



# CFTC Energy & Environmental Markets

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# Intercontinental Exchange (NYSE: ICE)

builds, operates and transforms global markets through information, technology and expertise





# Macro energy trends

## Decarbonization

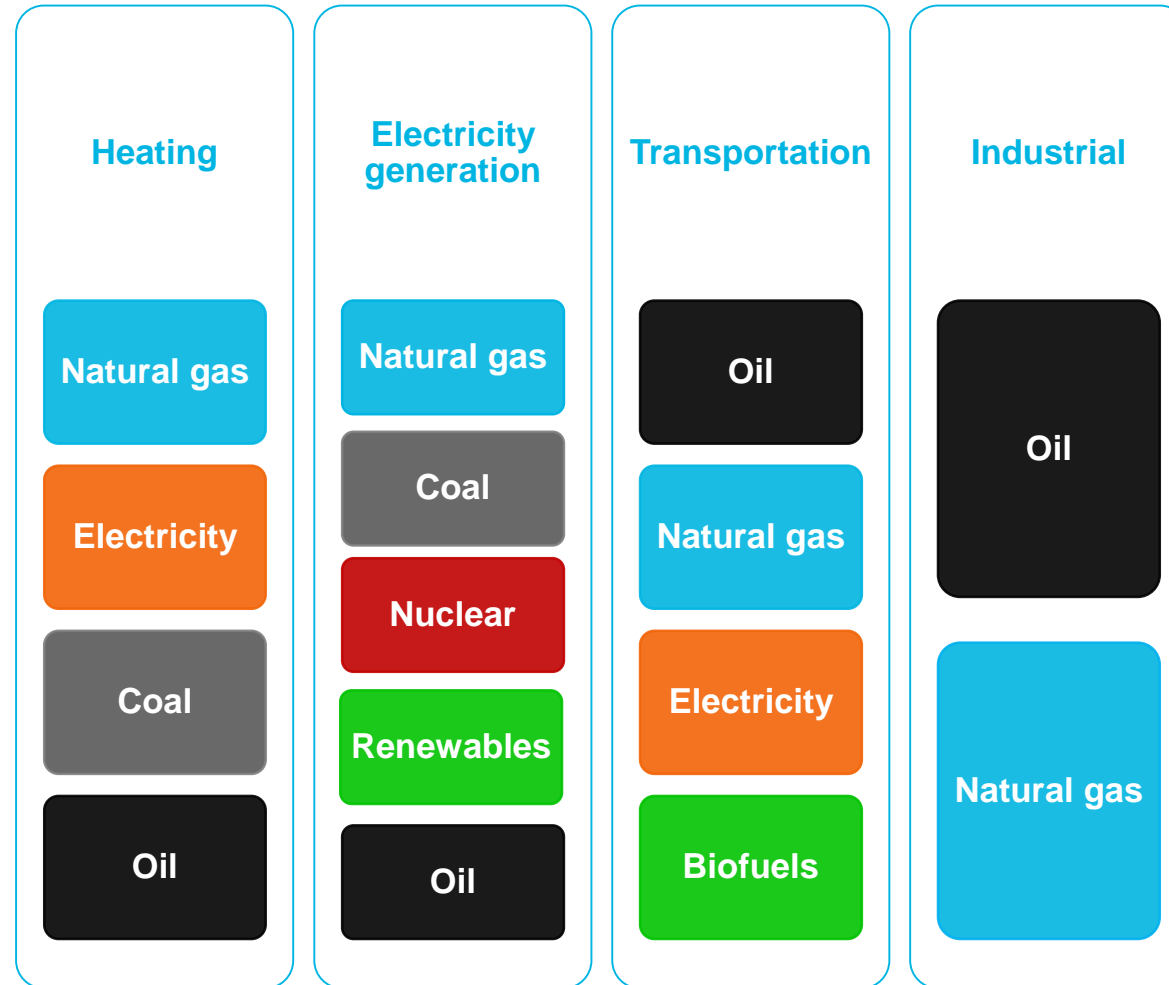
Renewable energy markets

Cap and trade - North America & Europe

Coal Phase out

Biofuels and electrification of transportation

# What is energy?



# ICE global environmental complex

## ■ European Union Emissions Trading Scheme (EUETS)

EUA Futures

EUA Phase 3 Daily  
Futures

EUA Futures Options

EUA Futures Options  
FSM

EUA UK Auction Daily  
Futures

EUAA Futures

CER Futures

## ■ Western Climate Initiative (WCI)

California Carbon Allowance Futures

## ■ Regional Greenhouse Gas Initiative (RGGI)

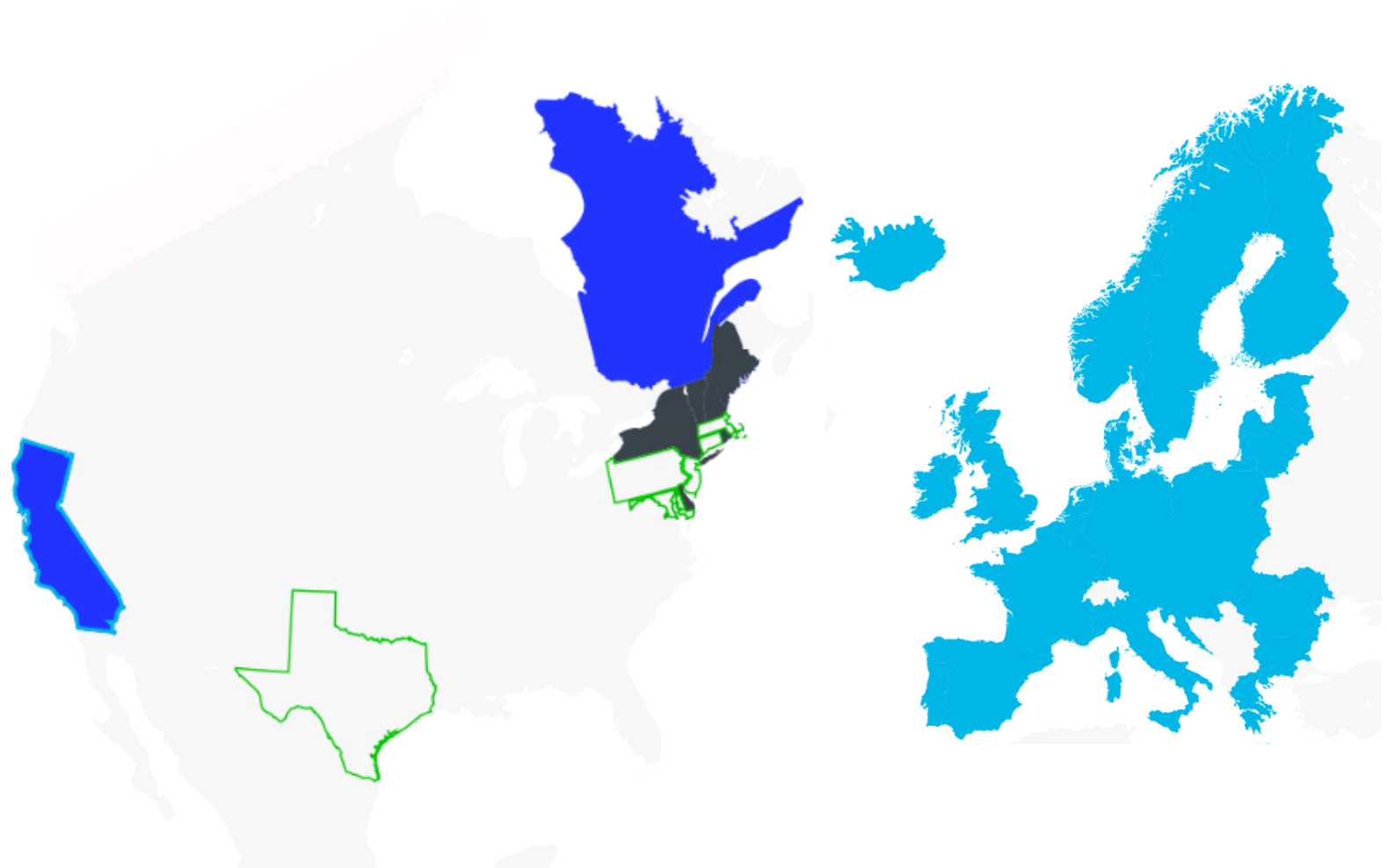
RGGI (Regional Greenhouse Gas Initiative Futures)

## □ Renewable Energy Certificate (RECs)

Renewable Energy Certificate Futures

## □ Low Carbon Fuel Standard (LCFS)

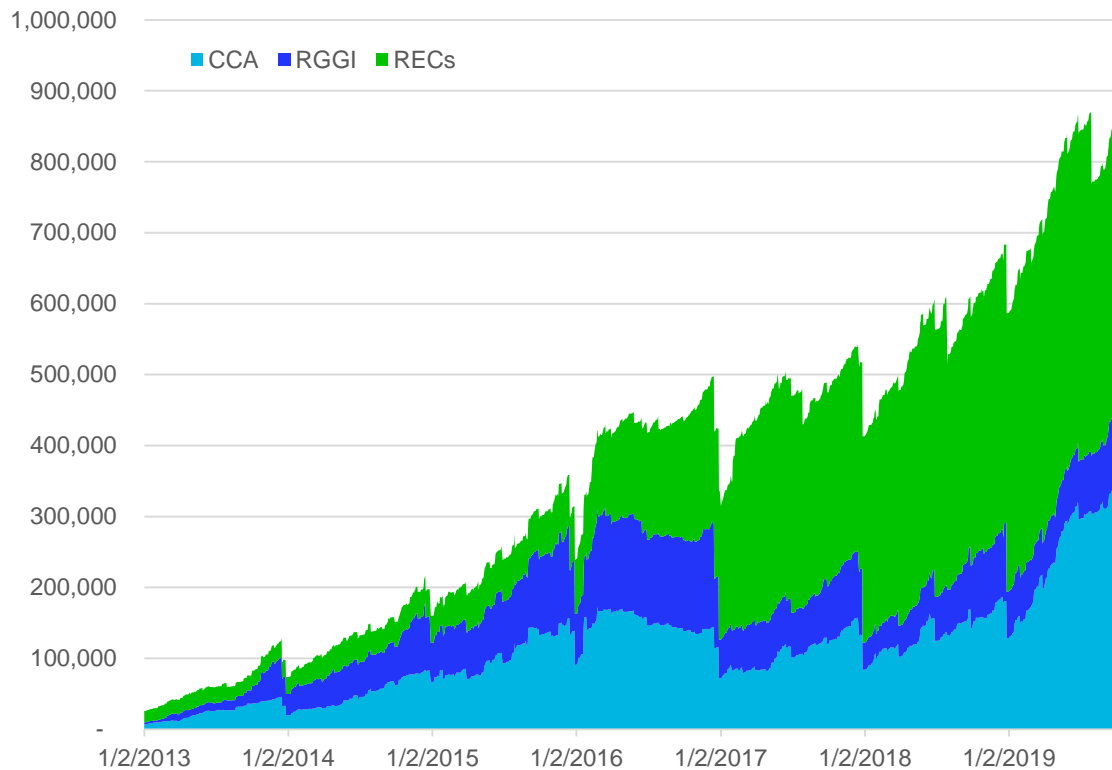
Low Carbon Fuel Standard



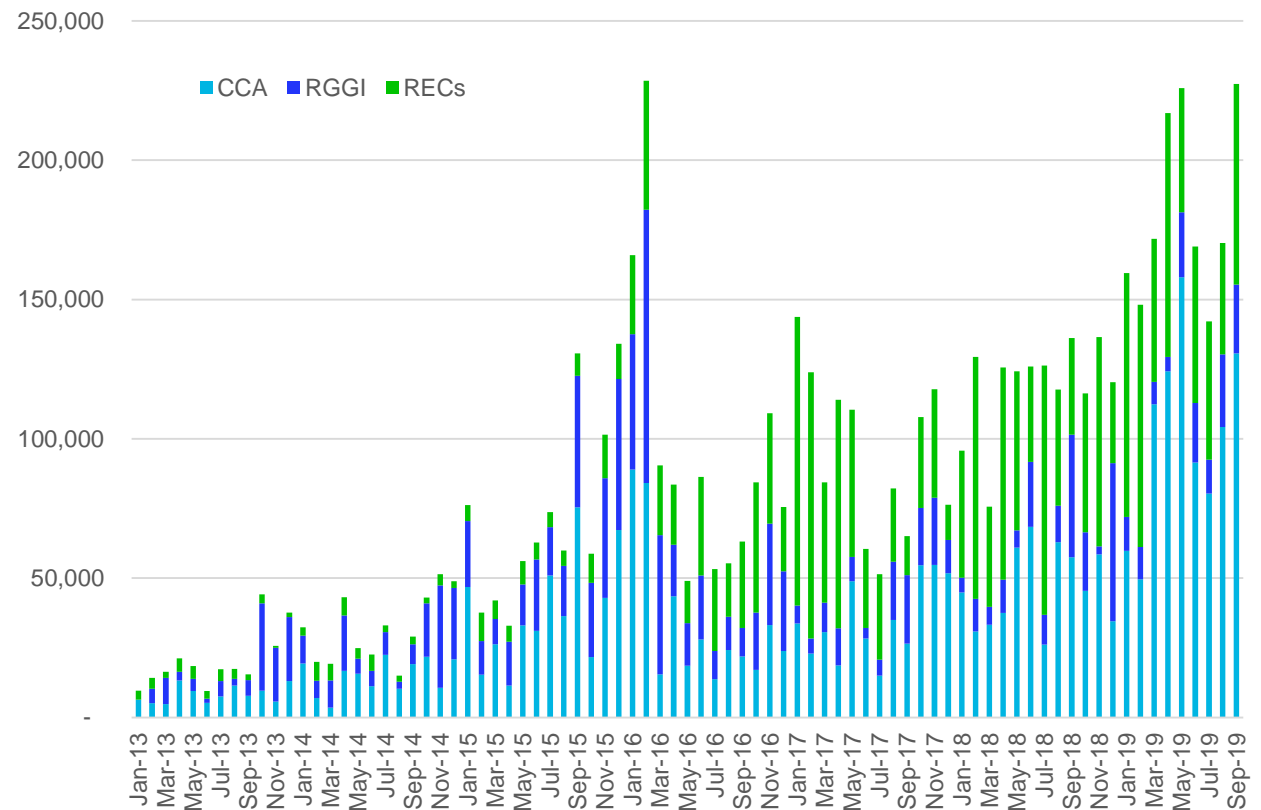
# North American environmental markets

Open interest, volume climbs as participants increase their hedging

## Open Interest



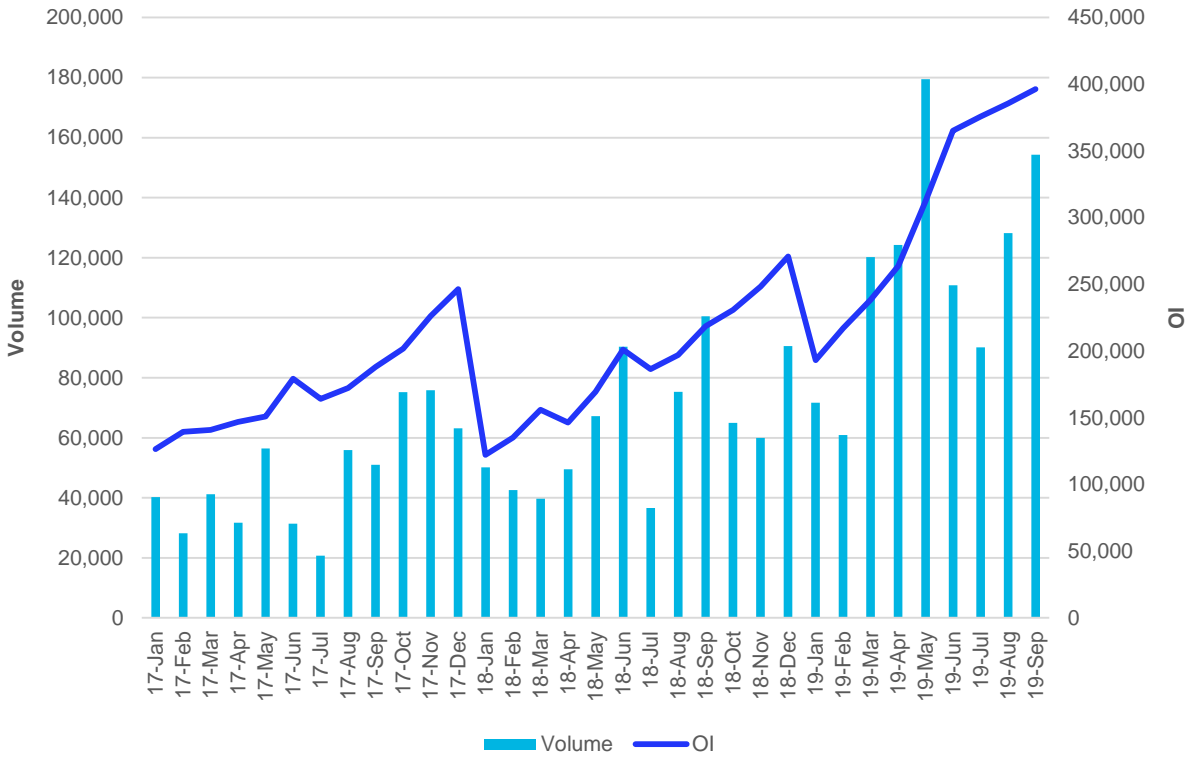
## Monthly Volume



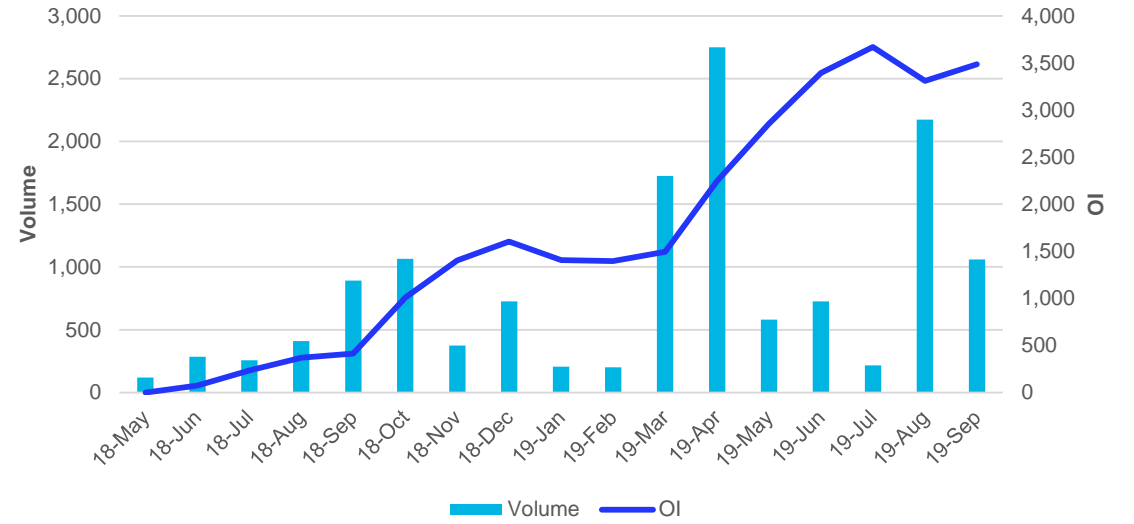
# North American environmental markets

## Open interest, volume by product group

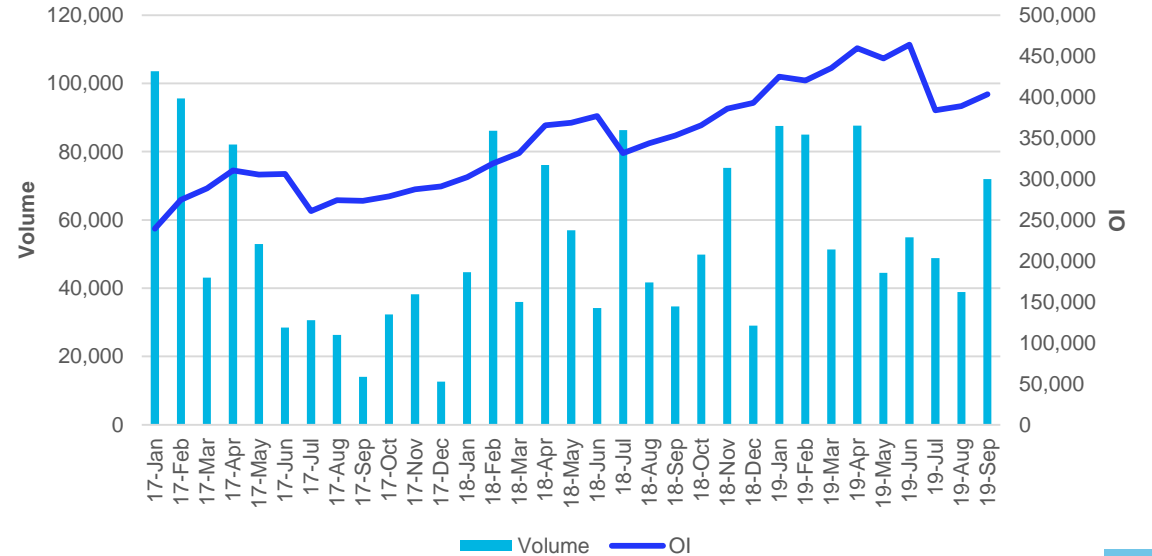
### Carbon Volume and Open Interest



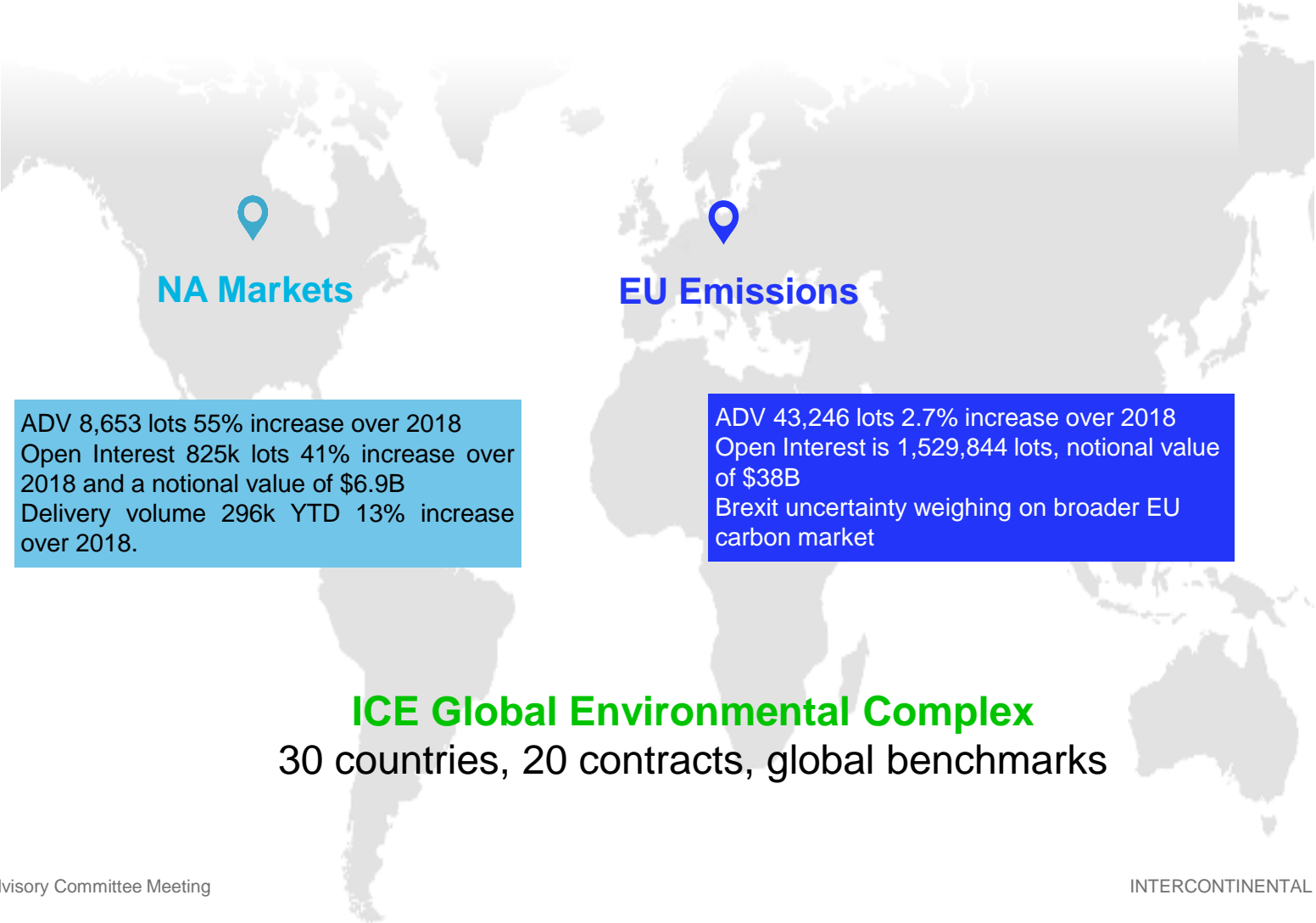
### LCFS Volume and Open Interest



### REC Volume and Open Interest



# Global market share



**ICE Global Environmental Complex**  
30 countries, 20 contracts, global benchmarks



# Opportunities

## Next steps for environmental markets

- Transportation Climate Initiative (TCI)
  - Northeastern 'Cap and Invest' tailpipe emissions markets
- Program Linkages
  - RGGI (North Carolina, New Jersey, Pennsylvania)
  - CCA (Colorado, Nevada, New Mexico, Oregon, Washington, Mexico)
- CORSIA
  - Carbon emissions from aviation industry
- Article 6