

Summary

At the dawn of its 7th year, Quebec's Cap and trade system, the SPEDE, is generating exponentially greater internal bias in its day-to-day operations made worse by the geopolitical realities of economic protectionism¹ that is impacting the province head on. All of this is happening as we are approaching or have already passed a planetary point of no return.² Here are the key takeaways:

In its 2nd consolidated compliance report, the MELCC (Quebec's Ministry of the Environment, formerly the MDD) for the 2015-2017 period, shows that:

- a. All 118 Quebec organizations bound by the SPEDE have fulfilled their obligations thus far.
- b. There has been an underutilization of carbon offsets (CrC) of 6 million CrCs.
- c. Only 9% of the CrCs come from projects originating in Quebec
- d. There are 8 million CrCs that are not utilized, an annual average of 2.67 million.

1. The last report of the Western Climate Initiative from October 5th 2018, allows us to conclude:

- a. California has issued 167 times more CrCs than Quebec which issued roughly 628 000 of them.
- b. This gap continues to grow exponentially.
- c. For the 2018-2020 period, the space available to acquire CrCs by companies will be 14 million while the availability of CrCs originating from Quebec will hit 100 000.
- d. Every CrC purchased by Quebec organizations bound by the SPEDE occurs outside of the province and constitutes a capital flight³ which, in turn, makes the 2020 and 2030 targets of the government more and more unattainable.
- e. Without any adjustments to the SPEDE, we estimate that this capital discrepancy will hit \$CAD 2.8 billion⁴. This money will not be invested in GHG reductions in Quebec.

2. This built-in bias, typical of regulated markets such as Cap & Trade systems, exists the world over and can be corrected:

- a. All Cap & Trade systems have their share of market distortions⁵.
- b. Many jurisdictions in the world have made adjustments to their Cap & Trade systems.
- c. California, Quebec's partner in the WCI, instituted protectionist modifications in July 2017 limiting the use of extra-territorial CrCs for compliance.

¹ Selon l'analyse de l' [IETA](#), datée du 2 janvier 2019 : «But 2018 brought difficult moments too, with the sudden repeal of ETS legislation in Ontario, which resulted in a messy pull out from WCI; the rise of populist and anti-climate governments; and the spectre of Brexit looming over the EU ETS».

² Page 53-56 <http://www.horizons.gc.ca/fr/file/21927>

³ <https://www.leguotidien.com/chroniques/claude-villeneuve/pas-a-nous-de-payer-8055d0b3f272268245465306d9133a7a>

⁴ Diapo 4 http://www.solutionswill.com/sites/default/files/u51/reseau_env_27septembre_2018-v5finale.pdf

⁵ Rapport 2016 du VGQ, page 29 paragraphe 95-119

http://www.vgq.gouv.qc.ca/fr/fr_publications/fr_rapport-annuel/fr_2016-2017-CDD/fr_Rapport2016-2017-CDD-Chap04.pdf and <https://www.foreignaffairs.com/articles/world/2018-06-14/why-carbon-pricing-isnt-working?cid=soc-tw-rdr>

- d. Administrative or regulatory adjustments can correct the inherent market bias of the SPEDE.
- e. The decision-making power to adjust the SPEDE is in the hands of the MELCC.

The impact of economic protectionism on carbon markets

At the dawn of its 7th year, Quebec's Cap & Trade system, the SPEDE, is generating exponentially greater internal bias in its day-to-day operations made worse by the current geopolitical realities of economic protectionism⁶ that are impacting the province. In the Environment Minister's last report, the economic instruments employed by the 118 organizations legally bound by the SPEDE, for the 2015-2017⁷ period, include emission rights, credits for early GHG reductions and regulated carbon offsets.

Table 1 shows that company compliances are made up of 94% emission rights that were purchased during the WCI's quarterly auctions⁸. The use of carbon offsets for early reductions was limited to 2 040 026. The rest of the compliance equation is composed of regulated carbon offsets. These CrCs were acquired outside of the WCI auctions at the discretion of the organizations bound by the SPEDE.

Tableau 1: Disponibilité sur le budget de 2013-2020 (406,52 MtCO₂e)

Période	Droit d'émission remis aux gouvernements	Droits d'émission obtenus gratuitement ou via les encans du WCI	% sur le total remis au gouvernement	Crédits réductions hatives	% sur le total remis au gouvernement	CrC	% sur le total remis au gouvernement
2013-2014	36 664 703	34 415 214	93,9%	1 950 677	5,3%	298 812	0,81%
2015-2017	176 145 518	169 987 235	96,5%	70 128	0,0%	6 088 155	3,46%
Balance au budget 2013-2020	n.a.	202 117 551	n.a.	19 221	n.a.	n.a.	n.a.
Total		406 520 000	n.a.	2 040 026		6 386 967	

According to the numbers in **Table 1**, the Minister has a reserve of over 202 million rights emissions for the 2018-2020⁹ period. The rest is available for distribution as free allocations and for the auctions of the WCI auctions. If we consider the rights emissions already distributed at December 31st 2018¹⁰, 167 million sold at auctions in addition to 112 free allocations, the Minister would still have almost 128 million to cover 2019 and 2020. This would leave a surplus of 16 million for the Minister, and this, excluding the reserves that are untouched and that will reach 20 million at the end of 2020.

Note that this the last stipulated compliance period¹¹ for annual GHG limits, regulated by the SPEDE and consolidated for 407 million over the 2013-2020 period. These limits are in line with the 20% GHG reduction goal under 1990 levels for 2020.

Table 2 shows the emission rights per year as well as the CrCs used and the the space available for CrC purchase that was not utilized. The use of CrCs is limited to 8% of the compliance portfolio. Quebec companies bound by the SPEDE could have acquired over half of what the CrCs they purchased.

⁶ Selon l'analyse de l' [IETA](#), datée du 2 janvier 2019 : «*But 2018 brought difficult moments too, with the sudden repeal of ETS legislation in Ontario, which resulted in a messy pull out from WCI; the rise of populist and anti-climate governments; and the spectre of Brexit looming over the EU ETS.*»

⁷ <http://www.environnement.gouv.qc.ca/changementsclimatiques/marche-carbone.asp>

⁸ WCI : Western Climate Initiative : <http://www.environnement.gouv.qc.ca/changements/carbone/WCI.htm>

⁹ Le gouvernement avait décrété des plafonds de 170,55 millions pour ses 3 dernières années; <http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=1&file=2012F%2F58679.PDF>

¹⁰ <http://www.environnement.gouv.qc.ca/changements/carbone/revenus.htm>

¹¹ <http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=1&file=2012F%2F58679.PDF>

Horizons 2019-2030; distorsions & ajustments of the SPEDE;

Tableau 2: Rapports de conformité

Période	Nombre d'émetteurs assujettis	Unités 2013	Unités 2014	Unités 2015	Unités 2016	Unités 2017	Unités non millésimées	Crédits réductions hatives	CrC	Part des crédits compensatoires (%)	Espace non utilisé
2013-2014	55	18 371 894	16 043 320	0	0	0	0	1 950 677	298 812	0,800%	7,20%
2015-2017	118	774 034	6 343 306	69 597 767	46 794 052	45 215 939	1 262 137	70 128	6 088 155	3,500%	4,50%
Total	118	19 145 928	22 386 626	69 597 767	46 794 052	45 215 939	1 262 137	2 020 805	6 386 967		

Notes: 1- En date du 18 décembre 2018

Les émetteurs dits « conformes » ont remis un nombre suffisant de droits d'émission

2- *éligibles à la période de conformité pour couvrir la totalité de leur obligation de conformité.*

Dans certaines circonstances, les unités non millésimées de la réserve du ministre peuvent être utilisées pour combler les besoins de l'allocation gratuite d'unités d'émission (RSPEDE, art. 42).

4- *8% est la portion autorisée des CrC (Crédit réglementé Compensatoire) dans les portefeuilles de conformité selon la réglementation du SPEDE*

The restrictions limiting Quebec's CrCs represent a major capital flight

Since 2013, 91% of all CrC remittances for compliance have been acquired outside of Quebec. By consulting the 2nd compliance report for the 2015-2017 period (published online on December 18th, 2018), we are able to conclude in Table 3 a clear underutilization of CrCs in the compliance portfolios of over half the Quebec companies. A single Quebec company, a fossil fuel distributor, has purchased all of the 585 134 CrCs available in Quebec. All of the other organizations bound by the SPEDE have remitted CrCs from California or the United States. This is a paradoxical situation as many Quebec companies wish to purchase locally-sourced GHG reductions for reasons of social acceptability of their own projects and operations.

Tableau 3: utilisation des Crédits réglementés Compensatoires (CrC)

Catégorie d'organisations assujetties au SPEDE	Nombre d'organisations assujetties	2013-2014	2015-2017	Total	% par catégorie	CrC réalisé en sol québécois	% de CrC réalisés en sol québécois
Émetteurs + de 25 000 tCO ₂ e	78	298 812	1 624 572	1 923 384	30,11%	0	0,0%
Distributeurs d'énergie fossile; depuis le 1er janvier 2015	40	0	4 463 583	4 463 583	69,89%	585 134	13,1%
Total	118	298 812	6 088 155	6 386 967	100,00%	585 134	9,2%

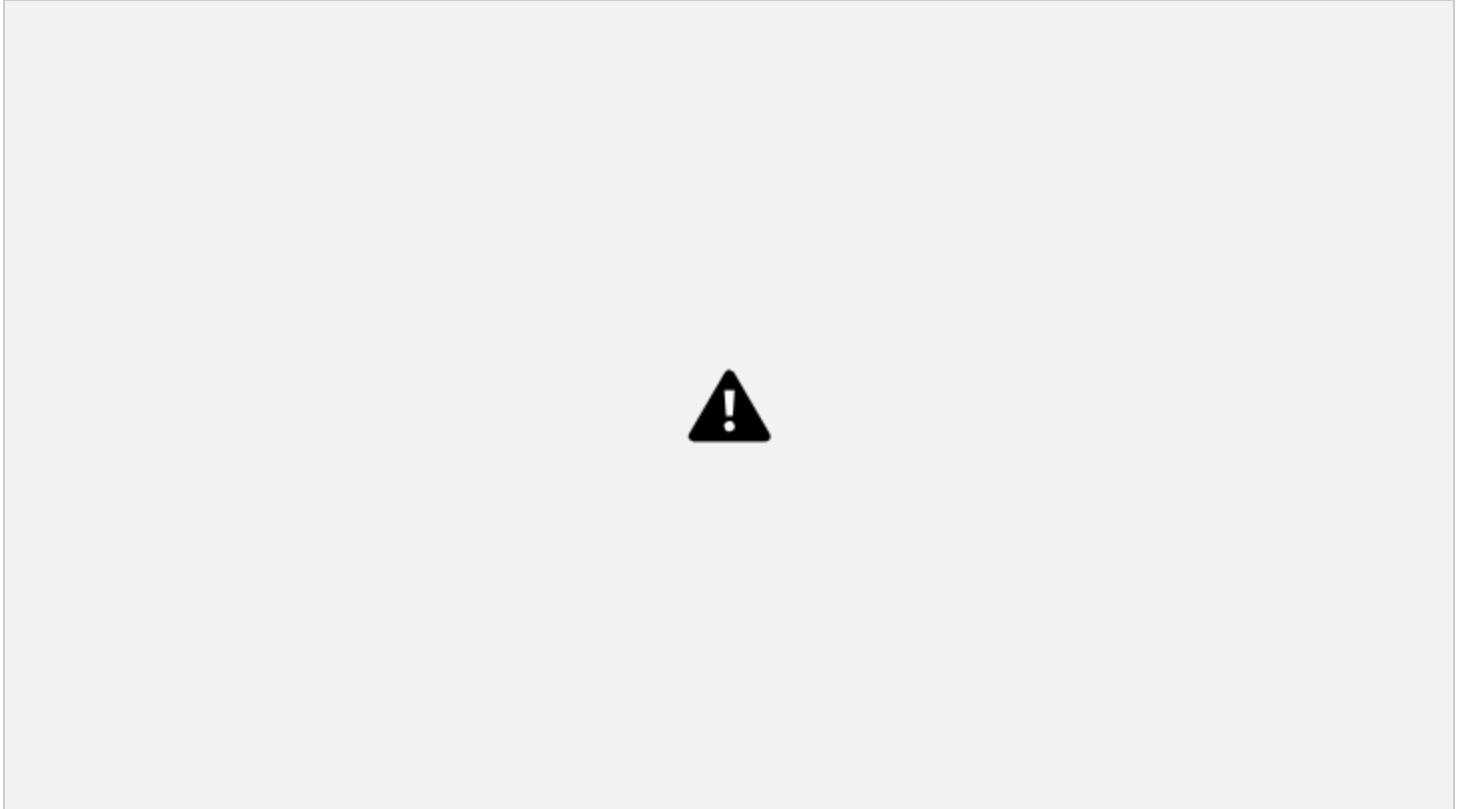
Moreover, for this period (2015-2017), companies were allowed to purchase over 8 million CrCs or an average of 2.67 million CrCs per year, for SPEDE compliance and never came close to acquiring such levels of carbon offsets. We do not know if this was because of the rarity of CrCs available in Quebec; or because of a lack of information on CrCs emitted by Quebec and California; or some corporate impetus to only purchase emission rights through the WCI auctions¹²; or because of a lack of internal expertise of the management and acquisition; or some other factor. What is clear is that many companies preferred not to manage the risk and avoided acquiring them entirely. A total of 94 organizations out of 118 or 80% of the the SPEDE-bound companies chose not to purchase any. This left 24 companies purchasing CrCs of which 15 were energy distributors that remitted the bulk of CrCs or 70%. See **Table 3**.

¹² Rapport 2016 du VGQ, page 29 paragraphe 95-119

http://www.vgq.gouv.qc.ca/fr/fr_publications/fr_rapport-annuel/fr_2016-2017-CDD/fr_Rapport2016-2017-CDD-Chap04.pdf and <https://www.foreignaffairs.com/articles/world/2018-06-14/why-carbon-pricing-isnt-working?cid=soc-tw-rdr>

Table 4 shows the divergent CrC availability emitted by California and Quebec originating from GHG reduction projects which are admissible to the SPEDE. The gap is continually widening between Quebec and California GHG reductions that are eligible as CrCs. If this gap remains unchecked for 2018-2020, companies will continue to acquire their CrCs outside of Quebec which will lead to a capital flight which, in turn, will dissuade GHG reductions in Quebec.

Table 4



Further analysis on the MELCC's consolidated compliance report are available upon request and in the annexes.

List of tables in the annexes:

- **Table 5** : 15 most important SPEDE-bound companies according to remitted rights emissions
- **Table 6** : 10 largest Quebec buyers of CrCs
- **Table 7** : the start of CrC projects remitted for compliance
- **Table 8** : CrC projects sorted by year of issuance
- **Table 9** : distribution of CrCs remitted sorted by protocol
- **Table 10** : summary analysis of gap between free allowances issued by the MELCC and actual declared emissions to the MELCC by + 25 000 tCO₂e emitters.

Annexes

Table 5 shows, for the 2nd compliance period (2015-2017), the 15 most important companies of the 118 businesses bound by the SPEDE. In the highlighted green columns, we can surmise that they have remitted 153 million emission rights in their compliance portfolios or 86% of all remittances.

These 15 companies have purchased 5 699 237 CrCs or 94% of all CrCs remitted in the report. Energir, Suncor, Shell and Norcan lead the way in the fossil fuel distribution category. Whereas Rio Tinto, Alcoa, Aluminerie Bécancour and Groupe CRH lead the way in the emitter category of + 25 000 tCO₂e.

In the highlighted yellow columns, the non-utilized CrC cap space available for these 15 companies to purchase. Over 69% of non utilized CrCs were associated with 3 fossil fuel distributors, the most important one being Valero. Nine companies in the + 25 000 tCO₂e make up a little over 12% of non utilized CrCs.

Table 5

Le portefeuille des 15 principales entreprises assujetties au SPEDE avec l'utilisation de leurs CrC

	Portefeuille de conformité	Crc Total	%	Espace disponible non utilisé	Assujetties + de 25 000 tCO ₂ e	Distributeurs d'énergie
1	Valero	69 332 248	0	0,00%	5 546 580	5 546 580
2	Énergir	19 564 187	1 565 134	8,00%	0	
3	Produits Suncor Énergie S.E.N.C. (Suncor énergie marketing)	17 764 205	1 421 136	8,00%	0	
4	Rio Tinto	9 278 561	720 000	7,76%	22 285	22 285
5	Shell (Produits Shell Canada, société d'échange commerciaux Shell Canada)	8 522 268	681 779	8,00%	0	
6	Norcan	6 793 061	540 000	7,95%	3 445	3 445
7	Aluminerie Alouette	3 344 456	0	0,00%	267 556	267 556
8	Alcoa Canada+Alcoa Lauralco	2 897 366	226 000	7,80%	5 789	5 789
9	Rio Tinto Fer et Titane	2 567 413	0	0,00%	205 393	205 393
10	Aluminerie Bécancour	2 422 759	191 188	7,89%	2 633	2 633
11	Groupe CRH	2 306 740	184 000	7,98%	539	539
12	Les pétroles Irving	2 185 430	170 000	7,78%	4 834	4 834
13	Graymont	2 117 085	0	0,00%	169 367	169 367
14	Lafarge	1 999 591	0	0,00%	159 967	159 967
15	Ciment Québec	1 870 598	0	0,00%	149 648	149 648
	Sous-Total	152 965 968	5 699 237	3,24%	6 538 037	983 178
	Restant consolidé de 103 entreprises	23 179 550	388 918		1 465 450	
	Total	176 145 518	6 088 155	3,46%	8 003 486	12,28%

Table 6 shows for the 2nd period of compliance (2015-2017), the 10 most important buyers, bound by the SPEDE, of CrCs. These 10 companies have remitted 6 million CrCs in their compliance portfolios or 98% of the total remitted for this compliance report.

These 10 companies are divided in two categories, those who emitted + de 25 000 tCO₂e and fossil fuel distributors. The first have remitted 1 576 188 CrCs or more than 25% of all CrCs remitted. The second category of companies have remitted 72% of all CrCs. There remains 2% that come from 14 companies. Énergir, Suncor and Rio Tinto, in that order, are the three most important CrC buyers. Interestingly, Énergir is the only Quebec-based company to have purchased all of the available CrCs in Quebec for a total of 585 134.

All other CrC remittances come from California or the United States.

Table 6
Les 10 principaux acheteurs de CrC

		CrC total	Assujetties + de 25 000 tCO ₂ e	Distributeurs d'énergie	Origine Québec	Origine USA/Californie
1	Énergir	1 565 134		1 565 134	585 134	980 000
2	Produits Suncor Énergie S.E.N.C. (Suncor énergie marketing)	1 421 136		1 421 136	0	1 421 136
3	Rio Tinto Alcan	720 000	720 000		0	720 000
4	Shell (Produits Shell Canada, société d'échange commerciaux Shell Canada)	681 779		681 779	0	681 779
5	Norcan	540 000		540 000	0	540 000
6	ArcelorMittal	255 000	255 000		0	255 000
7	Aluminerie Bécancour	191 188	191 188		0	191 188
8	Groupe CRH	184 000	184 000		0	184 000
9	Les pétroles Irving	170 000		170 000	0	170 000
10	Alcoa Canada+Alcoa Luralco	226 000	226 000		0	226 000
	Sous-total	5 954 237	1 576 188	4 378 049	585 134	5 369 103
	Total CrC vendus	6 088 155				
	% sur le total de CrC	97,8%	25,9%	71,9%		

Table 7 shows, for the 2nd compliance period (2015-2017), the starting dates for projects¹³ for each project that remitted CrCs. We have divided the results in 3 periods (2003-2009, 2010-2014 et 2015-2017).

From 2003-2009 a quantity of 857 248 CrCs were used or 14% of the total 6 088 144 remitted to the MELCC. From 2010-2014, 1 925 182 CrCs were used or 32%. Finally, 3 304 725 or 54% was remitted for the 2015-2017 period.

Table 7

Période conformité 2015-2017			
Début des projets de CrC utilisés	Quantité de CrC	%	
2003	45 317	0,7%	0,7%
2004	20 000	0,3%	1,1%
2005	0	0,0%	1,1%
2006	319 068	5,2%	6,3%
2007	252 321	4,1%	10,5%
2008	21 736	0,4%	10,8%
2009	198 806	3,3%	14,1%
2010	204 024	3,4%	17,4%
2011	278 377	4,6%	22,0%
2012	559 665	9,2%	31,2%
2013	748 940	12,3%	43,5%
2014	134 176	2,2%	45,7%
2015	1 855 142	30,5%	76,2%
2016	817 571	13,4%	89,6%
2017	633 012	10,4%	100,0%
Total	6 088 155	100,0%	

¹³ Date de début de projet de CrC validé par le MELCC

Table 8 shows for the 2nd compliance period (2015-2017), the issuance dates and quantities of the CrCs used and remitted for compliance. We have divided the results en 3 periods (2005-2009, 2010-2014 et 2015-2017).

From 2005-2009, 367 722 CrCs were used or 6% of the 6 088 155 remitted for compliance. From 2010-2014, 1 195 410 CrCs were used or 20%. Finally, from 2015-2017 a quantity of 4 525 023 CrCs were used or 74% of the total.

Table 8

Période conformité 2015-2017			
Vintage utilisé	Quantité de CrC	%	
2005	3 276	0,1%	0,1%
2006	3 276	0,1%	0,1%
2007	31 364	0,5%	0,6%
2008	43 773	0,7%	1,3%
2009	286 033	4,7%	6,0%
2010	113 011	1,9%	7,9%
2011	403 137	6,6%	14,5%
2012	64 618	1,1%	15,6%
2013	106 020	1,7%	17,3%
2014	508 624	8,4%	25,7%
2015	748 381	12,3%	38,0%
2016	2 657 241	43,6%	81,6%
2017	1 119 401	18,4%	100,0%
Total	6 088 155	100,0%	

Table 9 shows, for the second period of compliance (2015-2017), the types of protocols used as a methodological basis for all CrC remittances. We observe that 90.4% of all CrCs are recognized under the California protocol¹⁴. The remaining CrCs, 9.6% come from 2 SPEDE protocols, SACO¹⁵ and LET¹⁶. The three most widely used protocols are the *US Forest*¹⁷, *Mine Methane Capture* (MMC)¹⁸ and *SACO*.

Table 9
Distribution of CrC protocols (California in grey, Quebec in green)

4 601 957	132 446	270 291	498 327	474 764	110 370
75,6%	2,2%	4,4%	8,2%	7,8%	1,8%
US Forest	Livestock	ODS	Mine Methane Capture	SACO	LET
90,4%				9,6%	

¹⁴ https://www.arb.ca.gov/cc/capandtrade/offsets/issuance/arb_offset_credit_issuance_table.pdf

¹⁵ Protocole 3 - Destruction des substances appauvrissant la couche d'ozone contenues dans des mousses isolantes ou utilisées en tant que réfrigérant provenant d'appareils de réfrigération, de congélation et de climatisation
http://www.environnement.gouv.qc.ca/changements/carbone/credits-compensatoires/registre_creditscompensatoires.htm

¹⁶ Protocole 2 - Lieux d'enfouissement - Destruction du CH₄
http://www.environnement.gouv.qc.ca/changements/carbone/credits-compensatoires/registre_creditscompensatoires.htm

¹⁷ https://www.arb.ca.gov/cc/capandtrade/offsets/issuance/arb_offset_credit_issuance_table.pdf

¹⁸ https://www.arb.ca.gov/cc/capandtrade/offsets/issuance/arb_offset_credit_issuance_table.pdf

Table 10 represents the gap between the free allowances granted by the MELCC to companies emitting over 25 000 tCO₂e/year and the true reported emissions of these companies to the MELCC.

The total difference between the free allowances of rights emissions, granted from 2013 to 2017, and the real declarations of emissions to the MELCC is 2 610 571 tCO₂e. It is impossible for us to analyze, based on current information, the impact of this situation on the volume of purchase of CrCs.

Table 10

