Accounting Mechanism for Article 8 of the 2017 Linkage Agreement

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Linked Markets and Net Flow Accounting

- The California Cap-and-Trade Program and Québec Cap-and-Trade System have been linked since January 2014
  - Linking enables compliance instruments to be traded and used interchangeably across the linked programs
- This presentation introduces an accounting mechanism developed pursuant to Article 8 of the 2017 Linkage Agreement that identifies and accounts for compliance instruments traded between jurisdictions and retired in the WCI linked carbon market

Article 8 of 2017 Linkage Agreement (1 of 4)

- Article 8 of the 2017 Linkage Agreement states that:

"In order to ensure clarity and transparency in how greenhouse gas reductions from cap-and-trade programs are counted toward each Party's emission reduction target, the Parties agree to develop and implement an accounting mechanism that provides a transparent and data-driven calculation that attributes to each Party its portion of the total greenhouse gas emission reduction achieved jointly by the Parties' linked cap-and-trade programs.

Article 8 of 2017 Linkage Agreement (2 of 4)

The agreed upon accounting mechanism should achieve a high level of transparency and careful and secure management of confidential and market-sensitive information in the Parties' cap-and-trade programs. The Parties will build on international principles and criteria, namely those pertaining to environmental integrity and robust accounting, with an emphasis on transparency and on avoiding double counting.

Article 8 of 2017 Linkage Agreement (3 of 4)

The Parties recognize that to avoid double claiming of emission reductions, only the Party to which an emission reduction is attributed by the accounting mechanism can use that reduction when assessing its progress toward meeting its emission reduction target, and other Parties will appropriately recognize a corresponding opposite emission impact when assessing their progress toward meeting their respective emission reduction targets.

Article 8 of 2017 Linkage Agreement (4 of 4)

The Parties acknowledge that when developing and implementing the accounting mechanism, each Party's applicable statutory and regulatory requirements will be respected.

The Parties agree to periodic review of the accounting mechanism in response to the development of laws applicable to each Party or relevant national and international principles and criteria."

Scope of Presentation

- This presentation focuses on the accounting mechanism for compliance instrument net trade flows
- This is the first step in implementing the principles outlined in Article 8 of the Linkage Agreement
- The jurisdictions will provide more information in the coming months regarding next steps in implementing the principles outlined in Article 8 of the Linkage Agreement

ICAP Discussion Paper on Accounting Mechanisms

- Prior work by the International Carbon Action Partnership (ICAP) considered various approaches to account for the net flow of compliance instruments between linked jurisdictions
- https://icapcarbonaction.com/en/publications/accounting-linking-etss-under-art-62-paris-agreement

Accounting Based on Retirements

- The accounting mechanism is based on compliance instruments traded between the partner jurisdictions' registered entities only once the compliance instruments have been surrendered (i.e., retired) to a jurisdiction
- Accounting based on retirements, instead of registered entities' account holdings, avoids bias related to unpredictable and dynamic movement of compliance instruments between jurisdictions

Calculating Net Flows from Retirements

- For each jurisdiction, the inter-jurisdictional compliance instruments net trade flow is calculated as follows:
  - The total number of domestic compliance instruments retired by another jurisdiction; minus
  - The total number of compliance instruments retired that were issued by another jurisdiction
- If jurisdiction A receives a greater number of retired compliance instruments issued by jurisdiction B than the opposite, then jurisdiction A's net flow is negative, which means it is a net acquirer of compliance instruments – and vice versa

Types of compliance instruments

- For the purpose of the accounting mechanism, these types of compliance instruments are treated separately when it comes to determining the origins of retirements:
  - Allowances, including early retirement credits (Québec only)
  - Offset credits

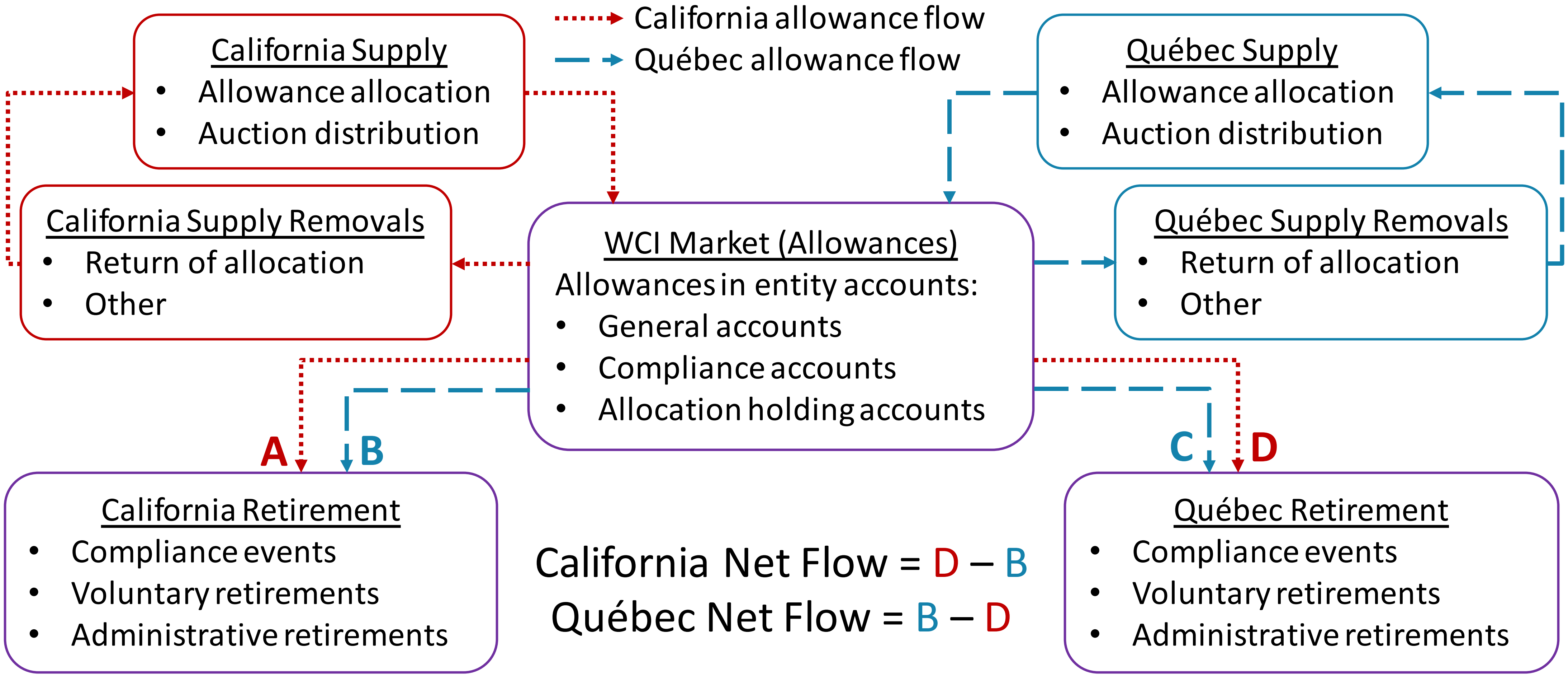
Determining the Origin of Retired Allowances – Why not Serial Numbers?

- CITSS assigns serial numbers to each instrument that ensures traceability, including by jurisdiction of origin
- Registered entities cannot view serial numbers or determine the origin of allowances
- When entities transfer allowances, CITSS selects the allowances to transfer using an algorithm that prioritizes computer processing efficiency, not environmental accounting, thus causing a flow accounting bias
- As a result, the net flow accounting mechanism does NOT use serial numbers to determine the origin of allowances retired

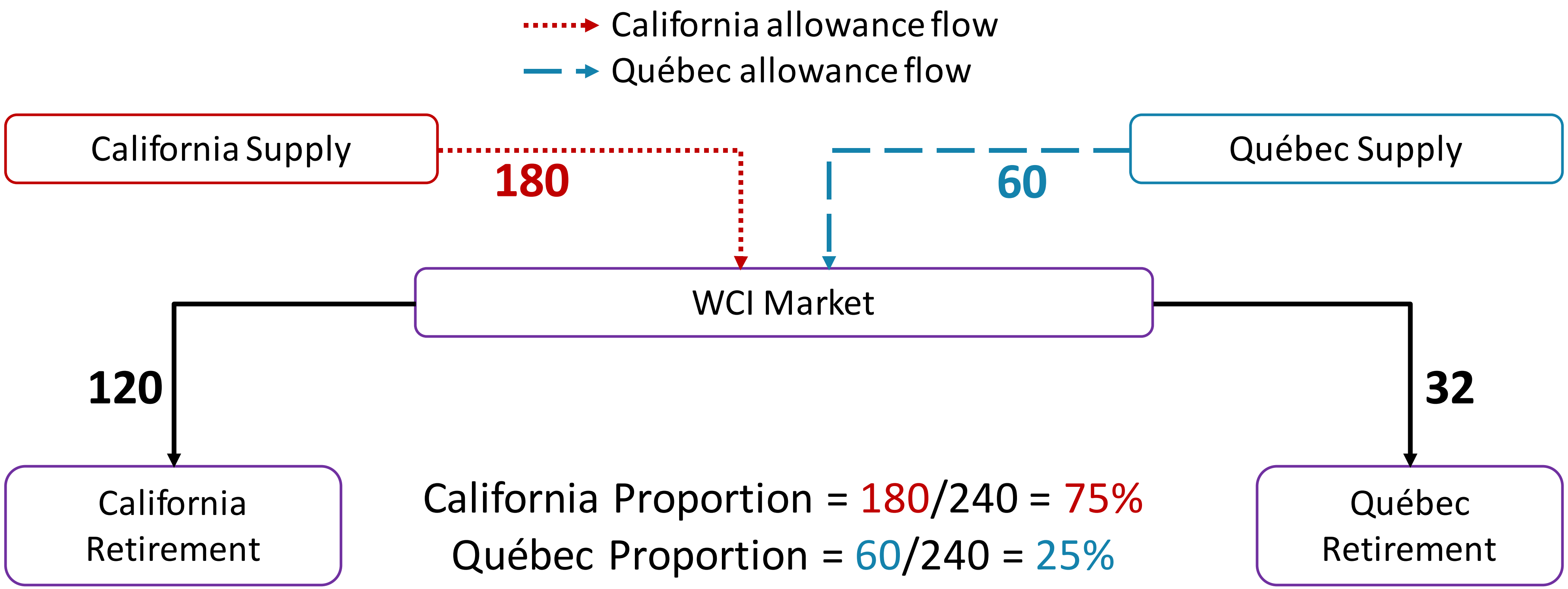
Determining the Origin of Retired Allowances – The Proportional Approach

- Defines the origin of allowances retired based on the proportion of allowances available from each jurisdiction in total market supply
- Total market supply is defined as the sum of allowances in circulation which are available for surrender to a jurisdiction
  - Allowances in entities' general, compliance, and allocation holding accounts
- Supply proportions are calculated separately for each vintage
- Supply proportions are calculated sequentially on each date of a retirement, starting with the first date of a retirement

Proportional Approach Diagram (1 of 4)



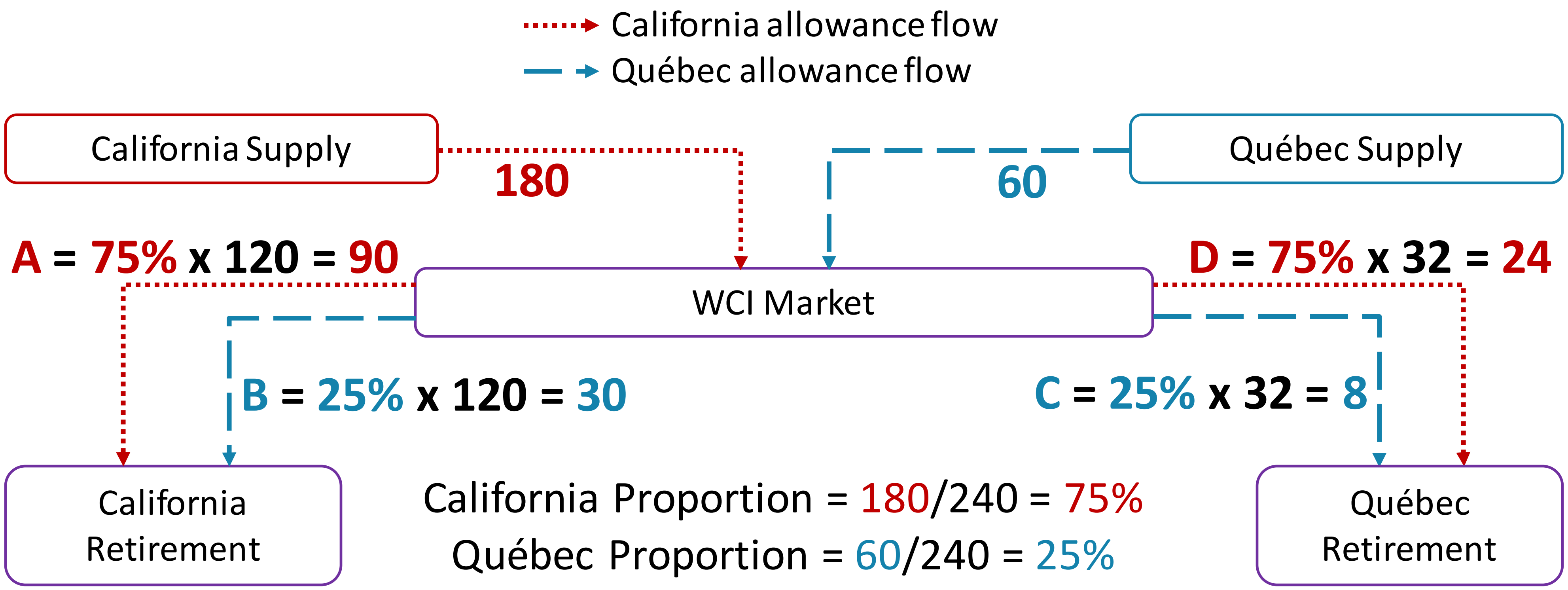
Proportional Approach Diagram (2 of 4)



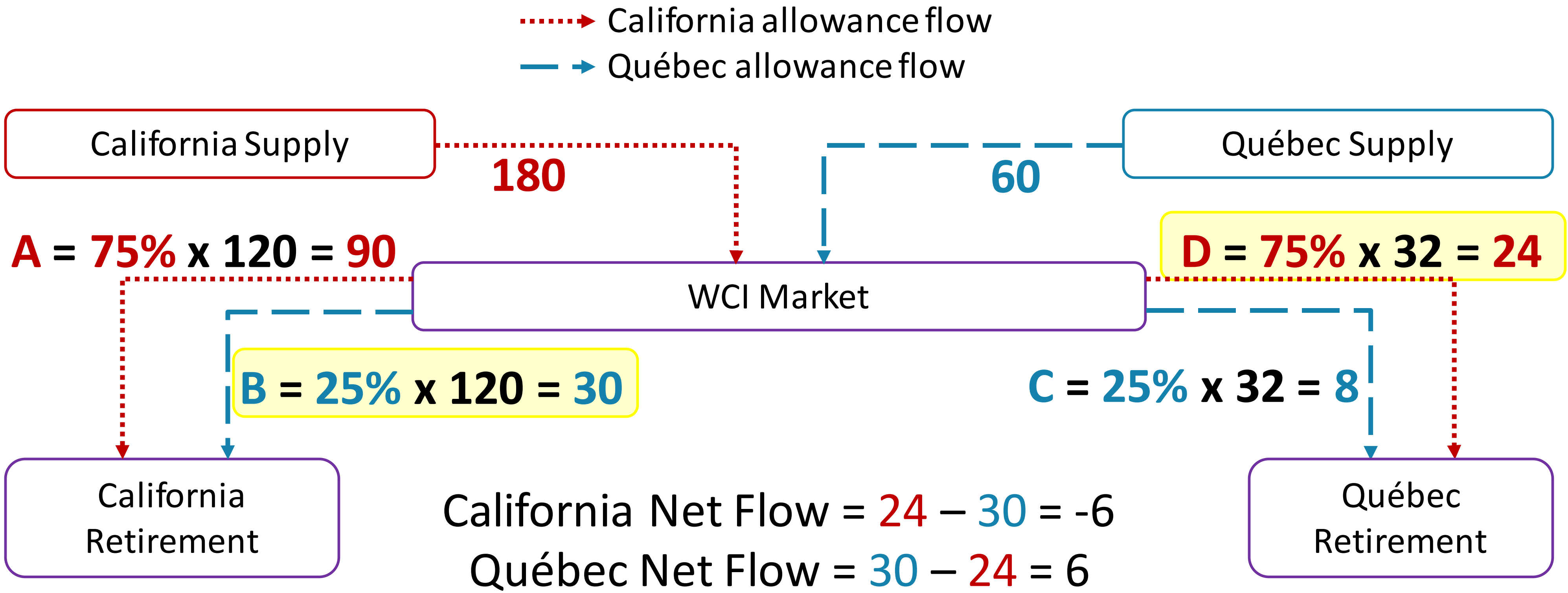
California Proportion = 180/240 = 75%

Québec Proportion = 60/240 = 25%

Proportional Approach Diagram (3 of 4)



Proportional Approach Diagram (4 of 4)



California Net Flow = 24 – 30 = -6

Québec Net Flow = 30 – 24 = 6

Net flow from Québec to California of 6 allowances

Determining the Origin of Retired Offset Credits

- Proportional approach is not used for offset credits
- Entities can identify the origin of offset credits and choose which credits to retire by offset credit project
- The accounting mechanism for net transfer flows of offset credits is based on the true origins of offset credits retired to a jurisdiction

Annualizing Net Flows

- A portion of compliance retirements occur annually pursuant to California's Cap-and-Trade Regulation, but most compliance instruments are retired at the end of multi-year compliance periods
- Thus, inter-jurisdictional net trade flows must be annualized (i.e., distributed to each year of a compliance period) to account for annual GHG emission reductions
- Distribution to each year is based proportionally on annual covered emissions

Accounting Mechanism Description and Example Using Public Data (1 of 2)

- The jurisdictions have published an accounting mechanism description and an example workbook
- These materials are available on the Cap-and-Trade Meetings & Workshops webpage:
  - https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops

Accounting Mechanism Description and Example Using Public Data (2 of 2)

- The example workbook uses publicly available market data to demonstrate the accounting mechanism
  - The example does not reflect administrative transfers, voluntary retirements, or return of allocation, which are confidential and represent a small portion of total market supply and retirements
  - The example does not incorporate adjustments related to Ontario's temporary linkage
  - Net flow results in the example do not represent actual net flow, but we expect the example results to be close to the official net flow results
- Official net flow will be calculated using actual transfers of instruments as recorded in the market tracking system

Accounting Mechanism Example Using Public Data – Net Flow (in millions)

Emission Year	California Annual Net Flow (Allowances)	Québec Annual Net Flow (Allowances)	California Annual Net Flow (Offsets)	Québec Annual Net Flow (Offsets)	California Annual Net Flow (Total)	Québec Annual Net Flow (Total)
2013	-1.2	1.2	0.2	-0.2	-1.1	1.1
2014	-2.2	2.2	0.1	-0.1	-2.1	2.1
2015	2.9	-2.9	1.8	-1.8	4.7	-4.7
2016	5.9	-5.9	1.8	-1.8	7.7	-7.7
2017	8.0	-8.0	1.9	-1.9	9.9	-9.9
2018	5.6	-5.6	4.5	-4.5	10.0	-10.0
2019	5.9	-5.9	4.6	-4.6	10.4	-10.4
2020	7.4	-7.4	4.1	-4.1	11.5	-11.5

These values do NOT represent the actual net flow between the jurisdictions.

Actual net flow will be calculated using confidential transfer data from CITSS.

Next Steps (1 of 2)

- The proportional approach will be used to calculate net flows of allowances between WCI linked jurisdictions going forward, as each one is responsible for its own supply of allowances in the market and the resulting net flows with other jurisdictions
- The partner jurisdictions have agreed to jointly produce a “Net Flow Calculation Report” after each full compliance period compliance event. This report will present annualized results of the net flows of compliance instruments that were retired during the compliance period to the partner jurisdictions

Next Steps (2 of 2)

- The jurisdictions will provide more information in the coming months regarding next steps in implementing the principles outlined in Article 8 of the Linkage Agreement

Thank You!

Webinar materials and more information may be found at:

- Québec:
  - https://www.environnement.gouv.qc.ca/changements/carbone/documentation-en.htm
- California:
  - https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/cap-and-trade-meetings-workshops