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Abstract

In 2016, provinces and territories in Canada, with the exception of Saskatchewan and Manitoba, endorsed the Pan-Canadian Framework on Clean Growth and Climate Change (PCF). A year later, Saskatchewan released its climate policy – 'The Prairie Resilience', a policy which departs from the carbon pricing centric PCF, and rather centred resilience and innovation as more appropriate policy emphases. In 2018, a new conservative government in Ontario upturned the province's previous climate policy, in favour of a framework which mirrors the Prairie Resilience. Within a frame of the defined metrics of effectiveness, flexibility, and equitability, this article critically appraises the Prairie resilience vis-à-vis the PCF. It questions the justifiability of Saskatchewan's contentions, the fairness of its proposed contributions, and more broadly, how the Canadian climate policy can be 'turnover proofed'. It is argued here that 'political acceptability' is critical to the long-term effectiveness of a pan-Canadian climate policy. By disassembling the Prairie resilience, it is concluded that Saskatchewan's contentions are only defensible in part. Burden sharing, through the adaptation of Europe's triptych approach and a strict-flexible mode of implementation, are recommended as important first steps to make a pan-Canadian climate policy acceptable to emission intensive provinces like Saskatchewan, Ontario, and Alberta.

I. Introduction

The Pan-Canadian Framework for Clean Growth and Climate Change (PCF) is Canada's 'game plan' to meet its greenhouse gas (GHG) emission reduction commitment under the Paris Agreement (PA).² Whereas the PCF is borne out of negotiations among Federal, Provincial and Territorial (FPT) governments in 2016,³ it is far from being a consensus arrangement of FPTs. Notable is Saskatchewan's objections, as contained in its climate plan styled '*The Prairie Resilience*'.⁴ It is however worth noting, prefatorily, that FPTs are consensus *ad idem* on

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² At Paris, in 2015, Canada, via its Nationally Determined Contribution (NDC), committed to a 30% reduction in greenhouse gas emissions compared to 2005 levels by 2030. More specifically, this will entail a drastic drop from the 2005 emissions of "about 747 megatonnes (Mt) of carbon dioxide equivalent (CO₂e) to 523 Mt by 2030". See Erich Hartman, et al, "The Road to Paris: Navigating the Intergovernmental Path to Our Climate Commitments" (2017) 158 MOWAT Research, 5. For provision on NDC, see *Paris/Agreement*, 12 December 2015, UNTS 54113 at art 3 (entered into force 4 November 2016) (Paris Agreement)

³ The PCF came on the heels of the 2015 Declaration of Premiers adopted at the Quebec Summit on Climate Change and the 2016 Vancouver Declaration on Clean Growth and Climate Change by First Ministers. See, the "Pan-Canadian Framework on Clean Growth and Climate Change: Canada's Plan to Address Climate Change and Grow the Economy" (2016) online: < https://www.canada.ca/content/dam/themes/environment/documents/weather1/20170125-en.pdf > 5. (PCF)

⁴ Manitoba alongside Saskatchewan were the two hold-out provinces. But with Manitoba's recent announcement to sign the PCF, and the federal government seeming acceptance of the \$25 per tonne carbon tax for the next five years

essentials. There is no disputation that: the climate is changing; various places in Canada (particularly the Northern Territories and Maritime Provinces) are literally in the 'eye of the climate change storm'; and drastic actions must be taken to mitigate and/or adapt to climate change impacts.⁵ The dissonance among FPTs is, substantially, premised on what constitutes *effective*, *equitable* and *flexible* interventions through which Canada can meet its obligations under the PA. While this debate mirrors the perennial contestations on the global stage,⁶ it forebodes direr implications for Canada, considering the recent 'defection' of Alberta and Ontario (Canada's two highest carbon emitters) from the federal climate plan.⁷

Building on the themes of *effectiveness*, *equitability* and *flexibility*, this paper interrogates Saskatchewan's climate change claims against the PCF. A critique of the PCF is not the thrust of this work. Rather, it focuses on the possibility of an alternative narrative to the current framework – a different pathway to achieve the Canadian climate goal. It attempts to answer questions including: to what extent are Saskatchewan's contentions justifiable? compared to the PCF and the climate change programmes of other Canadian provinces and territories (PTs), does Saskatchewan's plan provide considerable and viable options? Does its plan amount to a "fair

⁽instead of a \$10 per year rise from 2018 to \$50 in 2022), Saskatchewan is left as the remaining hold-out province. See Sean Kavanagh, "Manitoba Signs Federal Climate-Change Plan", CBC News (23 February 2018) online: http://www.cbc.ca/beta/news/canada/manitoba/climate-change-carbon-emission-ottawa-manitoba-squires-canada-tax-1.4549502

⁵ See, Canada, Office of Auditor General, *A Collaborative Report from Auditors General: Perspectives on Climate Change Action in Canada*, (Ottawa, March 2018) (Collaborative Report)

⁶ For example, the argument of the Organization of Petroleum Exporting Countries (OPEC) on the need to protect their fossil fuel dependent economies even as the world fights climate change is reflective of the position Saskatchewan has taken. Like Saskatchewan, OPEC has emphasised technology as the proper approach to carbon intensive industries. See Mohammad Sanusi Barkindo, "The Future Economy of Oil from the Middle East and across OPEC" (Speech delivered at the International Petroleum Week, 21 February 2017, London, England) online: http://www.opec.org/opec_web/en/4114.htm

⁷ See generally, Ashifa Kassam, "Doug Ford Scraps Carbon Tax Plan and Sets-up Climate Fight with Trudeau" The Guardian, 2 July 2018, online: https://www.theguardian.com/world/2018/jul/03/doug-ford-scraps-carbon-tax-plan-and-sets-up-climate-fight-with-trudeau; Graham Slaughter, "Alberta Leaving Federal Climate Plan over Trans Mountain Decision" CTV News, 30 August 2018, online: https://www.ctvnews.ca/politics/alberta-leaving-federal-climate-plan-over-trans-mountain-decision-1.4075046.

contribution" to Canada's obligations under the PA and/or reductions to be achieved via the PCF?

To answer these questions, *part II* contextualizes the concepts of effectiveness, equitability and flexibility, and appraises the essential components of the PCF using these standards. *Part III* reviews and critiques the *Prairie Resilience*, questioning its claims and assumptions. *Part IV* compares the *Prairie Resilience* to the climate change commitments of British Columbia, Ontario and Alberta. The paper concludes, in *Part V*, with a summary of findings on the justifiability of Saskatchewan's plan and makes recommendations on how to 'politically immunize' or 'turn-over proof' the PCF. In framing its recommendations, this work, *inter alia*, briefly considers how the European Union's (EU) *Triptych* approach can be integrated into the PCF to inform a more differentiated, equitable and effective allocation (and implementation) of Canada's emission reduction targets under the PA.

II. A Snap Analysis of the Pan-Canadian Framework

The PCF, in different ways, referenced the themes of effectiveness, flexibility and equity. For example, affirming the principles of the Vancouver Declaration, the Framework lists the following as some of its 'elements of collaboration':

- Recognizing the diversity of provincial and territorial economies and the need for <u>fair</u> and <u>flexible</u> approaches to ensure the international competitiveness and a business environment that enables firms to capitalize on opportunities to the transition to a low-carbon economy in each jurisdiction; ...
- Recognizing that the federal government has committed to ensuring that the provinces and territories have the <u>flexibility</u> to design their own policies to meet emission-reductions targets, including their own carbon pricing mechanisms...

3

⁸ Reference made to Ontario and Alberta in this paper, unless where noted otherwise, refers to the provinces' commitments made prior to the current premiership of Doug Ford in Ontario and the decision of Rachael Notley (Alberta's Premier) to stop effecting her province's commitment to the PCF due to the trans-mountain pipeline conflict.

⁹ Supra note 2 at 3. (underlining for emphasis)

Based on the above principles, the PCF identifies carbon pricing, complementary actions, adaptation and resilience, and clean technology as its pillars, highlighting carbon pricing as its central component. To determine whether the PCF is equitable, flexible and potentially effective, it is necessary to identify the metrics with which these themes can be measured and assess to what extent the Framework features the identified metrics. Further, to adequately assess the PCF, it is important to answer the following: What are the emission reduction targets of provinces and territories (PTs)? How were the obligations allotted? How are the obligations to be met? Although the PCF's pillars speak to the last question, it is not explicit on the exact emission reduction obligations of PTs. The issue of burden allocation/sharing is foundational to climate policies, particularly, to adjudging the equitability of such policies. While the subject of burden sharing will be considered more closely later in this work, what follows is an attempt to frame the metrics with which the *effectiveness*, *flexibility*, and equitability of the PCF can be assessed.

a. <u>Effectiveness Metrics</u>: Emission reduction, cost efficiency and political 'legitimacy' are the key metrics of an effective climate policy.¹² With carbon pricing at its core, it is doubtful if the PCF satisfies these effectiveness metrics. For example, it is widely agreed that for Canada to achieve its 2030 commitment, country wide carbon pricing must "start at \$30 per tonne of CO₂ and rise \$15 annually to \$200 in 2030". Contrariwise, the PCF contemplates a pricing

¹⁰ *Ibid* at 2 - 3, 7.

¹¹ Christoph Bohringer, et al "Sharing the Burden for Climate Change Mitigation in the Canadian Federation" (2015) 48:4 Canadian Journal of Economics 1350 at 1351.

While effectiveness in respect of emission insists on the actual lowering of emissions, cost efficiency and political legitimacy speak to "ability to lower emissions at a manageable cost" and political acceptability, public support and ability of such initiatives "to survive governmental turnover" respectively. See Hartman, *Supra* note 1 at 13. Mark Jaccard et al, added "administrative feasibility" to the effectiveness metrics. See Mark Jaccard et al, "Is Win-Win Possible? Can Canada's Government Achieve Its Paris Commitment ... and Get Re-Elected?" (September 20, 2016) online: http://rem-main.rem.sfu.ca/papers/jaccard/Jaccard-Hein-Vass%20CdnClimatePol%20EMRG-REM-SFU%20Sep%2020%202016.pdf at 3. Political legitimacy is used interchangeably with political acceptability here.

¹³ Mark Jaccard, et al *Ibid* at 22 - 23.

system starting at \$10 per tonne in 2018, rising by \$10 per year to \$50 per tonne in 2022. While this low pricing frame is apparently to make the carbon pricing system cost effective, it is arguable that it has or can achieve this. This is in part because the concept of cost effectiveness is jurisdiction dependent. A cost-effective price range in British Columbia might be deemed unacceptable in Manitoba. This is evident in the reluctant acceptance and implementation of carbon pricing in provinces and territories, with British Colombia and Quebec (which all had varying pricing systems in place before the PCF), being the only jurisdictions with 'concrete' carbon pricing systems, a year after the PCF was made. 14 Carbon pricing has been described as the most cost-effective tool against climate change. 15 But, as noted elsewhere, cost effectiveness "is only one criterion used to assess a policy instrument. ... (there is) also need to know whether the instrument will actually be effective in solving the policy problem ... (and) whether it is politically feasible to implement the instrument at levels and intensities that will enable it to be effective". ¹⁶ There is no 'inherent' effectiveness in carbon pricing (or any climate tool), effectiveness is a function of the mode and scope of conceptualization and implementation. The PCF-prescribed carbon pricing neither has the intensity nor scope to be effective. ¹⁷ But this is only part of the story. Assuming

https://www.schoolofpublicpolicy.sk.ca/documents/research/reports/2017.11 JSGSPP SKClimateChange report.pdf
at 6.

¹⁴ It is noteworthy that other provinces except Saskatchewan are reported to be at different stages of establishing some sort of carbon pricing regime, with noticeable reluctance however. An example of this is Nova Scotia, which had previously insisted in the non-necessity of an explicit carbon pricing regime in its jurisdiction, but which has 'grudgingly' rolled out an in-province cap and trade plan which is doubtful to substantially achieve any emission reduction aim. See generally Pan Canadian Framework on Clean Growth and Climate Change: First Annual Synthesis Report on the Status of Implementation – December 2017, 2-3. As earlier noted, while Ontario has indicated its intention to withdraw from the Western Climate Initiative (joint carbon market with California and Quebec), Alberta has notified that it will cease to adhere to the PCF.

Andrew Leach, et al, "Climate Leadership: Report to Minister" (2015) online: https://www.alberta.ca/documents/climate/climate-leadership-report-to-minister.pdf at 32

¹⁶ Jeremy Rayner, et al, "Saskatchewan and Climate Change: The Challenges, Policy Options and Implications" (November 2017) online: https://www.schoolofpublicpolicy.sk.ca/documents/research/reports/2017.11 JSGSPP SKClimateChange report.pdf

¹⁷ OECD Secretary General, Angel Gurria is quoted as saying "We need an effective price on carbon emissions if we want to tackle climate change. Unfortunately, implementation of the polluter pays principle is woefully lacking. While

the Canadian version of carbon pricing even satisfies the cost efficiency metric of effectiveness and as some have contended, it contributes to emission reduction, what are the chances that it will (as designed) satisfy the 'political legitimacy' metric? There remains a likelihood of active or passive opposition to this pricing-centric approach in various provinces and territories. Confirming this position, a recent study finds that although deemed cost effective, Canadians generally do not support carbon pricing.¹⁸ It is this absence of support (depending on the province) that provinces opposed to carbon pricing have, in a way, latched unto. The PCF's response to this is its backstop plan; applicable to PTs which, at the end of 2018, do not have either an explicit price-based system (carbon tax like British Columbia's or a hybrid approach comprised of carbon levy and output-based pricing system like Alberta's), or a cap and trade system.¹⁹

It can however be argued that the backstop plan further risks the PCF's political legitimacy not only in terms of acceptance by and collaboration with PTs, but also subjecting it to the vagaries of governmental turnover; an Achilles-heel of past pan-Canadian climate policy attempts.²⁰ The political dimension of effectiveness is often downplayed in the design of

lower-end estimates put the damage of emitting 1 tonne of CO_2 at EUR 30, 90% of all emissions from energy use are priced at less than that when we look at 41 countries representing 80% of world energy use. Moreover, 60% of emissions are not subject to any price whatsoever. We cannot continue like this if reducing greenhouse gas emissions in a cost-effective manner is a true policy objective". See OECD, "Effective Carbon Rates on Energy: OECD & Selected Partner Economies" (2016) < http://pwc.blogs.com/files/effective-carbon-rates-on-energy.pdf>

¹⁸ Ekaterina Rhodes, et al, "Exploring Citizen Support for Different Types of Climate Policy" (2017) 137 Ecological Economics 56 at 57, 65. In another study of the perceptions of the citizens in the United States of America and Canada to different climate policies, both cap and trade and carbon tax received the least support. See Erick Lachapelle, et al, "2013 Canada – US Comparative Climate Opinion Survey" (2014) online: http://canada2020.ca/wp-content/uploads/2014/03/Canada-2020-Background-Paper-Climate-Poll-Key-Findings-March-3-2014.pdf See also Abacus Data, "Perceptions of Carbon Pricing in Canada" (February 2018) online: https://ecofiscal.ca/wp-content/uploads/2018/04/Ecosfiscal Polling February2018 FINAL RELEASE.pdf Abacus Data however further found a 6 point increase in support for carbon pricing between 2015 and 2018.

¹⁹ Environment and Climate Change Canada, "Technical Paper on the Federal Carbon Pricing Backstop" (2017) 4 -5.
²⁰ MOWAT's study drew ample lessons from Canada's Kyoto-protocol era National Climate Change Process (NCCP) which like the PCF started as a collaborative venture of FPTs but ended abruptly when the Federal Government's unilateral ratification of the Kyoto Protocol. The study emphasised that "the involvement and agreement of all 14 Canadian governments will ... ensure the survival of this strategy (PCF) despite inevitable governmental turnover ... unless this bargain can withstand the rotation of political perspectives in power that is natural in a democratic state, it

climate policies. As noted by Jaccard et al, "...trade-offs between economic efficiency and political acceptability must be considered, especially given that political acceptability constraints have repeatedly prevented effective climate policy...We have to reduce emissions, which means that we must have effective policies that succeed politically". Paying attention to political effectiveness is critical in the design of effective and lasting climate policies. One way of doing this is having a more nuanced approach in dealing with climate change, while another option is the adoption of flexible regulations as an alternative to carbon pricing. These two options will be considered more extensively later in this work.

b. <u>Flexibility Metrics</u>: The above effectiveness theme is directly impacted by the concept of flexibility. Arguably, the flexibility level of a climate policy determines the extent to which it will be cost efficient, politically acceptable, and ultimately, effective in reducing emissions.²³ Following the classification of Toman et al, the flexibility of a climate policy can be determined by its 'what', 'where', 'how' and 'when' constituents.²⁴ Equally vital to the determination of how flexible a policy is, is the 'why' metric.²⁵ Table 1 below shows the underlying questions which inform each of these metrics:²⁶

will not be successful." See Hartman, et al, supra note 1 at 18, 30 - 32. It is worth pointing out that climate policies are at the centre of current political rhetoric, with conservative candidates in different provinces very clear on their intentions to roll back carbon pricing policies in Alberta and Ontario. See generally Kim Trynacity, "Alberta Carbon fundraising by UCP", CBC News Attach ad. (11 January 2018) http://www.cbc.ca/news/canada/edmonton/carbon-tax-alberta-ndp-united-conservative-party-1.4481776 and Mike Crawley, "Ontario PC Leadership Rivals Scrap Carbon Tac from Platform", CBC News (8 February 2018) online: http://www.cbc.ca/news/canada/toronto/caroline-mulroney-doug-ford-christine-elliott-carbon-tax-1.4524469>.

²¹ Jaccard, et al, *supra note* 11 at 8 -9.

²² Jaccard, et al, *supra note* 11 at 3.

²³ See Michael Toman, et al, "The Economics of "When" Flexibility in the Design of Greenhouse Gas Abatement Policies" (1999) Resources for the Future, Discussion Paper 99-38-REV, 2.

²⁴ *Ibid*

²⁵ Motivations for taking climate actions defer. While for some it is a need to protect their biosystems and specific climate prone industries, like the agricultural sector, others simply want to be industry leaders in the burgeoning global green industry. Yet, the need to take action is literally existential to others given their unique geographical location. These diverse motivations will inevitably impact the components of various action plans. It is therefore necessary to put these motivations into consideration while designing climate policies and allotting responsibilities.

²⁶ Apart from the 'why' metric, the questions contained in the above table are based on Toman's et al classification of flexibility and their ascribed descriptions. See Toman et al, *Supra* note 22.

Table 1.

FLEXIBILITY METRICS	QUESTIONS
What Metric	What greenhouse gases does the policy cover? Is trading among the various gases and sinks allowed?
Where Metric	Is the policy geography sensitive? Has it taken a location-based differentiation approach to the reduction of identified GHGs?
How Metric	Does the policy allow constituent parties (PTs) to achieve set-targets using instruments peculiar to them and by maximizing their comparative advantages?
When Metric	Does the policy allow targets to be met at periods when they can be achieved most efficiently? Is the policy phased?
Why Metric	Has the policy considered the distinct drivers of constituent parties' climate commitments?

In purporting to be a flexible framework, the PCF seems to focus on the 'how metric': "provinces and territories continue to have the flexibility to design their own policies to meet emissions-reduction targets" with little or no reckoning with the other flexibility metrics. It is, albeit, contestable that the PCF can be described as 'how-flexible', given its rigid insistence on the adoption of explicit carbon pricing by PTs. The framework makes British Colombia's (BC) carbon tax the 'gold standard', prescribing that at the very least, other provinces' pricing system should cover the same scope as BC's. Assuming BC's carbon tax has been effective in reducing emission, ²⁹ there is no guarantee that this approach will work in other provinces

²⁷ PCF, *supra note* 2 at 7.

²⁸ PCF, supra note 2 at 50.

²⁹ While lauded as being a 'pure' example of a revenue-neutral, it has been argued that it has not been an effective tool in reducing BC's emissions. An indicator of this is the province's 2.1% decrease in emissions compared to its 2007 levels, although in its climate action plans, it committed to a reduction of 33% below 2007 levels. It is generally agreed that this target is unattainable. See generally Judith Lavoie, "BC Quietly Releases Emissions Update that Shows It'll Blow 2020 Climate Target", Desmog Canada (12 January 2018) online: https://www.desmog.ca/2018/01/12/b-c-quietly-releases-emissions-update-shows-it-ll-blow-2020-climate-target and BC provincial Greenhouse Gas Inventory (2017) online: https://www2.gov.bc.ca/assets/gov/environment/climate-change/data/provincial-inventory/2015/2015 provincial inventory.xlsx. It has however been noted elsewhere that BC's "emissions would gave be between 5% and 15% higher if it had not put its carbon tax in place", and that the reasons for the increase is the freezing of the tax at \$30 in 2012 and its strong economic and population growth. See Canada's Ecofiscal Commission, "Clearing the Air: How Carbon Pricing Helps Canada Fight Climate Change" (April 2018) online: <

and/or territories, considering that the BC carbon tax system was tailor-made for the province. Conditions attributable to the relative success of the system, like the abundance of hydroelectric potentials and the prior development of this pre-2008, and the fact that only a limited part of the emissions of the province are from trade exposed sectors, are largely unavailable in other provinces.³⁰ Taking cognizance of what, where, how, when and why metrics of flexibility will inform a more nuanced approach to carbon pricing under the PCF. The argument here is not against the usefulness of carbon pricing, if properly designed. But as noted by Jaccard et al, "carbon pricing is a choice, not a necessity, for effective emissions reductions".³¹

c. Equitability Metrics: An equitable or fair climate policy should seek to distribute costs and benefits of climate actions between federating units taking note of the social and economic impact of such initiatives on the PTs.³² Allocated burdens, mode(s) of allocation and prescribed implementation measures are key components of such equitable climate policy. Generally, allocation of emission reduction burdens can either be symmetrical or differentiated.³³ Symmetrical allocations "impose identical and equal obligations" on parties, while differentiated allocation takes into account the dissimilarities and imbalances amongst

 $\frac{https://ecofiscal.ca/wp-content/uploads/2018/04/Ecofiscal-Commission-Carbon-Pricing-Report-Clearing-the-Air-April-4-2018.pdf>\ at 5.$

³⁰ See Kathryn Harrison, "The Political Economy of British Columbia's Carbon Tax" (2013) 63 OECD Environment Working Papers, OECD Publishing, 11 – 12 and B. Murray and N. Rivers, "British Columbia's Revenue-Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy." (2015) NI WP 15-04. Durham, NC: Duke University. http://nicholasinstitute.duke.edu/publications.

³¹ Jaccard et al, *supra note* 11 at 3.

³² The Organization for Economic Cooperation and Development (OECD) and World Bank in a 2015 study identified competitive fairness, employment fairness and social fairness as crucial components of an effective carbon pricing scheme. These dimensions of fairness can also be applied more broadly to carbon policies. See OECD & World Bank Group, "The FASTER Principles for Successful Carbon Pricing: An Approach Based on Initial Experience" (September 2015) online: < http://documents.worldbank.org/curated/en/901041467995665361/pdf/99570-WP-PUBLIC-DISCLOSE-SUNDAY-SEPT-20-4PM-CarbonPricingPrinciples-1518724-Web.pdf>

³³ Lasse Ringius, "Differentiation, Leaders, and Fairness: Negotiating Climate Commitments in the European Community" (1999) 4 International Negotiation 133 at 135.

them.³⁴ Although it is clear that Canada's 523 Mt commitment under the Paris Agreement translates into the collective 2030 target of FPTs, the PCF is very nebulous on the burden to be borne by each federating unit. What exists, however, is an impression that Canada's 30% reduction commitment, compared to 2005 emission level under the PA, translates to 30% reduction of emission in each province.³⁵ The absence of explicit burden allocation is, in part, responsible for the current deficit between provincial commitments and Canada's NDC under the Paris Agreement.³⁶ In this regard, it has been argued that "an allocation of responsibility between the provinces and territories for specific emissions reductions that add up to the total required to close the PCF-Paris gap" is essential.³⁷ The unclarity of the PCF on PTs' allocations regardless, the sameness of its carbon pricing mandate for all jurisdictions, gives it away as leaning more towards symmetrical allocation. This, to an extent, postures the framework as inequitable and constitutes a portent threat to its success.³⁸

It can hardly be argued that a differentiated allocation approach is not crucial to Canada's quest to meet its 2030 and long-term climate aspirations. Bohringer et al., in their work, identified *ex-ante* and *ex-post* based allocation rules as modes through which burdens can be shared among PTs in Canada.³⁹ They, however, concluded that although it is impossible to

³⁴ Ibid

³⁵ Hence, it has been represented that Nova Scotia and New Brunswick have met the 30% target. See Government of Canada, "Greenhouse Gas Sources and Sinks: Executive Summary" (2017) online: https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/sources-sinks-executive-summary.html>

³⁶ FPT Commitments under the PCF are projected to result in the reduction of Canada-wide emissions to 567 Mt, leaving a deficit of about 44 Mt, which are expected to be made up for via additional measures. Government of Canada, *Ibid*. The absence of specific targets or the disparate use of different types of targets was identified by the Auditors-General collaborative report as one of the challenges of the current Canadian climate change regime. The report argues that "a clear and measurable emission reduction target provides a benchmark against which progress can be measured. Targets also help promote transparency and accountability". See Collaborative Report, *Supra* note 4 at 4, 6.

³⁷ Hartman, et al, *supra note* 1 at 22.

³⁸ While symmetrical allocation has its advantages, it has been criticized as being unjust and inefficient as unequals are unfairly treated as equals. See Ringius, *supra note* 30 at 136.

³⁹ While they defined *ex-ante* allocation rules as dealing with "fairness ... from the perspective of economic, social, or environmental conditions that exist in different regions prior to implementation of emission mitigation policy"; *ex-post*

make "an unambiguous case for any of the burden sharing rules individually, some combination of the rules should likely form the basis for a "fair" sharing of the burden of emission reduction throughout Canada". The European Union *triptych* approach provides an example of how such combination of rules can be achieved. Whatever allocation formula is adopted, it is agreed that provinces like Saskatchewan and Alberta will have to bear more of the burden of emission reduction, as their oil and gas industries serve as the single highest sectoral source of emission in Canada. To assuage the *loss aversion* of these provinces, it is crucial to incorporate mechanisms to mitigate the likely asymmetric socio-economic impacts in any pan-Canadian climate policy. No such provision has been made in the PCF.

The above analysis focused largely on the carbon pricing component of the PCF, in the light of the central nature of carbon pricing to the entire framework. It, however, does not play down, in anyway, the usefulness of other pillars, particularly complementary actions, to the workability of the framework. It is, albeit, likely that the failure of the PCF to clearly allocate burdens to PTs will be counterproductive. Considering existing shortfall between PCF commitments and Canada's commitment to the PA, and the outright failure of provinces like Saskatchewan to commit to specific targets, it is apparent that the system of non-descript voluntary emission reduction commitments by PTs is riddled with flaws. Some of the themes considered under this

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rules apply to "regional wellbeing after policy implementation". They further grouped 'sovereignty, egalitarian and ability to pay' criteria under ex-ante rules, while 'horizontal equity, utilitarian and Rawlsian' criteria under the ex-post rules. See Bohringer et al, supra note 10 at 1356 – 1357.

⁴⁰ Bohringer et al, *supra note* 10 at 1378 – 1379.

⁴¹ Alberta and Saskatchewan are the highest oil and gas producing provinces in Canada, and they have the highest per capita emission in the country. The oil and gas industry contribute approximately 26% of Canada's total GHG emissions. See Government of Canada, *supra* note 34.

⁴² Loss aversion entails focus of policy makers on the "costs/losses associated with proposed changes instead of the expected benefits/gains ... lost jobs, lost revenue, lost opportunities if business moves offshore". See Megan Bowman, "Nudging Effective Climate Policy Design" (2011) 35: 2/3/4 International Journal of Global Energy Issues 242 at 246.

⁴³ Hartman, et al, *supra* note 1 at 21 - 22.

part will be further highlighted in the light of the arguments made by Saskatchewan against the PCF.

III. The Prairie Resilience: Claims and Rebuttals

In the foregoing part, the PCF was viewed through the tri-lenses of effectiveness, flexibility and equity. As will be noted here, Saskatchewan's refusal to commit to the PCF is not disconnected from some of the issues already discussed. Saskatchewan has primarily anchored its non-endorsement of the PCF on its opposition to carbon pricing as the framework's pivot, the PCF's one-cap-fits-all approach, federal overreach and the potential dire economic implications of the framework (particularly, carbon pricing) for the province. ⁴⁴ Saskatchewan's opposition to carbon pricing deserves a closer look.

Saskatchewan's Case Against Carbon Pricing

Citing British Columbia's carbon tax, Ontario's cap and trade, and Alberta's hybrid approach as examples, Saskatchewan disputes the effectiveness of carbon pricing. ⁴⁵ This objection is a mixed grill of the existing criticism of the unlikelihood of the current carbon pricing design inducing behavioural change and the province's specific concern about the inappropriateness of the mechanism in the light of its own vulnerabilities. As stated in its climate change plan, Saskatchewan did not subscribe to the PCF because:

(T)he Framework promotes a carbon tax as the central approach to reducing emissions. A carbon tax would not significantly reduce emissions in our province where our

 $^{^{44}}$ See generally Government of Saskatchewan, "Climate Change White Paper" (2017) online: <https://www.saskatchewan.ca/~/media/news%20release%20backgrounders/2016/oct/final%20%20white%20paper%20%20oct%2017.pdf>

⁴⁵ *Ibid* at 18, 23 – 31.

economy and geography don't allow for easy alternatives ... a simple tax will not result in the innovations required to actually reduce emissions.⁴⁶

It is projected that a \$50 per tonne carbon tax will cost the Saskatchewan economy in excess of \$2.5 billion annually. Another study has put the "direct, indirect and induced impact" of such carbon tax on Saskatchewan's annual GDP at about \$1.3 billion and total job loss of about 4,452. Saskatchewan argues that unlike other provinces, its global-market, trade-exposed industries have "limited opportunity to transfer their GHG reduction costs to customers". Corroborating these concerns, a study commissioned by the *Johnson Shoyama Graduate School of Public Policy* finds that:

The imposition of a carbon tax at a rate of \$50 per tonne as proposed by the federal government would have significant cost implications in a number of Saskatchewan sectors and would add substantially to the cost of maintaining and operating households, unless significant behavioural change occurred. These financial impacts could also be expected to have a negative impact on the Saskatchewan economy in terms of the level of GDP and the number of jobs in the province...⁵⁰

In coming to the above conclusion, there is an apparent presumption that carbon tax will apply economy-wide with no exemption, the non-recognition of the revenue-neutral feature of the proposed backstop policy and a representation that the backstop only consists of carbon tax. On the contrary, the backstop is designed as a two-sided concept consisting of a carbon levy applied to fossil fuels and "an output-based pricing system for industrial facilities that emit above a

⁴⁶ See Government of Saskatchewan, "Prairie Resilience: A Made-in-Saskatchewan Climate Change Strategy" (2017) online: http://publications.gov.sk.ca/documents/66/104890-2017% 20Climate% 20Change% 20Strategy.pdf at 2.

⁴⁷ Sectoral breakdown of this projected amount (\$ millions): Electricity - \$757; Oil and Gas - \$722; Commercial/Industrial Natural Gas Usage - \$247; Agriculture fertilizer - \$214; Diesel - \$174; Gasoline - \$121; Diesel (farm) - \$103; Residential Gas Heating - \$86; Railway - \$40; Other fuel - \$21; Gasoline (farm) - \$20. See Government of Saskatchewan, *supra note* 43 at 25.

⁴⁸ Jeremy Rayner, et al, *supra note* 15 at 34.

⁴⁹ Government of Saskatchewan, *supra note* 41 at 26. In a research on the impact of carbon tax on employment in British Columbia, while it was found that the tax supported job growth in the green sector, substantial job loss was recorded in emission intensive and trade exposed sectors. See Akio Yamazaki, "Jobs and Climate Policy: Evidence from British Columbia's revenue-neutral carbon tax" (2017) 83 Journal of Environmental Economics and Management 197 at 212.

⁵⁰ Rayner, supra note 15 at 37.

certain threshold, with an opt-in capability for smaller facilities with emissions below the threshold".51 Further, since the coverage of the policy is aligned to BC's carbon tax scope, "emissions from non-combustion CO₂ in industrial processes, methane emissions from natural gas extraction and transmission, methane and nitrous oxide, emissions from agriculture, CO₂ emissions from forestry" etc., are exempted.⁵² Importantly, the Backstop guarantees that "revenues will remain in the jurisdiction of origin" and can be used as deemed appropriate by provinces.⁵³ The identified features of the backstop policy, in many ways, seemingly, provide responses to the concerns raised by Saskatchewan. Worthy of special mention here are the potential impacts of the exemptions offered under the policy and return of revenue to provinces. Jeremy Rayner, et al, in their research, projected that an additional revenue of \$2.5 billion will be generated for Saskatchewan via carbon tax and gave different scenarios under which the disbursement of the fund can be used to effectively offset the cost of the initiative.⁵⁴ Adopting Statistics Canada's output-input models, investing \$2.5billion in operating universities (which has a multiplier effect of 1.05 for GDP and 11.35 for jobs), will boost the province's GDP by more than \$2.6billion and add 26,454 jobs in the province.⁵⁵ Simply put, in the scenario, the projected cost of economic and job loss is less than the benefits in GDP increase and job creation

⁵¹ Environment and Climate Change Canada, *supra note* 18 at 5. As will be shown later, the second limb of the backstop policy is akin to Saskatchewan's output-based proposal.
⁵² See Carbon Tax Act, SBC 2008, c. 40, s 14; Carbon Tax Regulation, BC Reg 125/2008, s 15 – 21; Environment and

⁵² See Carbon Tax Act, SBC 2008, c. 40, s 14; Carbon Tax Regulation, BC Reg 125/2008, s 15 – 21; Environment and Climate Change Canada, *supra note* 16 at 5; Government of Canada, "Guidance on the Pan-Canadian Carbon Pollution Pricing Benchmark" (2018) online: < https://www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework/guidance-carbon-pollution-pricing-benchmark.html; and B. Murray and N. Rivers, *supra note* 27 at 4. See further s 3 & 168 of the Legislative Proposals Relating to Greenhouse Gas Pollution Pricing Act (GPPA) for the definitions of covered facilities and non-covered activities. Online: < https://www.fin.gc.ca/drleg-apl/2018/ggpp-tpcges-l-bil.pdf >

⁵³ See Government of Canada, "Pan-Canadian Approach to Pricing Carbon Pollution" (2016) online: https://www.canada.ca/en/environment-climate-change/news/2016/10/canadian-approach-pricing-carbon-pollution.html and Government of Canada, *Ibid*. It however appears that this position has been varied. S. 164(2) & 179(1) of the proposed GPPA allows a designated Minister to distribute revenues from the scheme to provinces or/and prescribed persons.

 $^{^{54}}$ supra note 15 at 34 – 35.

⁵⁵ Rayner, et al, *supra* note 15 at 35.

in the green industry. Rendered differently, while one way of considering carbon pricing is as a direct emission reduction tool, another perspective is as a 'facilitative tool'. That is, a tool instrumental to aiding actual reduction largely through investment in green technology or more sustainable initiatives. ⁵⁶ It is, indeed, arguable that Ontario and Quebec's cap and trade system fall under the 'facilitative tool' categorisation. This has been represented as a possible response to the 'political opposition' argument, as the carbon pricing tool itself can be used as a political palliative as done in BC, Alberta and Ontario. ⁵⁷

In itself, the above might not answer the loss of competitiveness concern of the oil and gas and agricultural industries. While some research suggests that carbon pricing has so far not resulted in significant carbon leakage, it has been found by others that "the risk of carbon leakage is real". So In a recent study on the impact of a rise in carbon price to meet the EU's 2030 emission reduction commitment, it was confirmed that such increase will reduce the "competitive advantage of the European industry by approximately 3 percentage points between 2020 and 2030". Indeed, the Rayner et al study noted that being an export reliant province, a carbon tax may place considerable competitive disadvantage on Saskatchewan businesses. It has, however, also been suggested that the competitiveness loss concern "can be managed through

⁵⁶ Shi Ling-Shu, "Carbon Pricing" in J. Dernbach and M.Gerrard, eds., *Legal Pathways to Deep Decarbonization in the United States* (Forthcoming, 2017) online: < https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3048612> This is distinct from the central underpinning rationale of carbon pricing – deterrence; the idea that if people are made to pay for emissions they will be disincentivized from consuming fossil fuel. Situating carbon pricing in the technology facilitation context blurs its distinction from a technology-centric policy like Saskatchewan. Simply put, it appears the end game is the same: investment in clean technologies. It is, therefore, worth asking if the PCF's carbon pricing mechanism is only distinct process wise, rather than in terms of eventual result.

⁵⁸ OECD & World Bank Group, *supra* note 31 at 5. The IPCC defines carbon leakage as "the increase in CO₂ emissions outside the countries taking domestic mitigation action divided by the reduction in the emissions of these countries". It is demonstrated by a re-allocation of fossil fuel intensive production from jurisdictions with stringent regulatory regimes to jurisdictions with less stringent policies. See IPCC, "Carbon Leakage" online: https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch11s11-7-2.html>.

⁵⁹ Matthieu Jalard, et al, "Carbon Pricing and Carbon Leakage Issues in Phase IV of the EU ETS" (2016) online: https://www.i4ce.org/wp-core/wp-content/uploads/2016/06/rapport-I4CE-chapitre-3.pdf https://www.i4ce.org/wp-core/wp-content/uploads/2016/06/rapport-I4CE-chapitre-3.pdf https://www.i4ce.org/wp-core/wp-content/uploads/2016/06/rapport-I4CE-chapitre-3.pdf

the design of pricing policies or complementary measures". An example of such buffers is the 100% emission allowance granted to top 10% performers (least emitting companies in a trade exposed sector) in the EU. Another way of dealing with this issue is offsetting the cost incurred by relevant industries from carbon pricing revenues. The potential challenge with this is the representation under the proposed Greenhouse Gas Pollution Pricing Act (GPPA) allowing the federal government to directly redistribute revenues to 'prescribed persons'. This will effectively hamper provinces' ability to "use carbon pricing revenues according to their needs, including to address impacts on vulnerable populations and sectors ..."; the Federal Government's prior commitment.

On sectoral exemption under the backstop policy being a likely answer to Saskatchewan's contention, the issue of indirect costs has been raised by the agricultural sector, the second largest and most trade-exposed industry in the province, which is also its second highest emitter. It has been noted that in spite of the exemptions, agriculture producers will bear significant impacts of carbon pricing due to indirect costs. Such indirect costs have been listed to include a 50% increase in the cost of grain drying and 13% increase in trucking costs between 2018 and 2022. Again, this complaint is not insurmountable. Potentially, the waiver basket can be expanded to include more granular items like grain drying or 'agricultural trucking', or the potential indirect

⁶¹ OECD & World Bank, supra note 31 at 4 - 5.

⁶² OECD & World Bank, *supra note* 31 at 7.

⁶³ S. 164(2) & 179(1) of the proposed GPPA.

⁶⁴ See Government of Canada, *supra note* 52.

⁶⁵ Cecil Nagy, et al, "The Economics of Carbon Pricing" (Presentation at the APAS Prairie Agriculture Carbon Summit held at Saskatoon, Canada on July 13 – 14, 2017) published in *A Report on the APAS Prairie Agriculture Carbon Summit*, (2017) online:

 $[\]underline{\underline{http://www.apas.ca/uploads/files/documents/APAS\%20Carbon\%20Summit\%20Final\%20Report.pdf}\ at\ 13.$

⁶⁶ *Ibid*.

loss can be factored into offsets that will be given to farmers from carbon pricing generated revenue.

What is clear from the foregoing is that Saskatchewan's loss of competitiveness argument against carbon pricing is not foolproof. Perhaps, the arguments that carbon pricing under the PCF lacks prospects for emission effectiveness and is politically unacceptable are more cogent. While the adverse effects of climate change and the need for drastic action are largely accepted, it has been shown that empirical arguments do little to influence public opinion especially as regards carbon pricing. ⁶⁷ Conversely, Jaccard, et al found that the public is generally more favourably disposed towards non-carbon pricing climate initiatives (flexible (smart) regulatory approach). ⁶⁸ Saskatchewan's plan is hinged on non-carbon pricing initiatives. Contrariwise, the PCF represents such initiatives as complementary to carbon pricing. The next section appraises particular initiatives proposed under the Prairie resilience, questioning whether such initiatives will satisfactorily satisfy the provinces' climate obligation, without a carbon pricing component.

Saskatchewan's Climate Strategy: Justifications and Blindspot

Saskatchewan touts its climate change plan as a "broad and comprehensive approach, one that connects the very real global problem of climate change to the day-to-day priorities of people".⁶⁹ In making 'resilience' its core, the province argues that this "is a much stronger indicator of effective climate action than simply measuring reductions in greenhouse gas emissions, because

⁶⁷ An often-referenced example is the case of British Columbia where despite favourable tax cuts, 71% of British Columbians feared they will pay more than they got through tax cuts; and only 19% felt carbon tax was the effective way too rein in emissions. See Harrison, *supra* note 29 at 13.

⁶⁹ Government of Saskatchewan, *supra note* 45 at 1.

⁶⁸ Jaccard et al, *supra* note 11 at 7. In a 2018 survey commissioned by EcoFiscal, while 52% and 31% of British Colombians indicated their preference for rules and regulations, and technology subsidies respectively, 11% of persons surveyed ranked carbon pricing as their climate policy of choice. See Abacus Data, *supra* note 17 at 38.

it measures our overall ability to adapt, innovate and even thrive". The central features of the *Prairie Resilience* can be thematically summarised as: technology and innovation; international cooperation; flexible regulation; expanded offset system; and adaptation. It is to these concepts, the arguments in support of them and their potential of satisfying the various dimensions of effectiveness, that we now turn.

i. Technology and Innovation: Saskatchewan, according to its Climate Change White Paper, "believes the most important and significant opportunity for carbon emissions and reductions lies in development of transformational clean energy technologies". The commercial potential and actual emission reducing prospect of a technology driven climate policy are called in aid of this proposition. Referencing the \$1 trillion worth global green technology market, the province argues that Canada should be doing more to participate in the rapidly growing industry. Carbon capture, usage and storage (CCUS) and small modular reactors (SMRs) are put forward in the plan as having immense commercial potentials if further developed and invested in. While CCUS has been fronted as a transition technology crucial for deep emission reduction, SMRs are generally seen as the future of nuclear energy. The Boundary Dam CCUS project, commissioned in 2014, is Saskatchewan's poster-initiative for

⁷⁰ The plan defines 'resilience' as the ability to cope with, adapt to and recover from stress and change. See Government of Saskatchewan, *supra note* 45 at 3. These priorities are mirrored by Ontario's recently released 'Environment Plan' which denounced carbon tax in support of technologies and innovation. See Ministry of the Environment, Conservation and Parks (Ontario), "Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan" (2018) Online: https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf>

⁷¹ Government of Saskatchewan, *supra note* 43 at 19.

⁷² Government of Saskatchewan, *supra note* 43 at 19.

⁷³ Supra note 43 at 34, 39

⁷⁴ According to the International Energy Agency (IEA), CCUS "is the only technology able to deliver significant emissions reductions from the use of fossil fuels. (it) can reduce emissions not only from power generation, but also from industrial sectors such as iron and steel, refining, petrochemical and cement manufacturing". See IEA, "Carbon Capture Storage: The Solution for **Emissions** Reductions" (2015)Deep online: https://www.iea.org/publications/freepublications/publication/CarbonCaptureandStorageThesolutionfordeepemissions reductions.pdf> and Matt Rooney, "Small Modular Reactors: The Next Big Thing in Energy" (2018) online: < https://policyexchange.org.uk/wp-content/uploads/2018/01/Small-Modular-Reactors-1.pdf>.

its clamour for a technology-based climate policy. The \$1.5 billion project has been described as the "largest per-capita investment in clean technology in the world". The project is said to reduce GHG emissions by 1 Mt annually and will sequester a total of 40Mt throughout its lifetime. While the Boundary Dam project has been criticized for being overly expensive, its proponents have argued that it is more efficient than the proposed carbon pricing, as it, at an implicit carbon price of \$57 per tonne of CO₂, results in actual emission reduction annually.

This leads to another key argument by Saskatchewan (and Nova Scotia) premised on implicit carbon pricing (ICP).⁷⁸ ICP's rationale is that government initiated mitigation investments are publicly funded, hence, an indirect carbon price has already been imposed on the public.⁷⁹ In Saskatchewan's case, it is contended that at \$57 per tonne of CO₂, the province already exceeded the federal 2022 target of \$50 per tonne.⁸⁰ With the PCF's prescription that provinces' carbon pricing programmes should be 'explicit', the framework does not recognize 'implicit pricing'. Some reasons for this exclusion can be deduced from the final report of the PCF Working Group on carbon pricing. They include the complexity of reporting on implicit pricing measures; impossibility of Border Tax Adjustments (BTAs) on imports if all provinces do not have explicit pricing systems; and inter-provincial competitiveness concerns

⁷⁵ Government of Saskatchewan, *supra note* 43 at 33.

⁷⁶ Government of Saskatchewan, *supra note* 43 at 11.

⁷⁷ It has been stated that CCS can potentially eliminate 50% of Canada's annual emissions. See Office of the Parliamentary Budget Officer, "Canada's Greenhouse Gas Emissions: Developments, Prospects and Reductions" (2016)
online:

dpb.gc.ca/web/default/files/Documents/Reports/2016/ClimateChange/PBO_Climate_Change_EN.pdf > at 37, 39.

⁷⁸ The Working Group on Carbon Pricing Mechanism referred to Saskatchewan's Enhanced Oil Recovery programme, Nova Scotia's hard cap on its electricity sector, and Ontario's closure of all its coal-fired power plants, as example of measures with carbon pricing. See Working Group on Carbon Pricing Mechanisms, "Final Report" (2016) online: http://www.climatechange.gc.ca/Content/6/4/7/64778DD5-E2D9-4930-BE59-

D6DB7DB5CBC0/WG_Report_Carbon%20Pricing_e_v4.pdf>

⁷⁹ See Office of the Parliamentary Budget Officer *supra* note 76 at 39, 41.

⁸⁰ D.C. Fraser, "Sask. Energy Minister says Residents Already Paying Carbon Tax", Regina Leader Post (11 May 2017) online: < http://leaderpost.com/news/saskatchewan/sask-energy-minister-says-residents-already-paying-carbon-tax>.

considering the likely stringency-lag in implicit pricing.⁸¹ It has also been argued that projects like Boundary Dam CCUS are cost inefficient, of limited coverage and have no behavioral change value.⁸² In levelling this criticism, it appears the contextual and comparative nature of the policy options at play have not been taken into consideration.

Contextually, the CCUS option, although expensive, provides Saskatchewan with a chance to keep its emission intensive industries functional and jobs intact, while reducing their carbon footprints. It also apparently serves as a more politically acceptable alternative to Saskatchewanians. It further appears more effective in reducing emissions when compared to PCF's carbon pricing regime. In any case, it has been established that the current carbon pricing design under the PCF will not only potentially have negligible effect on emission reduction, it also lacks the intensity to induce behavioural change. The issue of coverage becomes more insignificant when it is appreciated that CCUS is only one component of Saskatchewan's technology emphasis. Other components include a 50% renewable energy portfolio by 2030 and energy efficiency for the built environment via adoption of the 2015 National Building Code. Herefore, placed on the *effectiveness scale*, while carbon pricing might be more cost efficient, technologies like CCUS seem to score more in respect of emission reduction and political acceptability.

What is clear, however, is that whereas the technological approach might lead to substantial emission reduction, it will not be sufficient for economy wide reduction. Hence, while

⁸¹ Working Group on Carbon Pricing Mechanisms, supra note 77 at 47.

⁸² Rayner et al, *supra* note 15 at 55.

⁸³ APAS, "APAS endorses Saskatchewan Climate Change Strategy" (December 4, 2017) online: http://www.apas.ca/secondary_id/439?id=1242. In Rhodes et al 2017 study, while it was found that Saskatchewanians will likely support voluntary policies more, further finding was made that "controlling for all other factors in the model" residents in the province are more likely to support carbon tax than Ontarians. See Rhodes et al, supra note 17 at 62.

⁸⁴ Government of Saskatchewan, *supra* note 45 at 5-6, 7

mainstream CCUS technology is useful in the electricity and oil and gas sectors, it is of limited use in the other top emitting sectors of the Saskatchewan economy (agriculture and transportation). Scomplementary policy options are therefore necessary. Although seemingly far-fetched, the potential of using the equivalency agreement (EA) tool to resolve the conflicting stances of Saskatchewan and the federal government on carbon pricing is worth exploring. This arrangement can mirror the agreement reached in principle by the provincial and federal governments on the continued 'responsible' sourcing of electricity from coal beyond 2030, as against the express application of the stringency standards contained in *Regulations SOR/2012-167.* Since an underpinning principle of EA is that federal and provincial regulations should "have the same effect" but not necessarily be identical, ti is arguable that publicly funded green technologies and innovations which lead to quantifiable and substantial emission reductions qualify under PCF's carbon pricing requirement. It might, therefore, be necessary for Saskatchewan to enact a law recognising the implicit carbon price of initiatives, like CCUS, for these to be covered by an EA.

ii. <u>International Cooperation:</u> Saskatchewan's plan further emphasises the inappropriateness of a Canada-focused approach to emissions reduction, given the global nature of climate change. It argues that while it understands "the obligations to reduce GHG emissions within

⁸⁵ Both the agriculture and transportation sectors respectively contributed 24% and 14% of Saskatchewan's total emissions in 2015. See Government of Saskatchewan, *supra* note 45 at 2.

⁸⁶ The Minister of Environment is empowered under the Canadian Environmental Protection Act (CEPA) to enter into equivalency agreements with provinces where laws that are equivalent to federal regulations exist. See generally CEPA, 1999, SC 1999, c 33, s 10.

⁸⁷ See generally *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations*, SOR/2012-167. In furtherance of this arrangement, Saskatchewan recently passed the *Management and Reduction of Greenhouse Gases (General and Electricity Producer) Regulations*, Reg 1, c M-2.01, 2018, (MRGR) which *inter alia* allows regulated emitters who construct carbon capture unit on Boundary Dam Units 4 and 5 to be recognised as having reduced their GHG emissions within a compliance period. See s 16(3) of the MRGR.

⁸⁸ Environment and Climate Change Canada, "Equivalency Agreements under the Canadian Environmental Protection Act, 1999" (2015) online: http://ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=DCDEC51D-1

⁸⁹ Conditions for the application of EA include that "equivalent provisions may be found in environmental legislation other than that covered in the EA…" *Ibid*

Noting that Canada only generates 2% of global emissions, the case is made for Canada's participation in helping to combat what is described as "the other 98 percent". This it proposes to do through the "international transfer of knowledge" and obtaining credits for such transfer through the Paris Agreement's *Internationally Transferred Mitigation Outcomes* mechanism. While a veiled case was made for obtaining credits from its export of uranium and transfer of advanced agricultural practices and equipment, Saskatchewan's most likely avenue to generate *ITMO* is through its CCUS technology. Subject to further provisions in the yet-to-be-released accounting rules under Article 6(7) of the Paris Agreement, an appreciation of the features of the ITMO mechanism can be gleaned from Article 6 of the Agreement.

ITMO generally entails: voluntary emission mitigating and sustainable development fostering activities by private or public entities in other countries which are authorized by a Party State; use of achieved emissions to satisfy an intervening State's NDC insofar as the host State is not using same; and compliance with robust accounting rules to ensure the effectiveness and integrity of the system. ⁹⁵ The foregoing presupposes that Saskatchewan and its industries can only participate in the ITMO mechanism with the permission of the Federal Government. For initiatives to be credit-earning, there must be a prior agreement with host States. The latter

⁹⁰ Government of Saskatchewan, supra note 43 at 15.

⁹¹ Ibid

⁹²Government of Saskatchewan, supra note 45 at 3, 8.

⁹³The argument has been made that since Saskatchewan produces 15% of uranium used for the generation of nuclear energy globally, which helps avoid 2.5 billion tonnes of carbon dioxide annually, it should be "credited with 375 Mt of global emissions per year". Government of Saskatchewan, *supra note* 41 at 6, 12. It is highly unlikely that this argument can find coverage under the ITMO mechanism, as for one, raw materials (uranium) do not in themselves constitute a green technology or knowledge.

Government of Saskatchewan, *supra note* 43 at 32 - 34.

⁹⁵ See Paris Agreement, art 6 (1) – (5).

point will potentially be a limiter to the utility of ITMOs by an intervening State. This is because, unlike under the Kyoto Protocol where the clean development mechanism (CDM) allows for credit earning from States with no commitments, ⁹⁶ all Party States to the Paris Agreement are obligated to reduce emissions according to their NDCs. ⁹⁷ For example, in its 2018 National Communication to the UNFCCC, Canada referenced its CCUS knowledge sharing engagements with Mexico, with Saskatchewan's CCUS platforms as a pivot. ⁹⁸ In the event that these engagements culminate in the installation of CCUS units in Mexico, which of both countries can claim the credits? It is hard to imagine that Mexico will *willy-nilly* yield the credits to Canada, given its own obligations under the Paris Agreement. It is worth asking if Canada can claim credits for the knowledge transferred, if Mexico proceeds with CCUS installation without Canada's further involvement? To guide against double counting, the above issues should be dealt with in the design of rules and modalities for the ITMO mechanism.

While one might be tempted to propose the adoption of Joint Implementation (JI) accounting process under the Kyoto Protocol, some fundamental differences between ITMO and JI might make such adoption unadvisable. For one, JI's emphasis on 'projects' differs from ITMO's focus on "cooperative approaches". ⁹⁹ Thus, whereas 'knowledge sharing' might not constitute 'project' for the purposes of JI, they can be subsumed under 'cooperative approaches'. For Saskatchewan's attempt to rely on ITMO to meet its emission reduction obligation, therefore,

⁹⁶ Kyoto Protocol to the UNFCCC, 11 December 1997, 2303 UNTS 30822 at art 12 (entered into force 16 February 2005) (Kyoto Protocol)

⁹⁷ It is arguable however that the *Joint Implementation* (JI) arrangement under the Kyoto Protocol is a more apt comparison to ITMO, since participating States under the JI model have emission reduction commitments. See generally Kyoto Protocol, art 6.

⁹⁸ Government of Canada, *Canada's 7th National Communication and 3rd Biennial Report*, (Gartineau: Environment and Climate Change Canada, 2018) 224, 254

⁹⁹ See Kyoto Protocol, art 6(1) & Paris Agreement, art 6(2).

a system through which credits will be given for knowledge sharing needs to be designed. A potential difficulty in designing such a system is how to appraise the emission reduction effect of a 'shared knowledge' outside the context of an actual project. Or rendered differently, at what point can an intervening State factor its 'knowledge sharing' undertakings into its ITMO? Will it be at the point of sharing the knowledge or when the shared knowledge culminates in an emission reducing project? These are questions that must be answered before Saskatchewan can lay claim to credits from knowledge transfers. It will be less complex, however, if ITMO is project based. For example, if Saskatchewan (or any of its companies) develops a CCUS project in another country.

The above analysis regardless, with the federal government's endorsement of the linkage of Ontario, Quebec and California's carbon markets as an ITMO initiative, ¹⁰⁰ Saskatchewan can reasonably press for the recognition of its technology (knowledge) transfer projects as credit earning initiatives.

iii. <u>Flexible Regulations:</u> In lieu of a traditional command and control approach, the *prairie* resilience generally adopts flexible regulations in respect of different sectors. Flexible regulatory framework largely entails giving options to emitters to meet set emission reduction targets. ¹⁰¹ As stated elsewhere, this "restores an element of choice and avoids the problem of picking technologies or practices that regulators happen to believe, often erroneously, are the best". ¹⁰² Differentiated allocation of emission targets ¹⁰³ and collaboration with industry are

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¹⁰⁰ *Supra* note 97 at 63.

¹⁰¹ Lada Kochtcheeva, *Comparative Environmental Regulation in the United States and Russia: Institutions, Flexible Instruments, and Governance* (Albany: State University of New York Press, 2009) 5.

¹⁰² Rayner et al, *supra* note 15 at 46.

 $^{^{103}}$ In this wise, Jaccard et al proposed that while provinces reliant on fossil fuel for electricity generation but with limited hydro power potential to exploit, be held to a less stringent standard as against provinces with substantial hydro power potential. See Jaccard et al, *supra* note 11 at 16-17. Applying this logic, Regulations SOR/2012-167 should not apply equally to British Columbia which has substantial hydro-power potential and Saskatchewan which has less.

other features of flexible climate regulations. The case for flexible regulation is largely premised on incentivizing innovation. ¹⁰⁴ The Saskatchewan climate plan, to varying degrees, seeks to apply this form of regulation in respect of its electricity sector, oil and gas sector, large industry, built environment and annual reporting. ¹⁰⁵ In respect of its oil and gas industry for example, the province intends, "in consultation with ... industry, develop regulations" for the reduction of GHG "using a results-based system" allowing each operator to reduce emissions efficiently. ¹⁰⁶ Another instance is the proposed regulation of non-oil and gas large industrial emitters through a "sector-specific output-based performance standards on facilities emitting more than 25,000 tonnes of CO₂e per year". ¹⁰⁷ Such emitters will be required to take "flexible compliance options" allowing them "to meet their obligations in the way best suited to their business models". ¹⁰⁸

It is worth noting that Saskatchewan's performance standard bears similarities with the *output-based pricing* component of the federal backstop plan. Like the former, the latter also sets a ceiling for large emitters, which upon exceeding they can purchase *compliance units*. ¹⁰⁹ The primary difference, perhaps, is the broader scope of options available under the *Prairie Resilience* on how defaulting emitters can make up for their carbon deficits. This similarity shows that the gulf between Saskatchewan and the federal government is bridgeable. The advantages of flexible regimes like Saskatchewan's regardless, it has been argued that in cases

¹⁰⁴ A recent study shows that there is a "significant positive role of innovation on performance when firms face more flexible regulations and for insignificant role of innovation when faced with inflexible regulations". See Ramakrishnan Ramanathan, et al, "The Debate on Flexibility of Environmental Regulations, Innovation Capabilities and Financial Performance – A Novel Use of DEA" (2018) 75 Omega 131 at 136.

¹⁰⁵ Government of Saskatchewan, *supra* note 45 at 6 – 10.

¹⁰⁶ *Ibid* at 9.

¹⁰⁷ *Ibid* at 8.

¹⁰⁸ The options include improving facility to reduce emissions intensity, purchasing an offset from non-regulated entities; using best performance credits; engaging in ITMO and/or paying into the provincial technology fund. See *Ibid.* ¹⁰⁹ Environment and Climate Change Canada, *supra note* 18 at 17.

where "the goal is too important, the target population too diffuse or the activity being regulated too risky", such flexibility is undesirable or impracticable. ¹¹⁰ Further, the inefficiency of flexible regulations, compared to carbon pricing, has also been highlighted. ¹¹¹ A follow-up to the above criticisms is the complexity of effectively monitoring flexible regimes given the disparate standards applied by emitters, even within one sector.

iv. Expanded Offset System: Saskatchewan's claim on this point is that its innovative sustainable agricultural practices and forest conservation practices should be recognized and integrated into the carbon offset structure. Within the climate change context, this subject is primarily captured under the Land Use, Land-Use Change and Forestry (LULUCF) discourse. LULUCF has been described as "an inventory sector ... that covers anthropogenic emissions and removals of GHGs resulting from changes in terrestrial carbon stocks. It covers the carbon pools of living biomass ..., dead organic matter ... and organic soil carbon for specified land categories". As per LULUCF, Saskatchewan represents that its tillage practices already sequester about 9Mt of CO₂e annually, while its commercial forests capture about 3.5Mt, and that "increased innovation, stimulated by an offset system, could drive carbon sequestration even further". 113

Indeed, the France-proposed 4 per 1000 initiative at the 2015 Paris Conference affirms the immense usefulness of soil sinks. The initiative is premised on the assertion that "an annual growth rate of 0.4% in the soil carbon stocks ... would halt the increase in the CO₂ concentration in the atmosphere". Affirming the sequestration potential of its soils, Canada

¹¹⁰ Rayner et al, *supra* note 15 at 46.

¹¹¹ Ibid.

¹¹² Peter Kuikman et al, "Policy Options for Including LULUCF in the EU Reduction Commitment and Policy Instruments for Increasing GHG Mitigation Efforts in the LULUCF and Agriculture Sectors: Synthesis Report" (2011) online: https://ec.europa.eu/clima/sites/clima/files/forests/lulucf/docs/synthesis_report_en.pdf

¹¹³ Government of Saskatchewan, *supra note* 45 at 5.

^{114 &}quot;What is the "4 PER 1000" Initiative", online: https://www.4p1000.org/>

stated in its 2018 UNFCCC communication that carbon storage therein could "play an important role in achieving the 2030 target". This representation is consistent with the commitment under the Vancouver Declaration for the establishment of a pan-Canadian offset protocols framework which recognizes the contribution of agriculture and forestry to emissions mitigation. With about 41.7% of Canada's total cropland area, ¹¹⁷ Saskatchewan, no doubt, has a valid motivation for canvassing the eligibility of its agricultural sector for offset credits.

However, one of the strongest criticisms against offsets from sinks, like soils and forests, is the non-permanence of such carbon storage. As noted by Brian McConkey et al, "true permanence cannot be assured for reduced CO₂ ... sequestered in agricultural soils". Howbeit, a counter-argument is that there is no such thing as 'permanence' in emission reduction. Rather, focus should be on appraising the "value of temporary storage". Buttressing this point, it has been argued that contrary to popular representation of emission avoidance measures (e.g. use of renewable energy) as permanent avoidance schemes, it is not unlikely that presently unexplored fossil resources will be exploited in the future, hence, triggering the release of emissions from unexplored fossil fuel. 120

¹¹⁵ Government of Canada, *supra note* 97 at 129.

[&]quot;Vancouver Declaration on Clean Growth and Climate Change" (3 March 2016) online: https://itk.ca/wp-content/uploads/2016/04/Vancouver Declaration clean Growth Climate Change.pdf at 3.

Statistics Canada, "Census of Agriculture Counts 44,329 Farms in Saskatchewan" (2006) online: https://www.statcan.gc.ca/ca-ra2006/analysis-analyses/sask-eng.htm

¹¹⁸ Brian McConkey, et al, "Measuring Soil Carbon Change on Cropland: The Prairie Soil Carbon Balance Project" (2000) online:http://www.usask.ca/soilsncrops/conference-proceedings/previous_years/Files/cc2000/docs/posters/018_post.PDF> For example, it has been noted that while BC

projects achieving about 12 Mt reductions from its forest sinks by 2050, the target might not be achieved due to wildfire and other forest disturbances. See Collaborative Report, *Supra* note 4 at 10.

¹¹⁹ Howard Herzog et al, "An Issue of Permanence: Assessing the Effectiveness of Temporary Carbon Storage" (2003) 59 Climate Change 293.

¹²⁰ Ibid at 294.

The counter-argument regardless, it can hardly be maintained that the probability of leakage from soil sequestered carbon is lower than emissions avoided through mainstream avoidance measures (e.g. energy efficiency measures and renewable energy). It is, therefore, important to reflect this (temporary sequestering) characteristic of soil and forest sinks in granting offset credits for them. One way to do this is the establishment of a "soil sink C bank and Leasing System", where "C Sinks would be put in a CO₂ bank and leased to emitters who would be obligated to repay ... in the future". This is said to potentially aid in achieving net emission reduction even if CO₂ is lost from the banked stock. 122

v. Adaptation and Resilience: Saskatchewan also emphasises adaptation and resilience in its proposal. The province cites as its motivation its "many varied and costly climate-related events ... and exposure to changing climate" due to the integral position of land to its economy. Further to this, initiatives including landscape integrity restoration, further research into climate trends and adaptation options, advancement in stream flow measurement and flood damage mitigation projects, are contained in the province's plan. While Saskatchewan is undoubtedly prone to extreme weather, the claim that resilience/adaptation, as against mitigation, is a "stronger indicator of effective climate action" is questionable. Climate change mitigation and adaptation are different concepts with distinct implications. While the former focuses on interventions to reduce emissions; the latter pertains to "adjustment in natural or human systems in response" to climate change for the moderation of harm or exploitation of beneficial opportunities. Rendered differently, while mitigation

¹²¹ McConkey, et al, *supra note* 117 at 4.

¹²² Ibid

¹²³ Government of Saskatchewan, *supra note* 45 at 3.

¹²⁴ Government of Saskatchewan, *supra note* 45 at 4 - 5.

¹²⁵ Richard Klein et al, "Inter-relationships Between Adaptation and Mitigation" in M.L. Parry et al, eds, *Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press) 745 at 750.

is cause-oriented, adaptation is effect-dependent. It therefore goes to reasoning that when the 'cause' is effectively dealt with, the 'result' will either be non-existent or minimal. 126 A more credible case would, however, be that the proneness of provinces like Saskatchewan to extreme weather events, and the costs of adaptation or resilience measures be factored in, in the allocation of emission reduction burdens. This is consistent with the equitable demands of effective climate policy. However, to represent resilience initiatives as alternatives to mitigation projects is misconceived, to say the least.

When the PCF is viewed as a bundle of interconnected components made up of carbon pricing, complementary climate actions, adaptation and resilience and innovation, rather than a lone initiative (carbon pricing) framework, it is difficult to discern any marked difference between it and Saskatchewan's strategy. For one, Saskatchewan's strategy basically ticks 'PCF's boxes' less carbon pricing. Even the supposed focus of the province's strategy on resilience and adaptation, in substance, mirrors the PCF's position on the same matter. For example, the PCF notes that "taking action to adapt to ... climate impacts will help protect Canadians from climate change risks, build resilience, reduce costs, and ensure that society thrives in a changing climate". 127 It further appears that the perceived difference between the PCF's carbon pricing design and Saskatchewan's position is exaggerated. The output-based component of the backstop plan and the performance standard under Saskatchewan's policy are essentially the same, except for their coverage. For one, both seem to favour the best-in-class performance system in fixing emission ceiling.

¹²⁶ *Ihid*.

¹²⁷ Government of Canada, *supra note* 2 at 27.

If carefully designed, implemented, measured and monitored, reworking Saskatchewan's proposed plan in the light of the foregoing analysis could, potentially, bring it to par with or beyond PCF's emission reduction projection. While the fear of Saskatchewan becoming a carbon leakage jurisdiction within Canada is not unfounded, there seems to be limited chances that businesses will change locations because of the non-existence of a non-explicit carbon pricing mechanism in the province. More so, there is no proof that businesses have moved from BC, Ontario and Alberta (including Quebec) to other Canadian provinces since the initiation of their different pricing mechanisms. The similarities and dissimilarities between Saskatchewan's strategy and the policies of these select provinces are considered in the next part of this work.

IV. Comparing Policies: Saskatchewan, British Columbia, Ontario and Alberta

The PCF generally highlights British Columbia (BC), Ontario and Alberta climate policies as standards for other provinces, mandating that for any pricing mechanism to be deemed acceptable, such must comply with the designs in any of the three provinces. ¹²⁸ This jurisdictional comparison is necessary to determine whether or not Saskatchewan, via its climate strategy, is making a fair contribution to Canada's emission reduction target. Particularly, Alberta makes for an ideal comparator, considering that except for some basic differences, it shares similar geographical and economic features with Saskatchewan. Using PCF's four pillars as pointers, table 3 provides a summary of the similarities and differences among the policies of these provinces, and further compares their projected results. The table's contents, however, only focus on the primary features of each province's policy, rather than being an in-depth analysis of those policies.

¹²⁸ Supra note 2 at 50. The Ontario climate policy considered here is its 2016 climate change action plan.

	Carbon Pricing	Complementary	Adaptation & Resilience	Technology &	Sources of Emission	Results
British Columbia	- Carbon Tax - \$35 per tonne - Excludes non-combustion emissions from industrial processes; fugitive emissions; agricultural sector; exported fuel	- Low carbon fuel standard for vehicles - Forest rehabilitation - Energy efficiency standards for gas fired boilers - 45% reduction in methane emissions by 2025 - 100% clean electricity - Development of net zero buildings.	Farm adaptation innovation program 10-year adaptation plan for public sector operations Investment in flood protection	the Innovative Clean Energy Funds	Transportation: 37% Built: 24% (including waste at 9%) Industry: 18% (including electricity at 1%) Oil & Gas: 18% Agriculture: 3%	Transp.: 3Mt (2050) Built: 2Mt (2050) Ind.:2Mt (2050) O&G: 5Mt (2050) Agric.: 12Mt (2050) Pub. Sec: 1Mt (2050)
Ontario	 Cap & Trade Integrated market with Quebec & California Covers electricity importer; emitter of 25,000 tonnes or more of GHG per year; fuel supplier selling more than 200L per year. Excludes facilities generating 10,000-25,000 tonnes of GHG per year, with opt-in option. 	 - 100% coal powered plant phase-out in 2014 - Investment and Risk Capital Actions - Business assistance on low carbon transition - Carbon neutral government. - Zero emission vehicle initiative - Net zero energy buildings 	 Climate modelling and risk assessment collaborative. Integrate adaptation considerations into decision making and infrastructure planning 50 million tree program and protection in perpetuity of 2 million acres of land and water via the Greenbelt Plan 	funding for green	Transportation:35% Industry: 28% Buildings: 19% Electricity: 7% Agriculture:6% Waste: 5%	15% below 1990 levels in 2020. 37% below 1990 levels in 2030.
Alberta	 Carbon levy + carbon competitiveness incentive (CCI) \$20 per tonne (carbon levy) with rebates. Levy applies only to diesel, gasoline, natural gas and propane. CCI covers facilities emitting 100,000 tonnes or more annually since 2003. Performance informed product-specific emissions benchmark. 	- Reduce methane gas emissions from oil and gas operations by 45% by 2025 - 100% coal-fired power plants phase out by 2030 - 30% renewable energy by 2030		guarantees	Electricity: 17% Transportation:11% Agriculture: 9% (including waste)	O&G: 14Mt (2025) Elect.: 24Mt (2030)

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	- Flexible compliance					
	options.					
	- CCI excludes facilities with					
	less than 100,000 tonnes					
	emission, with opt-in					
	option for facilities with					
	more than 50,000 tonnes.					
	- Levy excludes electricity					
	and farm fuels.					
Saskatchewan	- Sector-specific output-	- Evaluating	- Floodplain mapping to	- Development and	Oil & Gas:32%	O&G: 4-
	based performance	government fleet	identify communities at	deployment of	Agriculture: 24%	4.5Mt (2030)
	standards.	vehicles for lower-	risk of extreme weather	CCUS technology.	Electricity: 19%	Agric:11.3Mt
	- Covers large industrial	carbon technology	events	- Saskatchewan	Transportation: 14%	Forest: 3.5Mt
	sectors (e.g. mining and	opportunities.	- Advance options for	Advantage	Industry: 4%	Ind.: 50,000T
	manufacturing) emitting	- 50% electricity from	permanent flood	Innovation Fund	Built: 4%	Elect.: 6Mt
	more than 25,000 tonnes of	renewable energy by	damage reduction and	- Agriculture	Waste & Others: 3%	(2030)
	CO ₂ e annually.	2030	flood mitigation	Development Fund		
	- Flexible compliance	- Adoption 2015	projects	for research into		
	options.	National Building	- Improvement of	sustainable		
	- Implicit carbon pricing of	Code and National	resilience of	farming practices.		
	\$57 per tonne (CCUS)	Energy Code for large	provincially owned			
	- Offset system from	Buildings.	dams and water			
	agricultural and	- 40-45% methane	infrastructure			
	commercial forestry sectors	reduction by 2030	- Emergency			
	- Excludes upstream oil and	- Results-based	preparedness guides			
	gas and electricity sectors.	regulatory system for	and emergency kit			
		oil and gas sector	content lists for family			
		- Upgrade of waste and	preparedness			
		sewage management	- Development of plans			
		services to reduce,	by communities for			
		capture and use GHG	recovery from extreme			
		emissions as biogas.	weather events			
			- Climate proof design of			
			highways and culverts			

Table 3

NB.: The years for provincial sources of emissions vary (Ontario & Alberta: 2013; British Columbia: 2014; Saskatchewan: 2013). While Saskatchewan's data on Agriculture, forestry and industry represent current reductions; data on the oil and gas and electricity sectors are largely 2030 projections.

While the above table evidences the disparity between the tailored policies of the compared jurisdictions, it also evinces some similarities. To appreciate these similarities, the highlighted sectors will be generally classified into utility and economic sectors. 129 It is apparent from Table 2 that provinces are generally more willing to cut emissions in their utility sectors than their major economic sectors. Exemplifying this are British Columbia and Ontario, whose most substantial emission reduction efforts, so far, have come from their utility sectors, viz, the electricity sector. ¹³⁰ This point is made even clearer in EcoFiscal's recently commissioned survey which found that most people believe that resource economy should be developed, even as Canada transitions to a low carbon economy. 131 It is, therefore, not surprising that, rather than its oil and gas industry which produces 46% of its emissions, Alberta's highest proposed reduction is from its electricity sector. Similarly, compared to Saskatchewan's projected reduction of 4 – 4.5Mt from its oil and gas industry, it has projected a reduction of 6Mt from its electricity sector. The point on the seeming unpreparedness to take emission reduction actions in their critical trade exposed economies is crucial, as this is the crux of Saskatchewan's non-readiness to accept or make policies with adverse effects on its oil and gas and agricultural sectors. For example, although a primarily service-centred economy, British Columbia's industrial sector contributes a substantial portion of its GDP and makes for about 28% of its emissions. The province will, however, be making about its lowest reduction in the said sector. This also applies to Ontario which in respect of its exposed car manufacturing sector, opted for a collaborative approach to

¹²⁹ Utility sectors include service providing sectors like electricity, transportation and built; while economic sectors are revenue generating sectors like Industry, oil and gas and agricultural sectors. This classification is however not sacrosanct, as in certain provinces, a sector could double as both utility and economic (e.g. BC's electricity sector).

¹³⁰ As noted by Jaccard et al, the most impactful emission reduction initiative taken by Ontario was the ban on coal-fired power plants, resulting in an annual reduction of 27Mt; while BC's most effective initiatives are the closure of two coal-fired power plants and prevention of a large gas-fired plant, resulting in a 10-15Mt annual emission reduction (3 times above the BC's current \$30 carbon tax). See Jaccard et al, *supra* note 11 at 9.

 $^{^{131}}$ Abacus Data, *Supra* note 17 at 47, 54 – 57.

enforcing its Zero-Emissions Vehicle mandate as against imposing penalties on defaulters.¹³² This is not unlike Saskatchewan's preference for a collaborative regulatory approach for its oil and gas industry.

The foregoing informs the conclusion that the utility sectors are the 'low hanging fruits' of emission reductions. As also noted by others, having executed the relatively easier and cheaper emission reduction initiatives, it will be more difficult going forward, specifically for provinces like British Columbia and Ontario, which have achieved substantial reductions from their utility sectors. An example of this is British Columbia which has experienced a gradual rise in emissions from 2010 and has 2050 as the target date for its modest projections. This is also the case of Ontario, which, as at 2015, was less than halfway to achieving its target of reducing its emissions to 15% below 1990 levels. 134

Having identified that utilities provide the easier sources of emission reduction, one way of appraising whether Saskatchewan's reduction target compares fairly with the identified jurisdictions, is to consider the reduction commitments made in respect of its utility sectors, particularly, electricity. As shown in the Table, 19% of Saskatchewan's total emissions amounting to about 14.25Mt, is from the electricity sector. Primarily relying on a 50% switch to renewable energy and the deployment of CCUS technology, the province projects a reduction of 6Mt by 2030. This pales in comparison to the commitments made by other provinces in this regard. While it is arguable that British Columbia and Ontario were able to make substantial

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[&]quot;Ontario's Five-Year Climate Change Action Plan: 2016 - 2020" (2016) online: http://www.applications.ene.gov.on.ca/ccap/products/CCAP ENGLISH.pdf> at 20

As noted elsewhere, as at 2017, BC's emission level had risen to 2.1% compared to 2007 levels. See Judith Lavoie, supra note 28.

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[&]quot;Ontario's Climate Change Strategy" (2016) online: https://dr6j45jk9xcmk.cloudfront.net/documents/4928/climate-change-strategy-en.pdf at 16.

reductions in their electricity sectors because of the availability of alternative renewable sources, such an argument becomes parlous when Alberta's situation is considered. As at 2013, 17% of Alberta's total emissions, amounting to about 23Mt, was from the electricity sector. However, it projects to make a 24Mt reduction in that sector by 2030. Alberta plans achieving this through 100% coal phase-out and 30% renewable energy by 2030. Simply put, a 100% phase-out from coal in addition to existing projections from other sectors will potentially bring Saskatchewan close to achieving 30% reduction relative to 2005 emissions. This will also allow it to efficiently deploy its capital intensive CCUS technology for the purposes of its oil and gas and mining sectors. The failure of Saskatchewan to commit to a complete or more substantial phase-out of coal plants, or even make concrete commitments as regards its transportation sector which contributes 14% of its emissions, are indicative of the province's unreadiness to contribute its fair share to achieving the country's emission reduction target.

V. Conclusion

This paper has highlighted justifications for and loopholes in Saskatchewan's claims and case against the Pan-Canadian Framework. It is evident from the above that while some of these claims are credible and deserve consideration, others are not so defensible. Table 3 attempts to classify these arguments.¹³⁵

Table 3

	Saskatchewan's Claims	Justifiable	Non-justifiable	Border-Line
1.	Carbon pricing as designed under the PCF is potentially non-effective emission wise.	✓		

¹³⁵ Note that the descriptors 'justifiable' and 'non-justifiable' as employed in Table 3 do not imply a complete validation or otherwise of the highlighted claims. Rather, they describe the extent to which the claims are defensible, although there might be arguments against and for each. The 'border-line' category reflects the relatively evenly strong case made by proponents and opponents of the highlighted claim.

2.	Resilience is a more effective climate change strategy		✓	
	compared to a mitigation-based approach.			
3.	Carbon pricing is potentially inimical to Saskatchewan trade	✓		
	exposed economy.			
4.	The implicit cost of carbon should be deemed an alternative			✓
	to explicit carbon pricing.			
5.	There should be a technology driven approach to climate			✓
	change policy with an international focus.			
6.	Provinces should be allowed to meet allotted emission	✓		
	reduction targets using their most effective (unique) tools.			
7.	Climate change policies should not be made against industry	✓		
	but with industry, giving industry flexible options to meet			
	reduction targets.			
8.	Offsets from forestry, land use and agricultural sectors			✓
	should be relied on in meeting reduction targets.			
9.	Offsets should be allotted to the province from its uranium		✓	
	mining industry.			

The above Table potentially instructs a more balanced approach to engaging Saskatchewan's claims. Rather than a complete wave-off of the province's contentions, it is argued that an unbundled consideration of the key components of the province's proposal is necessary. This is for a couple of reasons. First, Saskatchewan's case, in different ways, aggregates the arguments made by other Canadian provinces. For example, before endorsing the PCF, Manitoba, Nova Scotia and New Brunswick, in different ways, contested the appropriateness of a carbon pricing centric framework. Alberta shares Saskatchewan's position on the need to protect trade-exposed industries, like the oil and gas industry, and the preference for flexible and collaborative tools in engaging industry. As pointed out earlier, even the 'best performing provinces' (British Colombia and Quebec) have taken an industry-protective approach, while Ontario has, more recently, adopted a climate framework similar to the Prairie Resilience. Second, although often not stressed, 'political sustainability' is crucial to the survival of any climate policy. The carbon pricing subject, for example, has been front and centre in the political discourse in Alberta and Ontario - two provinces responsible for about 70% of Canada's total emissions. While the new

Ontario government has upturned the previous carbon pricing centred climate policy in the province, the dominant opposition party in Alberta has committed to doing likewise if elected. The Saskatchewan situation provides a unique opportunity to attempt to 'turnover-proof' the PCF. A two-pronged approach to achieving an effective, flexible and equitable 'turnover-proof framework' is laid out in subsequent paragraphs.

i. Burden Sharing - Lessons from the EU: The PCF's most profound oddity is perhaps its focus on the implementation of unarticulated climate targets. As noted earlier, nowhere in the PCF were specific emission reduction targets allocated to provinces. Indeed, it is doubtful that the subject even featured in the pre-PCF drafting phase. 137 One explanation for this is the divisiveness of the subject in previous similar Pan-Canadian climate policy attempts. 138 This, however, takes nothing away from the centrality of the subject. Like Canada, the European Union (EU) was confronted with the difficulty of coming up with a generally acceptable allocation formula for its member States. Unlike Canada, rather than shy away from the issue, the EU adopted the triptych approach which took into consideration the peculiar circumstances of each party state, while ensuring that substantial emission reduction is achieved. 139 The Triptych model is basically a three-step approach:

¹³⁶ As found in a recent survey, while 44% of respondents in Alberta stated that they will vote for an anti-carbon pricing candidate, 27% stated that it will have no effect on their vote. See Abacus Date, *supra* note 17 at 107.

¹³⁷ After the 2016 Vancouver Declaration, four working groups on: specific mitigation opportunities; adaptation and climate resilience; carbon pricing mechanisms; and clean technology, innovation and jobs, in respect of the PCF. There is no such group on burden sharing, neither is it clear if any of the groups had such in their terms of reference. This is unlike the process under the unsuccessful National Climate Change Process (NCCP) (1998 - 2002), where an Emissions-Allocation and Burden-Sharing Working Group was established. See Hartman, et al, *supra* note 1 at 30.

¹³⁸ See generally, Hartman, et al, *supra* note 1 at 24 – 32.

¹³⁹ G.J.M. Phylipsen, et al, "A Triptych Sectoral Approach to Burden Differentiation; GHG emissions in the European Bubble" (1998) 26:12 *Energy Policy* 929 at 930. It is note worthy that there have since 1998, when Triptych was originally proposed, been various other versions of Triptych. These were mostly aimed at replicating Triptych, globally. See for examples Triptych 6.0 and 7.0 published respectively in Niklas Hohne et al, *Options for the Second Commitment Period of the Kyoto Protocol* (Berlin: Federal Environmental Agency, 2005) 118 – 131 and M.G.J. Den Elzen et al, *The Tritych Approach Revisited: A Staged Sectoral Approach for Climate Mitigation* (AH Bilthoven: Netherlands Environmental Assessment Agency, 2007). The Canadian Burden Sharing Working Group is also reported to have

- **i.** Identification of categories (sectors) of emissions through the main issues raised by parties during negotiations. ¹⁴⁰
- **ii.** Calculation of emission allowances for each of the sectors based on peculiar circumstances. 141
- iii. Adding up sectoral allowances to a national (provincial) allowance or target. 142

While it has been criticized for its complexity, extensive data requirement and reliance on uncertain future growth projections, ¹⁴³ the flexibility of Triptych, which allows parties to meet allotted targets by employing tools unique to them, is widely agreed to be its greatest strength. One point that must be stressed is that the Triptych is more of a burden sharing instrument and less of an implementation tool. Its sectoral approach to arriving at a total target for each party simply helps to consider sectoral emission reduction potentials vis-à-vis best reduction options for party States. This provides negotiating parties a clearer picture, not only of how their obligations are arrived at, but also their capacity to achieve such targets. Another component of Triptych is the emission allowance given to developing European States ('cohesion countries'). ¹⁴⁴ It is again worth emphasising that whereas sectors are considered before allocating targets to parties, such allocations are not imposed sectorally.

The data intensive nature and overall complexity of Triptych makes it more fitting for a setup with few member parties. Therefore, it is not surprising that (partially) due to its increased membership, the European Union designed and adopted a Climate and Energy Package (CEP)

considered adopting Triptych under the botched 1998 - 2002 NCCP negotiation process. See Hartman, et al, *supra* note 1 at 30 - 31.

¹⁴⁰ The main issues raised by party states are: "differences in standard of living, in fuel mix, in economic structure and the competitiveness of internationally oriented industries." These issues informed the identification of power-producing sector; internationally oriented energy-intensive industry and domestic sectors, as the three categories of emissions under Triptych. See G.J.M, Phylipsen, et al, *Ibid* at 934 - 935.

¹⁴¹ Under Triptych, while a per-capita criterion was applied to the domestic sector, energy efficiency criterion was applied to the energy intensive industry, and greenhouse gas intensity standard to the power-producing sector. *Ibid* at 6. See also K. Blok & J.P. Van der Sluijs, "Global Triptych: Differentiating Commitments for a Converging World" (2003) online: https://dspace.library.uu.nl/bitstream/handle/1874/768/c6.pdf>

¹⁴² G.J.M, Phylipsen Supra note 138 at 934.

¹⁴³ M.G.J. Den Elzen et al, *Supra* note 138 at 57.

¹⁴⁴ G.J.M, Phylipsen Supra note 138 at 939

to replace the Triptych approach in 2008. But compared to the 28-member States EU, Triptych is more fitting for a country like Canada which has fewer constituents (provinces), certainty of jurisdictional delineation and centrally collected climate related data. It is noteworthy that CEP is fundamentally designed around similar themes as the Triptych; particularly, fixing of specific emission reduction targets, flexible implementation options, allowances for trade exposed sectors and recognition of national circumstances. In fact, the CEP can be cast in a Triptych mould as it entails the EU Emission Trading System (EU ETS) which mainly covers the energy intensive and power producing sectors previously under Triptych; and an Effort Sharing Decision arrived at through consideration of *per capita* income of countries. In consonance with the flexibility theme, countries are allowed to transfer emission rights. In carbon pricing, Italian the EU ETS can work in Canada, given the seeming unpopularity of carbon pricing, Italian Triptych provides a viable tool with which equitable and flexible allocations can be made to Canadian PTs.

Table 2 provides a peephole into how Canada can rework the Triptych to fit its unique situation. As noted earlier, the Table shows the overall disposition of provinces towards the utility and economic (trade exposed) sectors, in that, while provinces are generally ready to make deep cuts in respect of their utility sectors, they are not so disposed as regards their economic sectors. Potentially, while a per capita criterion can be applied to calculating emissions from utilities (domestic sector), a combination of energy efficiency and emission

¹⁴⁵ See generally Decision No. 406/2009/EC, 23 April 2009, Official Journal of the European Union, On the Effort of Member States to Reduce their Greenhouse Gas Emissions to meet the Community's Greenhouse Gas Emission Reduction Commitments up to 2020.

¹⁴⁶ Jos Delbeke & Peter Vis, eds, EU Climate Policy Explained (European Union, 2016) 17 – 20.

¹⁴⁷ *Ibid* at 21.

¹⁴⁸ Of 13 PTs, only Ontario and Quebec have opted for a 'full fledged' cap and trade system, while Nova Scotia has a localized version. Considering the drop in sub-optimality of EU ETS in recent years, the effectiveness of cap and trade as an emission reduction tool is also doubtful.

intensity can be applied to the economic sectors. Again, this proposed formula is to arrive at emission reduction targets which provinces will consider equitable and does not impose any specific implementation mode. Such an approach will likely be popular with all provinces, if positions taken at the 2000 NCCP negotiations were to be maintained. In the said negotiations, western provinces, like Alberta, favoured a sectoral approach to burden sharing, while eastern provinces, like Quebec, contended that such an approach will hurt its pulp and paper industry, rather preferring a per capita approach.¹⁴⁹ An adapted Triptych offers an opportunity to blend these conflicting positions in one burden sharing policy.

ii. Strict-Flexible Implementation: Consistent with Triptych, PTs should be allowed to meet allocated targets using the most effective and efficient tools available to them. The role of the Federal Government (FG) should be to maintain a strict oversight regime to guarantee that PTs meet targets as and when due. This is mandatory if effective emission reduction through flexible tools is to be achieved. As noted elsewhere, "flexible approaches are more likely to be ... sustained when a comprehensive, independent and centralized environmental agency provides for guidance, coordination and consistency in policy choices". Such an oversight will, no doubt also, entail the FG vetting PTs' climate programmes to guarantee the integrity of the system.

Table 3 gives a skeletal overview of principles which could inform such vetting process. While claims categorised as justifiable deserve consideration, those classified as unjustifiable do not. Context can, however, be built around borderline claims. For example, while carbon pricing might, indeed, be apt for service-oriented economies like British Columbia, it is less

¹⁴⁹ Hartman, et al, *supra* note 1 at 30.

¹⁵⁰ Kochtcheeva, *supra* note 100 at 10.

likely so for trade exposed economies like Saskatchewan. This makes it necessary to permit Saskatchewan to bring to the table its most emission-effective and cost-efficient option. On the reverse, Saskatchewan should not be allowed to rely on its resilience claim to shirk further responsibility. Resilience concerns, although with diverse impact potentials on provinces, are by no means peculiar to Saskatchewan. However, claims on land use and international offsets are useful tools depending on the thoroughness of the monitoring and accounting systems. This is one other area in which the oversight role of the FG is crucial.

Further, in lieu of making a carbon tax system mandatory country-wide, a national offset system should be set up and coordinated by the FG to give greater flexibility to PTs in their attempts to meet their allocation emission targets. Provinces should have the option of undertaking emission reduction projects in provinces where such initiatives are more cost effective. While the challenges of similar arrangements under the Kyoto Protocol (CDM and JI) are well documented, an inter-provincial offset system will be more easily manageable and regulated, given its more limited scope. Another vital component of the implementation limb is the availability of financial buffers for provinces that will potentially bear more climate mitigation and adaptation costs. It is settled that, regardless the scenario, provinces like Alberta and Saskatchewan will bear higher mitigation costs. Equity requires that such provinces be supported by the FG. In this regard, Hartman et al, have proposed a two-pronged financial support structure entailing a baseline federal funding for complementary actions in all provinces and a 'selective envelope of funding' which a new institution will disburse to even the burdens of emissions reduction.¹⁵¹

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¹⁵¹ Hartman, et al, *supra* note 1 at 49.

Canada can and should go beyond its present commitments under the PA. So far, it has fallen short, and the PCF, in its present state, appears unlikely to facilitate the attainment of such lofty climate aspirations. The above proposed two-limbs recommendation has taken into consideration the themes of effectiveness, equity and flexibility which Saskatchewan has anchored its opposition to the PCF on. While not immune from criticism, the value of the recommendations contained in this work is rooted in its potential to reboot the climate discourse in a more nuanced context and make up for current gaps in the existing framework. Again, these recommendations can potentially help 'turn-over proof' the national climate framework. Further, the foregoing responds to two concerns raised in the recent collaborative report by auditors-general in respect of the Canadian climate policy: the absence of measurable targets and a defined monitoring structure. ¹⁵² While these recommendations might not be sufficient to drive Canada to zero-emission, they hold the promise of moving the country further from where it currently is.

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¹⁵² Collaborative Report, *supra* note 4 at 4.