown by more than 200 percent.²⁰ The Clean Power Plan, and the Climate Action Plan in general, take positive steps in the ongoing fight against anthropogenic climate change, but they are not the whole story. Private firms already are making proactive decisions to internalize the negative externalities of pollution, as is evident from the cases of BP, Microsoft, and many other firms. The new “insider trading,” the use of carbon fees, and the expressive messages generated by private actors in the absence of global regulation can complement existing public environmental governance. Despite the limitations of private environmental governance, the sheer global reach of private firms, as well as their ability both to learn from and teach public regulators about effective emissions reduction solutions, equips them with the capacity to make a significant, positive impact on the environment. Combating climate change will require multiple actors—and more than one approach.



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