Contractual Carbon Fees: A Proposal

Steve Lorteau *

This article proposes the 'contractual carbon fee' as a novel governance instrument to guide non-state climate change mitigation efforts. At its core, the contractual carbon fee is a privatized carbon tax: one contracting party agrees to pay a fee on its greenhouse gas (GHG) emissions, while another agrees to enforce the commitment to pay the contractual carbon fee. The enforcing party may recover unpaid carbon fees through a stipulated remedy clause. This instrument increases the credibility of a firm's environmental commitments and helps fill gaps in environmental governance. Due to its binding nature, the contractual carbon fee holds non-state actors accountable for their GHG emissions goals and targets. This article provides advice on how to draft an enforceable contractual carbon fee under Canadian common law and further argues that the contractual carbon fee may be beneficial to self-interested economic actors. Indeed, a contractual carbon fee can help reduce a firm's GHG emissions, lead to marginal cost savings, help finance green investments, and mitigate climate-related risks.

Cet article propose la « redevance contractuelle sur le carbone » comme un nouvel instrument de gouvernance pour guider les efforts non étatiques d'atténuation des changements climatiques. Fondamentalement, la redevance contractuelle sur le carbone est une taxe sur le carbone privatisée: une partie contractante accepte de payer une redevance sur ses émissions de gaz à effet de serre (GES), tandis qu'une autre accepte de faire respecter l'engagement de payer la redevance contractuelle sur le carbone. La partie exécutante peut récupérer les redevances sur le carbone impayées par le biais d'une clause de recours stipulée. Cet instrument augmente la crédibilité des engagements environnementaux d'une entreprise et contribue à combler les lacunes de la gouvernance environnementale. En raison de sa nature contraignante, la redevance contractuelle sur le carbone tient les acteurs non étatiques responsables de leurs objectifs et cibles d'émissions de GES. Cet article fournit des conseils sur la manière de rédiger une redevance contractuelle sur le carbone exécutoire en vertu de la common law canadienne et soutient en outre que la redevance contractuelle sur le carbone peut être avantageuse pour les acteurs économiques intéressés. En effet, une redevance contractuelle sur le carbone peut aider à réduire les émissions de GES d'une entreprise, conduire à des économies de coûts marginaux, aider à financer des investissements verts et atténuer les risques liés au climat.

Titre en français : *Redevance contractuelle sur le carbone: une proposition.*

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1. INTRODUCTION

Following the Paris Agreement, non-state actors have made public promises to reduce their greenhouse gas (GHG) emissions. Adidas, Apple, Disney, Google, Goldman Sachs, IKEA, Johnson & Johnson, Sony, Unilever, Volvo, and other transnational corporations have set internal GHG emissions reduction targets.[1] Joining this global trend, Canadian corporations such as the Bank of Montreal, the Loblaw group, and Telus have self-imposed carbon emission reduction targets.[2] While non-binding, these public commitments attest to the private sector's increased willingness to make operational changes that reduce a firm's GHG emissions.[3] Some corporations have already fulfilled their promises. In the past few years, the global operations of some corporations (e.g. La Banque Postale and Microsoft) have achieved carbon neutrality.[4] To take one example, Microsoft reports reducing its emissions by 9 million metric tons of carbon dioxide ($mtCO_2$) equivalent from 2012 to 2016.[5] If these reports are accurate,[6] Microsoft's four-year reduction is greater than the 2016 annual fossil carbon dioxide (CO_2) emissions of states like Latvia (8.157 $mtCO_2$), Nepal (7.833 $mtCO_2$), the Democratic Republic of Congo (6.565 $mtCO_2$), and Uruguay (6.508 $mtCO_2$).[7] Microsoft's success in reducing its GHG emissions highlights the potential of non-state efforts in exceeding the confines of state regulation.

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1 Lara G Streiff & Veerabhadran Ramanathan, "Under 2 °C living laboratories" (2017) 21 Urban Climate 195 at 205—207.

2 Bank of Montreal, "Carbon Neutrality" (2018), online: *BMO* <bmo.com/home/about/banking/corporate-responsibility/environment/carbon-neutral> (a 2017 commitment to reduce carbon emissions by 15% by the end of 2021); Loblaw Companies, "Reducing our Carbon Footprint 30% by 2030" (14 December 2016), online: *Loblaw Companies* <media.loblaw.ca/English/media-centre/press-releases/press-release-details/2016/Loblaw-pledges-30-per-cent-carbon-reduction-by-2030/default.aspx> (announcing its plan to reduce its carbon emissions by 20% by 2020); Telus, "Creating a more sustainable future" (2019), online: *Telus* <www.telus.com/en/about/company-overview/environment> (a commitment to reduce its greenhouse gas emissions by 25% from 2010 levels by 2020).

3 See for example, the 5957 non-state climate change mitigation actions conducted (by 2483 private sector stakeholders) to meet the Paris Agreement targets under the Non-State Actor Zone for Climate Action (NAZCA), NAZCA Tracking Climate Action, "Companies" (2019) online: *UNFCCC* <climateaction.unfccc.int/views/stakeholders.html?type=companies>; see Michael P Vandenbergh & Jonathan M Gilligan, *Beyond Politics: The Private Governance Response to Climate Change,* (Cambridge: Cambridge University Press, 2017) at 119—176 (for a survey of non-altruistic reasons for private sector emissions reductions).

4 See Streiff & Ramanathan, *supra* note 1 at 206—207; La Banque Postale, "La Banque postale, une des premières banques au monde à annoncer sa neutralité carbone" (29 November 2018), online: *La Banque Postale* <labanquepostale.com/legroupe/actualites-publications/actualites/2018/objectif-neutralite-carbone-atteint-par-la-banque-postale.html >.

5 Microsoft, "Beyond Carbon Neutral" (2016), online: *Microsoft* <aka.ms/beyond> at 7.

6 Microsoft reports its self-gathered GHG emissions data to the CDP (formerly known as the Carbon Disclosure Project, a global not-for-profit disclosure system); CDP, "Microsoft CDP Climate Change Response 2018" (2018), online: *Microsoft* <query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE2EWBx>.

7 European Commission, "Fossil CO2 & GHG emissions of all world countries, 2017" (2017), online: *EDGAR* <edgar.jrc.ec.europa.eu/overview.php?v=CO2andGHG1970-2016&sort=des9>.

In order to achieve their carbon neutral ambitions, Microsoft and La Banque Postale adopted an internal carbon fee program.[8] Much like a state-imposed carbon tax, an internal carbon fee program assigns a monetary penalty for each ton of GHG emissions produced by a firm's operations.[9] Firms create budget lines within their governance structures that allow departments to assign a monetary value to their GHG emissions. Such a policy allows firms to determine the scope of emissions covered, the price on carbon and the method of enforcement. By assigning an internal value to emissions, firms are better able to track and pay for their emissions across their business units. Money collected under the fee helps finance environmental initiatives that reduce the firm's carbon footprint. The direct correlation between GHG emissions and the carbon fee expenditure incentivizes profit-driven actors to lower GHG emissions and (consequently) reduce their carbon fee bill. Besides Microsoft and La Banque Postale, other non-state actors in a variety of sectors such as Disney (media), Société Générale (finance), Yale University (education), Ben & Jerry's (food), Dalmia Bharat Cement (cement manufacturing), and Mahindra & Mahindra (car manufacturing) have also adopted an internal carbon fee (ranging from $10 to $40 USD per metric ton of CO_2).[10] Many adherents report that their internal carbon fee generates cost savings that exceed the cost of the program, all the while reducing their GHG emissions.[11] The willingness of some of these

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8 Microsoft, *supra* note 5 at 7—8; La Banque Postale, *supra* note 4.

9 It is sometimes referred to as the internal carbon charge or internal carbon tax; the internal carbon fee is different from shadow (or proxy) pricing, as shadow pricing merely provides a hypothetical price on emissions that is merely used to inform business decision-making, while an internal carbon fee involves the collection of funds within a firm and contain an internal enforcement mechanism; Sarah E Light, "The New Insider Trading: Environmental Markets within the Firm" (2015) 3 Stan Envtl LJ 3 at 41—42; Vivian Chang, "Private Firm Incentives to Adopt Internal Carbon Pricing" (2017) J Public & Intl Aff 56 at 59 [*Chang*].

10 Non-state actors pay fees of $10 USD (Ben & Jerry's, Mahindra & Mahindra), $11 USD (Dalmia Bharat Cement), €10 (La Banque Postale, and Société Générale), $15 USD (Microsoft), $20 USD (Disney), $40 USD (Yale University) per ton of CO_2 emissions; Sophie Yeo, "General Motors, Disney, Shell and 1,200 other companies are taking steps to fight climate change, report says" (12 September 2017), online: *Washington Post* <washingtonpost.com/news/energy-environment/wp/2017/09/12/general-motors-disney-shell-and-1200-other-companies-are-taking-steps-to-fight-climate-change-report-says/>; Anirban Ghosh, "Corporates' Role in Addressing Energy Security: A Mahindra Perspective" in Sudipta De et al, eds, *Sustainable Energy Technology and Policies* (Singapore: Springer, 2018) at 227; Chirag Gajjar, "Internal Carbon Pricing Primer Case Studies Companies using Internal carbon pricing to reduce risks and addressing climate change" (2018), online (pdf): *Shakti Sustainable Energy Foundation* <shaktifoundation.in/wp-content/uploads/2018/03/Internal-Carbon-Pricing-Primer-Case- Study.pdf> at 4; La Banque Postale, *supra* note 4; Société Générale, "Corporate and Social Responsibility Report Report 2014-2015" (2015), online (pdf): *Société Générale* <societegenerale.com/sites/default/files/documents/Document%20RSE/Rapport_RSE_2015_VA/publication/contents/pdfweb.pdf> at 79; Ivana Kottasová, "Microsoft hikes its internal carbon tax in a new sustainability drive" (16 April 2019), online: *CNN* <cnn.com/2019/04/16/tech/microsoft-climate-sustainability/index.html>; Kenneth Gillingham, Stefano Carattini & Daniel Esty, "Lessons from First Campus Carbon-Pricing Scheme" (2017) 551 Nature 27 at 27—29.

11 According to company reports, Microsoft's internal carbon fee program has saved Microsoft more than $10 million USD through reduced energy consumption from 2009 to 2015; Société Générale's €3.2 million internal carbon tax funded 35 initiatives that collectively resulted in a reduction of 2,250 tons of CO_2 reductions and company-wide annual savings of €14 million (during the 2013 to 2015 period); Yale University's carbon fee pilot project program resulted in savings of $135 per ton of CO_2 emissions and a 4.9% reduction in total campus emissions; Mahindra & Mahindra reports that its carbon fee program reduced its GHG emissions by 25% by 2019 and helped finance energy-efficient LED lighting across

corporations to voluntarily pay a carbon fee is particularly noteworthy considering the carbon-intensiveness of the food, cement, and manufacturing sectors.[12]

While commendable in many respects, the internal carbon fee and other private environmental governance initiatives suffer from an enforcement gap. As the term suggests, internal carbon fees are internal policies. The firm itself is not bound to pay the internal carbon fee, nor is the firm bound to report its GHG emissions to an independent third party. An external party may not commence proceedings to enforce a firm's commitment to pay a carbon fee. The lack of a binding enforcement mechanism is also an important limitation amongst many private environmental governance initiatives.[13] Firms often lack effective incentive structures or accountability measures to ensure that a firm follows through on its environmental commitments. Although non-state emission reduction targets and other initiatives have emerged as important vehicles to fill regulatory gaps,[14] many non-state climate change mitigation initiatives tend to be devoid of specific obligations or lack an external enforcement mechanism.[15] For example, carbon shadow pricing is merely an influence device that quantifies the social costs of GHG emissions in an effort to assess regulatory and business risks.[16] Carbon pricing, like many other public environmental commitments do not create enforceable target-based obligations by themselves.

The non-binding nature of these private environmental initiatives limits their potential as a supplement to state regulation. They provide insufficient incentive to increase one's level of environmental ambition. Moreover, non-binding commitments often lack the institutional structures to ensure their effectiveness. Private environmental commitments tend[17] to be unenforceable in a court of law because the public lacks standing or interest to enforce them. Instead, promisors are usually held liable in the court of public opinion, assuming the public is

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their 17 manufacturing plants that will yield return on investment in less than one year; David Gelles, "Microsoft Leads Movement to Offset Emissions with Internal Carbon Tax" (27 September 2015), online: *New York Times* <nytimes.com/2015/09/27/business/energy-environment/microsoft-leads-movement-to-offset-emissions-with-internal-carbon-tax.html?_r=0>; Société Générale, *Ibid* at 79; Yale University, "Yale University's Carbon Charge: Preliminary Results from Learning by Doing" (2016), online (pdf): *Yale University* <carbon.yale.edu/sites/default/files/files/ CarbonCharge_Pilot_Report_20161010.pdf> at 2, 4; Ghosh, *Ibid* at 227.

12 The cement manufacturing industry accounts for roughly 4% of global GHG emissions, see Robbie M. Andrew, "Global CO2 emissions from cement production" (2018) 10 Earth System Science Data 195 at 195—199; Edgar G Hertwich & Glen P Peters, "Carbon Footprint of Nations: A Global, Trade-Linked Analysis" (2009) 43 Environmental Science & Technology 6414 at 6416.

13 Kristen van de Biezenbos, "Enforcing Private Environmental Governance Standards Through Community Contracts" (2018) 9:1 George Washington J Energy & Environmental L 45 at 45.

14 Michael P Vandenbergh, "Private Environmental Governance" (2013) 99 Cornell LR 129 at 146—147; Robert Falkner, "Private Environmental Governance and International Relations: Exploring the Links" (2003) 3:2 Global Environmental Politics 72 at 72—73.

15 See Karin Bäckstrand & Jonathan W Kuyper, "The democratic legitimacy of orchestration: the UNFCCC, non-state actors, and transnational climate governance" (2017) 26:4 Environmental Politics 764 at 781—784.

16 See *supra* note 9; Jane Lister, "The Policy Role of Corporate Carbon Management: Co-regulating Ecological Effectiveness" (2018) 9:4 Global Policy 538 at 541.

17 This is not to say that corporations have never held liable for greenwashing, see Eric L Lane, "Consumer Protection in the Eco-Mark Era: A Preliminary Survey and Assessment of Anti-Greenwashing Activity and Eco-Mark Enforcement" (2010) 9 John Marshall Rev Intellectual Property 742 at 749—772.

even aware of them to begin with. The lack of external third-party verification makes it difficult to verify a firm's compliance with their commitments.[18] The misleading use of non-binding commitments contributes to societal distrust in non-state action and may lead consumers to dismiss a firm's purported environmentalism as mere greenwashing.[19]

In light of these deficiencies, this article proposes the contractual carbon fee as a novel instrument that holds non-state actors accountable for their GHG emissions. At its core, the contractual carbon fee is a privatized carbon tax. Under a contractual carbon fee, an external, non-state actor replaces the role played by the state (e.g. enforcement, monitoring, and compliance). A non-state actor agrees to pay a fee based on its GHG emissions, while another enforces this commitment.[20] For example, imagine a contractual carbon fee between 'Party A' and 'Party B.' Party A agrees to pay a $20 carbon fee for every tonne of CO_2 emissions it produces. The other contractual party, Party B would then have standing to enforce Party A's commitment to pay for its emissions. Under another iteration, Party A agrees to pay a $50 carbon fee for every ton of GHG emissions produced above a certain threshold. Party B would then have legal standing to enforce Party A's commitment to pay for its excess emissions. This latter arrangement would be beneficial to firms looking for a way to 'cap' their emissions. To my knowledge, contractual carbon fees have not yet been implemented in practice.[21] This article explains the basic features of the contractual carbon fee, its potential benefits, and proposes guidelines on how to draft an enforceable contractual carbon fee.

Briefly stated, the contractual carbon fee offers several advantages.[22] The contractual carbon fee imposes a binding price on GHG emissions that incentivizes their reduction, which in turn may lead to energy efficiency-related cost savings. In so doing, the contractual carbon fee helps a firm achieve its voluntary environmental commitments. If the parties so decide, carbon fee revenue may finance infrastructure upgrades, retrofitting, and other environmental initiatives. Over the long-term, these incremental investments can accelerate a firm's transition away from carbon-intensive economic activities. Moreover, its binding nature helps instill confidence in a firm's environmental commitments. The increased credibility of a firm's environmental commitments may provide firms with a brand advantage and with a means to mitigate certain regulatory and legal risks associated with climate change. For a prospective Party B, the contractual carbon fee provides non-state actors with a means to advance their environmental mandate and ensure a firm's compliance with their environmental

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18 E.g. Andy Gouldson & Rory Sullivan, "Longterm Corporate Climate Change Targets: What Could They Deliver?" (2013) 27 Environmental Science & Policy 1 at 9; William S Laufer, "Social accountability and Corporate Greenwashing" (2003) 43:3 J Business Ethics 253 at 257.

19 Greenwashing refers to false or misleading claims about the environmental benefits of a product, brand, firm, or technology; Nick Feinstein, "Learning from Past Mistakes: Future Regulation to Prevent Greenwashing" (2013) 40 BC Envtl Aff L Rev 229 at 233—235; Magali A Delmas & Vanessa Cuerel Burbano, "The Drivers of Greenwashing" (2011) 54:1 California Management Rev 64 at 72; Jacob Vos, "Actions Speak Louder than Words: Greenwashing in Corporate America" 23 Notre Dame JL Ethics & Pub Pol'y 673 at 689—690; Chukwumerije Okereke, "An Exploration of Motivations, Drivers and Barriers to Carbon Management: The UK FTSE 100" (2007) 25:6 European Management J 475 at 476.

20 The contractual carbon fee may also address other GHGs; the term 'contractual carbon fee' was used to show its similarities parentage to the state-imposed carbon tax and the internal carbon fee.

21 This may be related to the relative youth of private sector emissions reduction initiatives, such as the internal carbon fee.

22 See *infra Part II: Motivations for the Contractual Carbon Fees*.

commitments. Prospective Party B's may include charities, non-profits, carbon offsetting agencies, franchisors, brand managers, and parent companies.

2. STRUCTURE

This article sets forth the legal architecture of the contractual carbon fee and demonstrates the ways in which this novel instrument may be advantageous to self-interested firms and to civil society. Part I sets out the essential components of the contractual carbon fee and offers advice on how to draft a contractual carbon fee as an enforceable stipulated remedy clause. This part synthesizes key principles underlying the judicial scrutiny of stipulated remedy clauses in the Canadian common law, and provides five drafting guidelines that will secure the enforceability of the contractual carbon fee. In so doing, this part provides a model on how to draft an enforceable contractual carbon fee under other legal systems. Part II argues that the contractual carbon fee is advantageous to both Party A (i.e. cost savings, GHG emissions reductions, green finance opportunities, brand advantages, climate change-related risk mitigation, and club good opportunities) and Party B (i.e. mandate fulfillment and standard setting). Part III argues that the contractual carbon fee is normatively desirable because it increases accountability, is coherent with other norms, sets out determinate norms, and promotes fairness. Lastly, this paper concludes with a summary of the contractual carbon fee's contribution to the larger environmental governance complex.

3. PART 1: THE LEGAL ARCHITECTURE OF THE CONTRACTUAL CARBON FEE

3.1. Three Necessary Components: Scope of Emissions, Price, and Enforcing Party

The basic idea of the contractual carbon fee affords parties a large degree of flexibility in defining their respective commitments. Access to low-carbon energy, commercial considerations, a firm's degree of environmental ambition, and other intricacies will likely impact the exact parameters of each arrangement. Although it may be difficult to envisage all of the possible iterations at this early stage, the basic idea of the contractual carbon fee remains the same: Party A agrees to pay a price for its GHG emissions and Party B enforces the bargain. We can unpack the basic contract into three definite components: 1) a scope of emissions, 2) a price on emissions, and 3) the role of the enforcing party.[23] I will survey each component in turn.

First, the parties must negotiate the scope of covered emissions. This component refers to both the type of GHG emissions and source of those emissions.[24] Although corporations may want to centre their efforts on CO_2 emissions (since they account for more than two thirds of global GHG emissions),[25] contractual carbon fees may apply to other GHG emissions. The

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[23] These criteria are partially inspired by Sarah E Light's definitional criteria for internal carbon fees, Light, *supra* note 9 at 41—42; while not essential in a contractual carbon fee contract, parties may include a choice of law clause and a dispute resolution regime to settle disputes regarding the interpretation and application of the contract.

[24] For a discussion of the relevant factors in determining the scope of covered emissions, see Gilbert E Metcalf & David Weisbach, "The Design of a Carbon Tax" (2009) 33 Harv Envtl L Rev 499 at 521—537.

[25] IPCC, "Climate Change 2014 Synthesis Report Summary for Policymakers" (2014), online: *IPCC* <ipcc.ch/site/assets/uploads/2018/06/AR5_SYR_FINAL_SPM.pdf> at 5 (Figure SPM 2).

scope of coverage may be tailored to the environmental footprint of Party A. For example, agricultural firms may want to include methane and nitrous oxide emissions.[26] Similarly, certain manufacturers (e.g. of refrigeration systems) may want to include fluorinated gases.[27] Once the parties determine the type of covered emissions, they must decide the fee's scope of application. Parties may stipulate coverage specific to a firm, a business unit, a geographic location, or a particular project. The parties may stipulate coverage based on specific sources of emissions: direct, indirect electricity emissions, or other indirect GHG emissions.[28] Moreover, the fee's scope may cover the firm's total emissions, or emissions that are above a certain threshold.[29] Parties may also include a clause that would modify or annul the carbon fee in the event that the party's emissions become subject to state regulation. In this scenario, the carbon fee would only apply to emissions produced outside the reach of a state-imposed carbon tax or cap-and-trade regime. Such a clause could help avoid a firm 'double-paying' for the same GHG emissions.[30]

Second, the contract must stipulate a price for the covered emissions. The carbon fee rate may be fixed according to a variety of factors. If a firm has an internal GHG emissions target, the carbon fee price could be based on an estimate of the costs required to meet the firm's emissions reduction target.[31] Voluntary carbon market prices, or consensus estimates of the social cost of GHG emissions[32] are other reasonable reference points to determine the carbon fee rate. Parties may want to stipulate different carbon prices based on geographical or business differences that affect the local availability of less carbon-intensive sources of energy. Furthermore, parties are advised to stipulate the intended purpose of the collected revenue. Without a stipulated purpose, the collecting party (Party B) has discretion to use the revenues in a manner of its choosing. If the parties so intend, revenues may be collected and then re-invested in the paying firm to support climate change mitigation efforts within the firm. Party A may even pledge its fee revenue to an environmentally focused Party B to finance its operations, cover the enforcement costs, or purchase carbon offsets.[33]

Third, the contract must designate a party to enforce the agreement. As a party to the contract, the 'enforcing' party (Party B) would have access to the contract's dispute resolution

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26 Agriculture is responsible for about 50% of anthropogenic methane and 70% of anthropogenic nitrous oxide emissions, Ermias Kebreab et al, "Methane and nitrous oxide emissions from Canadian animal agriculture: A review" (2006) 86 Can J of Animal Science 135 at 136.

27 Andrew Lindley & Archie McCulloch, "Regulating to reduce emissions of fluorinated greenhouse gases" (2005) 126 J Fluorine Chemistry 1457 at 1458—1460 (for an overview of the sources of fluorinated GHGs and their contribution to global climate change).

28 Direct GHG emissions (scope 1) arise from sources that are owned or controlled by a firm; electricity indirect GHG emissions (scope 2) are emissions that arise from the generation of electricity consumed by a firm; other indirect GHG emissions (scope 3) refer to emissions that are the consequences of a firm's economic activity, but do not arise from sources that are owned or controlled by the firm.

29 For example, a firm may agree to pay a carbon fee only on GHG emissions in excess of the firm's carbon neutrality threshold.

30 That said, the contractual carbon fee may useful to prepare for the prospect of higher state-imposed carbon prices, see *infra v) Legal and Regulatory Risk Mitigation*.

31 Microsoft, for instance, set an emissions reduction goals and calculated its internal carbon price based on how much money would be required to achieve its goals, Light, *supra* note 9 at 43—45.

32 Metcalf & Weisbach, *supra* note 24 at 511—513 (on the Pigouvian approach to carbon pricing).

33 See *infra ii) Green Finance*.

mechanism and would be able to commence proceedings against Party A for breach of contract. The presence of an enforcing party helps overcome the common law rule of privity as an obstacle to enforce contractual obligations.[34] Depending on the arrangement, the enforcing party may also be responsible for emissions tracking, fee collection, or fee revenue investments. While enforcement involves a complex set of responsibilities, a contractual carbon fee contract must have a party that takes on at least some of the enforcement responsibilities.

3.2. Drafting an Enforceable Contractual Carbon Fee

Now that the essential features of a contractual carbon fee have been established, we may turn to its legality. The payment of carbon fees is its central enforcement mechanism. If Party A fails to pay the carbon fee bill, it is in breach of its contractual promise. A stipulated remedy clause would set monetary penalties for unpaid carbon fees.[35] Drafting the carbon fee enforcement mechanism as a stipulated remedy clause helps avoid legal and pragmatic issues related to the doctrine of privity of contract.[36]

Canadian Courts have adopted two approaches on the enforceability of stipulated remedy clauses.[37] The first line of authorities applies the axiomatic penalty doctrine. Indeed, these authorities separate the (enforceable) liquidated damages clause from the (unenforceable) penalty clause. In recent years, Canadian Courts have drifted away from the penalty doctrine.[38] A more recent line of authorities is more sympathetic to contractual freedom and analyzes these clauses under an unconscionability framework.

3.2.1. Two Barriers to Enforceability: The Penalty Doctrine and Unconscionability

The first barrier to enforceability of the contractual carbon fee is the "venerable common law rule"[39] against penalty clauses. Under this rule, a penalty clause is unenforceable unless it represents a genuine pre-estimate of damages[40] at the time of contract formation. In *Dunlop Pneumatic Tyre v New Garage and Motor*,[41] Lord Dunedin's speech crystallized the

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34 In many environmental contracts, the enforcement or monitoring agency is not a party to the contract and therefore lacks standing to enforce the contractual obligations, see e.g. Natasha A Affolder, "Rethinking Environmental Contracting" (2010) 21 J Envtl L & Prac 155 at 167—168.

35 As suggested by Professor Dan Farber, "Using Contract Law to Address Climate Change" (2018), online: *Contracts Prof Blog* <lawprofessors.typepad.com/contractsprof_blog/2018/03/using-contract-law-to-address-climate-change.html>.

36 That said, other approaches may be used to enforce the contractual carbon fee. For example, U.S. lawyers may choose to rely on the third-party beneficiary doctrine and designate an intended beneficiary that may sue for a breach of contract. Under this approach, the third-party may act as a check on both Party A and Party B. Due to the Canadian focus of this present work, I will not elaborate on these other approaches.

37 See generally Paul-Erik Veel, "Penalty Clauses in Canadian Contract Law" (2008) 66 U Tor Fac L Rev 229 at 233—246.

38 Ibid.

39 *Peachtree II Associates - Dallas LP v 857486 Ontario Ltd* (2005), 76 OR (3d) 362 at para 23 [*Peachtree II*]. Statutes also provide relief against penalty clauses: see e.g. *Courts of Justice Act*, RSO 1990, c C-43, s 98.

40 A genuine pre-estimate of damages is an anticipatory assessment of damages that would flow from a breach.

41 *Dunlop Pneumatic Tyre Co Ltd v New Garage & Motor Co Ltd* [1914-1915] All ER Rep 739 (HL).

common law approach on the enforceability of stipulated remedy clauses.[42] At its core, Lord Dunedin's approach asks courts to determine whether the substance, context, and effects of the clause is "a bargain to assess damages" or an unenforceable penalty clause.[43] Under this approach, an enforceable stipulated remedy clause is a genuine pre-estimate of damage, while a penalty clause is designed to produce such a heavy penalty that a party cannot rationally contemplate (which renders the penalty void as *in terrorem*). Since the Supreme Court of Canada's first adoption of the Dunlop test in *Canadian General Electric*,[44] Canadian jurisprudence has applied this dichotomous approach to scrutinize stipulated remedy clauses.[45] Courts tend to determine the issue of enforceability in reference to whether a stipulated amount is "grossly excessive" or "disproportionate and unreasonable" vis-a-vis conceivable damages at the time of contract formation.[46] As a result, these determinations are bound in the factual circumstances of the case and the Court's sense of "fairness and reasonableness."[47]

As a second barrier to enforceability, Courts may strike down a contractual carbon fee as unconscionable. In the past few decades, some Canadian Courts have preferred to analyze stipulated remedy clauses under an unconscionability rubric.[48] The precursor for this shift may be traced to Dickson J's obiter remark in *JG Collins v Elsley Estate* that "the power to strike down a penalty clause is a blatant interference with freedom of contract and is designed for the sole purpose of providing relief against oppression for the party having to pay the stipulated sum."[49] This observation (together with similar obiter in *HF Clarke v Thermidare*)[50] led to increased restraint of the courts' supervisory role in scrutinizing stipulated remedy clauses. As Sharpe JA notes, Dickson's obiter in *Elsley* sparked a shift towards unconscionability analysis: "[j]udicial enthusiasm for the refusal to enforce penalty clauses has waned in the face of a rising recognition of the advantages of allowing parties to define for themselves the consequences of breach."[51]

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42 *Ibid* at 742.

43 *Ibid* at 742; see e.g. *Canadian Acceptance Corporation v Regent Park Butcher Shop Ltd*, 1969 3 DLR (3d) 304 at 309—310.

44 *Canadian General Electric Co v Canadian Rubber Co of Montreal*, [1915] 52 SCR 349 at 351.

45 Shatilla v Feinstein, [1923] 3 DLR 1035 at para 26; *Dezcam Industries Ltd v Kwak*, [1983] 5 WWR 32 at para 14 [Dezcam]; an exception to this tendency (prior to the Courts' increased preference for unconscionability analysis) is *R v Dimensional Investments* ([1968] SCR 93 at 100—101 [Dimensional]) in which the Supreme Court of Canada decided to enforce a penalty clause that was found to have borne no relation to the damages suffered.

46 *HF Clarke Limited v Thermidaire Corp Ltd*, [1976] 1 SCR 319 at 338 [*HF Clarke*]; *Prudential Insurance Co of America v Cedar Hills Properties Ltd*, 1994 CanLII 1960 (BC CA) at para 16 [*Prudential*]; *BLT Holdings Ltd v Excelsior Life Insurance Company*, 1986 ABCA 180 (CanLII) at para 13.

47 *HF Clarke*, *Ibid* at 330; Jeff St Aubin & Rocco Sebastiano, "Liquidated Damages: Canadian Adoption, Divergence and the Necessity for Restatement" (2017) J Can College Construction Lawyers 139 at 146.

48 Kevin E Davis, "Penalty Clauses through the Lens of Unconscionability Doctrine: *Birch v Union of Taxation Employees, Local 7003*0 (2010) 55:1 McGill LJ 151 at 155—56; Paul-Erik Veel, "Penalty Clauses in Canadian Contract Law" (2008) 66 UT Fac L Rev 229 at 231 [Veel]; for skeptical remarks, see St Aubin & Sebastiano, Ibid at 155—159.

49 *JG Collins Insurance Agencies Ltd v Elsley*, [1978] 2 SCR 916 at 937, 20 NR 1 [*Elsley*].

50 *HF Clarke*, *supra* note 46 at 330—331.

51 *Peachtree II*, *supra* note 39 at para 34.

This shift is apparent in *Birch v Union of Taxation Employees*, which is often described as the culmination of a judicial trend away from the axiomatic approach to stipulated remedy clauses.[52] In *Birch,* the majority of the Ontario Court of Appeal held that a union constitution provision that would have allowed the union to fine members who crossed picket lines was unenforceable under a two-part unconscionability test. [53] The first part of the test evaluates whether the clause arises out of an "inequality of bargaining power."[54] The second part evaluates the terms of the contract for signs of "a high degree of unfairness" or an "abuse of bargaining power."[55] On the basis of this test, the majority refused to enforce the clause based on its excessive quantum of stipulated damages and the unequal bargaining power inherent in the union constitution.[56] While *Birch* has been described as a "bold"[57] departure from the penalty doctrine, *Birch* is merely one in a series of cases in which appellate courts have departed from Dunedin's common law rule.[58] The Alberta Court of Appeal, for instance, followed *Elsley* to conclude that a clause is enforceable "unless it would be unconscionable or oppressive to give effect to it."[59] This approach is consistent with Sharpe JA's guidance that "courts should, whenever possible, favour analysis on the basis of equitable principles and unconscionability over the strict common law rule pertaining to penalty clauses."[60]

Despite the increased preference for *Birch*-like unconscionability analysis, Canadian Courts have yet to abandon the penalty doctrine.[61] Courts in Alberta,[62] British Columbia,[63] and Saskatchewan[64] continue to apply the penalty rule analysis. Courts in these same provinces have also opted for the unconscionability approach to stipulated remedy clauses,[65] thus leaving the law unsettled. Even in the land of *Birch*, Ontarian Courts vacillate between the penalty

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52 See Veel, *supra* note 48 at 238—246 (for a discussion of the case law leading up to *Birch*).

53 *Birch v Union of Taxation Employees, Local 70030*, 2008 ONCA 809 [*Birch*].

54 *Ibid* at para 45.

55 *Ibid*. See also *Dyck v Manitoba Snowmobile Association*, [1985] 1 SCR 589, 1985 CanLII 27 (SCC) at para 10 (the two-part test is modelled after this case).

56 *Birch supra* note 54 at paras 50—59 (while the dissent would have enforced the fine, it adopted the majority's two-part unconscionability test to support the enforceability of the clause at paras 76—77; both reasons, however, declined to comment on the relevance of the penalty doctrine beyond the circumstances of the case at paras 37—38, 100).

57 Davis, *supra* note 48 at 164.

58 See e.g. *Lee v OCCO Developments Ltd*, 1996 Carswell NB 491 at para 41, [1996] NBJ No 438; see also *Prudential*, *supra* note 46 at paras 16, 42.

59 See *Fern Investments Ltd v Golden Nugget Restaurant (1987) Ltd,* 1994 ABCA 153 at para 19, 1994 CarswellAlta 128.

60 *Peachtree II*, *supra* note 39 at para 32.

61 See *Veel*, *supra* note 48 at 235—238.

62 See *RCAP Leasing Inc v Martin*, 2016 ABQB 542 at para 18.

63 See *Bankers Mortgage Corporation v Plaza 500 Hotels Ltd*, 2017 BCCA 66 at paras 43—46.

64 See *Tkachuk Farms Ltd v Le Blanc Auction Service Ltd,* 2006 SKQB 536 at paras 96—103 [*Tkachuk Farms*].

65 See *Precision Drilling Canada Limited Partnership v Yangarra Resources Ltd*, 2015 ABQB 649 at paras 18—26; *Do v Nichols*, 2016 BCCA 128 at paras 26–27 [*Do v Nichols*]; *Martel v Mohr*, 2011 SKQB 161 at paras 96—105.

doctrine[66] and the unconscionability analysis.[67] Besides the penalty and unconscionability doctrines, some commentators have suggested that the three-part *Tercon* enforceability analysis could be an alternative means to analyze stipulated remedy clauses.[68] Thus far, it appears that only non-appellate courts have heeded this suggestion.[69] This status quo will likely persist until an authoritative restatement on the continued relevance of the penalty doctrine.[70]

3.2.2. Drafting Advice

Given this uncertain state of law, caution dictates a drafting approach that can withstand scrutiny under the penalty and unconscionability doctrines.[71] Canadian jurisprudence has followed a common set of principles under both doctrines.[72] While it offers no guarantee as to a clause's enforceability, adherence to these principles increases the likelihood of enforceability. As a first principle, both doctrines treat relief from enforceability as an exceptional remedy. Under the penalty doctrine, relief from enforceability has been described as an "intrusion on freedom of contract."[73] Consistent with Dickson's obiter in *Elsley*,[74] Lauwers JA indicated that determinations of unconscionability must be "exceptional [and] strongly compelled on the facts of the case."[75] Binnie J's reasoning in *Tercon* further supports judicial restraint on public policy grounds, "there is [. . .] a public interest in leaving knowledgeable parties free to order their own commercial affairs" and so "freedom of contract will often, but not always, trump other societal values."[76] These authorities are consistent with the principle that the law should

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66 See e.g. *Ottawa Community Housing Corporation v Foustanellas*, 2015 ONCA 276 at paras 32—35; Kechnie v. Sun Life Assurance Company of Canada, 2016 ONCA 434 at paras 18—21.

67 See *Taub v Investment Dealers Association of Canada*, 2009 ONCA 628 at paras 59–61; *Jan Wong v The Globe and Mail Inc*, 2014 ONSC 6372 at paras 41—56

68 See *Tercon Contractors Ltd v British Columbia (Transportation and Highways)*, 2010 SCC 4 at paras 122—123 [*Tercon*]; Mike Demers, "Liquidated Damages and Penalty Clauses–The Road Ahead Post-Tercon" (2011) J Can College Construction Lawyers 45 at 59—69; Connor Bildfell, "Exculpatory Clauses and Liquidated Damages Clauses: Two Sides of the Same Coin?" (2015) 78 Sask L Rev 347 at 357—358.

69 See e.g. *Felty v Ernst & Young LLP*, 2013 BCSC 815 at paras 192, 237; *Swift v Eleven Eleven Architecture Inc*, 2012 ABQB 764 at paras 6, 53—56, 64—68; *Spartek Systems Inc v Brown*, 2014 ABQB 526 at para 273.

70 St Aubin & Sebastiano, *supra* note 47 at 169—170; Courts have noted that the complexity in offering a coherent state of law, see *McKeen v The Mortgage Makers Inc and Libby*, 2009 NBCA 61 (CanLII) at para 39; *32262 BC v See-Rite Optical*, 1998 ABCA 89 (CanLII) at para 14; See *Veel*, *supra* note 48 at 233—246 (for a discussion on this unsettled area of law).

71 See e.g. *Capital Steel Inc v Chandos Construction Ltd*, 2019 ABCA 32 at paras 307—314 (wherein the Alberta Court of Appeal applied both the Elsley and Dunlop standards) (leave to appeal to SCC granted, 2019 CanLII 62565).

72 See *Veel*, *supra* note 48 at 263—264 (for a similar synthesis of these principles).

73 *MTK Auto West Ltd (c.o.b. MINI Richmond) v Allen*, [2003] BCJ No 2430 at 22; *Axton Industries Limited v Bobbiduncan Holdings Limited, Pawelek et al*, [2006] BCSC 1204 at para 185.

74 See *supra* note 49 and accompanying text.

75 See *Redstone Enterprises Ltd. v Simple Technology Inc.*, 2017 ONCA 282 at para 25 [*Redstone*]; see also *Peachtree II*, *supra* note 39 at para 32—34; *Prudential*, *supra* note 46 at para 37.

76 *Tercon*, *supra* note 68 at paras 85, 117, Binnie J, dissenting.

not provide relief from imprudent bargains.[77] When Courts (exceptionally) decide to strike down a stipulated remedy clause, they are concerned with its unconscionable nature or the quantum of the stipulated damages.[78] Parties are advised to draft their contractual carbon fee in a manner that avoids both pitfalls.

Second, the stipulated remedy clause must not be unconscionable because a finding of unconscionability could render the contractual carbon fee unenforceable.[79] Just like any other contract, parties should be attentive to the manner in which the contractual carbon fee is concluded and avoid concluding contracts in an unequal, unfair or otherwise abusive bargaining process.[80] One concern under the rubric of unconscionability is whether the clause is "oppressi[ve] for the party having to pay the stipulated sum."[81] Other indicia under the unconscionability rubric include "the relative sophistication of the parties, the existence of bona fide negotiations, the nature of the relationship between the parties, the gravity of the breach, and the conduct of the parties."[82] All of these factors may be considered up until "the time when the clause is invoked."[83] Carbon fee parties should be aware of the justification for the fee price and scope of emissions. This can help bridge potential divides in expertise and sophistication between the parties.

Regarding the quantum of damages, both doctrines hold that the stipulated remedy clause must be proportionate to potential damages resulting from a breach. Proportionality lies at the heart of the *Dunlop* approach[84] as well as unconscionability analysis.[85] In a contractual carbon fee, proportionality balances the carbon fee's objectives with the common law's concern for fairness in contractual relations. More concretely, the stipulated remedy may be based on a genuine pre-estimate of the lost anticipated value resulting from the breach.[86] Parties may fix the carbon fee price and the stipulated remedy quantum on the basis of consensus estimates of the social cost of carbon or a market-determined price or index. A quantum too low to internalize the costs of carbon emissions may defeat the contract's very purpose. On the opposite end of the spectrum, parties should be careful not to stipulate excessive penalties that merely seek to deter a breach.[87] To assist in balancing these considerations, the parties

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77 *Do v Nichols*, *supra* note 65 at para 21 citing Gerald Fridman, *The Law of Contract in Canada*, 6th ed (Toronto: Thomson Reuters Canada, 2011) at 726—727.

78 See supra Part B i) Two Barriers to Enforceability: The Penalty Doctrine and Unconscionability for a discussion.

79 *Prudential, supra* note 46 at para 36; *Elsley*, *supra* note 49 at 937; while *Elsley* addressed the issue of "oppression", this case is cited in support of the unconscionability approach to stipulated remedy clauses, see John A Manwaring, "Unconscionability: Contested Values, Competing Theories and Choice of Rule in Contract Law" (1993) 25:2 Ottawa LR 235 at 257—258.

80 *Birch, supra* note 54 at paras 45, 76—77.

81 *Elsley*, *supra* note 49 at 937; *Peachtree II*, supra note 39 at para 32.

82 *Redstone*, *supra* note 75 at para 30.

83 *Dimensional*, *supra* note 45 at 101.

84 *Dunlop*, *supra* note 41 at 742.

85 *Dezcam*, *supra* note 45 at paras 19—20, 24—25; See *Pope v Potter*, 2011 BCSC 697 at para 21.

86 *Unilease Inc v York Steel Co Construction Ltd*, 1978 CarswellOnt 117 at paras 9, 11; the estimate is to be evaluated at the time of contract formation, see e.g. *Hughes v Lukuvka*, [1970] 14 DLR (3d) 110 at 113; *Maxwell v Gibsons Drugs Ltd*, 1979 CanLII 702 (BC SC) at para 16.

87 *Newman, Hill, Duncan & Lacoursiere v Murray*, 1987 CarswellBC 1103 at para 19 (finding that the application of the clause would lead to an extravagant result).

may stipulate a cap on possible damages to limit the variability of the carbon fee bill. The quantum may be expressed as a fixed amount or calculated on the basis of a formula.[88] Either of these options limits the salience of unforeseeable events and restrains the negative impacts of hindsight bias on contractual certainty.[89]

In fixing the stipulated remedy, the parties may consider the systemic impact of an individual breach on the greater contractual carbon fee regime. If Party A fails to pay, observers may dismiss the arrangement as unenforceable greenwashing. The breakdown of the contractual carbon fee may cause reputational damages to Party B as an effective enforcement agent and affect the credibility of its other operations. Courts have upheld the stipulated remedy clauses that deal with small or difficult to prove damages that are similar to this sort of reputational damage. In *Dunlop*, Lord Dunedin did not expect Dunlop to prove real damages resulting from each individual sale in breach of the regime.[90] Rather, *Dunlop* was merely expected to provide an appropriate and "reasonable" estimate of the "indirect" damages that result from the gradual breakdown of its price maintenance regime.[91] In *Elsley*, the Supreme Court of Canada enforced a liquidated damages clause of $1,000 "for each and every breach"[92] of the obligation not to solicit business from clients of JG Collins "irrespective of [JG Collins'] actual loss."[93] In *Birch*, the majority did not object to the very notion that a union may enforce fines against union members that breach a union obligation or use fines as a means to enforce union solidarity.[94] In all these cases, Courts accepted liquidated damages clauses that offer compensation for the gradual breakdown of an economic structure.[95] This, again, provides further evidence of the lesson learnt in *Dunlop*, viz. the Court is not concerned with the nature of a given contract so long as it stipulates a just quantum of damages and accords with public policy.

Parties may refer to public policy considerations to further support the validity of the contractual carbon fee. Recitals may reiterate the legitimate objectives of the carbon fee and its legal basis as an exercise of contractual freedom. Clarifying these contracts as a legitimate exercise of contractual freedom is consistent with Canadian jurisprudence's preference for upholding

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88 *Tkachuk Farms*, *supra* note 64 at paras 100—103; *Tristar Cap & Garment Ltd v Super Save Disposal Inc*, 2014 BCSC 690 at paras 16, 46; *Zander Sod Company Limited v. Solmar Development Corp.*, 2011 ONSC 7 at paras 127—128.

89 Robert A Hillman, "Limits of Behavioral Decision Theory in Legal Analysis: The Case of Liquidated Damages" (1999) 85 Cornell L Rev 717 at 735—737; Samuel A Rea Jr, "Efficiency Implications of Penalties and Liquidated Damages" (1984) 13:1 J Leg Stud 147 at 163—167.

90 As Lord Dunedin writes, such "damage from any one sale would be impossible to forecast"; *Dunlop*, *supra* note 41 at 742.

91 *Ibid*.

92 *Elsley*, *supra* note 49 at 919—920 (while there was only one breach in this case, the Court accepted the principle that liquidated damages may be awarded for each and every breach).

93 *Ibid* at 938; similarly, Courts have enforced stipulated remedy clauses that provide compensation to realtors who suffer opportunity costs that result from a client's failure to uphold an exclusive listing bargain, see *Colliers Macaulay Nicolls Inc v Park Georgia Properties Ltd*, 2003 CarswellBC 2947 at para 49; *Hargobind Shake & Shingle Ltd v Golden Gate Land Co*, 2004 BCSC 729 at para 27.

94 *Birch, supra* note 54 at paras 38—39.

95 *Elsley*, *supra* note 49 at 938; *Nortel Networks Corp v Jervis* (2002), 33 CCPB 71, 18 C.C.E.L. (3d) at paras 47—50 (finding that the clause is a penalty); see also *Meunier v Cloutier* (1984), 46 OR (2d) 188, 9 D.L.R. (4th) 486, 1 C.P.R. (3d) 60 at para 21.

stipulated remedy clauses.[96] Considering the judicially recognized urgency of combatting the "evil of global climate change,"[97] environmental concerns should support the enforceability of voluntary commitments to disincentivize the emission of GHGs. These public policy grounds weigh in favour of enforcing the contractual carbon fee's central obligation. The promise to pay for one's GHG emissions is not auxiliary to the bargain. Rather, it *is* the bargain. To hold otherwise and refuse to enforce the bargain would subvert the expressed will of the parties on dubious public policy grounds. These policy justifications, together with the aforementioned guidelines provide a legal justification for the enforceability of the contractual carbon fee.

4. PART II: MOTIVATIONS FOR THE CONTRACTUAL CARBON FEES

The contractual carbon fee offers a unique value proposition to self-interested economic actors. For Party A, the contractual carbon fee may lead to cost savings, provide a financing stream for low-carbon investments, increase the credibility of one's environmental commitments, mitigate regulatory and legal risks associated with climate change, and provide a structure for collective action on climate change. For Party B, the contractual carbon fee provides non-state actors with a means to advance their organizational mandate and ensure a firm's compliance with their environmental commitments (standard setting).

4.1. Party A Motivations

4.1.1. Cost Savings Through Emissions Reductions

The contractual carbon fee creates a financial incentive for Party A to reduce GHG emissions. Putting a price on emissions sends a clear and easy-to-communicate price signal on consumption without placing quantitative limits on economic activity.[98] Much like other carbon pricing initiatives, a contractual carbon fee adds the cost of emissions to a firm's operational expenditures.[99] Faced with the prospect of paying more for a firm's emissions, decision-makers have increased incentive to find ways to lower a firm's emissions.[100] If the cumulative experience of state-imposed carbon taxes in British Columbia and Europe are any indication, the spectre of this additional expenditure can help 'push' actors away from carbon-intensive activities

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96 See *supra* notes 69–72 and accompanying text.

97 *Syncrude Canada Ltd v Canada (Attorney General)*, 2014 FC 776 (CanLII) at para 83; see also *Reference re Greenhouse Gas Pollution Pricing Act*, 2019 SKCA 40 at paras 4, 144, & 202 (describing climate change as an existential threat); *Citizens for Riverdale Hospital v Bridgepoint Health Services*, 2007 CanLII 23599 (ON SCDC) at para 21.

98 See William D Nordhaus, "To tax or not to tax: Alternative approaches to slowing global warming" (2007) 1:1 Rev Environmental Economics & Policy 26 at 42; Bettina BF Wittneben, "Exxon is Right: Let Us Re-Examine Our Choice for a Cap-and-Trade System Over a Carbon Tax" (2009) 37 Energy Policy 2462 at 2463.

99 See Reuven S Avi-Yonah & David M Uhlmann, "Combating Global Climate Change: Why a Carbon Tax is a Better Response to Global Warming than Cap and Trade" (2009) 28:1 Stan Envtl LJ 3 at 42—44 (on the cost certainty of carbon taxes); David Driesen, "Economic Instruments for Sustainable Development" in Benjamin J Richardson & Stepan Wood, eds, *Environmental Law for Sustainability: A Critical Reader* (Oxford, UK: Hart Publications, 2005) at 303.

100 See Kshama Harpankar, "Internal Carbon Pricing: Rationale, Promise and Limitations" (2019) 10:2 Carbon Management 219 at 222.

without harming economic growth.[101] If the price is high enough, carbon pricing may cause firms to reduce their energy consumption.[102] Firms may modify their energy mix in favour of less carbon-intensive sources of energy. For future projects, the recurring costs of high carbon activities may incentivize firms to move their economic activities to jurisdictions with greater access to low-carbon energy.

Contractual carbon fees can also 'pull' economic actors towards low-carbon activities. According to the 'Porter Hypothesis,' environmental regulations that reduce wasteful pollution can "trigger innovation that may partially or more than fully offset the costs of complying with them."[103] A recent review of empirical work on the Porter Hypothesis has shown that flexible market-based instruments (like emissions taxes) improve economic efficiency and stimulate innovation.[104] Emissions pricing is particularly effective in this regard because it sets stable costs and give economic actors flexibility in achieving carbon reductions.[105] Collectively, these behaviour changes can help reduce company costs, improve economic efficiency and reduce a firm's reliance on dirtier sources of energy. Although these advantages are also applicable under an internal carbon fee, the possibility of external enforcement further incentivizes modifications in firm behaviour.

4.1.2. Green Finance

Depending on the contract, carbon fee revenue may be used to create a dedicated revenue stream to finance low-carbon initiatives. Within the firm, carbon fee revenue can lead to a virtuous cycle whereby carbon fees help finance low carbon investments. Carbon fee revenue may pay for low carbon technologies that tend to have higher upfront costs, such as renewable energy[106] and building retrofitting.[107] Firms would then improve their resilience in

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101 See Stewart Elgie & Jessica McClay, "BC's Carbon Tax Shift is Working Well after Four Years (Attention Ottawa)" (2013) 39 Can Pub Pol'y S1 at S3—S6 (regarding its effects on fuel consumption); Nicholas Rivers & Brandon Schaufele, "Salience of Carbon Taxes in the Gasoline Market" (2015) 74 J Environmental Economics & Management 23 at 35 (regarding its effects on consumer gasoline demand); Mikael Skou Andersen, "Europe's Experience with Carbon-Energy Taxation" (2010) 3:2 Surveys & Perspectives Integrating Environment & Society 1 at 4 (showing a 3.1% reduction in carbon emissions amongst 6 European countries); Brian Murray & Nicholas Rivers, "British Columbia's Revenue-Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy" (2015) 86 Energy Policy 674 at 678—680.

102 See Nikolaos Floros & Andriana Vlachou, "Energy Demand and Energy-Related CO2 Emissions in Greek Manufacturing: Assessing the Impact of a Carbon Tax" (2005) 27 Energy Economics 387 at 403.

103 Michael E Porter & Claas van der Linde, "Toward a New Conception of the Environment-Competitiveness Relationship" (1995) 9:4 J Economic Perspectives 97 at 98.

104 See Stefan Ambec et al, "The Porter Hypothesis At 20: Can Environmental Regulation Enhance Innovation and Competitiveness?" (2013) 7:1 Rev Environmental Economics & Policy 2 at 12.

105 See Joshua Meltzer, "A Carbon Tax as a Driver of Green Technology Innovation and the Implications for International Trade" (2014) Energy LJ 45 at 57—58; Carolyn Fischer & Richard G Newell, "Environmental and Technology Policies for Climate Mitigation" (2008) 55 J Environmental Economics & Management 142 at 160.

106 See Ehsanul Kabira et al, "Solar Energy: Potential and Future Prospects" (2018) 82 Renewable & Sustainable Energy Rev 894 at 897—898 (on solar energy generally).

107 Griet Verbeeck & Hugo Hens, "Energy Savings in Retrofitted Dwellings: Economically Viable?" (2005) 37 Energy & Buildings 747 at 750—752 (on retrofitting generally).

an uncertain energy landscape[108] and expedite their climate change adaptation efforts. Over the long-run, these investments can help decouple a firm's economic growth from environmental damage.[109] Furthermore, contractual carbon fee revenue can be tied to a verified carbon offsetting program.[110] This arrangement creates a structure for firms to directly internalize the costs of their emissions in verified ways that lower global GHG emissions. Carbon fee revenue can also fund environmental research, climate change mitigation efforts,[111] and other green finance initiatives.

4.1.3. Brand Advantages

One of the distinguishing features of the contractual carbon fee is the presence of an enforcement agent. Compliance with a contractual carbon fee can thus play a role akin to other third-party certification systems that differentiate products or brands on verifiable criteria.[112] For instance, consumers tend to trust and prefer organic certification labels over labels that lack independent certification.[113] While a contractual carbon fee marketing strategy may not automatically lead to price premiums, it can respond to recent trends that take into consideration the environmental impact of consumer purchasing behaviour.[114] The possibility of legal enforcement brings credibility to a firm's environmental commitments and verifies a firm's GHG emissions reporting.[115] This enforcement mechanism may avoid the type of 'greenwashing' that is commonly associated with unverifiable claims and under-enforced promises that lead to public mistrust of private sector environmentalism.[116] Similarly, non-profits and non-governmental organizations (especially those involved in environmental causes) may implement a contractual carbon fee to show their commitment to mitigating the social costs of GHG emissions beyond what is prescribed by government regulation.

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108 See Kacper Szulecki & Kirsten Westphal, "The Cardinal Sins of European Energy Policy: Nongovernance in an Uncertain Global Landscape" (2014) 5:1 Global Policy 38 at 39—44 (on areas on uncertainty).

109 See Martin K Enevoldsen, Anders V Ryelund & Mikael Skou Andersen, "Decoupling of Industrial Energy Consumption and CO_2-emissions in Energy-Intensive Industries in Scandinavia" (2007) 29:4 Energy Econ 665 at 687.

110 See Susan M Galatowitsch, "Carbon Offsets as Ecological Restorations" (2009) 17:5 Restoration Ecology 563 at 564 (for an explanation of carbon offset markets).

111 These initiatives might include tree planting: see Melissa R McHale, E Gregory McPherson & Ingrid C Burke, "The Potential of Urban Tree Plantings to be Cost Effective in Carbon Credit Markets" (2007) 6:1 Urban Forestry & Urban Gardening 49 at 57—59.

112 See generally John M Church, "A Market Solution to Green Marketing: Some Lessons from the Economics of Information" (1994) 79:2 Minn L Rev 245 at 287—288.

113 See Meike Janssen & Ulrich Hamm, "Product Labelling in the Market for Organic Food: Consumer Preferences and Willingness-to-pay for Different Organic Certification Logos" (2012) 25:1 Food Quality & Preference 9 at 20; Carsten Daugbjerg et al, "Improving Eco-labelling as an Environmental Policy Instrument: Knowledge, Trust and Organic Consumption" (2014) 16:4 J Environmental Policy & Planning 559 at 571.

114 See Mark A Cohen & Michael P Vandenbergh, "The Potential Role of Carbon Labeling in a Green Economy" (2012) 34 Energy Economics S53 at S55—S58.

115 See Heidi Bachram, "Climate Fraud and Carbon Colonialism: The New Trade in Greenhouse Gases" (2004) 15:4 Capitalism Nature Socialism 5 at 8.

116 See e.g. Imran Rahman, Jeongdoo Park & Christina Geng-qing Chi, "Consequences of "Greenwashing": Consumers' Reactions to Hotels' Green Initiatives" (2015) 27:6 Intl J Contemporary Hospitality Management 1054 at 1059—1060.

4.1.4. Climate Change-Related Risk Mitigation

The contractual carbon fee can form a part of a firm's response to legal and regulatory climate-related risks.[117] Future regulatory risks and the potential for legal liability remain important concerns for non-state actors.[118] Taking a page from tobacco litigation, climate change litigation has sought to hold companies liable for their GHG emissions.[119] Firms may also attract legal liability for false or misleading greenwashing claims under tort law (as negligent misrepresentation), contract law (as innocent or fraudulent misrepresentation), or competition law.[120] While climate change litigation is still in its infancy, calls for corporate liability and additional regulation will likely remain unabated. In response, firms may adopt a contractual carbon fee as a reasonable precaution[121] to avert the risk of climate change. While many firms have adopted carbon pricing regimes as a planning tool,[122] more proactive firms may adopt a carbon fee as a concrete step in advance of future state regulation. The contractual carbon fee can help firms acclimate to higher prices on carbon-intensive activities,[123] and provides firms with an additional incentive to reduce GHG emissions in advance of stricter government regulation or higher carbon prices.[124]

The spectre of climate change-related risks has also provoked calls to reduce a firm's GHG emissions. In recent years, shareholders used resolutions and other means to exert pressure on corporations to reduce their carbon footprint.[125] Institutional investors have also called on corporations to be more attentive to the potential of tort, criminal, and environmental

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117 See generally Janis Sarra, "The Anthropocene in the Time of Trump, Financial Markets, Climate Change Risk, and Vulnerability" (2018) 51:2 UBC L Rev 489 at 501—504 (for a typology of climate-related risks).

118 See generally Steffen Brunner, Christian Flachsland & Robert Marschinski, "Credible Commitment in Carbon Policy" (2012) 12:2 Climate Policy 255 at 257—261.

119 See e.g. Martin Olszynski, Sharon Mascher & Meinhard Doelle, "From Smokes to Smokestacks: Lessons from Tobacco for the Future of Climate Change Liability" (2017) 30:1 Geo Intl Envtl L Rev 1; Dustin W Klaudt, "Can Canada's 'Living Tree' Constitution and Lessons from Foreign Climate Litigation Seed Climate Justice and Remedy Climate Change?" (2018) 31:3 J Envtl L & Prac 185.

120 See Meinhard Doelle, Dennis Mahony & Alex Smith, "Canada" in Richard Lord, Silke Goldberg, Lavanya Rajamani & Jutta Brunée, eds, *Climate Change Liability: Transnational Law and Practice* (Cambridge, UK: Cambridge University Press, 2012) 525 at s 19.73; see e.g. Jason J Czarnezki, Andrew Homan & Meghan Jeans, "Greenwashing and Self-Declared Seafood Ecolabels" (2014) 28:1 Tul Envtl LJ 37 at 40—52; see Jessica E Fliegelman, "The Next Generation of Greenwash: Diminishing Consumer Confusion through a National Eco-Labeling Program" (2010) 37 Fordham Urb LJ 1001 at 1037—1043.

121 See generally Jin Fong Chua, "Corporate Liability and Risk in Respect of Climate Change" (2016) 20 New Zealand J Environmental L 167 at 188.

122 See Anthony G Heyes, "A Signaling Motive for Self-regulation in the Shadow of Coercion" (2005) 57:3 J Economics & Business 238 at 246; Lister, *supra* note 16 at 542.

123 *Chang*, *supra* note 9 at 68—70.

124 In the context of carbon taxes and pricing, see Metcalf & Weisbach, *supra* note 24 at 517; Wittneben, *supra* note 98 at 2463; Light, *supra* note 9 at 32.

125 Jane Lister, *supra* note 16 at 542; Christian Felix Böttcher & Martin Müller, "Drivers, Practices and Outcomes of Low-carbon Operations: Approaches of German Automotive Suppliers to Cutting Carbon Emissions" (2015) 26:6 Business Strategy & Environment 477 at 489; Erin M Reid & Michael W Toffel, "Responding to Public and Private Politics: Corporate Disclosure Of Climate Change Strategies" (2009) 30 Strategic Management J 1157 at 1171—1172.

justice liability.[126] Already, many institutional investors, such as Blackrock[127] and a growing number of multilateral development banks (Asian Development Bank, the World Bank, and the European Bank for Reconstruction and Development (EBRD))[128] consider climate risks in their investment decisions.[129] There is also increasing evidence that equity markets increasingly value corporations on the basis of their CO2 emissions[130] and their exposure to climate change-related risks.[131] The contractual carbon fee can respond these shareholder pressures for further action on climate change. Moreover, adherence to a contractual carbon fee may help obtain government subsidies, procurement contracts, or civil society approval.[132] This requirement becomes all the more relevant as governments and civil society actors increasingly scrutinize projects based on their contribution to a state's GHG emissions.[133] Contractual carbon fees would then be used in ways similar to green building certifications, which seek to manage the environmental footprint of buildings.[134]

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126 Christina Ross, Evan Mills & Sean B Hecht, "Limiting Liability in The Greenhouse: Insurance Risk-Management Strategies In The Context Of Global Climate Change" (2007) 43 Stan J Intl L 251 at 260; Elizabeth E Hancock, "Red Dawn, Blue Thunder, Purple Rain: Corporate Risk of Liability for Global Climate Change and the SEC Disclosure Dilemma Notes" (2004) Geo Intl Envtl L Rev 233 at 242—250.

127 Trevor Hunnicutt, "BlackRock plans environmentally conscious money market fund" (2019), online: *Reuters* <reuters.com/article/us-blackrock-funds-environment/blackrock-plans-environmentally-conscious-money-market-fund-idUSKCN1PG2MU>.

128 World Bank Group, *State and Trends of Carbon Pricing 2018* (Washington, DC: International Bank for Reconstruction and Development, 2018) at 56—57.

129 Philipp Krueger, Zacharias Sautner & Laura T Starks, "The importance of climate risks for institutional investors" (2018) Swiss Finance Institute Research Paper No. 18-58, online: *SSRN* <papers.ssrn.com/sol3/papers.cfm?abstract_id=3235190> at 36—37 [unpublished].

130 Ella Mae Matsumura, Rachna Prakash & Sandra C Vera-Muñoz, "Firm-Value Effects of Carbon Emissions and Carbon Disclosures" (2013) 695 at 698 (finding a firm value decrease of $212,000 for every thousand metric tons of carbon emissions); Kent Walker & Fang Wan, "The Harm of Symbolic Actions and Green-Washing: Corporate Actions and Communications on Environmental Performance and Their Financial Implications" (2012) 109:2 J Business Ethics 227 at 239.

131 Kimitaka Nishitani, & Katsuhiko Kokubu, "Why Does the Reduction of Greenhouse Gas Emissions Enhance Firm Value? The Case of Japanese Manufacturing Firms" (2012) 21:8 Business Strategy & Environment 517 at 526; Li Cai & Chaohua He, "Corporate Environmental Responsibility and Equity Prices" (2014) 125:4 J Business Ethics 617 at 634.

132 A contractual carbon fee may be integrated in a community agreement, see generally, Kristen van de Biezenbos, "The Rebirth of Social Licence" (2019) 14:2 MJSDL 153 at 170—172; assuming such a requirement is consistent with international trade and investment law, see e.g. Charles E McLure, "A Primer on the Legality of Border Adjustments for Carbon Prices: Through a GATT Darkly" (2011) 4 Carbon & Climate Law Review 456; Metcalf & Weisbach, *supra* note 24 at 540—552.

133 E.g. *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7 (New South Wales, Australia) at para 699 (refusal to grant consent to a coal power plant for its contribution to Australia's GHG emissions); *Earthlife Africa v Minister of Environmental Affairs and Others*, 2017 ZAGPPHC 58 (High Court, South Africa) at para 91 (on the need to consider climate change impacts for government approval).

134 See Darren A Prum & Stephen Del Percio, "Green Building Contracts: Considering the Roles of Consequential Damages & Limitation of Liability Provisions" (2010) 23 Loyola Consumer LR 113 at 143—146.

4.1.5. Club Goods and Supply Chain Contracting

The contractual carbon fee provides the basic structure for a green club. Green clubs have been proposed as solutions to overcome collective action barriers to private sector coordination on climate change mitigation.[135] The basic intuition underlying green clubs is that the potential of benefiting from a club good provides motivation for self-interested firms to take on the costs of compliance with the club's standards.[136] Green clubs provide some valuable good (e.g. a certification, access to technology or knowledge sharing)[137] in exchange for the production of an environmental good.[138] In so doing, it provides exclusive benefits to its members, while excluding free-riders from the benefits of the club.[139] In a contractual carbon fee green club, economic actors would agree to pay the contractual carbon fee in exchange for something of value it would not otherwise receive. For example, firms may agree to pay the contractual carbon fee in exchange for a certification mark that would provide consumers with an indicator attesting to the brand's commitment to internalizing the social cost of its GHG emissions.[140] This certification system would then provide a means for firms to distinguish their brand from their competitors, similar to other non-state certification systems, such as the Forest Stewardship Council (FSC) standards,[141] and the Leaping Bunny cruelty-free standard.[142] Provided that the certification gains public trust and consumer confidence, it would furnish members of the club with a brand advantage.[143] Due to its enforceable nature, the contractual carbon fee would help build trust, something that is a necessary component to overcome a

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135 See Matthew Potoski & Aseem Prakash, "Green Clubs and Voluntary Governance: ISO 14001 and Firms' Regulatory Compliance" (2005) 49:2 American J Political Science 235; William Nordhaus, see "Climate Clubs: Overcoming Free-Riding in International Climate Policy" (2015) 105:4 American Economics Rev 1339; see Richard B Stewart, Michael Oppenheimer & Bryce Rudyk, "A New Strategy for Global Climate Protection" 120 Climate Change 1 at 3.

136 Renato J Orsato et al, "Why join a Carbon Club? A Study of the Banks Participating in the Brazilian 'Business for Climate Platform'" (2015) 96 J Cleaner Production 387 at 390—394.

137 Potoski & Prakash, *supra* note 135 at 237—239, 246—247; Klaas van't Veld & Matthew Kotchen, "Green Clubs" (2011) 62 J Environmental Economics & Management 309 at 309—310; see Richard B Stewart, Michael Oppenheimer & Bryce Rudyk, "A New Strategy for Global Climate Protection" 120 Climate Change 1 at 3—6.

138 Matthew Potoski, "Green Clubs in Building Block Climate Change Regimes" (2017) 144:1 Climatic Change 53 at 54.

139 See generally Magali Delmas & Arturo Keller, "Free Riding in Voluntary Environmental Programs: The Case of the U.S. EPA Waste Wise Program" (2005) 38 Policy Sciences 91 at 93—96, 104—105.

140 The carbon fee for this arrangement may take the form of a variable membership fee that varies according to the member's GHG emissions output; Dan Farber suggested a variable membership fee approach to privatized carbon taxes, see Farber, *supra* note 35.

141 See Teresa Hock, "The Role of Eco-Labels in International Trade: Can Timber Certification Be Implemented as a Means to Slowing Deforestation" (2001) 12:2 Colo J Intl Envtl L & Pol'y 347 at 359—361.

142 Delcianna J Winders, "Combining Reflexive Law and False Advertising Law to Standardize Cruelty-Free Labeling of Cosmetics" (2006) 81 NYUL Rev 454 at 479—484.

143 Lucy Atkinson & Sonny Rosenthal, "Signaling the Green Sell: The Influence of Eco-Label Source, Argument Specificity, and Product Involvement on Consumer Trust" (2014) 43:1 J Advertising 33 at 41—42.

collective action problem.[144] This makes the contractual carbon fee particularly appealing in situations where firms are dissuaded from cutting their emissions for fear of losing market share to less environmentally conscious firms.

Similarly, purchasers can leverage their bargaining position to stipulate a contractual carbon fee on their suppliers. The contractual carbon fee would hold economic actors to a common standard to internalize the costs of GHG emissions. Suppliers would then have incentive to pay a contractual carbon fee due to the fear of losing out on a business opportunity. The structure of this arrangement would mirror other environmental supply chain contracts that stipulate additional environmental regulations on suppliers.[145] For example, General Motors, Home Depot, Toyota, and Wal-Mart now stipulate that their suppliers must comply with voluntary environmental norms, such as the FSC sustainable forestry management standards, International Organization for Standardization (ISO) 14001 environmental management certification, and the Marine Stewardship Council (MSC) standards.[146] In the transnational context, these contracts would create enforceable standards that offer certain protections from brand-related reputation and regulatory risks.[147]

4.2. Party B Motivations

4.2.1. A Means to Advance an Organization's Mandate

An interest in reducing global GHG emissions is likely to be the principal motivation for many Party Bs. In certain economic sectors, non-governmental organizations take on enforcement duties as a means to advance their larger mandate, implement their expertise, or address a societal ill. The desire to address a pressing problem incentivizes the enforcement agent to ensure compliance with a norm. To cite a couple of examples, the MSC and the FSC were created to improve the sustainability of the fishing and forestry industries, respectively.[148] Many non-state actors already hold governments and corporations accountable for their environmental impacts and obligations.[149] In the contractual carbon fee context, non-state actors can use their position as an enforcement agent to meaningfully participate in the management of the private sector's environmental profile and enforce a firm's commitment to reduce its GHG emissions. The contractual carbon fee can also become an important revenue stream for Party B. Depending on the contract, Party A may pledge carbon fee revenue to

144 Elinor Ostrom, "Polycentric Systems for Coping with Collective Action and Global Environmental change" (2010) 20:4 Global Environmental Change 550 at 551.

145 See generally Michael P Vandenbergh, "The New Wal-Mart Effect: The Role of Private Contracting in Global Governance" (2007) 54 UCLA L Rev 913.

146 *Ibid* at 927—936.

147 Peter Dauvergne & Jane Lister, "Big Brand Sustainability: Governance Prospects and Environmental Limits" (2012) 22 Global Environmental Change 36 at 39—40.

148 Lars H Gulbrandsen, "The Emergence and Effectiveness of the Marine Stewardship Council" (2009) 33 Marine Policy 654 at 654—655; Stephen Bell & Andrew Hindmoor, "Governance Without Government? The Case of The Forest Stewardship Council" (2012) 90:1 Public Administration 144 at 148—150.

149 See Harro van Asselt, "The Role of Non-State Actors in Reviewing Ambition, Implementation, and Compliance under the Paris Agreement" (2016) 6 Climate L 91 at 99—107; Robert Falkner, "Private environmental governance and international relations: Exploring the links" (2003) 3:2 Global Environmental Politics 72 at 79; David Vogel, "The Private Regulation of Global Corporate Conduct Achievements and Limitations" (2010) 49:1 Business & Society 68 at 74.

Party B.[150] This arrangement is particularly appealing for charities, non-profits, and carbon offsetting agencies, as it provides them with a stable revenue stream to finance their operations or environmental initiatives.

4.2.2. A means to ensure a firm's compliance with their environmental commitments (standard setting)

A prospective Party B may have self-interested or economic reasons to ensure another party's compliance with the contractual carbon fee. Consumers, shareholders, business groups, civil society groups or governments may exert pressure on a firm to impose the contractual carbon fee on actors within a firm's influence. The contractual carbon fee may be used to reduce electricity costs along the supply chain or improve a firm's brand. The central business unit, franchisor, brand manager, or parent company may impose a contractual carbon fee on their business units to improve a brand's environmental reputation. We could also imagine an arrangement in which firms working on the same project agree to a contractual carbon fee.[151] Under all these arrangements, Party B would enforce the contractual carbon fee as a means to pursue its economic interest in ensuing compliance with the regime.

5. PART III: NORMATIVE LEGITIMACY

Normative considerations inevitably play a role in evaluating climate change mitigation instruments.[152] While the contractual carbon fee is a private law instrument, public and governmental perceptions of the instrument's normative value may affect its success especially in regards to its ability to bring credibility to a firm's environmental commitments and mitigate climate-related risks. Consumers are unlikely to pay a price premium for greenwashing,[153] just as governments are less likely to reward firms that evade regulatory risks in unscrupulous ways. This part examines the normative legitimacy of the contractual carbon fee in light of four normative principles: accountability, coherence, determinacy, and fairness.[154] While other values may affect the normative contribution of the contractual carbon fee,[155] these criteria provide a useful framework to discuss normativity within the confines of this single article.

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150 Dan Farber, "Privatizing Paris" (2018), online: *Legal Planet Blog* <legal-planet.org/2018/03/01/privatizing-paris/>.

151 For example, in the construction industry, a property owner (Party B) could stipulate a carbon fee on a contractor's (Party A) carbon emissions. Similarly, purchasers (Party B) could stipulate a carbon fee on emissions that come from firms (Party A) in the supply chain of the purchaser.

152 See Sarah E Light & Eric W Orts, "Parallels in Public and Private Environmental Governance" (2015) 5 Mich J Envtl & Admin L 1 at 53—71 (for a taxonomy of normative concerns).

153 See subsection *iii) Brand Advantages*, under sub-heading *A Party A Motivations,* in *Part II Motivations for Contractual Carbon Fees*.

154 See Robert O Keohane & David G Victor, "The Regime Complex for Climate Change" (2011) 9:1 Perspectives on Politics 7 at 16—17 (proposed these four values in addition to "epistemic quality" and "fairness" as evaluation criteria to assess the normative quality of particular climate change norms).

155 See Light & Orts, *supra* note 152 at 54—57 (cite effectiveness, efficiency, capacity to stimulate innovation, transparency, political feasibility and distributional justice as public law concerns that may be equally relevant to private environmental governance).

5.1. Accountability

One of the principal advantages of the contractual carbon fee is increased accountability. Accountability refers to the degree to which a party is held to a standard by an external power.[156] Much like other third-party standards, the contractual carbon fee would hold parties accountable through an external verification and monitoring mechanism. As an external enforcement agent, Party B has legal standing to ensure Party A complies with its obligation to internalize the cost of its GHG emissions. In practice, the credibility of the instrument hinges on Party B's ability to hold Party A accountable. This may be done either through carbon fee collection, court proceedings, public declarations, or alternative dispute resolution mechanisms. A weak enforcement mechanism can put the legitimacy of the contractual arrangement into question and undermine the regime's marketing value. To increase the regime's transparency and credibility, Party A's compliance record and the effects of the carbon fee program may be disclosed to the public.

5.2. Coherence

Coherence refers to the degree to which institutions are compatible and mutually reinforcing.[157] Coherence is of particular concern to private environmental governance initiatives, because they are often intended to fill legal gaps[158] and intersect with state regulation.[159] A well-designed contractual carbon fee can, however, avoid issues of incoherence. The contractual carbon fee provides a structure for the direct regulation of a non-state actor's GHG emissions. This fills a gap left by jurisdictions that fail to implement a carbon tax, cap-and-trade system, or some other form of direct regulation on GHG emissions. In the transnational context, the contractual carbon fee can impose a standardized carbon price on global value chains, so as to overcome carbon leakage issues that arise out of unequal regulation.[160] Similarly, contractual carbon fees can also help firms comply or exceed existing state regulation. In Canada, for instance, roughly 80% of emissions are or will be subjected to some type of carbon price.[161] The BC carbon tax generally covers 'downstream' emissions, and creates exemptions for emissions that are generated at the extraction and processing phases of production.[162] A contractual carbon fee would then fill these gaps and help firms acclimate themselves to higher carbon

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156 See Ruth W Grant & Robert O Keohane, "Accountability and Abuses of Power in World Politics" (2005) 99:1 American Political Science Rev 29 at 29; Light & Orts, *supra* note 152 at 56.

157 See Keohane & Victor, *supra* note 154 at 16—17.

158 Vandenbergh, *supra* note 14 at 161—162.

159 See e.g. Stepan Wood, "Green Revolution or Greenwash? Voluntary Environmental Standards, Public Law, and Private Authority in Canada" in *Law Commission of Canada, New Perspectives on the Public–Private Divide* (Vancouver: UBC Press, 2003) 123 at 126—137; Anthony G Heyes & John W Maxwell, "Private vs Public Regulation: Political Economy of The International Environment" (2004) 48 J Environmental Economics & Mgmt 978 at 993.

160 See Katerina Peterkova Mitkidis, "Using Private Contracts for Climate Change Mitigation" (2014) 2:1 Groningen J Intl L 54 at 59—61.

161 National Energy Board, "Market Snapshot: Carbon pricing policies are active or proposed in provinces generating more than 80% of Canada's GHG emissions" *Government of Canada* (1 April 2016), online: <neb-one.gc.ca/nrg/ntgrtd/mrkt/snpsht/2016/04-01crbnprcng-eng.html>.

162 Rather than emissions that are generated at the extraction and processing phases of production, see Shi-Ling Hsu, *The case for a carbon tax: getting past our hang-ups to effective climate policy* (Washington, DC: Island Press, 2011) at 15—16.

prices in anticipation of additional government regulation. Going forward, contractual carbon fees and other voluntary carbon pricing programs may even inspire state regulation[163] by demonstrating the feasibility and desirability of carbon pricing.

5.3. Determinacy

A determinate norm is one that instills confidence and provides clarity in ways that facilitates compliance.[164] Thomas Franck, for instance, argues that determinacy contributes to a norm's ability to modify a compliant party's conduct.[165] The contractual carbon fee sets a clear price on GHG emissions that falls within a stipulated scope of application. This price signal may be communicated throughout the firm as an operational expenditure. The quantification of the wide-ranging effects of GHG emissions in terms of a fixed monetary cost provides a benchmark for firm decision-makers. A carbon fee program also facilitates intra-firm coordination because it implements an easy-to-communicate price signal within the firm.[166]

5.4. Fairness

Carbon pricing initiatives inevitably lead to distributive consequences that prompt fairness considerations.[167] As such, instruments that inequitably distribute the costs of climate change mitigation will likely suffer from civil society challenges to their legitimacy.[168] While the contractual carbon fee is no panacea,[169] it can advance global environmental justice both in theory and practice. In theory, the contractual carbon fee is predicated upon a 'polluter pays' approach to fairness—one that assigns an economic burden proportionate to one's GHG emissions.[170] Compliant carbon fee parties suffer direct monetary consequences for their emissions. In practice, the appropriateness of the carbon fee price plays an important role in assessing the distributive justness of the contractual carbon fee.[171] Even if, assuming for the sake

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163 See generally, Sarah E Light, "The role of universities in private environmental governance experimentalism" (2018) 32 Organization & Environment 4661 at 4672—4716.

164 See Keohane & Victor, *supra* note 158 at 17.

165 Thomas Franck, *The Power of Legitimacy among Nations* (New York: Oxford University Press, 1990) at 52.

166 Light, *supra* note 9 at 47—48.

167 For example, some state-imposed carbon taxes impose distributive effects based on gender, see Nathalie J Chalifour, "A Feminist Perspective on Carbon Taxes" (2010) 22:1 CJWL 169; for a discussion of the distributive effects of environmental policy, see Richard J. Lazarus, "Pursuing 'Environmental Justice': The Distributional Effects of Environmental Protection" (1993) 87:3 Nw UL Rev 787.

168 Gillingham, Carattini & Esty, supra note 10 at 29; Stefano Carattini, Maria Carvalho & Sam Fankhauser, "Overcoming public resistance to carbon taxes" (2018) 9:5 Wiley Interdisciplinary ReviewsIREs: Climate Change 531 at 2—4.

169 See Michael Mehling, & Endre Tvinnereim, "Carbon Pricing and the 1.5°C Target: Near-Term Decarbonisation and the Importance of an Instrument Mix" (2018) 12:1 Carbon & Climate L Rev 50 at 60—61 (arguing that carbon taxation is no silver bullet).

170 See Lasse Ringius, Asbjørn Torvanger & Arild Underdal, "Burden Sharing and Fairness Principles in International Climate Policy" (2002) 2:1 Intl Env Agreements 1 at 5.

171 See Light & Orts, *supra* note 152 at 60—62 (argue for a case-by-case approach to evaluating the justice of a private environmental governance initiative).

of argument the contractual carbon fee merely facilitates incremental improvements,[172] the mere act of setting a voluntary price on emissions should be applauded as an improvement on the status quo. As Herman E Daly and Joshua Farley argue, "ecological economics stresses that we should act on our knowledge that zero is the incorrect price [on emissions]."[173] Without a contractual carbon fee, a vast quantity of GHG emissions will remain under-priced and under-regulated. Furthermore, the carbon fee may provoke qualitative or structural changes within the firm that are consistent with the private sector's responsibility to mitigate climate change.[174] Contractual carbon fees can serve as a starting point for the further internalization of the social costs of GHG emissions. For example, Microsoft's recent decision to double its internal carbon fee price is an example of a firm that 'ratcheted up' its commitment to pay for its emissions.[175]

In sum, the contractual carbon fee provides a complementary means to hold firms accountable for their emissions in a determinate manner, and transfers some of the costs of climate change to polluters.

6. CONCLUSION

The contractual carbon fee fills an important accountability gap in private environmental governance. While the private sector has increasingly become more 'government-like' in its behaviour, non-state actors often lack authority to enforce environmental norms. In contrast to modern governments, private actors cannot pass laws or regulations, issue fines, or threaten criminal prosecution. This state of affairs opens the door to new or adaptive approaches to governance that are more geared towards the particularities of the private sector. In this article, I suggested that the contractual carbon fee is one such instrument.

The contractual carbon fee provides an external means to enforce a firm's environmental commitments. The contractual carbon fee constitutes an improvement over non-binding private environmental norms and policies that lack external enforcement and compliance mechanisms. The increased accountability inherent in the contractual carbon fee has the potential to confer a number of benefits on compliant parties, such as reduced energy costs, brand advantages, climate change-related risk mitigation, and a stable revenue stream for green investments. Due to their contractual nature, the contractual carbon fees allow parties to negotiate a carbon price that best suits each party's capacity and level of ambition.

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172 See generally, Mehling & Tvinnereim, *supra* note 169 at 54—55 (on marginal reductions); Rebecca M Bratspies, "Sustainability: Can Law Meet the Challenge?" (2011) 34 Suffolk Transnat'l L Rev 283 at 305—306 (regarding the so-called 'marginal fallacy').

173 Herman E Daly & Joshua Farley, *Ecological Economics: Principles and Applications*, 2nd ed (Washington DC: Island Press, 2011) at 464.

174 See e.g. Hamish van der Ven, Steven Bernstein & Matthew Hoffmann, "Valuing the Contributions of Nonstate and Subnational Actors to Climate Governance" (2017) 17:1 Global Environmental Politics 1 at 14—15 (on the effects of carbon footprinting on firm behaviour); Jane Andrew, Mary A Kaidonis & Brian Andrew, "Carbon tax: Challenging neoliberal solutions to climate change" (2010) 21:7 Critical Perspectives on Accounting 611 at 614—617 (noting that carbon taxes challenge governmental disinterest in regulating environmental issues).

175 In April 2019, Microsoft reportedly doubled its carbon fee price to $15 in the seventh year of the program, Kottasová, *supra* note 10.

Contractual carbon fees, however, are not the 'be-all-end-all' solution to climate change. Carbon pricing does not address liability issues for historic emissions, nor regulate other areas of environmental law. Rather, we should view the contractual carbon fee as a complement to state action on climate change – one that has the potential to help decouple economic growth from environmental damage. Contractual carbon fees constitute a model for how contract law can enforce obligations of ends in the fight against climate change. In this way, the contractual carbon fee is an example of a legal tool that enables and incentivize the transition towards a greener economy.[176] In so doing, the contractual carbon fee can help non-state actors achieve their environmental goals and overcome the collective action problems that arise from an over-reliance on international co-operation or domestic politics.[177]

[176] See generally, Markus W Gehring, "Legal Transition to the Green Economy" (2016) 12:2 JSDLP 135 at 144—146.

[177] See also Sarra, *supra* note 117 at 494—497.