

# “Carbon Cowboys”: How to Rein in Deceptive Sellers in the Carbon Offset Market

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*“If I was the financial adviser to the Mafia, I would advise them to get into carbon trading.” Bryan Leyland, Economic Panel Chairman, New Zealand Climate Science Coalition<sup>1</sup>*

*“GAO, through its purchase of offsets, found that the information [regarding carbon offsets] provided to consumers by retailers offered limited assurance of credibility.” U.S. Government Accountability Office<sup>2</sup>*

## Introduction

Carbon offsets<sup>3</sup> are often touted as important tools in the campaign to slow global climate change,<sup>4</sup> but they are sold in

a “wild West’, buyer-beware marketplace.”<sup>5</sup> Consumers do not buy a tangible item when they purchase a carbon offset.<sup>6</sup> Ordinarily, the only thing consumers can hold and examine is a piece of paper stating that the proceeds from their purchase will reduce greenhouse gases (“GHG”) in the atmosphere by a certain number of tons.<sup>7</sup> Consumers often do not know whether their purchase actually reduces GHGs.<sup>8</sup>

Consumers’ lack of information about an offset’s validity gives unscrupulous sellers opportunities to unintentionally mislead, or even intentionally deceive, consumers about the true GHG reduction benefit of offsets.<sup>9</sup> For example, most offset consumers probably do not expect that their money can help a company profit from extracting oil,<sup>10</sup> or that a company can use offset proceeds to avoid liability for a polluting landfill.<sup>11</sup> Consumers would also likely be surprised to learn that they can pay full price for an offset that actually reduced GHGs by as little as half the amount the seller advertised.<sup>12</sup> Yet consumers in the United States can unwittingly pay for oil extraction and liability avoidance and still not receive the benefit for which they paid in today’s carbon offset market.

Government agencies do not adequately protect consumers. They do not formally regulate the offset market,<sup>13</sup> although sellers who mislead or defraud consumers may be

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\* *J.D. expected 2010, The George Washington University Law School; B.A. 2006, Brigham Young University. Much love and thanks to my wife, Kristin, and to my boys, Liam and Eamon, for making this, and everything else, possible. The title is taken from Fiona Harvey, Beware the Carbon Offsetting Cowboys, Fin. Times, Apr. 25, 2007.*

1. Posting of Nick Loris to The Foundry Blog, <http://blog.heritage.org/2009/09/22/today's-calamity-carbon-offsets-do-not-offset-the-economic-pain-of-cap-and-trade/> (Sept. 22, 2009, 14:57 EST).
2. U.S. GOV'T ACCOUNTABILITY OFFICE, PUB. NO. GAO-08-1048, CARBON OFFSETS (2008) [hereinafter GAO Report].
3. As used in this Note, “carbon offset” refers to a reduction in any greenhouse gas (“GHG”), not just CO<sub>2</sub>. Other naturally occurring GHGs include methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). *Id.* at 1 n.1. The market for renewable energy certificates (“RECs”) is very similar to the market for carbon offsets. *See* Fed. Trade Comm'n (“FTC”), Guides for the Use of Environmental Marketing Claims; Carbon Offsets and Renewable Energy Certificates; Public Workshop, 72 Fed. Reg. 66,094, 66,095 (Nov. 27, 2007) (to be codified at 16 C.F.R. pt. 260) [hereinafter FTC Workshop Announcement]. Although this Note only discusses offsets, the principles and legal remedies discussed apply to both markets. RECs are sold at a premium to the market price of electricity to interested consumers, and proceeds from REC sales are used by the power company to develop or operate renewable energy projects (solar, wind, etc.) or purchase renewable energy from other providers. *See id.* REC purchases often give consumers cause to characterize their electricity consumption as deriving from renewable sources. *See id.*
4. *See, e.g.,* DAN CARSON, APPALACHIAN POWER CO., CARBON OFFSETS (Aug. 27, 2008), available at <http://www.greenpeace.org/raw/content/international/press/reports/aep-internal-document-on-carbo.pdf> (“Climate change is a global phenomenon such that GHG reductions made anywhere on earth will be functionally equivalent to those made locally [through offsets.]”); Ben Elgin, *Another Inconvenient Truth*, BUS. WEEK, Mar. 26, 2007, at 96 (“A growing number of organizations, corporations, cities, and individuals are seeking to protect the climate [by purchasing carbon offsets] . . .”).

5. KATHERINE HAMILTON ET AL., ECOSYSTEM MARKETPLACE, STATE OF THE VOLUNTARY CARBON MARKET 2007: PICKING UP STEAM 31 (2007), available at <http://www.carbon.sref.info/an-example/market-news>.
6. *See* FTC Workshop Announcement, *supra* note 4, at 66,096.
7. Offset sellers often provide “certificates” after consumers purchase an offset. For an example of a certificate, *see* Climate Care, Example Certificate, <http://www.jpmorganclimatecare.com/media/documents/pdf/Example%20Certificate.pdf> (last visited Mar. 3, 2010).
8. *See* FTC Workshop Announcement, *supra* note 4, at 66,096.
9. *See id.* For simplicity, this Note uses the term “seller” broadly to include retailers, wholesalers or brokers, and developers or operators of GHG reduction projects from which offsets are derived. *See generally* HAMILTON ET AL., *supra* note 6, at 21–22 (discussing retailers, wholesalers, brokers, and developers as the four general categories of carbon offset market participants). Some companies and individuals perform multiple roles in the market (e.g. retailer, wholesaler, and operator). *Id.* at 22 (“numerous [survey] respondents operate at several levels in the value chain . . .”).
10. *See infra* text accompanying notes 109–11.
11. *See infra* text accompanying notes 112–14.
12. *See infra* text accompanying note 101.
13. GAO Report, *supra* note 3, at 9. The Environmental Protection Agency (“EPA”) and the U.S. Forest Service provide “technical assistance” to carbon offset project developers. *Id.*

liable under state consumer protection laws or state fraud common law.<sup>14</sup> The Federal Trade Commission (“FTC”) may also prosecute deceptive sellers under § 5 of the FTC Act prohibiting “unfair and deceptive acts and practices.”<sup>15</sup> However, these legal remedies are ill-adapted to the unique features of the carbon offset market and allow deceptive sellers to escape liability.<sup>16</sup>

Cap-and-trade legislation passed in the House and proposed in the Senate recognize the problems of carbon offsets and propose mechanisms to limit the potential for fraud in the offset market.<sup>17</sup> These bills would transform what is currently a voluntary offset market into a mandatory market; entities would purchase offsets as part of their compliance obligations.<sup>18</sup>

Yet there are two problems with the proposed legislation that make it likely that the carbon offset market will continue to have credibility issues. First, the proposed legislation probably will not be enacted.<sup>19</sup> Key legislators agree that even if alternative legislation is enacted, it will likely be more modest and focus on job creation and energy efficiency.<sup>20</sup>

Second, even a comprehensive cap-and-trade bill will not immediately make all offsets credible. Policy makers should learn from the European Union, which does regulate the offset market. Regulators in the European Union continue to experience problems ensuring carbon offset credibility and deceptive sellers can continue to escape liability.<sup>21</sup>

The two epigraphs at the beginning of this Note—the first from a voluble climate change and carbon offset skeptic, the second from the comparatively more neutral and staid U.S. Government Accountability Office (“GAO”)—illustrate the feelings and problems engendered by the relatively new market for carbon offsets. By many accounts across the market participant spectrum, “carbon cowboys . . . looking to make a quick buck” are riding into the legal void created by a lack of regulation and a lack of well-suited legal remedies.<sup>22</sup>

This Note proposes both a short-term and a long-term solution to close the legal void and rein in the “carbon cowboys.” In the short term, the FTC and courts should use the three-part test articulated in *Cliffdale Associates, Inc.* (“*Cliffdale*”)<sup>23</sup> and adopted by the Ninth Circuit in *FTC v. Pantron I, Corp.* (“*Pantron*”).<sup>24</sup> Applying the *Cliffdale* test is preferable in the short-term because the FTC and courts can immediately use the test to deter the worst potential abuses in the carbon offset market. Yet the *Cliffdale* test insufficiently protects both consumers and sellers in the long-term.

In the long-term the Commodity Futures Trading Commission (“CFTC”) should require carbon offset sellers to register their offsets.<sup>25</sup> The CFTC should enforce registration misrepresentations just as it enforces other registration statement misrepresentations.<sup>26</sup> CFTC registration is the preferred solution because registration benefits consumers and sellers by increasing the transparency and credibility of the carbon offset market over the long-term.<sup>27</sup>

Part I of this Note reviews the state of the carbon offset market in the United States. Part II focuses on the features of carbon offsets and the offset market that make the potential for consumer deception uniquely problematic. Part III reviews the problems of currently applicable legal theories under which deceptive offset sellers are potentially liable. Part IV discusses the *Cliffdale* test as the short-term solution. Part V details CFTC registration requirements for carbon offsets as the preferred, long-term solution.

14. *Id.* at 7. For simplicity, this Note uses “mislead” or “deceive” when discussing how offset sellers can take advantage of consumers. This Note uses “fraud” only when discussing common law fraud claims, where a seller’s intent is a required element. See *infra* Part III.A. and accompanying notes. In contrast to fraud, misleading and deceptive advertising does not require proving the seller’s intent. See *FTC v. Algoma Lumber Co.*, 291 U.S. 67, 81 (1934) (holding that the FTC could hold a company liable for unfair and deceptive practices even though the company’s misrepresentations were innocently made).

15. 15 U.S.C. § 45(a) (2006).

16. Despite several investigative reports detailing situations where consumers were deceived about the efficacy of the carbon offset they purchased, the absence of any public actions either undertaken by a private party or by a government agency against an offset seller may suggest that current legal remedies are inadequate. For examples of investigative reports, see Elgin, *supra* note 5; Harvey, *supra* note 1.

17. “Cap-and-trade” refers to a program where Congress sets a nationwide limit on emissions (the “cap”), and auctions or allocates emission permits amongst regulated entities. These entities can then buy or sell allowances, or hold their allowances for credit against the next compliance period. See Robert R. Nordhaus & Kyle W. Danish, *Assessing the Options for Designing a Mandatory U.S. Greenhouse Gas Reduction Program*, 32 B.C. ENVTL. AFF. L. REV. 97, 120 (2005). The primary Senate cap-and-trade bill is the Clean Energy Jobs and American Power Act, S. 1733, 111th Cong. (2009), introduced by Senators Kerry and Boxer on September 30, 2009. Carbon offset purchases are discussed in § 731 (“Part D”). The House passed the American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009) on June 26, 2009. The provisions relating to carbon offsets are substantially similar to those in the Senate bill and are discussed at § 731. Both bills would require the EPA to issue standardized methodologies and maintain a central registry to help ensure that offsets represent real reductions in GHGs. See S. 1733 § 732(b)–(d); H.R. 2454 § 732(b)–(d). States have also begun forming regional cap-and-trade bodies, which may have a role in offset regulation. See, e.g., Tseming Yang, *The Problem of Maintaining Emission “Caps” in Carbon Trading Programs Without Federal Government Involvement*, 17 FORDHAM ENVTL. L. REV. 271, 282–86 (2006) (discussing the Northeast Regional Greenhouse Gas Initiative).

18. This Note’s analysis and recommendations are equally applicable to a mandatory offset market should Congress and the President enact cap-and-trade legislation. Allowing offset purchases as a compliance mechanism could dramatically increase the size and value of the offset market, which reinforces policy makers’ need to understand the unique problems of the offset market. See generally Stockholm Env’t Inst., CORE: *Mandatory versus Voluntary Markets*, <http://www.co2offsetresearch.org/policy/MandatoryVsVoluntary.html> (last visited Mar. 3, 2010) (noting that demand increases in offset markets where purchases are made in response to regulation).

19. See John M. Broder & Clifford Krauss, *Advocates of Climate Bill Scale Down Their Goals*, N.Y. TIMES, Jan. 26, 2010, at A4. See also *Cap-and-Trade’s Last Hurrah*, ECONOMIST, Mar. 20–26, 2010, at 32 (discussing that the likelihood of passing cap-and-trade legislation has “faded badly”).

20. See Broder & Krauss, *supra* note 20, at A4.

21. See U.S. GOV’T ACCOUNTABILITY OFFICE, PUB. NO. GAO–09–1511, INTERNATIONAL CLIMATE CHANGE PROGRAMS 7–8 (2008) [hereinafter GAO Report on International Climate Change Programs] (discussing lessons learned from the European Emissions Trading Scheme).

22. Harvey, *supra* note 1.

23. See *Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 164–66 (1984).

24. See *FTC v. Pantron I, Corp.*, 33 F.3d 1088, 1095–96 (9th Cir. 1994).

25. 17 C.F.R. § 40.2 (2009) (contains the CFTC’s minimum registration requirements).

26. 7 U.S.C. § 15 (2006) (discussing the CFTC’s enforcement authority).

27. See GAO Report, *supra* note 3, at 28 (“[A] standardized offset registration process would foster transparency . . . . Because there is no single registry and because of a lack of communication among existing registries, it is difficult for consumers to determine the quality of the offsets they purchase.”).

## I. The Carbon Offset Market In The United States

Carbon offsets are “measurable reduction[s] of greenhouse gas emissions from an activity or project in one location that [are] used to compensate for emissions occurring elsewhere.”<sup>28</sup> For example, if an individual wants to reduce his or her net GHG emissions into the atmosphere from the individual’s driving, the individual might purchase an offset from an online retailer. The retailer promises the individual that the retailer will use the proceeds to fund or operate a project, such as a methane capture operation at a landfill, which will reduce the landfill’s methane emissions in an amount corresponding to the individual’s vehicle emissions.<sup>29</sup>

Individuals and corporations increasingly signal responsible action toward mitigating man-made climate change through purchasing carbon offsets.<sup>30</sup> These purchases are voluntary because the United States has not yet created a mandatory carbon market similar to the European Union’s Emissions Trading Scheme.<sup>31</sup> However, the problems and solutions discussed are applicable to both voluntary and mandatory markets.

There are some strident critics of carbon offsets, particularly within the environmental community, who equate carbon offset sales with the sale of indulgences; they absolve consumers of their environmental sins.<sup>32</sup> Nevertheless, popular culture lauds carbon offset consumers. At the 2007 Academy Awards, each celebrity presenter and award recipient was given a glass statue representing 100,000 pounds of GHGs reduced through the purchase of an offset sold by TerraPass, an online retailer.<sup>33</sup> TerraPass estimated 100,000 pounds to be the yearly GHG emissions from living a celebrity lifestyle.<sup>34</sup> Similarly, former Vice President Al Gore hosted a “Green Inaugural Ball” following President Obama’s inauguration where the Ball’s “carbon footprint,” an estimate of GHG emissions produced from organizing and holding the Ball, was offset through the purchase of “high-quality offsets.”<sup>35</sup> Although celebrity-purchased offsets often receive the most publicity in the media, individual consumer-purchased carbon offsets actually account for only five percent

of annual carbon offset purchases by volume as of 2007.<sup>36</sup> In contrast, businesses purchase eighty percent of carbon offsets by volume.<sup>37</sup> Some companies, such as Dell, HSBC, and Barclays, created plans to go entirely “carbon neutral,” whereby GHG emissions generated by the company’s activities are offset through offset purchases.<sup>38</sup>

Offsets are derived from projects that reduce GHGs. There are two general types of projects. One type reduces GHG emissions at the source by using offset proceeds to pay for energy efficiency improvements or renewable energy projects (thirteen percent of U.S. offset projects).<sup>39</sup> A second type of offset project captures and “sequesters” GHGs before or after entering the atmosphere.<sup>40</sup> Common examples of capture projects include capturing methane emitted by mines, landfills, or agricultural operations and burning it to produce less potent CO<sub>2</sub> (forty-nine percent of projects),<sup>41</sup> planting trees that absorb CO<sub>2</sub> from the atmosphere or using “no till” agriculture that reduces CO<sub>2</sub>-generating plant decomposition (seventeen percent of projects), and sequestering CO<sub>2</sub> in geologic formations, usually underground (nineteen percent of projects).<sup>42</sup>

The carbon offset market is growing rapidly. As of 2007, “over 600 organizations develop, market, or sell carbon offsets in the United States,” which offset about 10.2 million tons of GHGs.<sup>43</sup> From 2004 to 2007, offset projects increased 125% (from 93 to 211), representing a 66% increase in GHG reductions (from 6.2 million tons to 10.2 million tons).<sup>44</sup> Offsets sell for an average of approximately \$6 per ton of GHG,<sup>45</sup> which in total makes the market worth approximately \$100 million according to some estimates.<sup>46</sup> The offset market, like most other markets, has been negatively affected by the recent economic recession. Prices have fallen by one or two dollars per ton.<sup>47</sup> However, some experts predict the market’s

28. GAO Report, *supra* note 3, at 1.

29. See FTC Workshop Announcement, *supra* note 4, at 66,095.

30. Elgin, *supra* note 5.

31. See GAO Report on International Climate Change Programs, *supra* note 22, at 3 n.6.

32. Andrew C. Revkin, Op-Ed., *Carbon-neutral is Hip, But is it Green?*, N.Y. TIMES, Apr. 29, 2007, § 4, at 14 (“The worst of the carbon-offset programs resemble the Catholic Church’s sale of indulgences back before the Reformation,” said Denis Hayes, the president of Bullitt Foundation, an environmental grant-making group . . . “This whole game is badly in need of a modern Martin Luther.”).

33. Elgin, *supra* note 5.

34. *Id.*

35. Press Release, The Corporate Soc. Responsibility Newswire, 2009 Green Inaugural Ball Selects NativeEnergy As Sole Carbon Offset Provider (Jan. 17, 2009) (on file with The George Washington Journal of Energy and Environmental Law (“JEEL”). Whether a particular offset is “high quality” is a determination made by a third-party expert consultant or organization. Cf. TREXLER CLIMATE + ENERGY SERVS., INC., A CONSUMERS’ GUIDE TO RETAIL OFFSET PROVIDERS 10 (2006), available at [http://www.cleanair-coolplanet.org/Consumers-GuidetoCarbon Offsets.pdf](http://www.cleanair-coolplanet.org/Consumers-GuidetoCarbon%20Offsets.pdf) (ranking offset projects from “highest quality” to “low quality”).

36. HAMILTON ET AL., *supra* note 6, at 50. This statistic reflects purchases outside the United States as well (sixty-eight percent of those surveyed were U.S. consumers, and thirty-one percent were European or Canadian consumers).

37. *Id.* Governments purchased twelve percent and NGOs purchased two percent of carbon offsets by volume. *Id.* The U.S. House of Representatives, Office of the Chief Administrative Officer, is an example of a government consumer. The Officer purchased 30,000 tons worth of offsets as part of the “Green the Capitol” initiative. GAO Report, *supra* note 3, at 23.

38. Harvey, *supra* note 1; Press Release, Dell, Dell is First Major Computer Company to go Carbon Neutral (Sept. 26, 2007) (on file with JEEL).

39. GAO Report, *supra* note 3, at 12.

40. *Id.*

41. *Id.* at 14. Methane is a greenhouse gas that is twenty-three times more potent than carbon dioxide. Once “flared,” or burned off, methane degrades into much less potent carbon dioxide. Elgin, *supra* note 5, at 97.

42. GAO Report, *supra* note 3, at 12–15. The remaining offset purchases go towards renewable energy projects (six percent) and an undefined “other” category (one percent). *Id.* at 15.

43. *Id.* at 9. Although 10.2 million tons is a large figure, EPA estimates that the United States has been emitting approximately seven billion tons of GHGs per year since 2000. *Id.* at 13.

44. *Id.*

45. HAMILTON ET AL., *supra* note 6, at 32. This figure was calculated by averaging the price of offsets sold by retailers, brokers, wholesalers, and project developers.

46. Elgin, *supra* note 5.

47. See Envtl. Leader, *Carbon Offset Prices Fall, Buyers Focus On Quality* (2009), <http://www.environmentalleader.com/2009/02/16/carbon-offset-prices-fall-buyers-focus-on-quality/>.

overall value will increase to approximately \$4 billion, especially if Congress passes cap-and-trade legislation.<sup>48</sup>

Despite the promising signs of future growth in the carbon offset market, the market suffers from significant questions about its credibility.<sup>49</sup> In a study conducted in response to Congressional concerns about the offset market's credibility, the GAO purchased offsets from thirty-three retailers and found that "only [nine] provided information related to the use of quality assurance mechanisms, including verification and monitoring."<sup>50</sup> At best, "[a] majority" of retailers "provide[d] further information on their Web sites that was not directly related to [GAO's] transactions."<sup>51</sup> The GAO concluded that it rarely obtained sufficient information to understand what it was purchasing, "and other consumers may face similar challenges with their transactions."<sup>52</sup>

Institutional consumers can respond to these market credibility concerns by expending time and money ensuring the quality of their purchased offsets, sometimes even hiring major accounting firms like KPMG.<sup>53</sup> Yet even with the additional effort, quality carbon offsets may still be hard to find. For example, Barclays only found enough "quality" credits to offset forty percent of its GHG emissions.<sup>54</sup> Individual consumers may have particular difficulty ensuring offset credibility because they might lack the means to conduct extensive independent verification. These consumers can rely to a certain extent on offset certification programs created by offset sellers and third party monitoring groups.<sup>55</sup> However, offset retailers do not widely use third party certification programs.<sup>56</sup> Offset sellers who do use certification programs may confuse more than help consumers because each program employs different assumptions and methodologies to define a "high quality" offset.<sup>57</sup>

Beyond the problems for individual consumers, the offset market's credibility issues are also problems for the collective public. Many offset consumers, especially institutional consumers, perhaps unsurprisingly state that public relations benefits are a major reason for purchasing offsets.<sup>58</sup> When an institutional consumer's primary motivation is favorable press, both the consumer and the seller benefit from misrepresenting the actual amount of GHG reductions result-

ing from a purchased offset.<sup>59</sup> If a seller asserts that a project reduces 100 tons of GHGs per year, but in reality the figure is closer to fifty tons, both sides benefit. The seller benefits because the seller can put more offsets on the market. The institutional consumer benefits because it buys a piece of paper stating that the company reduced 100 tons of GHGs, not fifty. Although there are surely many companies that have more altruistic motives for purchasing offsets than the public relations appeal, the public is nevertheless misled into believing that more is being done to reduce net GHG levels than in reality.

## II. Four Problems With Carbon Offsets That Make Consumers Uniquely Susceptible To Deceptive Advertising

In addition to problems with the carbon offset market as a whole, carbon offsets in particular have four major problems that make offset sales particularly susceptible to deceptive advertising.<sup>60</sup> First, it is difficult to verify that the actual amount of GHGs reduced by a project matches the advertised amount (the "verification problem").<sup>61</sup> Second, it is difficult to determine whether the project that generates GHG reductions produces additional GHG reductions that were not possible without financing from carbon offset sales (the "additionality problem").<sup>62</sup> Third, carbon offset sellers can sell the same offset twice to different consumers (the "double-counting problem").<sup>63</sup> Fourth, there is no guarantee that the offset leads to permanent or even moderately long-term GHG reductions (the "permanence problem").<sup>64</sup>

Each of these problems shares a common cause: unlike other commodities, carbon offsets are not tangible.<sup>65</sup> Consumers cannot handle the product to ensure that it is unique and meets their expectations. Indeed, carbon offsets may be more analogous to buying equity shares in a project. Yet unlike selling equity on a stock market where sales are regulated by Securities and Exchange Commission ("SEC") securities rules,<sup>66</sup> there is no regulation or government oversight to directly deter fraud or misrepresentation in the carbon offset market.<sup>67</sup>

48. See John Goff, *Carbon Trading*, CFO MAGAZINE, Jan. 1, 2008, at 42 ("[O]bservers talk about a \$4 billion carbon [offset] trading market once federal caps are approved.").

49. See, e.g., GAO Report, *supra* note 3, at 7-9; TODD WYNN, CASCADE POLICY INST., MONEY FOR NOTHING: THE ILLUSION OF CARBON OFFSETS 5-8 (2009), available at [http://www.cascadepolicy.org/pdf/env/Climate\\_Trust\\_Audit\\_021009.pdf](http://www.cascadepolicy.org/pdf/env/Climate_Trust_Audit_021009.pdf); Elgin, *supra* note 5.

50. GAO Report, *supra* note 3, at 8.

51. *Id.*

52. *Id.*

53. See Harvey, *supra* note 1.

54. *Id.*

55. Cf. TREXLER CLIMATE + ENERGY SERVS., INC., *supra* note 36, at 15-20 (profiling the "top" offset providers, including their internal and third party certification and verification programs).

56. *Id.* at 12.

57. See generally HAMILTON ET AL., *supra* note 6, at 37-41 (summarizing the array of certification programs and their different goals, standards, and methodologies). The proliferation of these certification programs suggests a market-created indictment of the market's credibility.

58. See *id.* at 50-51.

59. Cf. Elgin, *supra* note 5 (describing GHG reductions claims that lacked evidentiary support).

60. See GAO Report, *supra* note 3, at 2 ("[Credible carbon offsets] must be additional, quantifiable, real, and permanent."). This Note uses slightly different terminology.

61. See *id.* at 25-32; FTC Workshop Announcement, *supra* note 4, at 66,096-97; WYNN, *supra* note 50, at 5-8.

62. See GAO Report, *supra* note 3, at 25-32; FTC Workshop Announcement, *supra* note 4, at 66,096-97; WYNN, *supra* note 50, at 5-7.

63. FTC Workshop Announcement, *supra* note 4, at 66,096

64. WYNN, *supra* note 50, at 7.

65. FTC Workshop Announcement, *supra* note 4, at 66,096 ("As a result [of offsets being intangible commodities], the potential for deception is greater than with more tangible products for which consumers more easily can confirm most advertising claims.").

66. See, e.g., 17 C.F.R. § 240.10b-5 (2009) (prohibits untrue statements or omissions of material facts in connection with the purchase or sale of any security).

67. See GAO Report, *supra* note 3, at 9.

This Part reviews each problem in turn, with particular attention paid to the problems of verification and additionality.

### A. When Is “A Ton A Ton?” The Problem Of Verifying That An Offset Results In The Advertised GHG Reduction

Offset sellers typically advertise the amount of GHGs reduced by a purchased offset. For example, Expedia, an airline ticket purchasing website, offers travelers the opportunity to pay \$6 to offset 1,000 pounds of GHGs emitted from their airplane.<sup>68</sup> Expedia partners with TerraPass and transmits offset sale proceeds to the online offset retailer.<sup>69</sup> TerraPass in turn may use the proceeds to finance the construction or maintenance of a GHG-reducing project, such as a project that captures methane emitted by landfills or dairy farms.<sup>70</sup>

The 1,000 pounds figure is TerraPass’s calculation of the number of GHGs produced by an individual flying cross-country.<sup>71</sup> The problem with this figure is that it is very difficult to measure both the GHG emissions of an activity (here, cross-country air travel)<sup>72</sup> and the GHG reductions produced by a project (here, the amount of methane captured at a landfill or dairy farm).<sup>73</sup> The difficulty of measuring GHG reductions makes it hard to verify sellers’ claims, which concerns the FTC, among others, that consumers are not “getting what they [paid] for” because “there is [a] real possibility of fraud in this market.”<sup>74</sup>

#### I. The problem of measuring GHG emissions from an activity

GHG emission “calculators” commonly found on the internet measure GHG emissions from various activities, but their credibility is doubtful.<sup>75</sup> Unlike traditional calculators,

carbon calculators can yield very different results when one enters identical inputs.<sup>76</sup> For example, internet offset retailer Native Energy’s carbon calculator assumes that a household emits approximately twelve tons of CO<sub>2</sub> annually,<sup>77</sup> but Conservation International’s calculator assumes that a household emits only five tons of CO<sub>2</sub> annually.<sup>78</sup> This discrepancy implicates a conflict of interest problem for offset retailers like Native Energy and TerraPass who provide carbon calculators on their websites: the retailers may have incentives to inflate GHG emission assumptions to sell more offsets.<sup>79</sup>

For air travel, an Oxford University study found that calculators can vary by more than 225% when estimating an individual’s share of CO<sub>2</sub> emissions from a transatlantic flight (1.53 vs. 3.48 tons of CO<sub>2</sub>).<sup>80</sup> This air travel emission discrepancy also results from different assumptions, including the plane type (older models are half as fuel efficient as newer models), how long CO<sub>2</sub> emitted by the plane remains in the air, and how seats and cargo are distributed in the plane.<sup>81</sup>

The cost difference resulting from these varying calculations may not trouble some consumers. The average retail price of a carbon offset is \$8 per ton,<sup>82</sup> which, when comparing Conservation International’s calculator to Native Energy’s calculator, results in a price differential of \$40–\$96 to offset household CO<sub>2</sub> emissions and \$12–\$28 to offset an individual’s contribution to a transatlantic flight’s CO<sub>2</sub> emissions. An institutional consumer, however, has more concern because it must purchase many more offsets than an individual.<sup>83</sup>

Individual and institutional consumers alike are most vulnerable to deceptive sellers when a seller combines a high estimate of GHG emissions with a high price per ton to offset those emissions. For example, the retail price of carbon offsets extends as high as \$25 per ton,<sup>84</sup> so an offset retailer could sell a household emission offset for as much as \$300 (\$25 x 12 tons of CO<sub>2</sub>)—more than twice the average price of \$120 for a comparable offset.<sup>85</sup> Despite such a high price, a deceptive seller can rely on the fact that price competition is only “starting to appear” in the offset market because consumers have a difficult time comparing the quality of off-

68. Barbara De Lollis, *Can You Be Green by Buying Offsets?*, USA TODAY, Mar. 2, 2007, at 1B; see also Expedia, Reducing Your Carbon Footprint, [http://www.expedia.com/daily/sustainable\\_travel/going\\_green/carbon\\_footprint.asp](http://www.expedia.com/daily/sustainable_travel/going_green/carbon_footprint.asp) (last visited Mar. 3, 2010).

69. See De Lollis, *supra* note 69.

70. TerraPass, TerraPass Carbon Offset Project Types, <http://www.terrapass.com/projects/categories.html> (last visited Mar. 3, 2010).

71. See De Lollis, *supra* note 69.

72. See CHRISTIAN N. JARDINE, OXFORD UNIV. ENVTL. CHANGE INST., CALCULATING THE CARBON DIOXIDE EMISSIONS OF FLIGHTS 2 (2009), available at <http://www.eci.ox.ac.uk/research/energy/downloads/jardine09-carboninflight.pdf> (discussing airline GHG emission calculation problems).

73. See S.M. McGinn et al., *An Approach for Measuring Methane Emissions from Whole Farms*, 35 J. ENVTL. QUALITY 14 (2006), available at <http://jeq.scijournals.org/cgi/reprint/35/1/14> (select “Begin manual download”) (discussing the difficulty of measuring farm animal methane emissions); Brian Palmer, *Measuring the National Carbon Footprint*, SLATE, Nov. 19, 2008, <http://www.slate.com/id/2205011/> (discussing the difficulty of measuring landfill and farm animal methane emissions). Cf. RICHARD L. OTTINGER ET AL., PACE UNIV. CTR. FOR ENVTL. LEGAL STUDIES, ENVIRONMENTAL COSTS OF ELECTRICITY 165–69 (1990) (discussing the difficulty of measuring forest sequestration projects).

74. Christopher Joyce, *Carbon Offsets: Government Warns of Fraud Risk*, NATIONAL PUBLIC RADIO, Jan. 3, 2008, [www.npr.org/templates/story/story.php?storyId=17814838](http://www.npr.org/templates/story/story.php?storyId=17814838) (quoting Jim Kohm, the head of FTC’s enforcement division).

75. See Michael P. Vandenberg & Anne C. Steinemann, *The Carbon–Neutral Individual*, 82 N.Y.U. L. REV. 1673, 1736 (2007); Tim De Chant, *On Trail of Elusive Carbon Footprint*, CHI. TRIB., Aug. 10, 2008, at 1. In addition to the

offset calculations discussed *infra* text accompanying notes 78–80, calculators can be found at [carbonfund.org](http://carbonfund.org), [terrapass.com](http://terrapass.com), [nature.org](http://nature.org), and [stopglobalwarming.org](http://stopglobalwarming.org).

76. See Vandenberg & Steinemann, *supra* note 76, at 1736.

77. NativeEnergy, Lifestyle Calculator, [http://www.nativeenergy.com/pages/lifestyle\\_calculator/464.php](http://www.nativeenergy.com/pages/lifestyle_calculator/464.php) (select “Want to offset from US averages?”) (last visited Mar. 3, 2010).

78. Conservation Int’l, Our Methodology, [http://www.conservation.org/act/live\\_green/carboncalc/pages/methodology.aspx](http://www.conservation.org/act/live_green/carboncalc/pages/methodology.aspx) (last visited Mar. 3, 2010).

79. See Vandenberg & Steinemann, *supra* note 76, at 1737.

80. See JARDINE, *supra* note 73, at 2. Silverjet, a “carbon-neutral” trans-Atlantic carrier, claims that a passenger only generates 1.2 tons of CO<sub>2</sub>. See Revkin, *supra* note 33.

81. See JARDINE, *supra* note 73, at 3–4.

82. See HAMILTON ET AL., *supra* note 6, at 32.

83. This fact explains Barclays and HSBC banks going to great lengths to ensure the quality of the offsets they purchased. See Harvey, *supra* note 1.

84. Mark C. Trexler & Laura H. Kosloff, *Selling Carbon Neutrality*, 26 ENVTL. F. 34, 35 (2006), available at [http://www.nativeenergy.com/filebin/pdf/Trexler%20Retail\\_Offsets\\_EnvForum\\_Final11.pdf](http://www.nativeenergy.com/filebin/pdf/Trexler%20Retail_Offsets_EnvForum_Final11.pdf).

85. *Id.* at 36.

sets.<sup>86</sup> Who is to say that the \$360 offset is not the proverbial “Cadillac” of carbon offsets? With each offset seller using its own assumptions and calculator to determine offset price, and with consumers unable to compare offsets because they are intangible, consumers have little to rely on beyond a seller’s representations.<sup>87</sup>

## 2. The problem of measuring GHG reductions from a project

Two measurements must be taken to determine the GHG reductions from a carbon offset project.<sup>88</sup> The first measurement is a baseline estimate of the net GHG emissions resulting from a location.<sup>89</sup> For example, a baseline estimate determines the methane emitted by a landfill or farm, or the current CO<sub>2</sub> reductions from a forest.<sup>90</sup> The second measurement estimates the GHG reductions of the project.<sup>91</sup> For example, a GHG reduction estimate determines how much a methane capture and flare device will reduce GHGs emitted by a landfill, or how much additional CO<sub>2</sub> is captured from the air and sequestered into planted trees.<sup>92</sup> The difference between the GHG reduction estimate and the baseline estimate provides the basis for a project developer’s claim of environmental benefit.

Measuring the baseline and reduction estimates are scientifically complex and require a number of assumptions.<sup>93</sup> Offset sellers can freely choose among varying assumptions and measurement methodologies, although some are more scientifically reputable than others.<sup>94</sup> Methodology differences allow deceptive sellers opportunities to choose a favorable methodology and set of assumptions to inflate an estimate, thereby “increasing the quantity of offsets” that the seller can market from a given project.<sup>95</sup>

Deceptive sellers can also choose the most favorable estimates of GHG reductions. GHG reduction measurement accuracy varies by type of project, although statistics are scarce.<sup>96</sup> Methane capture projects built at mines and land-

fills are the most accurate and most industry studies state that methane capture projects reduce by seventy-five percent the amount of methane that would have entered the atmosphere without methane capture equipment.<sup>97</sup> Although lacking comparative statistics, some animal scientists expressed “considerable uncertainty” with farm methane capture projects because the variability of conditions found on different farms makes it difficult to devise uniform tests.<sup>98</sup> Forestation projects are notoriously difficult to measure, and GHG reduction estimates can vary by as much as fifty percent.<sup>99</sup>

There are two practical consequences for consumers resulting from the verification problem. First, consumers simply may not receive the advertised benefit. If an individual offsets his or her household emissions of eight tons of CO<sub>2</sub>, and the purchased offset is derived from a reforestation project, the individual’s payment may only actually realize four tons of CO<sub>2</sub> reduction. If a consumer paid full price but only received half a cookie, half a television, or half a car, the consumer would justifiably be outraged and want to hold the seller responsible. This problem exponentially increases for institutional consumers.

The second consequence for consumers from the verification problem is that because not all offsets are estimated using the same standards and assumptions, offsets are not “fungible.”<sup>100</sup> An offset sold by one seller is not credibly equal to an offset sold by another seller.<sup>101</sup> Proverbially stated, offset consumers often compare apples to oranges when they consider which offset to purchase. Carbon offsets’ lack of fungibility makes it “difficult for consumers to understand what they purchase . . . [because] it is difficult for consumers to determine the quality of the offsets they purchase.”<sup>102</sup> The corollary of lack of fungibility is that it makes for an inefficient carbon offset market.<sup>103</sup>

### B. “Icing on the Cake”: The Problem of Additionality

To be “additional,” a carbon offset must finance a project that reduces GHGs in addition to what would normally take place in a business-as-usual scenario (i.e. without proceeds from offset sales).<sup>104</sup> The GAO succinctly stated the rationale for ensuring the additionality of GHG-reducing projects: “[O]nly offsets that are additional to business-as-usual activities result in new environmental benefits.”<sup>105</sup>

86. MARK C. TREXLER ET AL., ECOSYSTEM MARKETPLACE, GOING CARBON NEUTRAL: HOW THE RETAIL CARBON OFFSETS MARKET CAN FURTHER GLOBAL WARMING MITIGATION GOALS 4 (2006).

87. As discussed *supra*, text accompanying notes 56–58, third party verification and certification programs do not adequately inform consumer choices because these programs also use differing standards and assumptions. See TREXLER CLIMATE + ENERGY SERVS., INC., *supra* note 36, at 15–16; HAMILTON ET AL., *supra* note 6, at 37–39.

88. See OTTINGER ET AL., *supra* note 74, at 171 (discussing measurements taken in a forest sequestration project).

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.* at 165–71.

93. *Id.* at 165–71, 176 (reviewing varying assumptions in competing GHG reduction estimates from a forest sequestration project).

94. See GAO Report, *supra* note 3, at 27–28.

95. Letter from Elliot Burg, Assistant Attorney Gen., Vt. Attorney Gen.’s Office, & David A. Zonana, Deputy Attorney Gen., Cal. Attorney Gen.’s Office, to the Office of the Sec’y, Fed. Trade Comm’n 3 (Jan. 25, 2008) [hereinafter AG Letter], available at [http://ag.ca.gov/cms\\_attachments/press/pdfs/n1520\\_carbon\\_offset\\_letter.pdf](http://ag.ca.gov/cms_attachments/press/pdfs/n1520_carbon_offset_letter.pdf).

96. See GAO Report, *supra* note 3, at 28 (discussing what project types are the most and least credible); TREXLER CLIMATE + ENERGY SERVS., INC., *supra* note 36, at 10 (ranking quality of offsets by project type).

97. See RAYMOND L. HUITRIC & DUNG KONG, L.A. COUNTY SANITATION DISTS., MEASURING LANDFILL GAS COLLECTION EFFICIENCY USING SURFACE METHANE CONCENTRATIONS 1 (2007), available at [www.climatechange.ca.gov/events/2007-06-12\\_mac\\_meeting/public\\_comments/HuitricSWANA\\_06.pdf](http://www.climatechange.ca.gov/events/2007-06-12_mac_meeting/public_comments/HuitricSWANA_06.pdf) (stating that landfill methane collection has a seventy-five percent efficiency rate).

98. See McGinn et al., *supra* note 74, at 14.

99. See OTTINGER ET AL., *supra* note 74, at 166.

100. GAO Report, *supra* note 3, at 28.

101. *Id.*

102. *Id.*

103. See *id.*

104. See Mark C. Trexler et al., *A Statistically-Driven Approach to Offset-Based GHG Additionality Determinations: What Can We Learn?*, 6 SUSTAINABLE DEV. L. & POL’Y 30, 31 (2006).

105. GAO Report, *supra* note 3, at 25.

Deceptive offset project developers can take money from carbon offset consumers for activities the developer was going to do anyway.<sup>106</sup> Blue Source, the self-proclaimed leader of carbon offset sales in North America,<sup>107</sup> sells offsets to consumers derived from CO<sub>2</sub> captured from industry emissions and injected into old oil wells, thereby forcing up residual crude oil.<sup>108</sup> A *Financial Times* investigation revealed that Blue Source did not tell consumers that due to high oil prices at the time, this practice was profitable in itself, and consumers simply financed oil extraction that would have taken place anyway.<sup>109</sup> Similarly, a *BusinessWeek* investigation showed that Waste Management, Inc. realized extra profits from carbon offset consumers for developing methane flares for the company's landfill.<sup>110</sup> Waste Management executives earlier committed to develop the project because state regulators were threatening action against the company for methane that was contaminating groundwater beneath the landfill.<sup>111</sup> In effect, offset consumers unknowingly helped finance a project undertaken by the company to avoid civil liability for groundwater contamination.

TerraPass marketed and sold the offsets on Waste Management's behalf at the same time that it was selling offsets derived from six other projects.<sup>112</sup> Five of those six project developers stated that financing from offsets had not played a significant role in deciding to undertake the GHG-reducing project.<sup>113</sup> In the words of one project manager, offset financing is "just icing on the cake . . . [w]e would have done this project anyway."<sup>114</sup>

Blue Source and Waste Management did nothing illegal. Moreover, some might argue that they had smart business strategies: get paid for something they were going to do anyway. However, selling offsets derived from a project that would have been undertaken even without the proceeds from purchased offsets is antithetical to the consensus definition of a carbon offset.<sup>115</sup>

Determining whether a project is additional is difficult because the determination requires assuming a counterfactual scenario—what would have happened without financing from the sale of carbon offsets.<sup>116</sup> Similar to the verification

problem, a number of standards and methodologies are used for addressing the additionality problem.<sup>117</sup> The varying and contradictory standards for addressing the additionality problem, together with the inherent uncertainty of making a determination based on a hypothetical assumption, makes additionality the single biggest problem facing the carbon market today.<sup>118</sup>

### C. When One Person's Offset is Also Another's: The Problem of Double-Counting

Deceptive offset sellers can "double-count" offsets by selling the same offset to different consumers.<sup>119</sup> For example, a project developer who plants a forest that absorbs 30,000 tons of GHGs from the atmosphere could sell thirty offsets, each representing 1,000 tons of GHGs, to a company. The developer could then sell the same thirty offsets to a different company. Because there is no central registry that ties offset sales with specific projects or consumers, and one purchasing company is unlikely to independently learn from the developer whether the developer sold the same offset to another company, the developer can easily commit fraud by a double sale.<sup>120</sup>

### D. When an Offset Is Here Today and Gone Tomorrow: The Problem of Permanence

Consumers should justifiably expect that their purchased offsets will produce permanent, or at least long-term, GHG reductions. Yet the reality is that some carbon offset projects are neither permanent nor long-term. For example, the rock band Coldplay offset the GHG emissions resulting from one of its concert tours by financing 10,000 mango tree plantings in India.<sup>121</sup> Over four years later, many of the mango saplings died due to inadequate attention and financing by the project developer.<sup>122</sup>

Permanence problems are not confined to forestation projects. Any number of problems, including human neglect or mechanical breakdown, can interrupt or limit GHG reductions at project sites. Yet barring physical inspection, consumers might have little assurance from sellers that offset purchases lead to permanent GHG reductions. The consumer's interest and benefit from the offset sale continues well past the actual date of sale, and a seller fails to adequately protect consumer interest by failing to ensure that a project permanently reduces GHGs.<sup>123</sup>

106. Cf. Trexler et al., *supra* note 105, at 31–32 (discussing the difficulty of setting standards for determining additionality).

107. Blue Source, About Blue Source At a Glance, <http://www.ghgworks.com/2-about.html> (last visited Mar. 3, 2010).

108. Blue Source, Carbon Capture and Storage, <http://www.ghgworks.com/3c-capture-storage.html> (last visited Mar. 3, 2010).

109. Fiona Harvey & Stephen Fidler, *Industry Caught in 'Carbon Credit' Smoke-screen*, FIN. TIMES, Apr. 26, 2007, at 1.

110. Elgin, *supra* note 5, at 98.

111. *See id.* at 97.

112. *See id.* at 98.

113. *See id.*

114. *Id.*

115. *See, e.g.*, FTC Workshop Announcement, *supra* note 4, at 66,096–97; GAO Report, *supra* note 3, at 2–3 (summarizing the definition of carbon offset as given by market "stakeholders").

116. *Id.* at 26 ("Determining additionality is inherently uncertain because, [sic] it may not be possible to know what would have happened in the future had the projects not been undertaken."); *see also* Trexler et al., *supra* note 105, at 31 ("[I]t is impossible to definitively answer [the additionality question]. Even if we could read the minds of project developers, they themselves may not know what they would have done under different circumstances. It is not even a 'hypothetical' question, since a hypothesis can be empirically tested.").

117. *See* Trexler et al., *supra* note 105, at 33 (listing and quantitatively assessing different types of additionality tests).

118. *See* GAO Report, *supra* note 3, at 52 (ranking by market participants of additionality as the most serious problem affecting market credibility).

119. *See, e.g.*, AG Letter, *supra* note 96, at 4; GAO Report, *supra* note 3, at 28.

120. *See* GAO Report, *supra* note 3, at 28.

121. *See* Amrit Dhillon & Toby Harnden, *How Coldplay's Green Hopes Died in the Arid Soil of India*, THE SUNDAY TEL. (London), Apr. 30, 2006, at 3.

122. *Id.* Trees planted through offset financing can also be destroyed through wildfires or insect infestation.

123. *See* AG Letter, *supra* note 96, at 7 (noting that consumer interests are best protected when an offset seller provides evidence, among other things, "that the projects or practices are actually carried out and are permanent").

The four problems discussed above are not exceptional when one considers that many markets present unique problems for market participants. Yet unlike most other markets, the unique problems in the carbon offset market are compounded because consumers lack adequate legal remedies to use against deceptive offset sellers.

### III. Current Legal Remedies To Hold Deceptive Offset Sellers Liable

This Part first discusses legal remedies that the FTC and state attorneys general would likely use against deceptive offset sellers.<sup>124</sup> This Part then argues that these remedies are insufficient both because they are ill-suited to the unique problems posed by carbon offsets and because current legal remedies are not philosophically consistent with promoting consumer protection.

#### A. State Fraud Common Law is Not Well-Suited to Prosecute Deceptive Offset Sellers

State common law fraud claims can be based on actual or constructive fraud.<sup>125</sup> Actual fraud requires proof that the offset seller knew that the advertised GHG reduction was not truthful and was intended to deceive the consumer.<sup>126</sup> An actual fraud claim therefore would only be a viable option for a defrauded offset consumer in the rare case where an offset seller made some statement that clearly indicates the seller was aware that the offset was defective in some material respect.

Consumers can prove constructive fraud only through proof that offset sellers knew they lacked a reasonable basis on which to make the advertised claim concerning the offset's environmental benefits.<sup>127</sup> As discussed below in connection with state and federal consumer protection laws,<sup>128</sup> carbon offset sellers can easily escape liability under a "reasonable basis" standard because the scientific methodology underlying claims of offset benefits is inexact. Inexact science gives sellers cover for making claims on the furthest extreme of plausibility.<sup>129</sup>

#### B. State and Federal Consumer Protection Laws Are Insufficient Remedies for Holding Deceptive Offset Sellers Liable

The FTC is the federal agency with jurisdiction over consumer protection, and although the FTC has not brought an action against an offset seller or issued rules governing offset advertising, FTC officials confirmed that the agency is beginning to direct its attention to potentially misleading offset advertising.<sup>130</sup> The statute under which the FTC enforces environmental marketing claims, such as those relating to carbon offsets, is § 5 of the FTC Act, which prohibits "unfair and deceptive acts and practices."<sup>131</sup> Unlike state common law fraud claims, claimants under § 5 need not prove intent.<sup>132</sup> The FTC has issued interpretive rules, called the "Green Guides," to guide marketers of products who make environmental benefits claims.<sup>133</sup> Under the Green Guides, products making claims of environmental benefits, such as an offset, must have a "reasonable basis substantiating the claim . . . [which] will often require competent and reliable scientific evidence . . ."<sup>134</sup>

There are three problems, each closely related to the others, with the "reasonable basis in the science" standard articulated in the FTC's Green Guides as applied to carbon offset marketing. First, as discussed above in relation to the verification problem, measuring GHG reductions from an offset project is an "inherently uncertain" scientific endeavor requiring a lot of assumptions.<sup>135</sup> The deceptive offset seller can choose from a multitude of GHG measurement standards and assumptions to find the standard that calculates the most GHG reductions from the seller's project.<sup>136</sup> In other words, in the absence of a definitive standard, a seller could use the most favorable, though still plausible, assumptions and standards and still have a reasonable scientific basis.

For example, an offset seller could assume that both all trees in a reforestation project would mature to contain high average wood densities (high wood density translates to more CO<sub>2</sub> sequestered per tree), and all planted trees

124. The qualifier "likely" is necessary because an extensive review resulted in no known public cases where an offset seller was prosecuted for fraudulent or deceptive practices. This is perhaps understandable considering that the carbon offset market has only had an appreciable impact within the last three to four years, and as discussed in this Part, current legal remedies are ill-suited for prosecuting deceptive offset sellers.

125. *See, e.g.,* Pinney & Topliff v. Chrysler Corp., 176 F. Supp. 801, 803 (S.D. Cal. 1959) (holding that "with actual or constructive fraud there must be a false representation or promise as to a material fact, knowledge of its falsity when made, or lack of reasonable ground to believe in its truth").

126. *See* RESTATEMENT (SECOND) OF CONTRACTS § 162(1) cmt. a (1979); *see also* RESTATEMENT (SECOND) OF TORTS § 526 (1999).

127. RESTATEMENT (SECOND) OF CONTRACTS § 162(1)(c) (1979).

128. *See infra* Part III.B. and accompanying footnotes.

129. *See text* accompanying notes 137–38.

130. *See, e.g.,* FTC Workshop Announcement, *supra* note 4, at 66,094–97. The FTC already has a lead role on other environmental marketing activities, including claims regarding the degree that a product is "environmentally friendly," the percentage of a product's recyclable content, a product's biodegradability, and the amount of waste a product generates. *See* 16 C.F.R. § 260.7 (2009).

131. 15 U.S.C. § 45(a) (2006). State consumer protection laws are generally substantively similar to FTC Act § 5, so the problems discussed concerning FTC § 5 apply equally to state equivalents. *See, e.g.,* CAL. BUS. & PROF. CODE § 17,200 (West 2008); N.Y. GEN. BUS. LAW § 349 (West 2004).

132. JULIAN O. VON KALINOWSKI ET AL., 1 ANTITRUST LAWS AND TRADE REGULATION § 5.04 (2d ed. 2005).

133. FTC Green Guides, 16 C.F.R. § 260 (2009). The FTC's Green Guides are currently undergoing revision to account for, among other things, misleading claims about carbon offsets. The FTC stated that the revision should be completed in 2009. *See* Envtl. Leader, *FTC Examines Green Building, New Green Guides 'Definitely' in 2009*, July 16, 2008, <http://www.environmentalleader.com/2008/07/16/ftc-examines-green-building-new-green-guides-definitely-in-2009/>. As of this Note's publication, the FTC has not yet issued its Green Guides revision.

134. FTC Green Guides, 16 C.F.R. § 260.5 (2009).

135. *See supra* Part II.A. and accompanying notes.

136. *See, e.g.,* OTTINGER ET AL., *supra* note 74, at 165–71, 176; Trexler et al., *supra* note 105, at 33 (listing different additionality tests from which project developers can choose).



would mature without loss to fire, pests, or human activity.<sup>137</sup> Although many experts would consider these assumptions unlikely, they might still be plausible enough for a seller to claim that they have reasonable bases in the science.<sup>138</sup> These two assumptions, together with assumptions leading to the lowest plausible estimate of current GHG reductions from the land to be reforested, maximize the GHG reductions a seller can claim from the reforestation project. The more GHG reductions a seller can claim, the more offsets a seller can market, which translates to the healthiest bottom line and the least consumer protection.

The second and related problem with the reasonable basis in the science standard is that it is most effective in circumstances where there is a scientific consensus on the appropriate methodologies with which to evaluate environmental benefit claims. For example, the standard works well where marketers claim that plastic trash bags are biodegradable because the government can test whether the bags actually decompose,<sup>139</sup> or where a marketer claims its coffee filters are chlorine-free because the government can examine the manufacturing process or test the filters and determine whether chlorine was used.<sup>140</sup> In these cases there is a definitive answer: the bags either decompose or they do not; the filters either contain chlorine or they do not.

In contrast, the government cannot conduct definitive tests for carbon offsets because every marketer calculates offset benefits using a variety of methodologies and assumptions, any one of which could be the most accurate (although some assumptions are more plausible than others).<sup>141</sup> Determining offset additionality also requires a number of assumptions, with one market survey listing eight different tests that sellers use.<sup>142</sup>

The practical effect of all this uncertainty is that unscrupulous offset sellers can choose the most advantageous assumption, and then select the highest possible amount of GHG reduction that can be plausibly claimed.<sup>143</sup> Yet the offset seller can still escape liability because the seller can technically, but accurately, state that the seller had a reasonable basis in the science. In the absence of consensus methodologies and assumptions, the seller's only limitation is that the seller's claims cannot be so extreme that no test or assumption would support the claim.

The third and final problem with the reasonable basis in the science standard is that it is inconsistent with the con-

sumer-centric philosophy that should prevail in consumer protection law. The FTC Act's "overriding purpose [is] . . . to protect the consumer from being misled."<sup>144</sup> The FTC recognized that the Green Guides, the FTC's interpretive rules on environmental marketing claims,<sup>145</sup> should focus on "the way in which consumers understand environmental claims and not necessarily the technical or scientific definition of various terms."<sup>146</sup> At the FTC's workshop on the carbon offset market, FTC Chairwoman Deborah Majoras reaffirmed that deceptive advertising in the context of carbon offset markets should be evaluated by what would mislead the reasonable consumer.<sup>147</sup>

In contrast, the reasonable basis in the science standard does not focus on the consumer's thoughts about an advertisement, but on the adequacy of the seller's scientific methodology providing the basis for the advertisement.<sup>148</sup> Thus, the consumer-centric focus of the FTC Act and the FTC's intent in promulgating the Green Guides are in tension with the scientific, seller-centric focus of the FTC's reasonable basis standard. As discussed above,<sup>149</sup> a consumer's money can lead to as little as fifty percent of the advertised GHG reduction, an occurrence which a consumer surely would not expect when buying the offset.<sup>150</sup> But the seller would escape liability because the seller can point to reasonable assumptions underlying the estimate. New legal remedies are necessary when sellers are not required to deliver according to consumer expectations.

#### IV. The Short-Term Solution: The *Cliffdale* "Likely To Mislead" Test

Courts should replace the reasonable basis in the science standard used in other environmental marketing cases with the likely to mislead test articulated in *Cliffdale*<sup>151</sup> and adopted by the Ninth Circuit in *Pantron*.<sup>152</sup> This test is preferable in the short-term because it provides a ready-made standard that can be "pulled off the shelf" to better protect consumers in the interim before the CFTC establishes formal regulations for the offset market.<sup>153</sup>

137. See OTTINGER ET AL., *supra* note 74, at 166.

138. *But cf. id.* at 165–68.

139. *Cf. N. Am. Plastics Corp.*, 118 F.T.C. 632, 633–34 (1994).

140. See, e.g., Mr. Coffee, Inc., 117 F.T.C. 156, 158 (1994); see also Alan Levy, Senior Scientist, Food & Drug Admin., Address at Carbon Offsets & Renewable Energy Certificates Workshop (Jan. 8, 2008) ("[C]laims [about biodegradability and recycled content] at least seem to be objectively verifiable based on science and product testing.").

141. See, e.g., OTTINGER ET AL., *supra* note 74, 165–76 (discussing varying assumptions in forest sequestration projects); see also Levy, *supra* note 141 ("Claims about offsetting one's carbon footprint or carbon neutral by contrast [to claims about biodegradability and recycled content] are claims about the behavior of the product maker or service provider and can't be evaluated by product testing.").

142. See Trexler et al., *supra* note 105, at 33.

143. *Cf. id.* at 32 (describing "phantom reductions" as a product in part of what additionality test is chosen).

144. *F.T.C. v. Pantron I Corp.*, 33 F.3d 1088, 1099 (1994) (quoting *Nat'l Petroleum Refiners Ass'n v. F.T.C.*, 482 F.2d 672, 685 (D.C. Cir. 1973)) (internal quotations omitted).

145. See FTC Green Guides, 16 C.F.R. § 260 (2009).

146. FTC Workshop Announcement, *supra* note 4, at 66,096.

147. Deborah Majoras, Chairwoman, FTC, Opening Remarks at the FTC Public Workshop on the Carbon Offset Market 9 (Jan. 8, 2008)

("So for marketers the basic rule to remember is any material misrepresentation, omission or practice is deceptive if it's likely to mislead consumers who are acting reasonably.").

148. FTC Green Guides, 16 C.F.R. § 260.5 (2009) ("[Marketers can] rely upon a reasonable basis substantiating the claim . . . [which] will often require competent and reliable scientific evidence.").

149. See OTTINGER ET AL., *supra* note 74, at 166.

150. A major problem with the offset market is that there are few, if any, consumer surveys detailing what consumers expect from purchased offsets. See generally Levy, *supra* note 141, at 23–36 (discussing unanswered questions about consumer expectations in the offset market).

151. *Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 164 (1984).

152. *F.T.C. v. Pantron I Corp.*, 33 F.3d 1088, 1095 (9th Cir. 1994).

153. See *infra* Part V.

This Part first reviews the likely to mislead test articulated in *Cliffdale* and adopted by the Ninth Circuit in *Pantron*. This Part then discusses the advantages of applying the likely to mislead test in the offset market context, and then answers some of the potential problems of replacing the reasonable basis in the science standard.

### A. The Likely to Mislead Test

In *Cliffdale*, the FTC held a manufacturer of a fuel efficiency device called the “Ball-matic” liable for deceptive advertising.<sup>154</sup> The manufacturer argued that its fuel efficiency claim had a reasonable basis because the manufacturer conducted a “controlled, supervised test” that showed that cars installed with the Ball-matic improved their gas mileage between eight and forty percent.<sup>155</sup> The manufacturer also produced customer testimonials as evidence that showed that the manufacturer had a reasonable basis to make its advertising claims.<sup>156</sup>

The FTC claimed that the manufacturer lacked a reasonable basis in the science and produced evidence of a fuel efficiency test, used both by the Environmental Protection Agency (“EPA”) and non-government experts, which showed that the fuel efficiency savings of the Ball-Matic were illusory.<sup>157</sup> Experts also reviewed the methodology of the manufacturer’s test and concluded that it was not scientifically credible.<sup>158</sup> Experts reached the conclusion that the manufacturer’s test was not credible because, unlike carbon offsets, there is a scientific consensus about how to test the extent to which a product increases a car’s fuel efficiency.<sup>159</sup> Therefore, an FTC administrative law judge (“ALJ”) held that the manufacturer’s test was an insufficient basis for its fuel efficiency claim.<sup>160</sup>

The key point about *Cliffdale* is that in affirming the ALJ’s decision, the FTC gave scant attention to the “reasonable basis” inquiry and focused much more on whether a reasonable consumer would be misled by the manufacturer’s claim.<sup>161</sup> Furthermore, the Commission’s test was not the reasonable basis test, but a new, “likely to mislead” test.<sup>162</sup> This test holds that a practice is deceptive if: (1) “there is a representation, omission, or practice” that; (2) is likely to mislead a reasonable consumer; and (3) “the representation, omission, or practice is material.”<sup>163</sup> The FTC then applied the three-part test to each discrete claim,<sup>164</sup> and relegated the “reasonable basis” test to a two paragraph discussion at the conclusion of the opinion.<sup>165</sup>

The Ninth Circuit explicitly adopted the *Cliffdale* likely to mislead test in *Pantron*.<sup>166</sup> *Pantron* is a good example of a situation where, as in the case of deceptive offset sellers, an advertising claim could plausibly have a reasonable basis in the science, yet still be untrue and therefore mislead the reasonable consumer.

In *Pantron*, the FTC alleged that Pantron used deceptive advertising when it claimed that its product, Helsinki Formula, promoted new hair growth for balding individuals.<sup>167</sup> In response, Pantron entered testimony from eighteen users attesting to Helsinki Formula’s efficacy.<sup>168</sup> Pantron also introduced into evidence a “consumer satisfaction survey” showing that seventy percent of customers were satisfied after six months, over half its orders came from repeat customers, and less than three percent of consumers “exercised their rights under the money back guarantee.”<sup>169</sup> Finally, Pantron introduced testimony of three experts, two of whom conducted clinical studies substantiating Pantron’s claims about the Helsinki Formula.<sup>170</sup> The third rebutted the testimony of one of the FTC’s experts.<sup>171</sup>

The district court held that the FTC failed to carry its burden that Pantron actually deceived consumers because “there [was] no evidence in the record to support a contention that the Helsinki Formula is *wholly ineffective* . . . [and] studies and anecdotal evidence offered by Pantron supported the proposition that the compound works for some people some of the time.”<sup>172</sup> Although the district court held that the FTC “marginally carried its burden of proof” that Pantron’s scientific claims were false,<sup>173</sup> the district court nevertheless declined to order monetary damages because the FTC failed to prove that customers were actually deceived.<sup>174</sup>

On appeal, the Ninth Circuit agreed that the likely to mislead test” used in *Cliffdale* “set[s] forth the appropriate general principles for determining whether advertising is deceptive.”<sup>175</sup> The court doubted the quality of Pantron’s studies,<sup>176</sup> but it did not base its decision against Pantron on the superiority of the FTC’s studies over Pantron’s studies. Rather, the court held on alternative grounds that even if Pantron’s claims were technically true, the marketing was still misleading because the benefits of the product resulted from the placebo effect, not from the qualities of the Hel-

already found respondents liable under the likely to mislead test.). On appeal, the Ninth Circuit determined that the FTC had “clearly and expressly abandoned the reasonable basis theory.” *F.T.C. v. Pantron I, Corp.*, 33 F.3d 1088, 1096 (9th Cir. 1994). The FTC appended a policy statement to the *Cliffdale* decision that effectively limited the applicable scope of the test to food, drug, cosmetic, and device advertisements. *Cliffdale*, 103 F.T.C. at 174 app.

166. *Pantron*, 33 F.3d at 1095. The bulk of the discussion in *Pantron* focuses on whether the company is liable under § 12 of the FTC Act. Section 12 governs deceptive advertising claims specifically, whereas § 5 governs “deceptive and unfair acts and practices” in general. *Compare* 15 U.S.C. § 55 (2006), *with* 15 U.S.C. § 45(a) (2006).

167. *Pantron*, 33 F.3d at 1091.

168. *Id.* at 1093.

169. *Id.*

170. *Id.* at 1093–94.

171. *Id.*

172. *Id.* at 1094 (emphasis added) (internal quotations omitted).

173. *Id.*

174. *Id.*

175. *Id.* at 1095.

176. *See id.* at 1097 nn.24–25 and accompanying text.

154. *Cliffdale*, 103 F.T.C. at 162.

155. *Id.* at 138.

156. *Id.* at 137–38.

157. *Id.* at 138–41.

158. *Id.* at 143–44.

159. *Id.*

160. *See id.* at 148.

161. *Compare id.* at 173 (discussing reasonable basis test), *with id.* at 164–65 (discussing test for what would mislead a reasonable consumer).

162. *Id.* at 164.

163. *Id.* at 164–65.

164. *See, e.g., id.* at 164–70 (applying likely to mislead test to fuel efficiency claim).

165. *Id.* at 173 (“[The Commission] need go no further to conclude that respondents did not have a reasonable basis for their claims” because the Commission

sinki Formula.<sup>177</sup> Stated differently, although Pantron could reasonably point to benefits of their product, the advertisement misled consumers because the benefit stemmed from the placebo effect, not from the product's qualities.

The Ninth Circuit then rejected the requirement that an advertisement not have a reasonable basis in the science, and held that the FTC "is not required to prove that a product is 'wholly ineffective' in order to carry its burden of showing that the seller's representations of product efficacy are false."<sup>178</sup> The court reinforced that the proper analysis should not be the sufficiency of the advertisement's scientific basis: "The question we must face, then, is not whether Pantron's claims were 'true' in some abstract epistemological sense, nor even whether they could conceivably be described a 'true' in ordinary parlance."<sup>179</sup> In sum, the *Pantron* court illustrates how the likely to mislead standard is necessary in contexts where the manufacturer of a product can point to plausible evidence substantiating the product's claims, yet still mislead consumers about the efficacy of a product.

Read together, *Cliffdale* and *Pantron* stand for the proposition that courts should evaluate advertising claims from the perspective of what would "likely mislead the reasonable consumer."<sup>180</sup> In this evaluation, courts should give little, if any, attention to whether the seller has sufficient scientific evidence to support the claim.<sup>181</sup> Rather, the proper analysis should be whether a reasonable consumer, in light of all the circumstances, would be deceived by the advertisement.<sup>182</sup>

## B. Applying the Likely to Mislead Test to the Carbon Offset Market

The likely to mislead test would considerably strengthen the credibility of the carbon offset market. Under the likely to mislead test, an offset seller would be liable for advertisements that would likely mislead a reasonable consumer about a material aspect of the offset.<sup>183</sup> A reviewing court may consider an offset seller's scientific bases for the claim, but the court's ultimate decisional focus should remain on a consumer's expectations regarding the purchased offset.<sup>184</sup>

Adopting the likely to mislead test, however, should only be a short-term solution in the interim before the CFTC issues regulations requiring offset sellers to register their products. When thus viewed as an interim solution, the

likely to mislead test has several advantages over the reasonable basis standard.

First, the likely to mislead test frees judges from adjudicating very complex, and inherently uncertain questions concerning the veracity of offset claims. If the experts in the offset market cannot agree on the best assumptions and methodologies for measuring GHG reductions,<sup>185</sup> or for determining whether a project is additional,<sup>186</sup> then judges certainly cannot expect to do so. The likely to mislead test is therefore easier for courts to administer because it would avoid the "battle of the experts" problem that inevitably occurs when the question centers on the sufficiency of scientific evidence.

Adopting the likely to mislead test also serves notice to deceptive offset sellers that they cannot rely on plausible, but still misleading claims to scientific support. Offset sellers will therefore have incentives to be more forthcoming in their representations of the benefits of offsets. For example, instead of categorically stating that an offset derived from a forest sequestration project will reduce GHGs by thirty tons, offset sellers would be on safer ground to state GHG reductions as a range, such as stating that an offset will reduce GHGs by fifteen to thirty tons.<sup>187</sup> Stating a range of values is more accurate, given the uncertainty of the measurements, and therefore would be less likely to mislead the reasonable consumer about the benefit of the offset they are purchasing.

Finally, and perhaps most importantly, the likely to mislead test harmonizes the consumer protection purpose of the FTC Act with the FTC's enforcement guidance and courts' decisional focus. The reasonable basis standard was a workable method of operationalizing the terms "deceptive" and "unfair" in the FTC Act in the context of tangible products that can be objectively tested.<sup>188</sup> But the reasonable basis standard breaks down when applied to carbon offset sellers. Without a consensus on evaluation criteria with which to judge offsets, the best standard, and the standard most consistent with the FTC Act, is the reasonable consumer's expectations.

## C. The Benefits of the Likely to Mislead Test Outweigh Any New Problems it May Create

A reasonable critique that one could offer of the likely to mislead standard is that it is too inexact and leaves sellers uncertain of how to avoid liability. Sellers had a safe harbor in the reasonable basis in the science test if their advertising claims were reasonably supported by scientific evidence. More specifically, sellers would not fear liability if they correctly utilized a methodology or assumption accepted by at least some other offset experts for accurately determining GHG reductions and additionality.

177. *See id.* at 1097, 1101 ("The evidence before the district court made clear that there is no reason to believe that the Helsinki Formula is at all effective outside of its placebo effect. Accordingly, it was materially 'misleading' under *Cliffdale* for Pantron to represent that the Formula is effective in combating male pattern baldness.")

178. *Id.* at 1100.

179. *Id.* at 1099–1100.

180. *See id.* at 1095; *Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 164–65.

181. *See Pantron*, 33 F.3d at 1099; *Cf. Cliffdale*, 103 F.T.C. at 173 (relegating the reasonable basis in the science test to a brief, two paragraph discussion).

182. *See Pantron*, 33 F.3d at 1095; *Cliffdale*, 103 F.T.C. at 164–65.

183. *Cf. Pantron*, 33 F.3d at 1095 (substantially adopting the likely to mislead test). An aspect of an offset advertisement is "materially" misleading "if [the aspect] is likely to affect the consumer's conduct or decision." *Cliffdale*, 103 F.T.C. at 175 app.

184. *Cf. Cliffdale*, 103 F.T.C. at 110 (establishing FTC policy on the likely to mislead test).

185. *See* AG Letter, *supra* note 96, at 3 (noting that there are "no common standards for qualifying emissions reductions").

186. *See* Trexler et al., *supra* note 105, at 31–33 (discussing different tests for measuring additionality).

187. *Cf. OTTINGER ET AL.*, *supra* note 74, at 165–69 (discussing the difficulty of measuring forest sequestration projects).

188. *Cf. Levy*, *supra* note 141, at 23 (stating that it is easier to enforce deceptive and unfair practices when the product can be objectively tested).

There are three responses to this critique. First, the likely to mislead standard is no more inexact than the reasonable person standard that judges have fairly applied in tort and other fields of law for over a century.<sup>189</sup> Offset sellers need not look upon this change in law as a “hunting license” for a uniquely susceptible consumer to exploit; they need only fear liability for actions that would mislead a reasonable consumer under the circumstances.

Second, § 5 of the FTC Act is not a citizen suit provision.<sup>190</sup> Only the FTC is empowered to enforce the prohibition on deceptive advertising.<sup>191</sup> The FTC would be restrained from dramatically increasing liability exposure in the offset market both because of resource constraints and because the FTC traditionally only prosecutes the most egregious cases in a given industry.<sup>192</sup> Although some may term the FTC “the little agency that could,” it is still a “little agency” that “must move . . . from high tech issues like spyware and identity theft, to environmental trends like the marketing of carbon offsets, to public health crises like childhood obesity.”<sup>193</sup> This wide mandate together with limited resources means that it is unlikely that the FTC can fundamentally change the incentive structure of the carbon offset market through the application of a broader legal test alone.

The third consideration that makes dramatically increased liability exposure for offset sellers unlikely is that minimal changes by sellers in their advertising would forge a strong liability shield. If a seller only advertised a range of GHGs reduced by an offset, rather than an absolute value, the FTC would find it much harder to claim that the advertisement was misleading because a seller would state a low and high value of GHG reduction.<sup>194</sup> Alternatively, a seller could disclose that actual GHG reduction may be materially less than advertised due to the difficulty of accurately measuring GHG reductions.<sup>195</sup>

189. See generally OLIVER WENDELL HOLMES, *THE COMMON LAW* 51–58, 107–10, 146–50 (1881) (discussing the reasonable person standard in criminal and tort law). But see Robert B. Mison, *Homophobia in Manslaughter: The Homosexual Advance as Insufficient Provocation*, 80 CAL. L. REV. 133, 159 (1992) (“The failure of the reasonable man to represent ‘the social reality in which it operates can create prejudicial and untenable results.” (quoting Dolores A. Donovan & Stephanie M. Wildman, *Is the Reasonable Man Obsolete? A Critical Perspective on Self-Defense and Provocation*, 14 Loy. L.A. L. Rev. 435, 466 (1981))).

190. See 15 U.S.C. § 45(a)(2) (2006) (empowering the Commission to “prevent persons . . . from using . . . unfair or deceptive acts or practices in or affecting commerce”).

191. Note, “Corrective Advertising” Orders of the Federal Trade Commission, 85 HARV. L. REV. 477, 477 (1971).

192. Indeed, a coalition of consumer protection groups recommended recently in an open letter to the incoming Obama administration that because the FTC has limited resources, citizens should be given power to enforce the FTC Act’s prohibition against “unfair and deceptive acts and practices.” See Consumer Action, *Consumer Coalition Lists Goals for Obama’s FTC*, Dec. 2008, [http://www.consumer-action.org/coalition/articles/consumer\\_coalition\\_lists\\_goals\\_for\\_obamas\\_ftc](http://www.consumer-action.org/coalition/articles/consumer_coalition_lists_goals_for_obamas_ftc).

193. Lydia B. Parnes, *Anticipating New Consumer Protection Challenges in the Food and Drug Marketplace*, 63 FOOD & DRUG L.J. 593, 594 (2008). Ms. Parnes made this statement at a food and drug law conference while she was Director of the FTC’s Bureau of Consumer Protection. *Id.* at 593.

194. Cf. Green Guides, 16 C.F.R. § 260.7(e) (2009) (providing examples where manufacturers are required to be more specific in their representations concerning recycled content in their products).

195. See *supra* Part II.A. A seller might respond that advertising a range or disclosing that the highest plausible value may not be accurate will negatively impact profits. Although this may be true, *supra*, many consumers buy offsets

The ultimate problem with simply adopting the likely to mislead test as the single solution for both the short-term and the long-term is that it does not remedy the fundamental informational disadvantages suffered by consumers in the offset market. Consumers must still rely on the FTC to protect their interests, and as indicated above, the FTC is only likely to prosecute the most egregious violators of § 5’s prohibition against deceptive practices. To bring greater credibility and transparency to the carbon market, and thereby increase consumer participation and seller returns, the better solution involves affirmative disclosures by the seller of information that reduces consumers’ concerns about the four problems of carbon offsets.<sup>196</sup>

## V. The Long-Term Solution: The CFTC Should Require the Registration of Offsets

The verification, additionality, double-counting, and permanence problems are really problems of consumers’ informational deficit. To close this deficit, the CFTC should require offset sellers to certify that their products are verifiable, additional, are not sold to multiple consumers, and continue to result in the advertised benefit after purchase. This reporting requirement goes marginally beyond what is required of other commodities<sup>197</sup> and may be fairly termed a “reporting plus requirement,” but it is necessary to account for the unique nature of carbon offsets and the multiple means by which an offset seller can deceive a consumer. Once the registry is in place, responsibility for enforcing deceptive claims about carbon offsets would shift from the FTC to the CFTC. At bottom, the carbon offset market must comply with similar reporting requirements before it can enjoy credibility on par with traditional commodities and securities markets.

This Part first discusses the advantages of CFTC oversight of the carbon offset market as a long-term solution to problems with the market’s credibility and transparency. Then this Part addresses possible critiques of registration.

### A. Oversight by the CFTC Most Effectively Ensures the Long-Term Credibility and Transparency of the Carbon Offset Market

The CFTC recently signaled its willingness to oversee the carbon offset market.<sup>198</sup> The CFTC has experience both in regulating the types of trades that would take place in the

for public relations reasons, and these consumers are still free to state the highest possible GHGs offset through their purchase. Moreover, increased market transparency could potentially bring in more consumers to compensate for revenues lost due to greater disclosure.

196. See *supra* Part II.

197. See 17 C.F.R. § 40.2 (2009) (CFTC’s registration requirements).

198. See generally Gary Gensler, Chairman, CFTC, Remarks at the International Emissions Trading Association 2009 Fall Symposium (Nov. 3, 2009), available at <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/speechandtestimony/opagensler-17.pdf>.

market and in preventing fraud based on selling commodities on paper that do not really exist.<sup>199</sup>

Specifically, the CFTC should require all offset sellers to register their offsets in a central registry and enforce any misrepresentations made on registration statements. The CFTC's expertise does not extend to some of the scientifically complex questions such as determining whether an offset seller misrepresented an emission methodology, so the CFTC should partner with the EPA to establish acceptable methodologies that sellers may use.<sup>200</sup>

Both the Senate and the House cap-and-trade bills advocate establishing a national, mandatory carbon offset registry.<sup>201</sup> Offset market participants usually recommend registries as important in preventing double-counting.<sup>202</sup> Registries connect an offset with a consumer and project so that deceptive sellers cannot sell the same offset twice.<sup>203</sup>

Registries can also play important roles in verifying that offsets actually reduce GHGs to advertised levels and are additional.<sup>204</sup> For example, carbon offset sellers in Europe, where offset registration in a single registry is required, reduced their GHG advertising claims by forty percent once registration was required.<sup>205</sup> This suggests that offset sellers do not make exaggerated claims when they could be held liable by a government registrar for advertising misrepresentations. Registries can also promote stringent protocols for ensuring additionality, which prevents offsets with dubious additionality claims from reaching the market.<sup>206</sup>

A number of third party registries have been created by private companies and non-profits in response to the perception that the carbon offset market was not credible.<sup>207</sup> However, these registries do not communicate with each other and employ different standards in evaluating offsets.<sup>208</sup> Consumers are not necessarily any wiser after consulting them.<sup>209</sup>

The CFTC therefore should create a single registry to provide both a minimum standard for offset credibility and enforcement authority to deter deceptive sellers. Due to the

unique nature of carbon offsets and the multiple avenues for deception, offset sellers should provide additional certifications intended to mitigate the potential verification, additionality, double-counting, and permanence problems. Therefore, in addition to complying with the modest registration requirements specified in CFTC Regulation 40.2,<sup>210</sup> offset sellers should also certify that the offset is verifiable, additional, has not been sold to multiple consumers, and that the project continues to result in advertised GHG reductions. Each of these requirements will be dealt with in turn.

To verify an offset, the seller should specify the methodology (or test) used to make the advertised claim of GHG reductions, together with an indication of the degree of accuracy that can be expected from the use of the seller's methodology. This indication of accuracy could be made by specifying the range of GHG reduction that can be expected from the offset together with a confidence value of the statistic.<sup>211</sup> The CFTC, in consultation with the EPA, should use its rule-making authority to set minimum standards and acceptable assumptions in making GHG estimates.<sup>212</sup>

To certify that an offset is additional, a seller should certify that the offset project would not have been undertaken but for the financing obtained from the sale of offset purchases. This will often require an offset retailer to communicate more fully with the project developer. Additionality certification would also mitigate problems like that seen in the Waste Management anecdote—where the retailer did not learn until *BusinessWeek* conducted its investigation that the project developer (Waste Management, Inc.) was receiving offset financing to fund a project meant to avoid state regulatory action against the company.<sup>213</sup> Similar to verification, the CFTC in consultation with the EPA should specify by rule-making permissible protocols for ensuring additionality.<sup>214</sup>

The CFTC should also require offset sellers to certify that an individual offset has not been sold to multiple consumers. This would mitigate the problem of double-counting and serve as an incentive for offset sellers to develop uniform accounting practices.

Offset sellers' obligations should not end on the issuance of the offset because consumers might reasonably expect con-

199. *See id.* at 4.

200. *See id.* at 3. Both the House and the Senate cap-and-trade bills contemplate that the EPA, with the assistance of an expert advisory board, will establish standard methodologies and assumptions that sellers may employ. *See generally* Clean Energy Jobs and American Power Act, S. 1733, 111th Cong. §§ 731–34 (2009); American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. §§ 731–34 (2009).

201. *See* S. 1733 § 724(d); H.R. 2454 § 732(d).

202. *See* GAO Report, *supra* note 3, at 28; HAMILTON ET AL., *supra* note 6, at 44.

203. HAMILTON ET AL., *supra* note 6, at 44 (explaining that registries “can keep track of credit ownership and eliminate ‘double-counting’”).

204. *Cf.* H.R. 2454 § 732(b) (discussing requirements for registered offsets); Andrew C. Schatz, *Regulating Greenhouse Gases by Mandatory Information Disclosure*, 26 VA. ENVTL. L.J. 335, 337–47, 385–86 (discussing the benefits of mandatory information disclosure of pollutants and carbon offsets).

205. ANJA KOLLMUSS & BENJAMIN BOWELL, TUFTS CLIMATE INITIATIVE, VOLUNTARY OFFSETS FOR AIR–TRAVEL CARBON EMISSIONS 11–12 (2006), available at [http://sustainability.tufts.edu/downloads/TCL\\_Carbon\\_Offsets\\_Paper\\_April-2-07.pdf](http://sustainability.tufts.edu/downloads/TCL_Carbon_Offsets_Paper_April-2-07.pdf).

206. *See generally* HAMILTON ET AL., *supra* note 6, at 44–45 (discussing various third party registries, some of which implement additionality protocols).

207. *See id.*

208. *See* GAO Report, *supra* note 3, at 28; *see also* Trexler et al., *supra* note 105, at 33.

209. *Cf.* GAO Report, *supra* note 3, at 28 (explaining that, because of registry problems, “it is difficult for consumers to determine the quality of the offsets they purchase”).

210. 17 C.F.R. § 40.2 (2009). This regulation requires “a copy of the product's rules, including all rules related to its terms and conditions . . . [t]he intended listing date; and . . . certification by the registered entity that the product to be listed complies with the [CFTC] Act and regulations thereunder.”

211. For statistics with unknown population values, as is the case here where the true “population” of GHGs is unknown, it is standard to give the “confidence interval.” Valerie J. Easton & John H. McColl, *Statistics Glossary*, [http://www.stats.gla.ac.uk/steps/glossary/confidence\\_intervals.html](http://www.stats.gla.ac.uk/steps/glossary/confidence_intervals.html) (last visited Mar. 3, 2010). A confidence interval is a percentage of the degree of certainty that a statistician would find the true population level within the range given. *Id.* An example of a confidence interval in the context of GHG measurement would read as follows: “We can say with 95% certainty that the true level of GHGs reduced by the consumer's offset will be between 10 and 15 tons.”

212. Establishing acceptable assumptions and standards is admittedly outside the CFTC's expertise. Responsibility for setting minimum standards could either be delegated in legislation to a different expert agency or to an in-house scientific advisory panel, similar to that contemplated in House and Senate legislation. *See* Clean Energy Jobs and American Power Act, S. 1733, 111th Cong. § 731 (2009); American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. § 731 (2009).

213. Elgin, *supra* note 5.

214. Additionality protocols may also be a scientific advisory panel.

tinued GHG reductions from their purchased offset. Therefore, sellers should file supplementary annual or biannual statements certifying that the project continues to operate under the circumstances detailed in the initial registration statement.<sup>215</sup> If the seller notifies the CFTC that a project is no longer resulting in the advertised GHG reductions, the CFTC should grant a reasonable cure period, not to extend beyond six months. If the seller fails to cure the problem within the time period, sellers would be required to refund a pro-rata amount to the consumer corresponding to the percentage difference between the amount of GHGs the project reduces at the present time and the amount of GHGs the project reduced at the time the consumer bought the offset from the seller.

Requiring offset sellers to certify that a project continues to result in advertised GHG reductions mitigates the permanence problem and also allows for the application of improved technology or methodology that better calculates GHG reductions. Using new technologies or methodologies, offset sellers can substantiate or refine their advertising claims, which in turn would increase the credibility and transparency of the market.

All seller parties to an offset sale—the project developer, the broker or wholesaler, and the retailer—should certify that part of the offset transaction that is within the party's competency.<sup>216</sup> All three parties would certify that the project is verifiable. The project developer should certify that the project is additional, or in other words, that the developer would not have undertaken the project but for carbon offset proceeds. The retailer and broker or wholesaler should certify that a discrete offset has not been sold to multiple consumers (or multiple retailers in the case of the broker or wholesaler). The project developer should certify on an annual or biannual basis for the life of the offset project that there has not been a change in circumstances with the project and the project continues to reduce GHGs by the advertised amount.

Taking these steps would most effectively ensure the long-term credibility and transparency of the market. This is important not just in terms of the individual consumers, but also in terms of the public good. Regulating carbon offsets best protects the public's expectations of the efforts being made toward reducing man-made contributions to global climate change. Scientists, policymakers, and citizens need to have accurate information before making decisions regarding climate change, and it would be difficult to have accurate information if the offset market was easily susceptible to fraud and deception.

215. Offset sellers would, of course, be able to include a term of performance in an offset sale. This term might state that the purchased offset will only lead to advertised GHG reductions for a specified period of time. In such cases, offset sellers would not be required to file supplementary statements beyond the term of the purchase.

216. As a corollary, one seller party should not be liable for the misrepresentations of another seller party unless the non-misrepresenting party knew or should have known of the misrepresentations. See *Escott v. BarChris Constr. Corp.*, 283 F. Supp. 643 (S.D.N.Y. 1968).

## B. The Benefits Of A Single Registry For The Carbon Market Outweigh The Potential Problems

Among those who agree that the federal government should establish a single offset registry, many believe that EPA should exercise primary oversight.<sup>217</sup> However, the CFTC is better situated than the EPA to establish and provide oversight over an offset registry for two reasons. First, “[t]he CFTC’s mission is to protect market users and the public from fraud, manipulation, and abusive practices related to the sale of commodit[ies].”<sup>218</sup> Carbon offsets are commodities that should be regulated by the CFTC because it is the institutional actor with the greatest experience in registering and providing oversight of commodities markets.<sup>219</sup> Second, the CFTC currently exercises limited oversight of the carbon offset market through its monitoring of the Chicago Climate Exchange (“CCX”),<sup>220</sup> so it has some experience with the unique problems posed by carbon offsets.<sup>221</sup>

To be sure, the EPA would have significant expert roles in determining acceptable offset methodologies and assumptions. EPA personnel would work with the CFTC to determine whether a seller followed the stated methodology. But the primary oversight authority should be the CFTC.

The GAO reiterated two of the most common critiques from those opposed to the federal government adopting regulations for the carbon offset marketplace and implementing a uniform registry. First, “several stakeholders said that a single standard may not be desirable because it could stifle innovation and limit access to the market. . . .”<sup>222</sup> There is no question that requiring offset sellers to register their product would increase market barriers for some potential sellers. Offset sellers would have greater responsibilities to ensure an accurate test for additionality and communicate with project developers to ensure the developer would not undertake the project but for offset purchase proceeds. For offset sales that are not term-limited, a seller would have to retest the project for accuracy every year or two years. This often requires paying professionals, both scientific to ensure test accuracy and legal to ensure compliance with CFTC registration requirements. Some smaller offset sellers may also feel the need to buy liability insurance or reorganize into a business structure that affords limited liability.

Tradeoffs are certainly implicated here, but it is important to remember that the current carbon offset market essentially

217. The House bill contemplates EPA as the primary offset regulator. See H.R. 2454 § 732.

218. CFTC, About the CFTC, <http://cftc.gov/aboutthecftc/index.htm> (last visited Mar. 3, 2010).

219. The CFTC has been regulating commodities since 1974. See *id.*

220. GAO Report, *supra* note 3, at 19. CCX is a voluntary carbon exchange market where offset sellers can register their offsets for trade. *Id.* at 5. According to the GAO, CCX operates with little formal oversight by the CFTC because market participants are experienced. *Id.* at 19. CCX members are all private businesses, public utilities, governments, or universities that are sufficiently sophisticated with enough resources to independently verify the quality of carbon offsets purchased. Chicago Climate Exchange, Members of CCX, <http://www.chicagoclimatex.com/> (select “member list”) (last visited Mar. 3, 2010).

221. The CFTC’s monitoring of carbon offsets in connection with the CCX is further recognition that offsets are commodities.

222. GAO Report, *supra* note 3, at 28.

operates by *caveat emptor*.<sup>223</sup> *Caveat emptor* has been discredited both as a market rationale and as a legal theory over the last half century.<sup>224</sup> *Caveat emptor* was workable when seller and consumer were in equal bargaining positions, but courts and the markets realized that this assumption was no longer true.<sup>225</sup> As discussed above, consumers are especially disadvantaged in the carbon offset market because offsets are intangible commodities that are not easily valued.<sup>226</sup> Unless consumers are placed in a better informational position, the offset market will continue to lose both credibility and consumers.<sup>227</sup>

The burden of increased costs is often advanced to counter new regulatory efforts, particularly in environmental law.<sup>228</sup> But the U.S. economy has shown a remarkable resilience in the face of new regulations.<sup>229</sup> There is no reason to doubt that here too the market will adapt and flourish despite new regulations.

The second critique the GAO repeated from market participants is that “the flexibility offered by multiple standards encourages the testing of new methodologies and emissions reduction technologies.”<sup>230</sup> This critique that a single registry will stifle innovation also has some merit. With a higher barrier of entry, smaller firms which tend to be more innovative will have greater disincentives to enter the offset market. Innovation might also be adversely affected in terms of technology and methodology development. To be on safe ground, offset sellers might gravitate toward offset projects that can produce more certain measurements of GHG reductions. GHG reductions from methane capture and efficiency upgrade projects (respectively forty-nine percent and thirteen percent of offset projects by volume) tend to be easier to calculate than forestry and sequestration projects (respectively seventeen percent and nineteen percent of offset projects by volume).<sup>231</sup> Therefore, reducing the field of potential GHG-reducing projects could possibly stifle innovation in types of projects and types of measurement methodologies because there is less opportunity to experiment in unique contexts.

Although regulation might dampen innovation, money spurs innovation. The greater market credibility that offset registration promises can attract more consumers and retain existing consumers. Moreover, the carbon offset market will only grow larger as government and private consumers pay

an increasing amount of attention to how to mitigate man-made climate change. The market has grown 125% in three years, and with market value forecasts as high as \$4 billion within another three years,<sup>232</sup> there will be plenty of incentive to enter the market and innovate to attract consumers away from competitors.

## Conclusion

The retail carbon offset market has serious credibility questions due to the unique challenges carbon offsets pose to science and consumer awareness. In the short-term, the best solution is for the FTC Commission and courts to analyze offset advertising claims in terms of what is likely to mislead the consumer. In the long-term, the best solution is to register offsets with the CFTC so that the carbon offset market can benefit from the same relative transparency enjoyed by other commodities and securities markets. Adopting these proposals will both protect consumer interests and reward the majority of trustworthy offset sellers who would benefit from a market with greater credibility.

223. HAMILTON ET AL., *supra* note 6, at 31.

224. See, e.g., Denise Binder, *The Duty to Disclose Geologic Hazards in Real Estate Transactions*, 1 CHAP. L. REV. 13 (1998).

225. *Id.* at 23.

226. See *supra* Part II (introductory paragraph).

227. Cf. TREXLER CLIMATE + ENERGY SERVS., INC., *supra* note 36, at 4–6 (“Contributing to the transparency of retail offset markets will hopefully contribute to their robust growth . . .”).

228. See, e.g., Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L.J. 2039, 2044 (1993).

229. One of the best examples is the cap-and-trade program for sulfates, which are the leading cause of acid rain. Power companies were required to lower their sulfate emissions, a decision much criticized at the time. But by many accounts, companies have adapted and even flourished by trading sulfate emission credits. See generally Joseph Goffman, *Title IV of the Clean Air Act: Lessons for Success of the Acid Rain Emissions Trading Program*, 14 PENN ST. ENVTL. L. REV. 177 (2006).

230. GAO Report, *supra* note 3, at 28.

231. *Id.* at 13–15, 28.

232. Elgin, *supra* note 5.