

WCI Market Observations

Independent Emissions Market Advisory
Committee Public Meeting
June 14, 2019



CalEPA
California Environmental
Protection Agency



ClearBlue
Markets



About ClearBlue

Capabilities and Presence

Carbon Programs

- WCI
- Federal Backstop
- Ontario
- Alberta

Fuel Standards

- LCFS (California)
- CFS (Canada)
- LCFRR (British Columbia)

Energy Programs

- RECs

Others

- Colombia, Mexico, China



Headquarters in Toronto
European office in Amsterdam
Presence in New York and London

Carbon Programs

- EU-ETS
- UNFCCC / Kyoto /JI
- China
- UERs
- Voluntary offsets (VCS/ACR/GS)

Energy Programs

- C2E
- White certificates

Fuel Standards

- FQD /ERUs



Best Advisory / Consultancy North American Carbon Markets

**Compliance Strategy / Trading and Optimization / Offset Development, Sourcing,
Marketing / Risk Management /Market Analysis**



WCI Market Observations

Outline

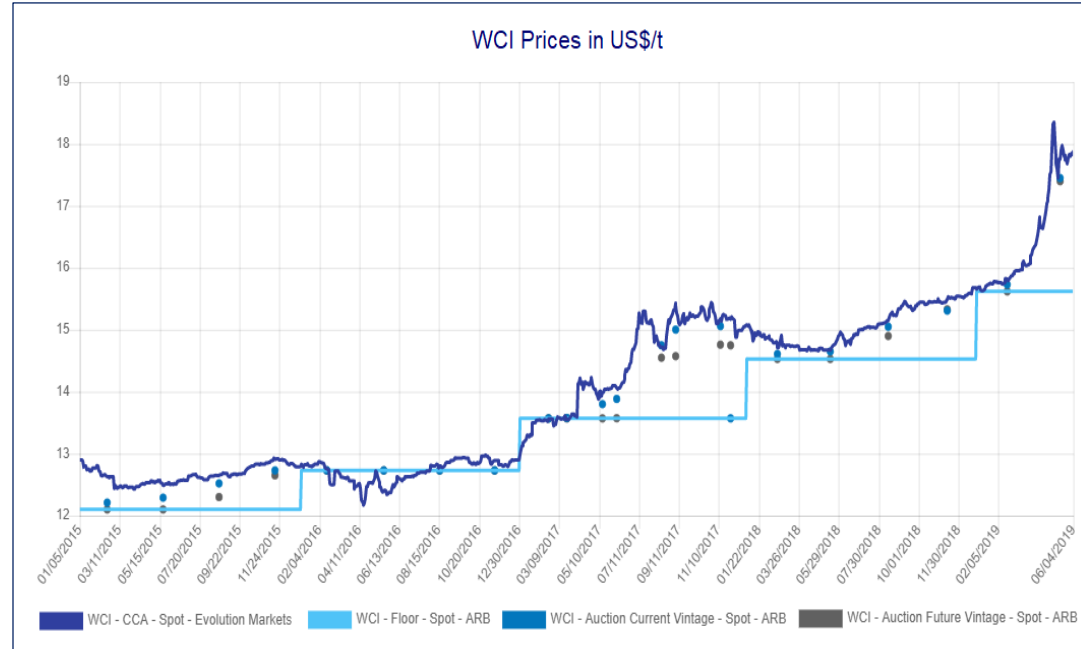
- Latest Prices / Volumes / Open Interest
- Latest Fundamentals
- Supply & Demand
- Behaviour
- Price Forecast



Allowance Prices

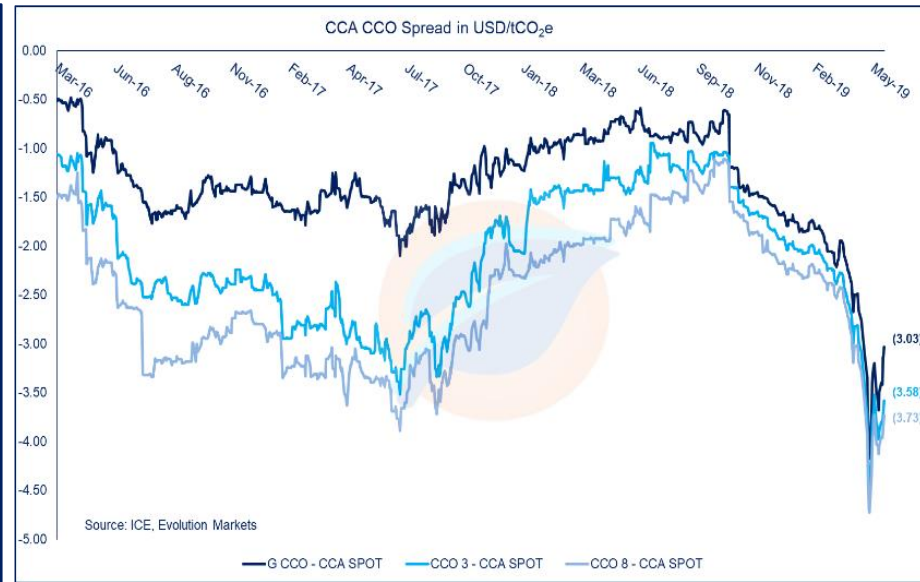
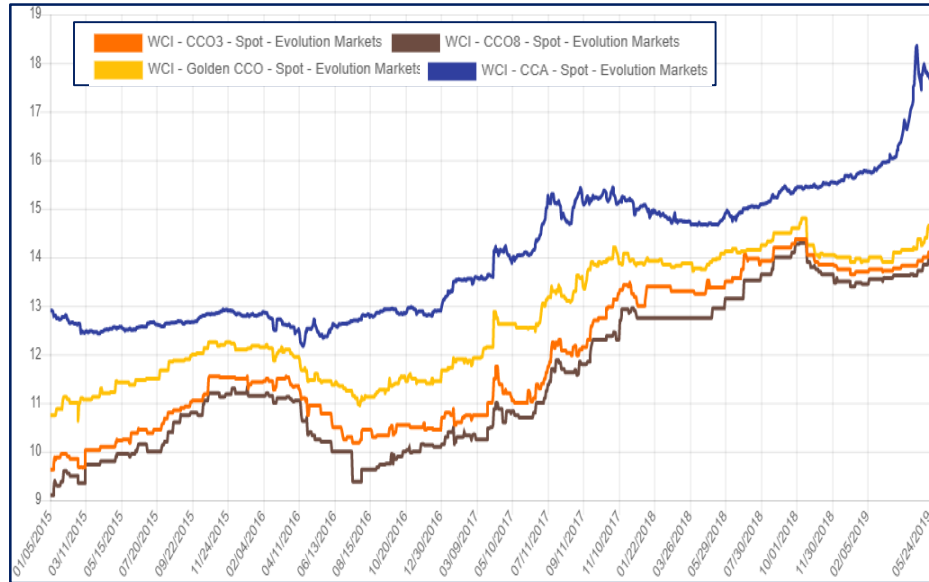
Bull Run

- Since the beginning of the year, CCA Front-month prices increased from US\$15.66 to US\$17.82 (+US\$2.16).
- The May current vintage auction cleared at \$17.45 versus \$15.73 in February.
- The monthly futures volumes on ICE in May was a record 110Mt.
- The Open Interest is at new highs and increased from 102Mt at the start of the year to 200Mt





Offset Pricing Lagging behind CCAs

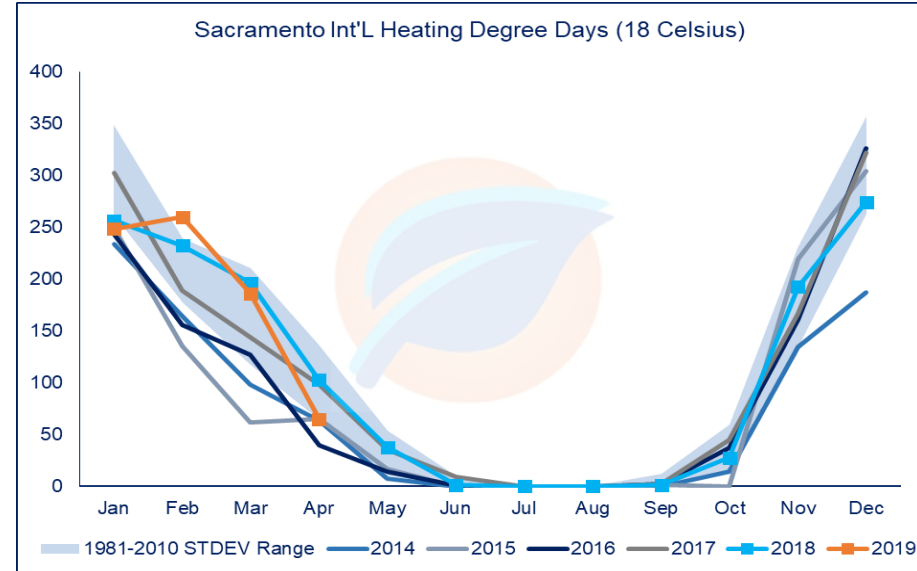
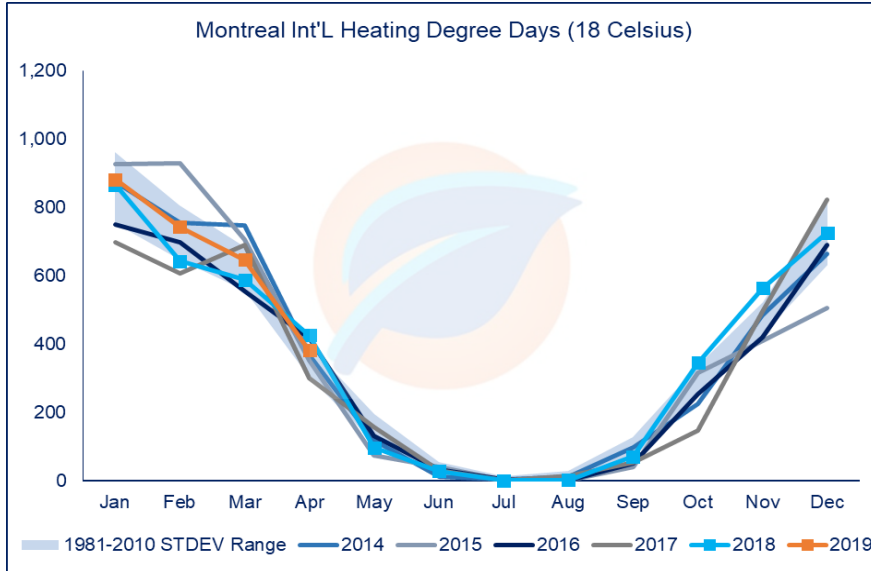


While CCA prices increased aggressively in the past 3 months, offsets prices stayed almost unchanged.



Market Factors

Temperatures



Source: Environment and Climate Change Canada, NOAA

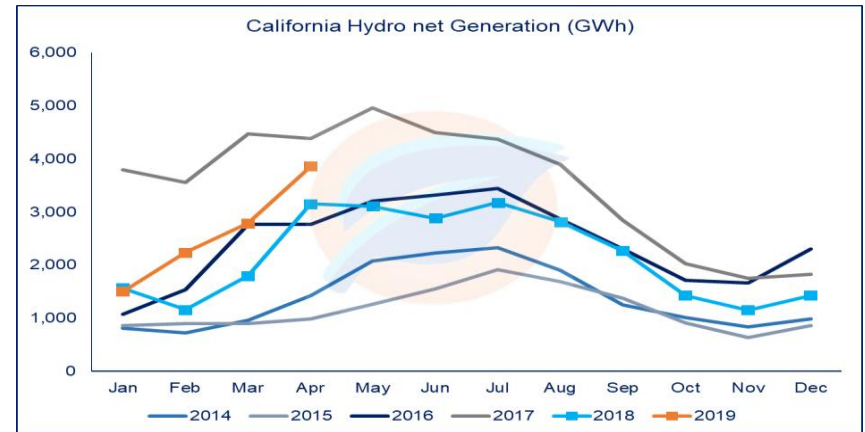
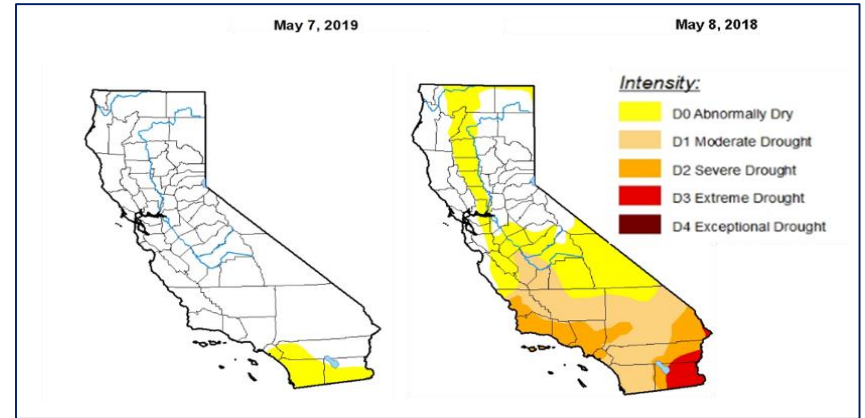
- Quebec was colder than last year in Jan-Mar 2019. Temperature was back to the normal range in April.
- California experienced a cold February and March, but a very mild April.



Market Factors

California Hydro

- Since January 2019, there has been an alleviation of the drought situation in California due to recent rainstorms, and more wet storms are predicted.
- The Snow Water Equivalent of Sierra Nevada snow pack is currently 162% of average to date, which is almost triple the number at the same time last year, meaning that the hydro electricity production could stay high well into the summer.

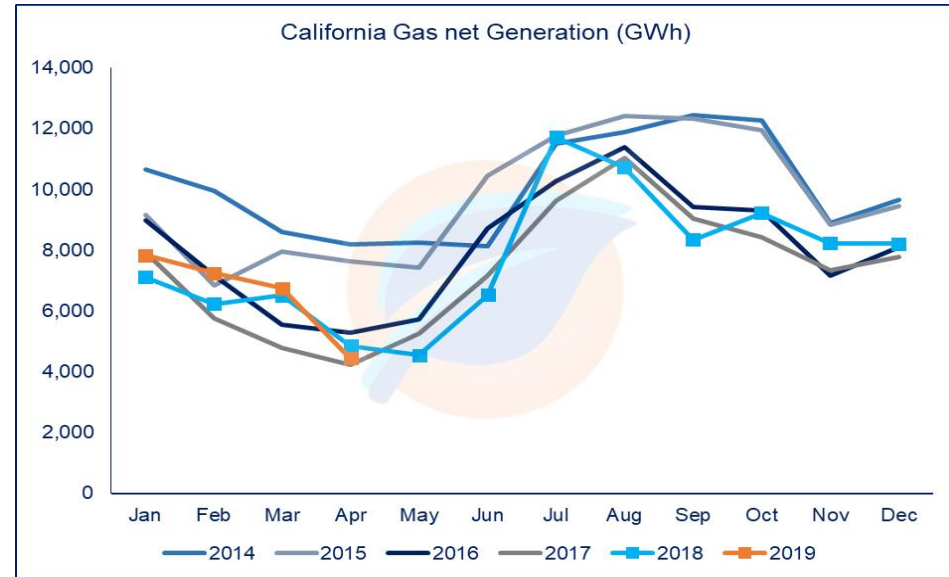




Market Factors

California Electricity

- Due to the colder winter months, California 2019 gas-fired power generation started off higher than in 2018.
- The Hydro situation has however reduced the demand for natural gas in April and this is expected to continue well into the summer.
- The CA Power sector emitted 51.3Mt in 2017 (including imports) and is expected to have witnessed a first YoY increase in 2018.
- 2019 Emissions are expected to decrease due to the Hydro situation. **We have decreased our 2019 forecast for the power sector by 1.5Mt versus 2018.**

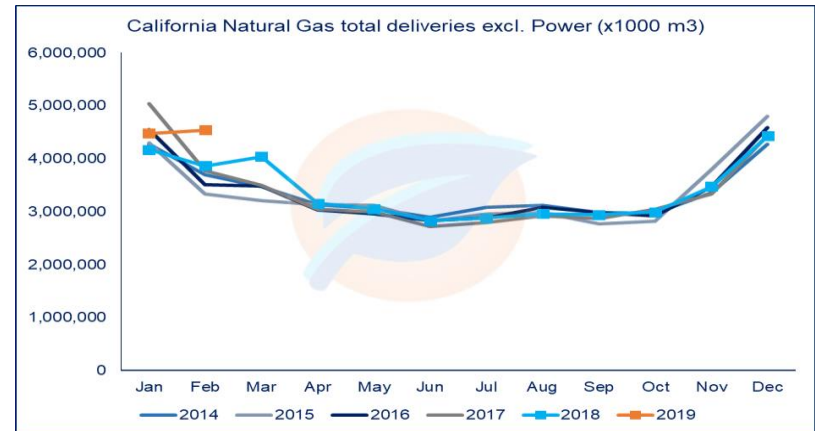
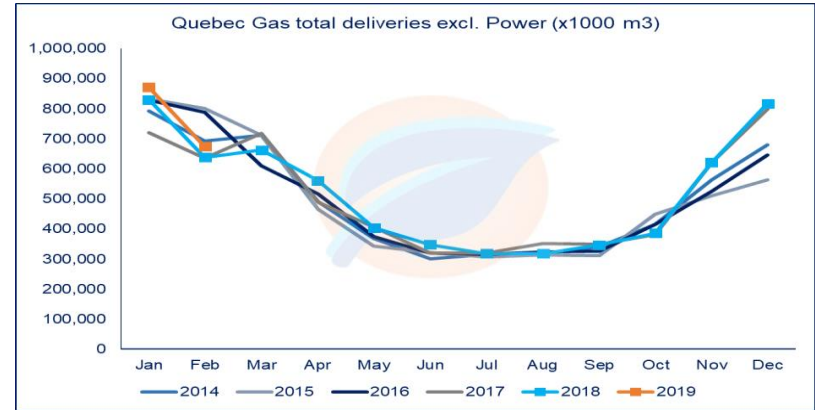




Market Factors

Natural Gas Distribution

- In Quebec, the colder winter months drove up the natural gas demand compared to 2018.
- In California, the natural gas demand was significantly higher than the historical average in February 2019 due to historically low temperatures.
- **We have increased the forecast for the 2019 Natural Gas sector by 1.3Mt versus 2018** due to the cold winter.

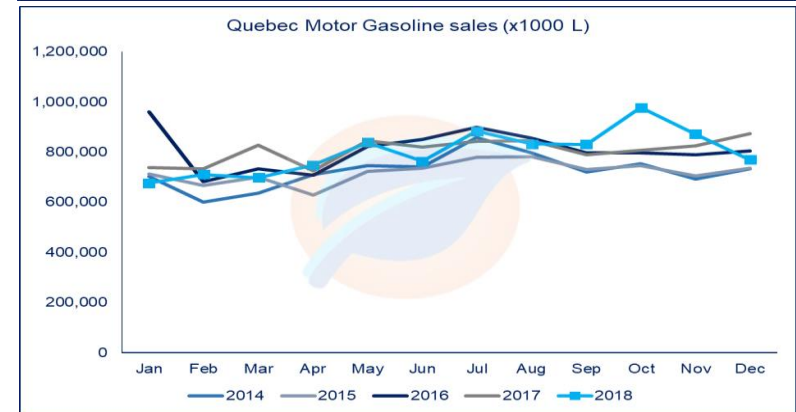
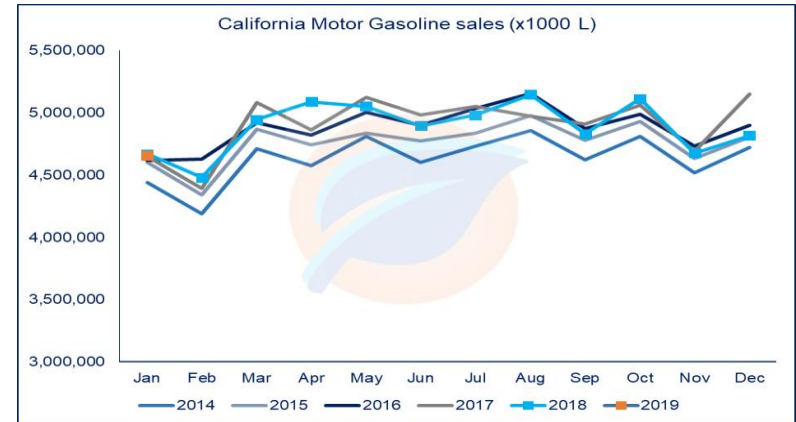




Market Factors

Fuel Distribution

- California Gasoline sales are expected to be down by 0.4% in 2018, the first time since we started tracking data
 - Is the LCFS and EV adoption starting to have an impact?
- The trend is similar in Quebec, where despite the spike in October, sales are expected to be down by 0.78% YoY.
- We have decreased our forecast for the Fuel sector by 0.6Mt versus 2018**

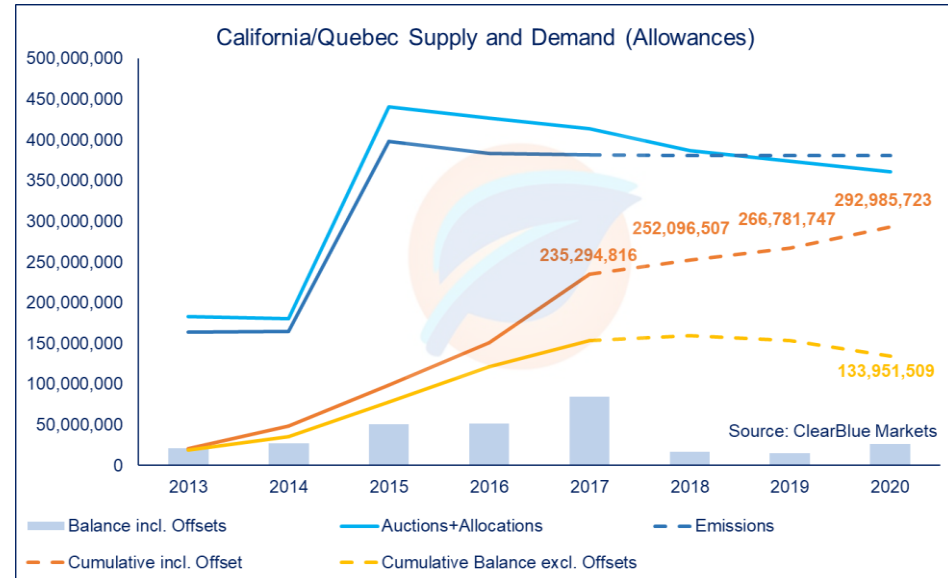




Simplified Projected Supply & Demand

A long market in appearance

- 2019 emissions are expected to be 380.4Mt versus 380.9 in 2018.
- Comparing supply of allowances (Budget-Reserved allowances) to emissions shows a yearly surplus of allowances.
- Most of the surplus was built during the compliance period 2 (2015-2017) because the **electricity sector in California reduced emissions faster than anticipated**.
- The WCI market is projected to be long by 293Mt by end of 2020 (Assuming 159Mt or 6% offset usage from 2013 to 2020).
- Projected unused allowances does not consider the unsold allowances reserve and other behavioral effects.**

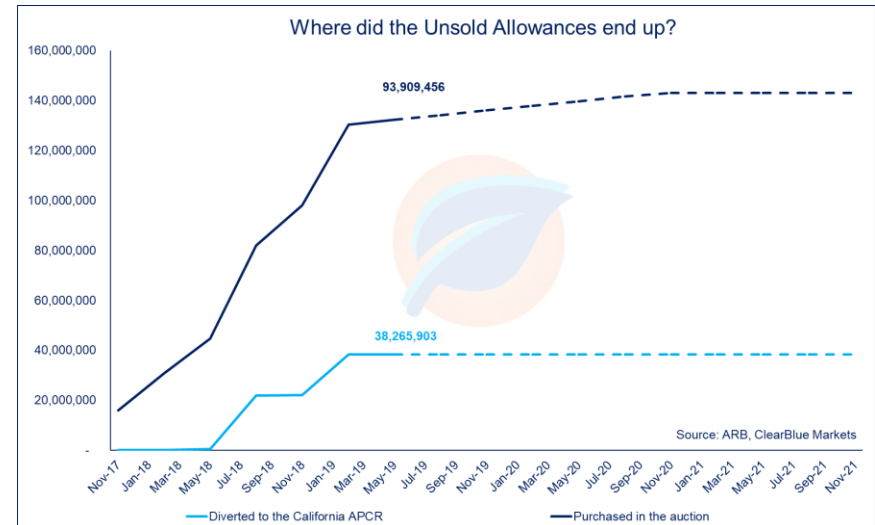
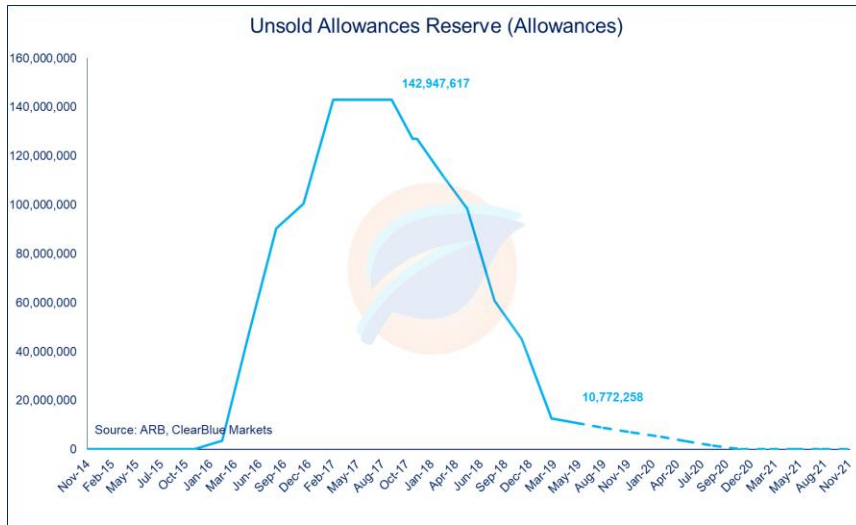




Program Design - Unsold Allowances

Some unsold allowances diverted to the APCR

- May-19 auction was the 9th auction in a row that fully sold out. Feb-19 was the last auction to see previously unsold California allowances. These allowances have now been either transferred to the APCR (38.3M) or absorbed by the market (93.9M).
- The remaining cumulative unsold allowances is only 10.8M from Quebec that do not have the 24-months rule.

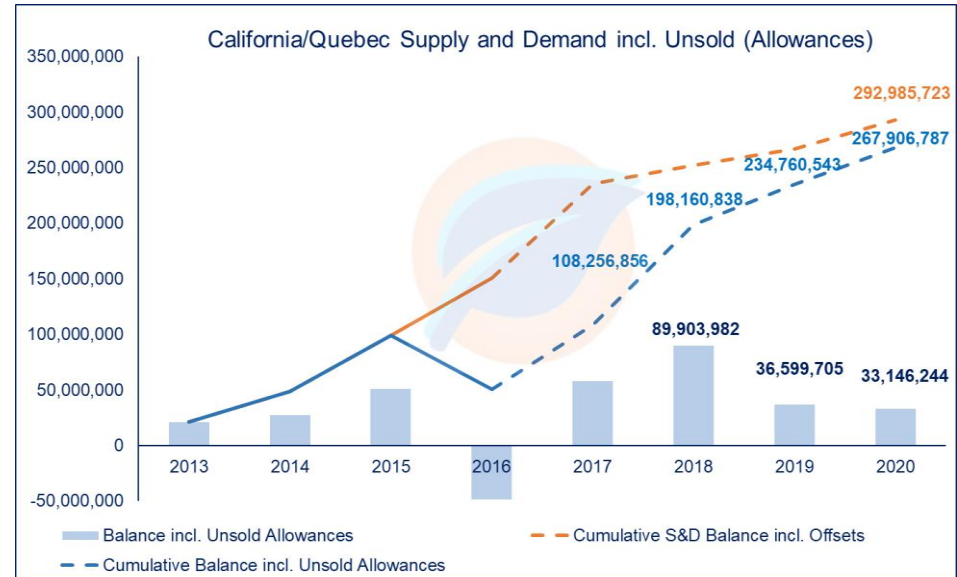




Adjusted Projected Supply & Demand

A more representative balance

- The unsold allowances transferred to the APCR have tightened the market.
- 2018 was the most oversupplied year, based on our analysis.
- 2019 and 2020 are projected to increase quantity of unused allowances.
- The total unused allowances in the market is projected to be 267.9M allowances by the end of 2020 compared to expected yearly emissions of ~380M.

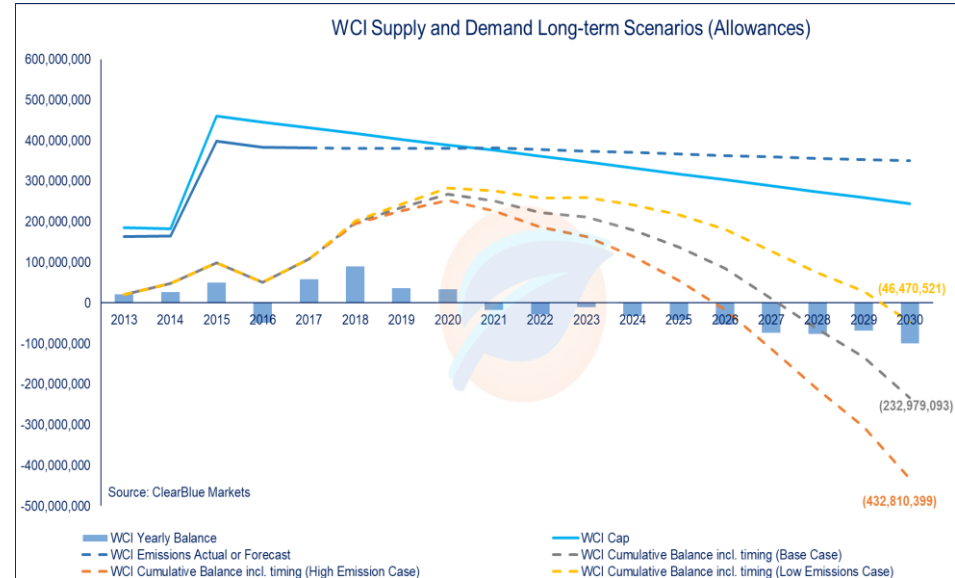




Looking beyond 2020

Uncertainty in long-term projections

- The oversupply in the market is projected to peak in 2020 between 250-280M. In all scenarios, the market is expected to see a yearly deficit starting in 2021 due to offset restrictions in California and the faster decrease of the cap.
- The bank of unused allowances will be drawn by mid-2020, assuming market participants decide to use these allowances.
 - A Cap & Trade market can only be long and physically the market might become short earlier. A short market means prices need to respond to incentivize emission reductions.
 - Industrials tend to monetize unused allowances as banking them is seen as speculation (going long) in some cases.
- We expect prices to continue increasing and decorrelate from the floor price in the coming months, in anticipation of a shorter market



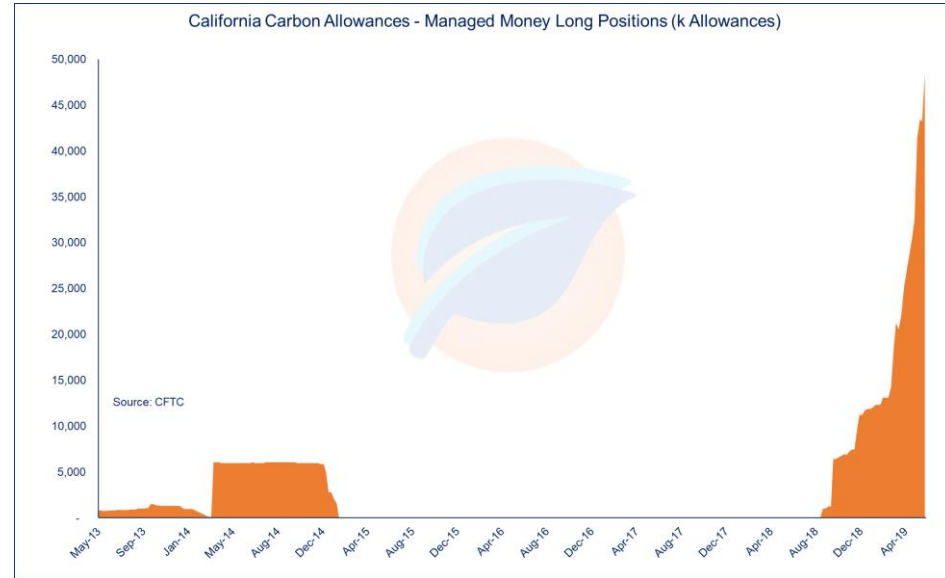
Base case scenario projection assumes normal economic activity, 2030 LCFS/RPS targets in California are met and no new jurisdiction join the system. High Emission case assumes a yearly increase of 1% and Low Emission a decrease of 1%.



Market Sentiment

New participants entering the market

- New market participants have joined the market and are increasing their long position. This shows that the market is maturing.
- According to latest CFTC data, the “Managed Money” category is long by 48.5M (44.1 CV + 4.4 FV) allowances and this is increasing the demand
- Since the February auction, they have purchased on average 2.5M allowances per week
- Natural players have been the main sellers as they monetize extra free allowances.
- Is this just the start of increasing financial activity?



CFTC data differentiates 4 main participants and publishes a summary of long and short positions on a weekly basis. “Producers/Merchants” are what we would call natural participants as they are required to buy or sell allowances for compliance. “Swap position”, “Managed Money” and “Other sectors” are more financial.



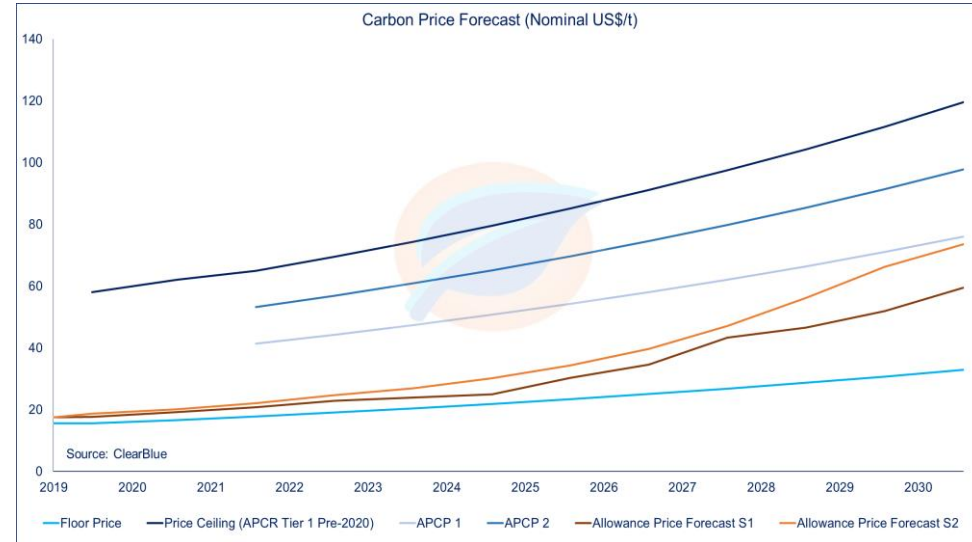
Price Forecast

New participants increasing our forecast

- 2 Price Scenarios
 - Financial players do not increase their long position
 - Financial players continue to increase their long position from 48.5M long to 115M in the coming year

- Financial participant activity will be key to monitor and is expected to increase prices, which will improve the price signal for emitters.

- We have increased our price forecast from \$18.50 to \$20.20 by the end of 2020 compared to an expected price floor of \$16.71 in 2020 and \$17.88 in 2021.



	May-19	Dec-19	Dec-20	Dec-21	Dec-25	Dec-30
Previous WCI Price Forecast (US\$/t)	16.00	17.00	18.50	20.00	29.13	57.22
WCI Price Forecast (US\$/t) - S1	17.50	17.69	19.25	20.81	30.32	59.55
WCI Price Forecast (US\$/t) - S2	17.50	18.68	20.19	22.15	34.33	73.63



Questions

Thank you

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