

# Overview of the Western Climate Initiative (WCI) and considerations for linking\*

## WCI Background

Many states and provinces across western North America, including Oregon, participated in development of the design framework of a regional cap-and-trade program known as the Western Climate Initiative. Of these jurisdictions, California and Quebec have implemented the WCI program design. Ontario launched a cap-and-trade program in 2017 and plans to link with WCI next year. These jurisdictions' programs include a broad scope encompassing emissions from transportation fuels, natural gas, industrial processes, and electricity generation – including emissions associated with imported electricity. The linked jurisdictions participate in joint auctions of allowances, and allowances issued by one jurisdiction can be used by any compliance entity within the linked programs.

The WCI program began in 2013. The 2015 emissions cap was 460 million metric tons of CO<sub>2</sub> equivalent (MMTCO<sub>2e</sub>), which is scheduled to decline to 389 MMTCO<sub>2e</sub> (a 15.4% reduction) by 2020. Each WCI jurisdiction's program has elements in common with the others, and all jurisdictions have certain unique elements. Some of these are touched on below.

**California:** In July 2017, California passed legislation extending their cap-and-trade program through 2030. This extension retains nearly all core design elements established by the WCI program. The legislation extending the program made a variety of modest adjustments to the program that do not necessarily need to be followed by other WCI jurisdictions. One important change that will likely be closely coordinated with WCI partners is the introduction of a firm price cap on allowances.

**Quebec:** Quebec established their cap-and-trade program in 2013 at the same time as California. As a co-developer of the WCI program design, the Quebec and California programs are quite similar. One important difference is that Quebec's electricity sector has virtually no carbon, which necessarily narrows the portion of their economy covered by the cap.

**Ontario:** Ontario began a cap-and-trade program at the start of 2017 that is closely modelled after the WCI program design. There are some differences with California in how Ontario regulates imported electricity but the overall scope and stringency of the program is very similar to California and Quebec. Ontario expects to link their program to WCI at the start of 2018.

## Considerations for linking to WCI

There are certain program requirements that must be met for Oregon to design a program that could link with WCI jurisdictions. There are also many areas where the WCI program design is flexible and jurisdictions can choose a design that works best for their economic and environmental characteristics. Because there has been only one

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linkage completed thus far (California and Quebec) and this occurred at the outset of those jurisdictions' programs, there are not many formal guidelines with specific requirements. What follows is information Oregon agencies uncovered during research that supported a study of cap-and-trade requested by Legislature<sup>1</sup>.

A primary consideration by WCI jurisdictions for linkage is the relative stringency<sup>2</sup> of another jurisdiction's program. This is because a jurisdiction linking with the WCI can affect the market across the linked jurisdictions. A jurisdiction with a less or more stringent program will loosen or tighten the linked market (i.e. lower or raise the compliance cost). The stringency of a cap-and-trade program can be defined as the rate at which the cap declines, but initially is also the relationship of the first cap relative to the emissions from the sources covered by the program. Stringency is likely to be judged on a jurisdiction's long-term schedule for the cap compared to a baseline year. For example, California, Quebec and Ontario have similar 2030 targets of being 40%, 37.5%, and 37% below their 1990 levels, respectively.

A broad scope is also likely necessary to link with the WCI market. These jurisdictions' programs cover approximately 80% of their emissions, including transportation fuels, natural gas, industrial processes, and electricity, including emissions from imported electricity. While there are no precisely established requirements on the necessary scope of another jurisdiction's program needed for linkage, policy documents from California,<sup>3</sup> Quebec,<sup>4</sup> and the WCI<sup>5</sup> indicate that a similar scope to the existing programs is likely necessary.

Establishing a stringency aligned with Oregon's GHG reduction goals is likely similar to the stringency compatible with the WCI jurisdictions' cap-and-trade programs. This similarity is not coincidence, but rather the result of those jurisdictions having similar long-term GHG reduction goals as Oregon and those jurisdictions designing their cap-and-trade programs to assure they achieve those goals. Table 4.2 compares Oregon's GHG goals to those of the WCI jurisdictions.

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<sup>1</sup> Considerations for Designing a Cap-and-Trade Program in Oregon. 2017. Available here: <http://www.oregon.gov/deq/aq/programs/Pages/GHG-Market.aspx>

<sup>2</sup> California Government Codes section 12894(f) and (g) require that the Governor assess any program to which California proposes to link to assess whether the linkage satisfies four requirements. One of these is that the other jurisdiction's cap-and-trade program have equivalent or stricter stringency. The 2013 "Linkage Readiness Report" documents California's review of Quebec's program that supported the approval of the linkage between the programs those two jurisdictions. This is available here: [https://www.arb.ca.gov/cc/capandtrade/linkage/arb\\_linkage\\_readiness\\_report.pdf](https://www.arb.ca.gov/cc/capandtrade/linkage/arb_linkage_readiness_report.pdf)

<sup>3</sup> Air Resources Board. 2016. "Summary of the Cap-and-Trade Program in Ontario, Canada". <https://www.arb.ca.gov/regact/2016/capandtrade16/appd.pdf>

<sup>4</sup> Quebec Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques. Date unknown. "The Québec cap-and-trade system and the WCI regional carbon market: A Historical Overview". <http://www.mddelcc.gouv.qc.ca/changements/carbone/documents-spede/historical-overview.pdf>

<sup>5</sup> Western Climate Initiative. 2010. "Design for the WCI Regional Program". <http://www.westernclimateinitiative.org/the-wci-cap-and-trade-program/program-design>

**GHG reduction targets of Oregon and WCI jurisdictions**

	<b>2020</b>	<b>2030</b>	<b>2050</b>
Oregon	10% below 1990	~32% below 1990 <sup>6</sup>	75% below 1990
California	1990	40% below 1990	80% below 1990
Quebec	20% below 1990	37.5% below 1990	
Ontario	15% below 1990	37% below 1990	80% below 1990

The caps currently established by WCI jurisdictions generally reflect a proportional trajectory toward their 2020 goals that are noted in the table above. Because an Oregon cap-and-trade program could not likely to be developed and implemented until 2020 at the earliest (given necessary legislative action and subsequent rulemaking), the WCI programs’ stringency past 2020 is more informative of the stringency and trajectory that Oregon would likely need for compatibility. The best indication of the stringency of WCI jurisdictions’ programs past 2020 is the aforementioned legislation in California that extends their cap-and-trade program through 2030 and targets a reduction of 40% below 1990 levels by 2030. It is not yet known exactly how this will be implemented, but California has proposed a simple straight-line path to a 2030 target that based on their statewide 2030 goal and the proportion of capped emissions sources to the statewide total.

WCI contains several allowance price control mechanisms, such as a minimum auction price and auction prices at which additional allowances would be offered to help moderate higher prices. Because linked cap-and-trade programs require fungibility of allowances across jurisdictions, these measures must generally be common among the linked programs to prevent competitive differences. Thus, Oregon would likely need to match how WCI jurisdictions have implemented these price control mechanisms.

It’s important to note the significant elements of program design that do not need to be aligned. These include how allowances are issued and how revenue from the program is used. California, Quebec and Ontario share similar approaches in these areas but include important differences.

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<sup>6</sup> Oregon does not have a legislatively adopted GHG reduction goal for 2030. The value shown here is computed simply by a linear decrease between the 2020 goal and the 2050 goal. A similar approach was used by the Oregon Global Warming Commission in their 2015 report to legislature in order to calculate a 2035 target.