About Intercontinental Exchange

Intercontinental Exchange (NYSE:ICE) is a Fortune 500 company that operates a leading network of global futures, equity and equity options exchanges, as well as mortgage technology, and global clearing and data services across financial and commodity markets. The New York Stock Exchange is the world leader in capital raising, listings and equities trading.

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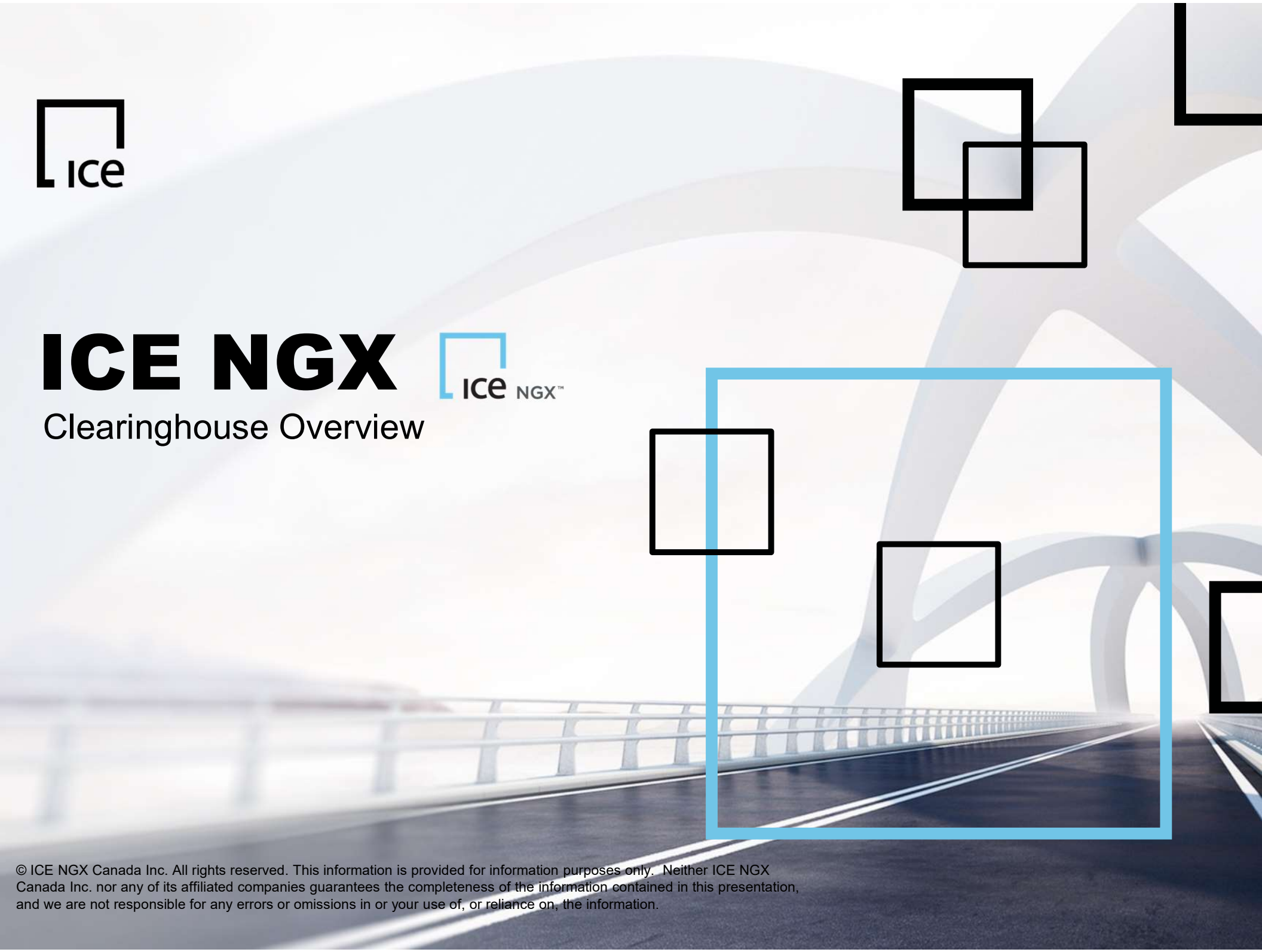
ICE NGX

Clearinghouse Overview



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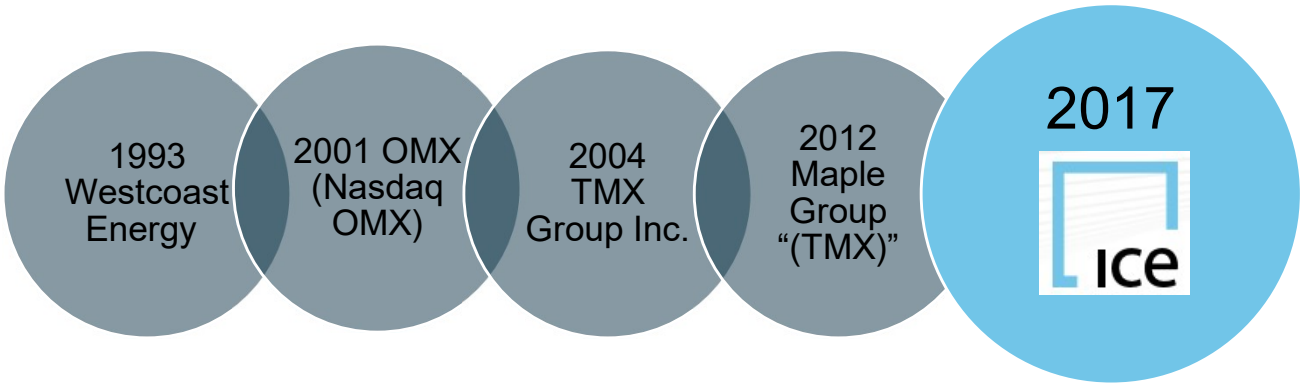
Introduction to ICE NGX

- Leading physical energy exchange and clearinghouse for North American natural gas and power.
- Other products include financially settled power and natural gas, and physically settled environmental products.
- 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.
- All ICE NGX markets available on ICE's global platform.



ICE NGX Direct Access Model

- Direct access exchange and clearinghouse – physically settled natural gas, power (ERCOT) and environmental products, and financially settled power (AB, ON, ERCOT) and natural gas.

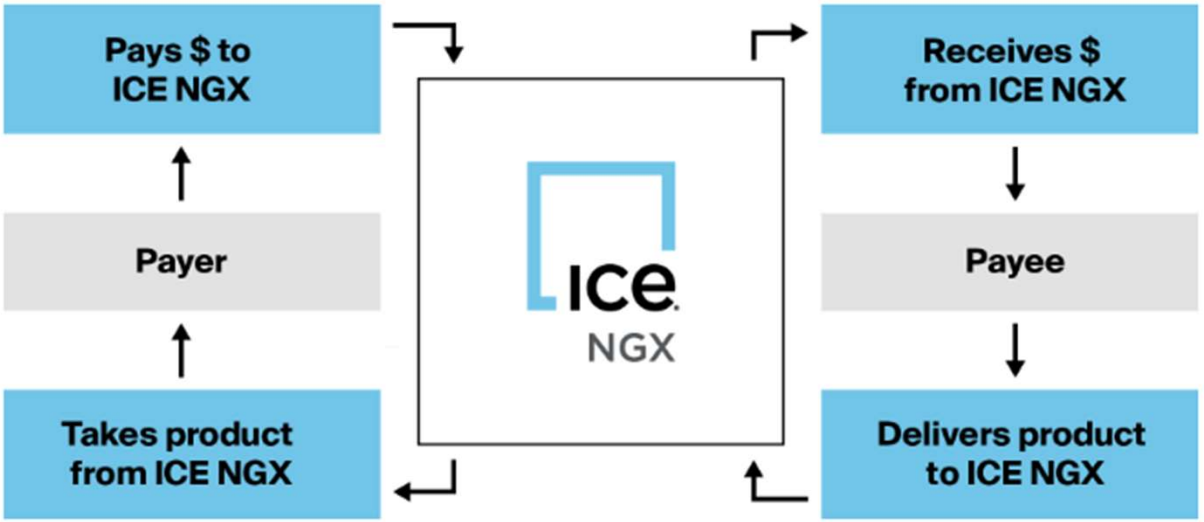
- Non-intermediated clearing – each Contracting Party clears only on its own behalf and not for any other entity including an affiliate

- Non-mutualized model
  - ICE NGX self-funds the guarantee fund – no voluntary or required contributions to guarantee fund by participants
  - No powers of assessment against participants
  - Recourse of ICE NGX is to each Contracting Party only; Recourse of a Contracting Party is to ICE NGX only

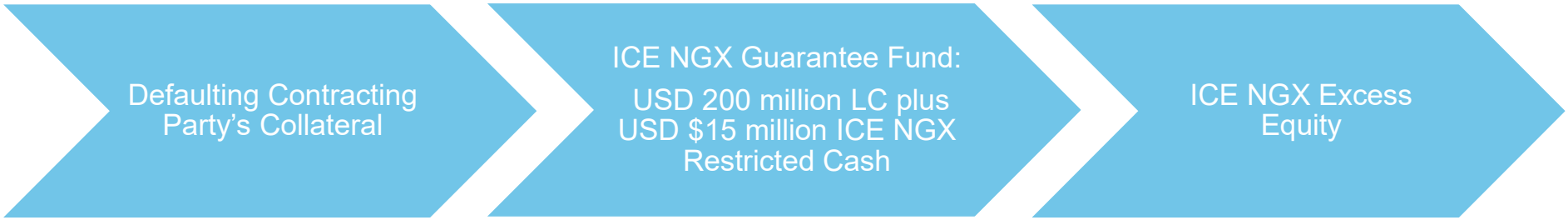
- Clearing and settlement model reflects the physical energy market and the make-up of participants:
  - Gas producers, Power generators, Utilities
  - Speculators
  - Banks (including commodity trading affiliates)

Risk Management – ICE NGX Clearing

- Clearing Operations:



- Contracting Party Default:
  - If necessary to cover losses from a CP default, ICE NGX's default resources will be actioned in the following order:



  - ICE NGX Guarantee Fund: USD 200 million Letter of Credit issued by Royal Bank of Canada for the benefit of Royal Trust Corporation of Canada in trust for Contracting Parties plus USD 15 million restricted cash to fund the First Loss Amount.
  - ICE NGX Guarantee Fund is backed by default insurance provided by Export Development Canada with USD 200 million coverage after USD 15 million First Loss Amount.

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.

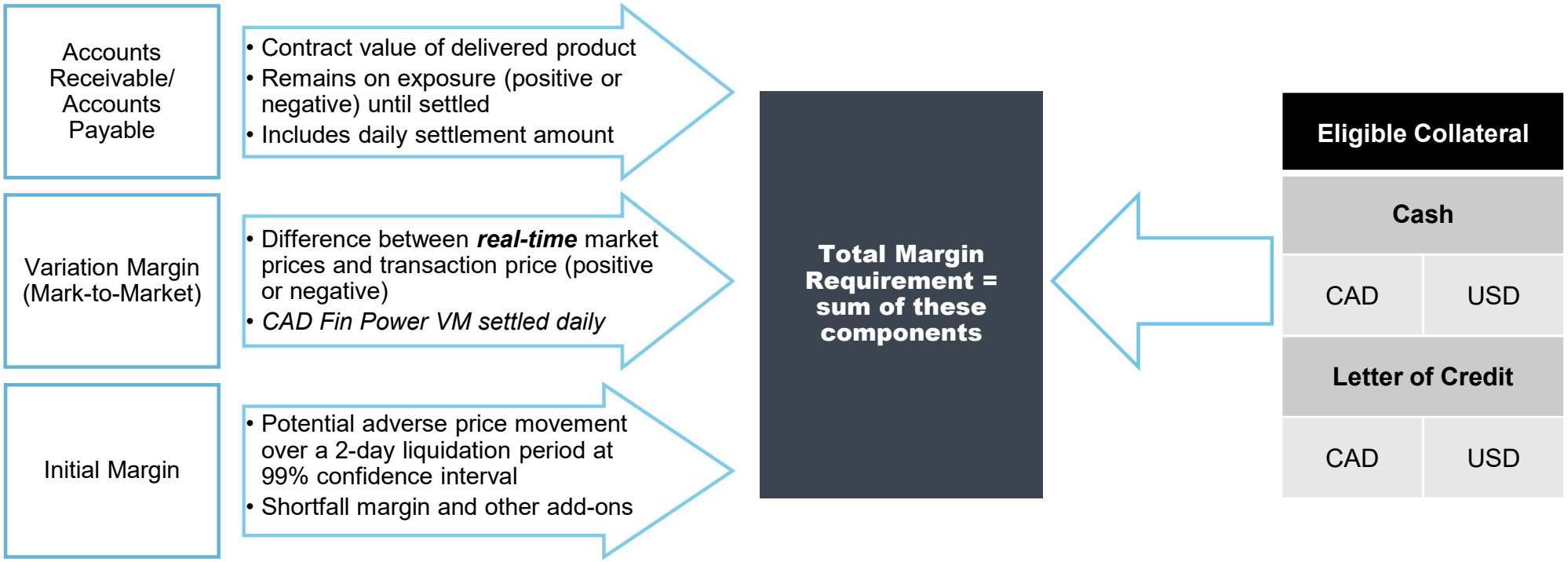
Provide Collateral

- 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.

Margin Requirement & Eligible Collateral



For further information, please refer to the ICE NGX Clearing and Risk Guidebook - available on the Resources page of the ICE NGX website (www.ice.com/ngx/resources)

CPA Margin Triggers

Collateral Utilization

- Unlike mutualized clearinghouses, margin collected prior to exposure.
- If IM reaches 80% of Net Equity on deposit,
  - ICE NGX may call for additional margin; margin call must be met by next business day.
- If IM reaches 90% of Net Equity on deposit,
  - Margin call must be met by next business day.
  - ICE NGX may halt the CP's trading permissions.
- If IM reaches 100% of Net Equity on deposit,
  - Margin call made prior to 9:00am ET must be met same-day.
  - ICE NGX will be entitled to invoke the Liquidation and Close-out Procedures.
- If any of the margin triggers are due to the application of a stress loss charge,
  - Margin call made prior to 9:00am ET must be met same-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 and/or Enviro Credits - $500K
  - Power - $1MM

Risk Management

Risk Management

- ICE NGX Clearing Department monitors all positions on a real-time basis.
- Ability to halt trading on the ICE Clearing Admin platform as required.

Collateralized Model

- All CP positions must be collateralized.
- ICE NGX issues a margin call when the CP's thresholds are triggered as set out in the CPA.
- ICE NGX only accepts cash and Letters of Credit from approved 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.

Governing Rules

- The standard-form ICE NGX Contracting Party Agreement functions as the rulebook for the exchange and clearinghouse, and is applied uniformly to all Contracting Parties.

Risk Management continued

Contracting Party Collateral

- Cash and Letters of Credit are Eligible Collateral Support.
- Cash Collateral is deposited in segregated bank accounts.
- Additional forms of Collateral are AP/AR owing to the Contracting Party, and positive variation margin accrued but not settled to the Contracting Party.

Contracting Party Reviews

- ICE NGX undertakes an annual financial review of every Contracting Party.
- All CPs must maintain minimum financial requirements of $5MM in equity or $25MM in assets.
- ICE NGX periodically reviews the risk management policies of every Contracting Party.

Stress Testing

- ICE NGX undertakes daily stress test 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 costs.

Backtesting

- Daily backtesting to ensure that initial margin rates are appropriate for actual market price movements.
- Backtesting independently reviewed on a quarterly basis.

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www.ice.com/publicdocs/ICE_NGX_Clearing_Overview.pdf