



ICE NGX

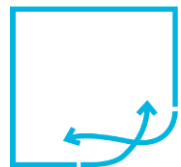
Clearinghouse Overview



Transforming global markets

Intercontinental Exchange (NYSE: ICE)
builds, operates and transforms global
markets through information,
technology and expertise

We connect global participants to an ecosystem covering data, trading, clearing and capital raising



Markets

FUTURE EXCHANGES



SECURITIES EXCHANGES



OTC MARKETS



LISTINGS



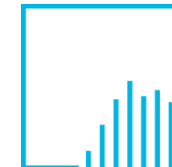
Clearing

CENTRAL CLEARING HOUSES



LOCALLY REGULATED CLEARING HOUSES IN:

US
UK
EUROPE
CANADA
SINGAPORE



Data

PRICING & ANALITICS



DESKTOPS & CONNECTIVITY



EXCHANGE DATA




 Agriculture

 Connectivity

 Desktops

 Energy

 Fixed Income &
futures Reference Data

 ICE Chat

 Interest Rates

 Analytics

 Corporate listings

 Digital currencies

 Equities / Index / Options

 FX

 ICE Mobile

 Precious Metals

 Bonds

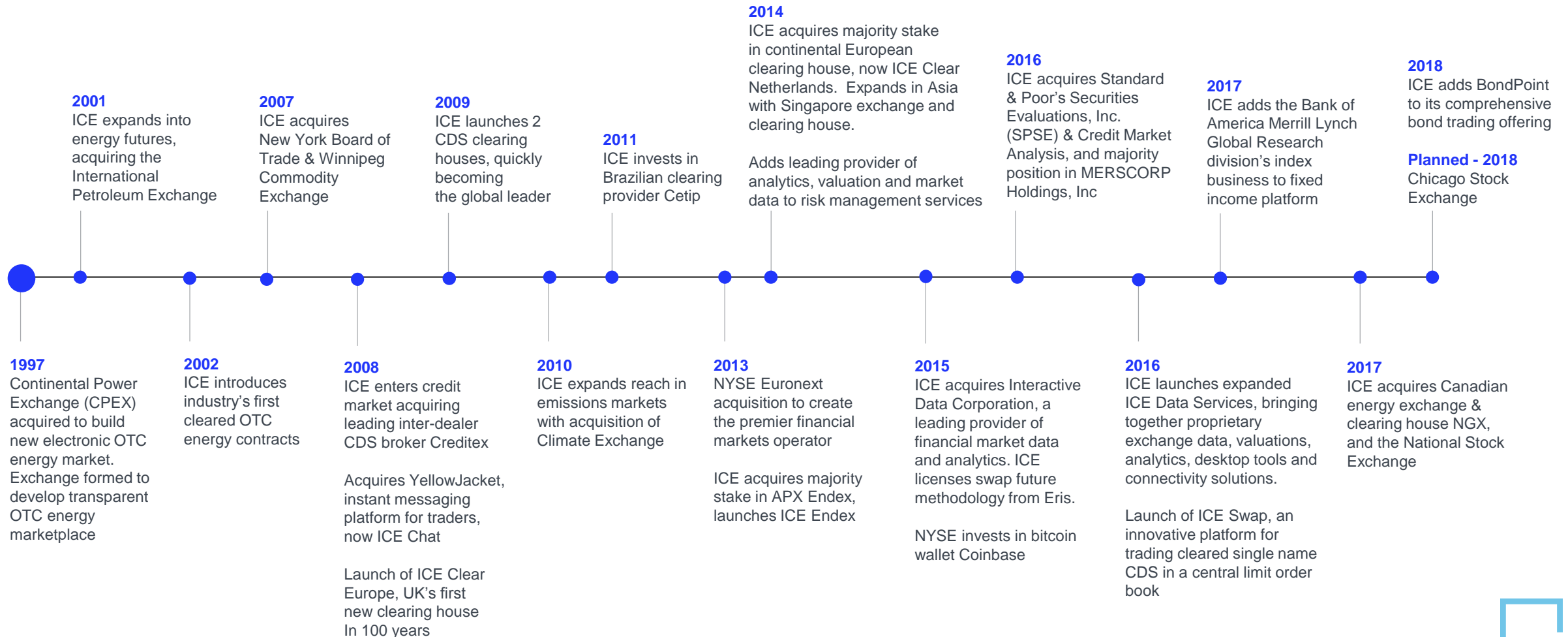
 Credit Derivatives

 End-of-Day & Real-Time pricing

 Exchange Traded products

 Indices

We began with transforming energy markets and expanded through innovation into new asset classes



The background features a series of thin, parallel blue lines that curve and flow from the top right towards the bottom right, creating a sense of motion and depth. The lines are more densely packed in some areas, creating a gradient of blue intensity.

ICE NGX - Introduction

Introduction to ICE NGX

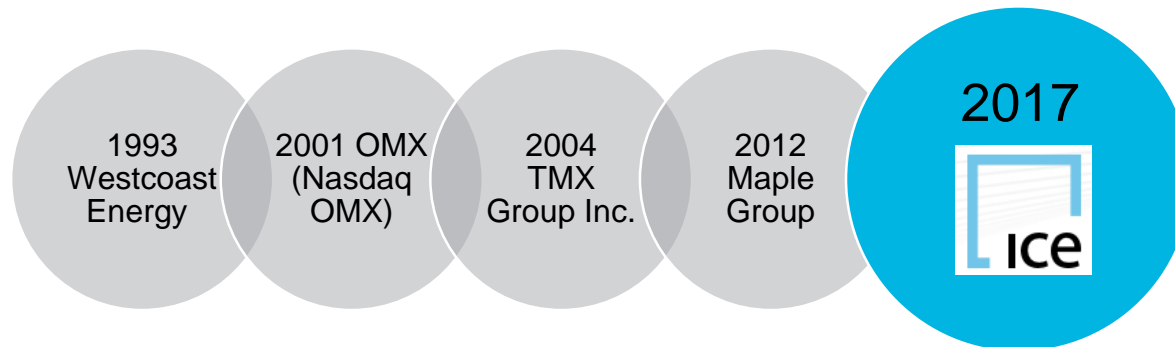
Leading physical energy exchange and clearinghouse - Natural Gas, Power and Crude Oil

Est. 1993 - Headquartered in Calgary, Alberta, office in Houston, Texas.

Physical Delivery - End-to-end delivery with physical backstopping.

Wholly owned indirect subsidiary of Intercontinental Exchange, Inc.

ICE Alliance – All major ICE NGX markets available on ICE's global platform



Introduction to ICE NGX

Markets

- 80-90% market share of Canadian physical spot gas and financial power
- ICE NGX's physical natural gas and power indices are the Canadian benchmarks
- ICE NGX markets also include Canadian crude oil and U.S. physical power
- U.S. Natural Gas – ICE NGX is exclusive clearinghouse for ICE's OTC natural gas markets. Market share varies by hub - average of 10% cleared.
- ICE NGX's trading primarily transacted on ICE trading platform with some OTC and auction volumes

Clearing House

- Clear physical and financial energy products across North America
- No clearinghouse defaults since inception in 1994
- Managed through major failures including Lehman and Enron
- \$2-\$4Bn in collateral holdings with 80% LCs and remainder cash
- Unique direct clearing model - no clearing members (non-mutualized)
- ICE NGX manages complete physical delivery process

Overview of risk – ICE NGX Clearing Operations

ICE NGX Clearinghouse Role

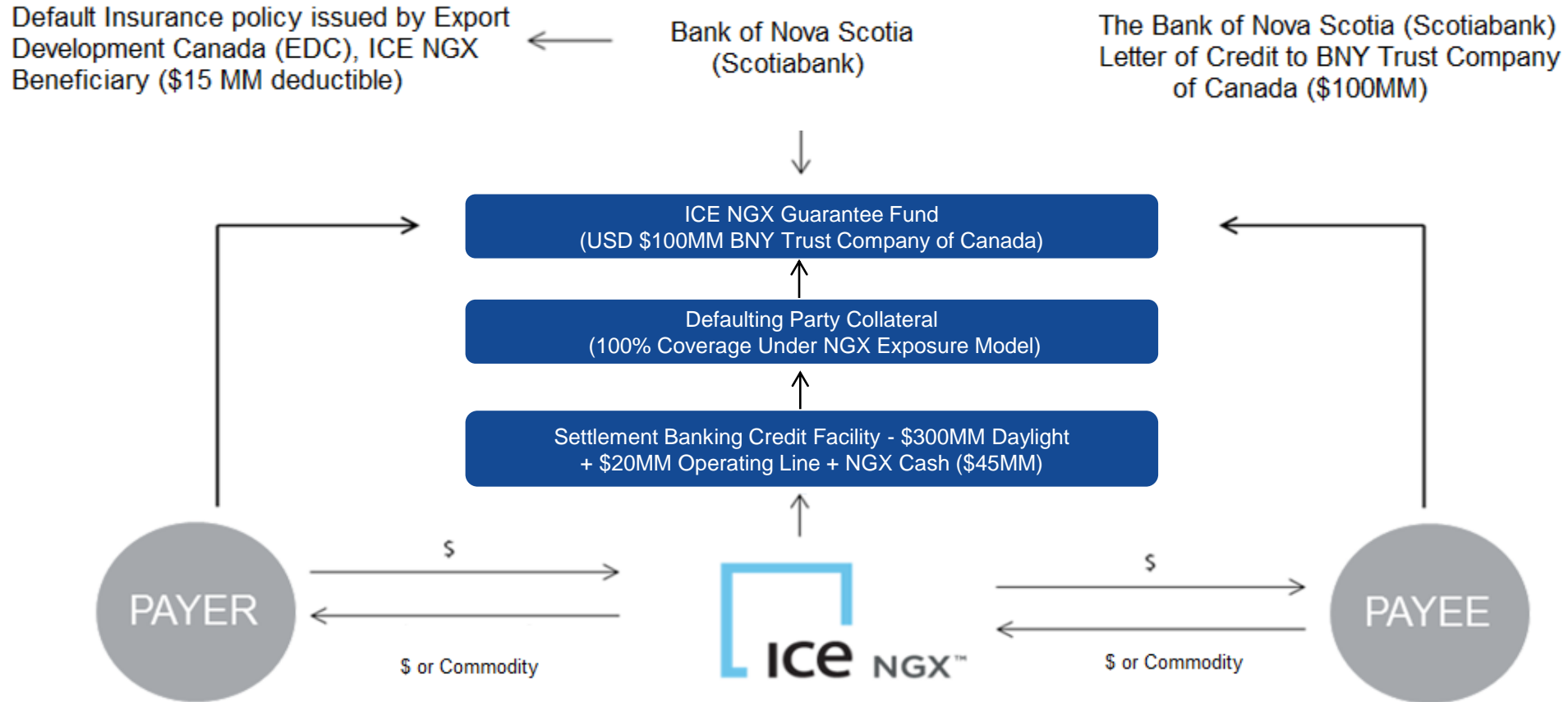
- Buyer to every seller and vice versa on a fully collateralized basis
- Fully anonymous trading
- Complete physical delivery (firm delivery in key markets)



Private Clearing Operation

- No mutualized or legal relationship amongst counterparties
- All collateral segregated and for owner usage only
- Do not require access through clearing member

ICE NGX Clearing Backstop Model



Contracting Party (CP) Performance Obligations

Make/Take Delivery

- ICE NGX is exposed to the price at which an alternative supply/market can be found
- Risk is managed with backstopping contracts, penalty mechanisms, collateral requirements and credit policy

Make Payment

- ICE NGX is exposed to receivables risk on settlement dates
- Risk is managed with penalty mechanisms, collateral requirements and credit policy

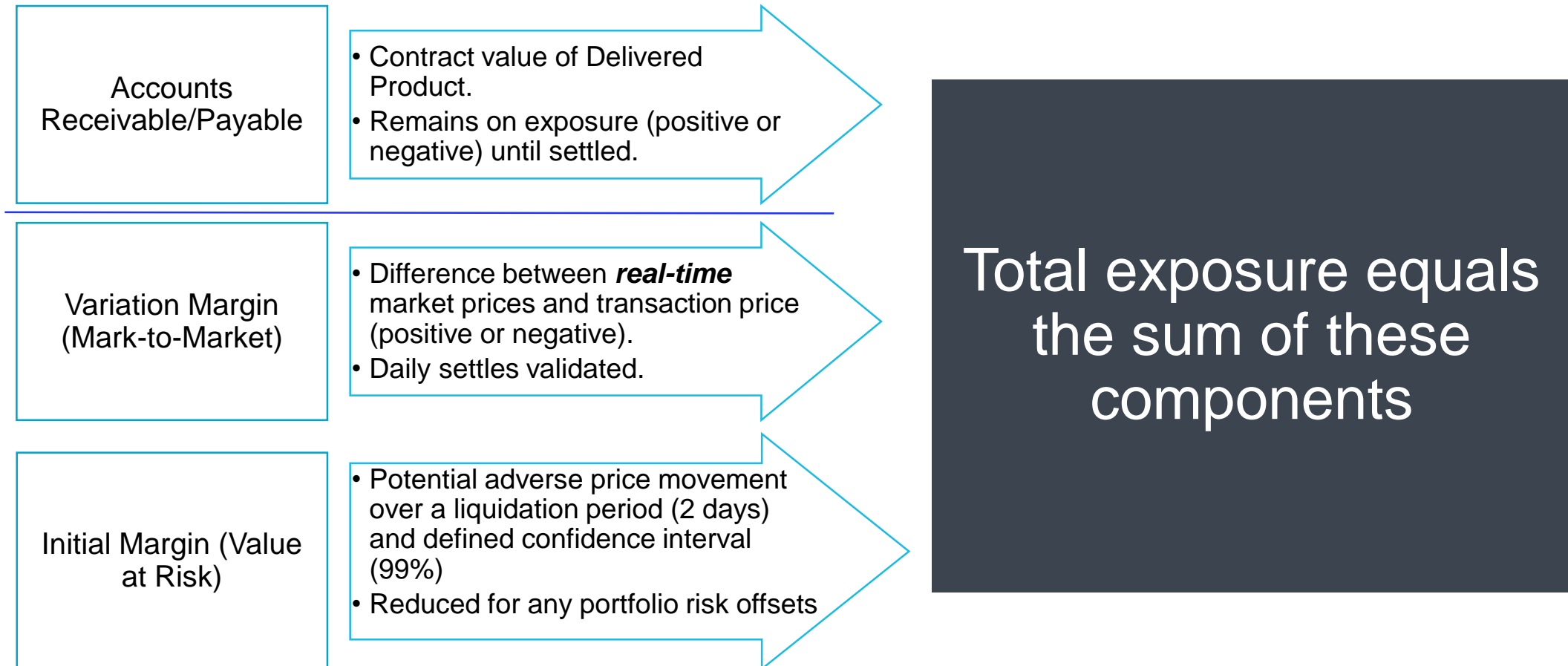
Provide Collateral

- ICE NGX is exposed to the risk that Contracting Parties will not provide sufficient collateral to manage their risks
- Risk is managed with liquidation provisions

Remain Solvent

- Risk is managed with margin triggers and liquidation provisions

Risk Measurement – Margin Requirement



Collateral requirements are netted across products and commodities

CPA margin triggers

Collateral Utilization

- Unlike mutualized clearinghouses, margin collected *prior* to exposure
- A margin call may be made when margin requirement reaches **80%** of collateral on deposit
- If margin requirement reaches 90% of collateral on deposit permissions may be restricted
- If margin requirement reaches **95%** of collateral on deposit permissions may be halted and liquidation rights invoked
- Additional collateral must be received next business day

Minimum Available Margin

- If available margin is less than the minimum threshold, CP's permissions may be restricted until additional collateral is received
- Minimum available margin thresholds are:
 - Gas - \$500K
 - Oil/Power - \$1MM
 - Options - \$2MM

FCM's provide margin buffer at mutualized clearinghouses. The cost of such intermediation services however are borne by the customer.

Risk Management



Risk Management

- ICE NGX maintains a team of clearing personnel that monitor all positions on a real-time basis.
- Ability to halt immediately as required.



Fully Collateralized Model

- All CP positions must be fully collateralized – there are no unsecured positions.
- ICE NGX triggers margin calls when CP exposures reach 80% of collateral held (discretion below 90% applied)
- ICE NGX only accepts cash and Letters of Credit from 'A' rated or higher banks.



Physical Delivery Backstops

- Risk of physical delivery managed with backstopping contracts and penalty mechanisms for failure to take/deliver product.
- Extensive operational expertise in Canada and U.S.



Extensive Enforcement Rights

- ICE NGX maintains a uniform Contracting Party Agreement with all parties.
- Effective and immediate remedies available to deal with any potential risk situations.

Risk Management Continued



Contracting Party Collateral

- All CPs must maintain minimum financial requirements of \$5MM in equity or \$25MM in assets.
- All CP risk limits are assigned & monitored according to DCO rules.
- Threshold collateral requirements in addition to collateral required to cover.



Contracting Party Reviews

- ICE NGX undertakes an annual financial review of every Contracting Party.
- Over 75% of ICE NGX's exposures to CPs of investment grade rating.



Stress Testing

- ICE NGX undertakes weekly, monthly and quarterly stress tests to determine exposures under “extreme but plausible” market conditions.
- Regulatory requirement to maintain sufficient capital to manage single largest default under stress scenario as well as 12 months operating.



Back-Testing

- Daily back-testing to ensure that initial margin rates appropriate for actual market price movements.
- Back-testing independently reviewed on a quarterly basis.



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