



ICE NGX Canada Inc. Disclosure Framework

August 27, 2024



Responding Institution: ICE NGX Canada Inc. (ICE NGX)

Jurisdiction(s) in which ICE NGX operates: Canada and United States

Authorities regulating, supervising or overseeing the FMI: Alberta Securities Commission, Bank of England, Commodity Futures Trading Commission, European Securities and Markets Authority

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The date of this disclosure is MMM DD, 20243. This disclosure can be found at www.ice.com/ngx/resources.

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Abbreviations:

AFI	Approved Financial Institution
ASC	Alberta Securities Commission
Board Code	ICE NGX Board Code of Conduct
Board Policy	ICE NGX Board Governance Principles
CCO	Chief Compliance Officer
CCP	Central Counterparty
CFTC	Commodity Futures Trading Commission
CSA	Canadian Securities Administrators
CPA	Contracting Party Agreement
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payments and Settlement Systems
CRO	Chief Risk Officer
CSR	Clearing, Settlement and Risk
DCO	Derivatives Clearing Organization
ERM Program	ICE Enterprise Risk Management Framework
ESMA	European Securities and Markets Authority
FBOT	Foreign Board of Trade
ICE	Intercontinental Exchange, Inc.
ICE NGX	ICE NGX Canada Inc.
ICE NGX Board	Board of Directors for ICE NGX
ICE NGX Contracting Parties	Entities which have entered into the Contracting Party Agreement with ICE NGX
IOSCO	International Organization of Securities Commissions
ISP98	International Standby Practices 1998, International Chambers of Commerce Publication No. 590
LC	Letter of Credit
PFMI	Principles for Financial Market Infrastructures
Policy	Risk Management Policy Framework
QCCP	Qualified Central Counterparty
RC	Risk Committee
RMP	Risk Management Program

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I. Executive Summary

The objective of this document (“Disclosure Framework”) is to provide relevant disclosures to ICE NGX Contracting Parties and market participants on the methods used by ICE NGX to manage the risks it faces as a central counterparty (“CCP”).

The Disclosure Framework is prepared in accordance with the internationally recognized “Principles for Financial Market Infrastructures” (“PFMIs”) published in April 2012 and developed jointly by the Committee on Payment and Settlement Systems (“CPSS”, now the Committee on Payments and Market Infrastructures “CPMI”) and the Technical Committee of the International Organization of Securities Commissions (“IOSCO”). No disclosure is provided with respect to Principles 11 and 24 as they do not apply to CCPs.

ICE NGX was incorporated in 1993 and has operated continuously since February 10, 1994. Headquartered in Calgary, Alberta, Canada, ICE NGX provides electronic trading, central counterparty clearing and data services to the North American natural gas, electricity and environmental markets. In this role, ICE NGX provides clearing services on a non-mutualized basis, whereby all Contracting Parties operate with ICE NGX as principals and directly clear with ICE NGX. On December 14, 2017 Intercontinental Exchange, Inc. (“ICE, Inc.”) acquired ICE NGX. ICE NGX is recognized by the Alberta Securities Commission as an exchange and a clearing agency under the *Securities Act (Alberta)*, is registered with the U.S. Commodity Futures Trading Commission (“CFTC”) as a derivatives clearing organization (“DCO”) and a Foreign Board of Trade (“FBOT”), is recognized by the European Securities and Markets Authority (“ESMA”) as a Tier 1 third country CCP in accordance with Article 25 of EMIR, and is deemed temporarily recognized as a non-UK CCP to provide clearing services and activities in the UK.

II. Summary of Major Changes since the Last Update of the Disclosure

ICE NGX has updated the Disclosure Framework to reflect

- updates to its regulatory environment (Part III and Principle 1);
- the establishment of a Risk Advisory Working Group (Principles 1, 2 and 3);
- a new asset class, Environmental Products (in particular Principles 6, 8, 9, 10, 13, and 17);
- current practices, policies and procedures (throughout, in particular Principles 4, 5, 6, 8, 9 and 23) including relating to financial settlement (Principle 17); and
- recent changes to the ICE NGX Contracting Party Agreement, which acts as the rulebook for the exchange and clearinghouse, relating to physical deliveries (Principle 10) and default procedures (Principle 13).



III. General Background on the FMI

General Description of the FMI and the Markets it Serves

ICE NGX provides clearing services for all transactions in the ICE NGX markets and all cleared transactions in ICE's US physical gas and electricity markets. In this role, ICE NGX maintains a secure and efficient clearing operation, managing various risks across market participants and products. ICE NGX's clearing services involve (1) reconciling and clearing transactions, and (2) assuring the physical and financial integrity of each transaction and resulting position(s). When a transaction is accepted and novated for clearing, ICE NGX is substituted as the counterparty to the resulting transactions, thereby guaranteeing financial and physical performance of the transaction to the Contracting Party ("CP") on each side of the trade. In nearly all cases, this provides full cycle anonymity and introduces a neutral third party obligated to ensure the performance on both sides.¹

ICE NGX operates a direct-access, non-mutualized model. ICE NGX Contracting Parties clear contracts for their own accounts only; there is no intermediary clearing, i.e., no "customer transactions". There is no mutualized or legal relationship amongst Contracting Parties and all collateral is segregated and for the benefit of only the Contracting Party that provided it and, except as agreed to by ICE NGX, affiliated Contracting Parties of that Contracting Party (each affiliated Contracting Party that nets collateral and exposure a "Contracting Party Affiliate"). The current list of Contracting Parties is set out on the ICE NGX website.

There is no mutualized guarantee fund; only ICE NGX contributes to the guarantee fund.

ICE NGX maintains a comprehensive set of rules, set out in the Contracting Party Agreement ("CPA" or the "ICE NGX Rules"), a Margin Methodology Guide that describes the margining model and processes, as well as policies and procedures designed to ensure the safety of all collateral provided by Contracting Parties and the certainty of physical and financial performance to the marketplace.

ICE NGX provides the following key functions:

Clearing	Establish appropriate Contracting Party requirements and support effective and efficient operations.
Settlement	Ensure contractual and financial obligations to Contracting Parties are met.
Delivery	Ensure contractual and physical delivery obligations to Contracting Parties are met.

¹ ICE NGX offers trading and clearing services for products at a small number of natural gas delivery points in the U.S. under the "assigned delivery" model. In contrast to all other ICE NGX delivery points, under the assigned delivery model ICE NGX does not schedule, or nominate, the transacted natural gas to effect physical delivery. Rather, at the appropriate time, ICE NGX matches volumes transacted at particular delivery points, and the counterparties arrange for scheduling, or nominating, to effect physical delivery.



Custody

Safeguard Contracting Party collateral by ensuring qualification of acceptable collateral and approved depositories.

ICE NGX utilizes clearing applications and technology owned and operated by itself and by ICE. ICE NGX continuously monitors its clearing systems' reliability.

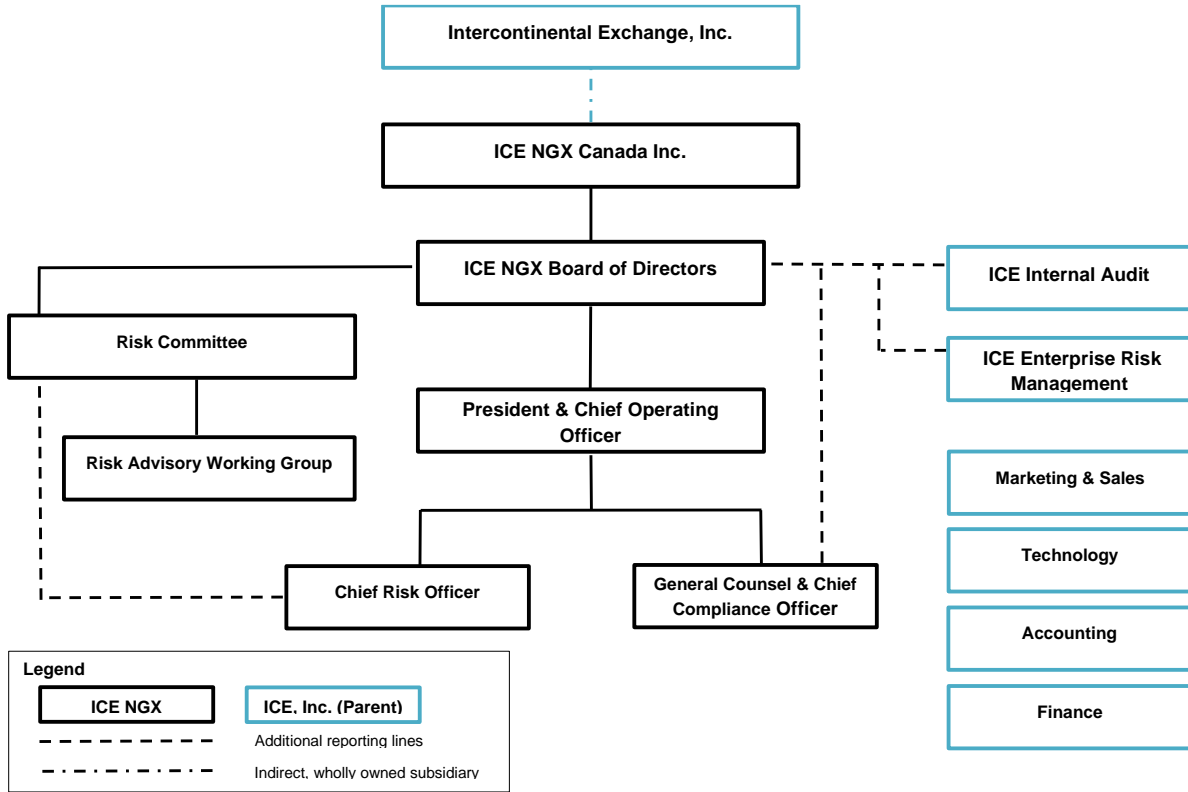
ICE NGX is committed to ensuring the security and integrity of the clearing operation. ICE NGX does not enter into transactions nor take positions in energy products for any reason other than to provide clearing services.

General Organization of the FMI

ICE NGX is an indirect, wholly-owned subsidiary of ICE. ICE is the leading global network of exchanges and clearing houses offering the broadest portfolio of services for trading, clearing and listings.

The ICE NGX Board is advised by the Risk Committee, Risk Advisory Working Group ("RWG") and ICE NGX senior management ("Senior Management"). The RWG provides risk-based input to the Risk Committee on all matters that could materially affect the risk profile of the clearinghouse.

ICE NGX Senior Management reports to the ICE NGX President. The ICE NGX Chief Risk Officer ("CRO") has an additional direct reporting line to the Chair of the Risk Committee and the Chief Compliance Officer ("CCO") has an additional direct reporting line to the ICE NGX Board. The policies and procedures of ICE NGX, including its Board Governance Principles, Risk Committee Charter, RWG Charter and the ICE policies applicable to ICE NGX provide for clear and direct lines of responsibility and accountability up to the board level. ICE NGX's organizational structure is illustrated below.



The governance structure consists of the ICE NGX Board including its Risk Committee, ICE NGX Senior Management team, business units and corporate functions, ICE Enterprise Risk Management and ICE Internal Audit. The ICE NGX Board, directly or through its Risk Committee, is responsible for approving risk management framework policies and risk appetite statements and overseeing the adequacy and operating effectiveness of the risk management program. The roles and responsibilities of Senior Management include ensuring the appropriate design, operation and management of the risk management program, ensuring the accuracy, timeliness and consistency of risk management reporting, and reviewing periodic risk and performance reports as provided by ICE NGX's CRO and ICE's Enterprise Risk Management team. Each business unit and corporate function has responsibilities for effectively managing ICE NGX's clearing agency risks by establishing risk identification, assessment, measurement, management, monitoring and reporting processes and controls that are in accordance with the risk management program while maintaining adequate documentation of procedures. Risk management functions, including decision making in critical and emergency situations, are performed by the Clearing, Settlements and Risk team at ICE NGX ("CSR"). CSR responsibilities include providing guidance on the risk management program, ensuring the implementation and ongoing compliance of the risk management program, planning, designing and implementing risk management practices, developing external risk reporting protocols and disclosures where required or warranted for best practices, and periodically reporting to the ICE NGX Board or its committees as appropriate. The ICE NGX CRO is responsible for the overall implementation of the risk management framework and for the CSR functions. The CRO, in conjunction with the CCO, develops policies and procedures to ensure that ICE NGX's practices are consistent with PFMI recommendations.

In addition, ICE Enterprise Risk Management is responsible for coordinating the effective and consistent planning, designing and implementation of the ICE Enterprise Risk Management program including monitoring ongoing compliance and reporting related thereto. The internal audit function of ICE provides independent assurance to both the ICE NGX Board and the ICE board of directors, as well as senior management teams, on the effectiveness of risk management policies, processes and controls, and management's assertions of control statuses at ICE NGX and across ICE.

Legal and Regulatory Framework

ICE NGX is incorporated under the *Canada Business Corporations Act*. The ASC is ICE NGX's lead regulator in Canada. ICE NGX is recognized by the ASC under section 67 of the *Securities Act* (Alberta) as an exchange and a clearing agency for natural gas, electricity, crude oil and related commodity contracts by orders that became effective on December 6, 2018, replacing ICE NGX's previous orders.

The Bank of Canada together with the CSA formally recognized ICE NGX as a Qualifying Central Counterparty on July 28, 2014. Effective February 9, 2024, the Minister of Finance (Canada) designated ICE NGX as a securities and derivatives clearing house under Part II, subsection 13.1(2) of the *Payment Clearing and Settlement Act* (Canada); this designation provides greater legal certainty for ICE NGX's operations by ensuring that ICE NGX's rules are considered final and preventing insolvency laws or court decisions from interfering with the use of collateral pledged by its participants. These protections allow ICE NGX to operate more effectively in times of market stress, with greater certainty regarding the outcomes in the event of a participant's failure.

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ICE NGX is registered with the CFTC in the U.S. as a DCO, pursuant to an amended order of registration issued February 15, 2024 that replaced previous DCO registration orders. ICE NGX is also registered with the CFTC as an FBOT.

ICE NGX is recognized by ESMA as a Tier 1 (non-systemic) third country CCP by an order that became effective March 8, 2022, replacing previous orders and determinations.

ICE NGX is registered in the United Kingdom Temporary Recognition Regime (“TRR”) effective December 31, 2020 and, as such, is temporarily deemed recognized as a non-UK CCP to provide clearing services and activities in the UK.

Each ICE NGX Contracting Party is required to enter into the standardized Contracting Party’s Agreement which, together with the Terms and Conditions and Schedules thereto, forms the “CPA”. The CPA sets out the rules of the ICE NGX exchange and clearing services applicable to all Contracting Parties. The CPA is governed by the laws of the Province of Alberta and the federal laws of Canada applicable therein.

System Design and Operations

Transactions by Contracting Parties in ICE NGX products, whether executed electronically via WebICE or ICE NGX TradePath or OTC transactions entered via exchange for related product (“EFRP”) or ICEBlock, are captured and routed automatically to the ICE NGX clearing system (“CS”) for clearing in the ICE NGX clearinghouse. Multiple verification and reconciliation checks are performed intraday to ensure delivery of the respective system trade files to ICE NGX.

Trade files are received and processed by ICE NGX in near real-time, immediately updating the respective Contracting Parties’ trading reports and risk positions in CS and the ICE NGX web reports. Trading and clearing reports for physically-settled and financially-settled trades are continuously updated and monitored throughout the trading day to ensure real-time information and accuracy for ICE NGX and its participants.

The primary components of the ICE NGX CS:

1. **DTS** – Data Transfer Service is responsible for loading and validating the company, user and trade files from the various platforms. This is the entry point for exchange-related data into CS. DTS is monitored in real time by ICE NGX Operations and ICE Systems Operations teams.
2. **CS Internal** – CS Internal is the main application used to perform clearing functions. It is a read-write application that is only available to internal ICE NGX staff. CS Internal facilitates internal reporting, including operational, risk and financial reports.
3. **CS External** – CS External is a modified version of the internal application. It is a read-only application that is accessible over the internet to ICE NGX Contracting Parties. Each participant must have a valid login to use the application. Contracting Parties can generate reports including operational, risk, and financial reports, through CS External.

IV. Principle-By-Principle Summary

<p><i>Principle 1: Legal Basis</i></p> <p><i>An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX has a well-founded, clear, transparent, and enforceable legal basis that provides a high degree of certainty for each material aspect of its activities in all relevant jurisdictions.</p> <p>ICE NGX is a corporation established under the <i>Canada Business Corporations Act</i> and is in good standing. ICE NGX is governed by its Articles of Incorporation, Amendment and Amalgamation and its By-laws. ICE NGX is subject to the laws of Alberta and the federal laws of Canada applicable therein. ICE NGX currently conducts business in Canada and the United States.</p> <p>In Canada, the Alberta Securities Commission (“ASC”) has granted orders recognizing ICE NGX as an exchange and clearing agency. The ASC is ICE NGX’s primary regulator. ICE NGX operates under exemption orders from the Ontario Securities Commission (“OSC”), the Manitoba Securities Commission, the British Columbia Securities Commission, the Financial and Consumer Affairs Authority in Saskatchewan and the Autorité des marchés financiers in Quebec. In the U.S., ICE NGX is registered with the CFTC as a DCO to operate as a clearinghouse, and is registered as a FBOT to provide direct market access to U.S. participants. As such, ICE NGX is subject to the provisions of the U.S. Commodity Exchange Act and the CFTC regulations promulgated thereunder, including with respect to the netting and holding of collateral. In Europe, ICE NGX is recognized by ESMA as a Tier 1 (non-systemic) third-country CCP. In the UK, ICE NGX is deemed temporarily recognized as a non-UK CCP to provide clearing services and activities in the UK. The applicable orders are available on the respective regulator’s website.</p> <p>In accordance with applicable regulations, the ICE NGX CCO must prepare, certify and provide an annual report to the ASC and CFTC demonstrating compliance with each applicable respective rule and regulation. The ASC and CFTC conduct oversight reviews of ICE NGX.</p> <p>Each Contracting Party is required to enter into the standard form Contracting Party’s Agreement, and is therefore legally bound by the CPA. The CPA sets out the rights and obligations of ICE NGX and Contracting Parties and functions as ICE NGX’s “rulebook”. The current version of each of the CPA is publicly available on the ICE NGX website. Changes to ICE NGX’s rules are self-certified with the ASC and CFTC in accordance with the respective regulatory requirements and process.</p> <p>In accordance with applicable regulations, ICE NGX posts all filings for changes to the CPA on the ICE NGX website. In addition, ICE NGX may publish notices or</p>

	<p>other documentation on the ICE NGX website to provide further guidance to Contracting Parties, when appropriate or necessary in the circumstances.</p> <p>The governing law with respect to the CPA and most material contracts is Alberta law and the federal laws of Canada applicable therein. Most Contracting Parties and other parties with which ICE NGX does business are based in either Canada or the U.S. All of these jurisdictions have stable legal regimes.</p> <p>ICE NGX achieves a high level of confidence that the rules, procedures and contracts related to its operations are enforceable in all relevant jurisdictions through internal and external legal analysis and ongoing oversight by its regulators. Various legal opinions from external counsel have been issued to support the legal certainty of material aspects of ICE NGX's rules, procedures and contracts. ICE NGX regularly engages external counsel, in particular for matters requiring specialized expertise. As the laws and regulatory requirements applicable to ICE NGX change, this analysis is carried out on an ongoing basis, and any inconsistencies identified are addressed as required, including making changes to conform with amendments to applicable laws and regulatory requirements.</p> <p>ICE NGX products qualify as “eligible financial contracts” under Canadian insolvency law, which provides a safe harbour from Canada’s insolvency regime and enables netting and other activities with respect to ICE NGX products. The finality of payment provisions set out in ICE NGX’s rules, together with the safe harbour under Canadian insolvency law, satisfies finality of settlement. Further, ICE NGX becomes a party to the transaction enabling it to ensure finality of the transaction.</p>
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<p><i>Principle 2: Governance</i></p> <p><i>An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX has governance arrangements that are clear and transparent, promote its safety and efficiency and support the stability of the broader financial system, other relevant public interest considerations and the objectives of relevant stakeholders.</p> <p>ICE NGX adheres to its risk management principles which include:</p> <ul style="list-style-type: none"> a) promoting and maintaining an enterprise-wide ethical culture that values the importance of effective risk management in day-to-day business activities and decision making, and encourages frank and open communication; b) business unit and corporate function ownership of all risks assumed in activities and accountability for the effective management of those risks, supported by the enterprise risk management division and internal audit, and

	<p>including adequately defining responsibilities and levels of authority for risk-taking across the enterprise;</p> <ul style="list-style-type: none"> c) employing effective and consistent risk management processes across the enterprise to ensure risks are transparent and remain within the approved risk appetite; d) employing sufficient resources and effective tools, methods, models and technology to support risk management processes; and e) ensuring the ERM Program reflects industry standards and legal and regulatory requirements, and is regularly reassessed. <p>The governance framework for ICE NGX, in conjunction with its parent company, ICE, is illustrated in the ICE NGX organizational chart under General Organization of the FMI above.</p> <p>The ICE NGX Board comprises: the ICE NGX President, three ICE executives, two directors that are market participants² and three independent directors. The independent directors meet the definition of independence set out in local laws; one of the independent directors is the Chair of the ICE NGX Board. The names of the members of the ICE NGX Board are publicly available on the Industry Canada website. The ICE NGX Board annually reviews and evaluates both its overall performance and the performance of individual Directors.</p> <p>ICE NGX carefully selects directors with appropriate skills and knowledge to create the right overall mix of expertise including financial literacy, commodities, derivatives, clearing and risk management and reviews the individuals and overall composition each time the Board is reappointed.</p> <p>The Board has established one committee, namely the ICE NGX Risk Committee. The Risk Committee comprises: the ICE NGX President, the ICE NGX CRO, the Chair of the Board and the two other independent directors, the directors that are market participants and the three directors that are ICE executives. One of the independent directors is the Chair of the Risk Committee. The ICE NGX Board establishes and annually reviews the charter of the Risk Committee. The Risk Committee has a dual mandate: (1) to provide consultative risk-based input to the Board on any matter that could materially affect the risk profile of the clearinghouse; and (2) governance and oversight over the risk management function.</p> <p>Members of the ICE NGX Board and Risk Committee are required to follow established procedures for identifying, addressing, and managing conflicts of interest involving such members. ICE and ICE NGX internal policies also address conflicts of interest and ensure these matters are adequately managed.</p>
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² As of the date of this publication, one market participant director seat is vacant. ICE NGX is recruiting an appropriate individual for this role.

The ICE NGX President has established the RWG as a forum to seek risk-based input from a broad array of market participants on any matter that could materially affect the risk profile. The RWG comprises: the ICE NGX CRO, as Chair, and market participant representatives, i.e., individuals that are actively employed with a current Contracting Party or its affiliate.

The Board, directly or through the Risk Committee, is responsible for approving risk management framework policies and risk appetite statements and overseeing the adequacy and operating effectiveness of the risk management program. The Board is also responsible for overseeing ICE NGX's systems of corporate governance and financial reporting and controls to ensure that ICE NGX reports adequate and fair financial information to its parent company, ICE, and that ICE NGX engages in ethical and legal corporate conduct.

The Board appoints the ICE NGX officers and prescribes the authority and duties to be performed by each officer pursuant to the ICE NGX By-laws. ICE NGX carefully selects management with appropriate skills and knowledge to create the right overall mix of expertise including technology, finance, legal, clearing and risk management and the ICE NGX President reviews the management team regularly and at least annually on a formal basis. ICE NGX's Board monitors the performance of the ICE NGX President against a set of mutually agreed upon corporate objectives aimed at maximizing shareholder value.

Pursuant to applicable laws, regulations and orders, ICE NGX is required to comply with certain corporate governance requirements. The applicable laws, regulations and orders, including the governance requirements, are publicly available. ICE NGX Senior Management provides the ICE NGX Board with quarterly and annual reports, including reports required under applicable laws, regulations and orders. ICE NGX is also required to provide its regulators with certain quarterly, annual and other reports regarding other performance metrics, risk management and strategic goals and planning.

The Chair of the ICE NGX Board is selected by the Board from the directors elected by the sole shareholder. The Chair provides leadership to the Board in matters relating to the effective execution of all Board responsibilities and works with the President to ensure that the organization fulfills its responsibilities to stakeholders including the sole shareholder, employees, clearinghouse participants, governments and the public.

ICE NGX's functional departments interact with Contracting Parties as appropriate to obtain feedback on major initiatives, rules, clearinghouse design, etc. A variety of other stakeholders, including regulators, are consulted as appropriate on matters with a potential impact on the public. Significant or material matters are taken to the Board for review, discussion or approval.

In accordance with regulatory requirements, non-confidential major decisions of the Board are clearly disclosed in a timely manner to CPs, other relevant stakeholders, and to the ASC and CFTC. Typically such disclosure occurs via public rule filings

	<p>with the CFTC and along with the issuance of notices or advisories to CPs. Additionally, subject to confidentiality requirements, major decisions of the Board having a broad market impact are disclosed to the public through press releases and/or CFTC rule filings (both of which are publicly available on the ICE NGX website). Major decisions may also be communicated to stakeholders directly through ICE NGX Senior Management and ICE NGX employees as appropriate, depending on the issue and expected impact. Formal presentations may also be given by staff as appropriate. Further, ICE NGX updates the information disclosed on its website to appropriately reflect any such major decisions. Operational notices are also posted to the ICE NGX website.</p>
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<p><i>Principle 3: Framework for the Comprehensive Management of Risks</i></p>	
<p><i>An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX has a sound risk management framework for comprehensively managing legal, credit, liquidity, operational and other risks.</p> <p>ICE NGX’s risk management program includes risk management policies, procedures and systems that enable ICE NGX to identify, measure, monitor and manage the risks faced by ICE NGX including legal, credit, liquidity, operational, collateral, custody and settlement risk. The Risk Committee reviews and recommends Board approval of the risk management framework including Contracting Party membership requirements, margin parameter settings, default management procedures, collateral management, counterparty risk reviews, liquidity analysis and stress scenarios. The RWG provides risk-based input to the Risk Committee on any matter that could materially affect the risk profile of the clearinghouse. ICE NGX also has policies, procedures and systems in place at an operational level to address these risks in a prudent and proficient manner.</p> <p>Credit risk management by ICE NGX is addressed under Principle 4.</p> <p>Collateral risk management by ICE NGX is addressed under Principle 5.</p> <p>Liquidity risk management by ICE NGX is addressed under Principle 7.</p> <p>Custody and investment risk management by ICE NGX is addressed under Principle 16.</p> <p>Operational risk management by ICE NGX is addressed under Principle 17.</p> <p>Legal risk is actively mitigated with internal and external legal analysis and regulatory oversight and is addressed under Principle 1.</p> <p>ICE NGX is subject to the ICE ERM Program. ICE Enterprise Risk Management is responsible for the design and coordination of the ERM Program in addition to the</p>

ongoing compliance and reporting for the Program across ICE. The ERM framework defines the governance structures and responsibilities and includes written risk policies at all levels which define ICE NGX's risk appetite, highlight the key risks, and describe the manner in which those risks are properly managed.

In addition, ICE NGX has documented procedures and controls identifying the range of risks to which it is exposed, including procedures for monitoring and assessing those risks. Certain risks are required to be tested by a third-party every three years to meet certain regulatory requirements. In addition, Internal Audit performs an annual risk assessment and develops an annual risk-based audit plan accordingly. The risk-based audit plan is designed to provide assurance over the ICE NGX control environment over a four-year cycle.

ICE NGX has a primary interdependency with its primary settlement bank in its functions of retaining Contracting Party collateral, facilitating daily and monthly invoice settlement process, and providing ICE NGX with credit facilities. ICE NGX uses the ICE Counterparty Rating System ("CRS") to perform ongoing internal credit rating analysis; furthermore, ICE NGX monitors the exposure to its settlement bank as well as the settlement bank's ability to perform required tasks. In addition, ICE NGX has interdependencies on financial institutions issuing Letters of Credit ("LCs") on behalf of Contracting Parties. ICE NGX also monitors the internal credit rating of financial institutions issuing letters of credit in order to detect changes in their respective credit profiles and ensures aggregate exposure from each bank remains within specified limits. Regularly, the bank concentration risk report is reviewed by the Clearing department; any exceptions are reported immediately to the ICE NGX Manager, Clearing & Credit Risk and ICE NGX Chief Risk Officer or their delegates.

ICE NGX markets are listed on ICE's markets platform and as a result, depend on ICE's systems to be available for onscreen trading and trade file data. ICE NGX regularly receives and reviews an SSAE18 SOC 2 Report for the ICE Trading Platform. This report includes independent testing and attestation as to the design and effectiveness of the internal controls for the ICE Trading Platform. ICE NGX also monitors a variety of ICE connections and systems in real time including networking connections, file transfers and APIs.

Agreements with ICE NGX's primary settlement bank and ICE NGX policies that address system availability standards and requirements along with procedures for operations failure and dispute management are reviewed regularly. ICE NGX also has alternate settlement bank arrangements in place that allow ICE NGX to meet settlement obligations in the event of the inability of its primary settlement bank to provide settlement services.

To mitigate the risk of loss resulting from a Contracting Party default in excess of financial resources, ICE NGX maintains sophisticated risk systems to measure exposures in intraday and ensures that collateral is sufficient to cover Contracting Party defaults, including instances of a Contracting Party's insolvency. In addition, ICE NGX maintains sufficient capital resources and a self-funded guarantee fund

	<p>to facilitate an instance of a shortfall arising from the material default or insolvency of a Contracting Party.</p> <p>With regard to its own operation, ICE NGX maintains sufficient resources to sustain its operations for the period of one year. Of this, the resources necessary to cover the first six months of operating expenses are readily available and liquid. Accordingly, ICE NGX maintains sufficient resources to provide for an orderly wind-down should that be required. In this regard, ICE NGX notes that contracts with the greatest liquidity are near-term contracts. In the case of an insolvency of ICE NGX, as discussed below, Contracting Parties would have rights to set off amounts owed to them by ICE NGX.</p> <p>In the event ICE NGX decides to wind-down the business, ICE NGX would follow the Liquidation and Close-out procedures outlined in the CPA to ensure an orderly and risk-managed wind-down. The CPA gives both ICE NGX and the Contracting Party the right to terminate any outstanding transactions upon an ICE NGX insolvency. The terminated transactions would be valued and any accounts receivable/payable from/to a Contracting Party would be netted and set-off to determine any amounts owed to or by ICE NGX to or by any Contracting Party. ICE NGX has obtained external legal opinions confirming that its rights to net and set off obligations are preserved under insolvency laws.</p>
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<p><i>Principle 4: Credit Risk</i></p> <p><i>An FMI should effectively measure, monitor, and manage its credit exposure to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two largest participants and their affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions. All other CCPs should maintain, at a minimum, total financial resources sufficient to cover the default of the one participant and its affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX effectively measures, monitors and manages its credit exposures to CPs and those arising from its payment, clearing and settlement process. ICE NGX maintains sufficient resources to cover its credit exposure to each CP fully with a high degree of confidence. In addition, ICE NGX maintains financial resources sufficient to cover a wide range of potential stress scenarios, including the default of one CP that would cause the largest aggregate credit exposure to ICE NGX in extreme but plausible market conditions.</p> <p>ICE NGX mitigates exposure arising from credit risk and market price movements by requiring collateralization of Contracting Party positions. Initial margin is</p>

charged to account for potential adverse changes in market prices, as well as credit risk and other risk concerns, during an event of default and/or liquidation scenario. ICE NGX's model requires a buffer of collateral to cover unforeseen changes in positions and market movements. ICE NGX monitors Contracting Party positions and projected near-term positions intraday to ensure that collateral balances continue to meet margin requirements. Eligible collateral support may be provided only in the form of cash, an LC from an ICE NGX-approved financial institution, physical delivery sales credits and positive mark-to-market ("MtM").

ICE NGX aggregates positions within each Contracting Party clearing account (i.e., including Contracting Party Affiliates), but does not aggregate between other accounts or Contracting Parties. Collateral is held in segregated accounts that are strictly used for managing the exposure or resolving a default of the respective Contracting Party or its Contracting Party Affiliates.

ICE NGX's margin methodology framework is reviewed on an ongoing basis through daily back-testing and stress testing. Reviews of margin rates to reflect recent risk intensity are performed at least monthly and more frequently if performance indicates changing market conditions. ICE NGX performs backtesting and stress testing in accordance with its regulatory requirements, and updates margin and stress testing as appropriate in accordance with its policies and procedures.. Portfolio Margin prices are updated generally on a bi-weekly basis and more frequently in periods of high volatility.

ICE NGX's Clearing System is updated continuously throughout the business day with trade data, collateral updates, and market prices which are all used to continuously calculate Contracting Party current and potential future exposures. ICE NGX provides a number of web-based reports for Contracting Parties to review positions and associated margin requirements in real-time.

ICE NGX implements risk limits for all Contracting Parties which are monitored on a daily basis. Should a Contracting Party exposure breach the risk limit, additional collateral requirements are applied at the sole discretion of ICE NGX. For clarity, ICE NGX does not provide unsecured credit to Contracting Parties. ICE NGX's rules allow for additional eligible collateral support to be requested when a Contracting Party's margin requirement meets or exceeds certain collateral utilization or minimum available margin thresholds as outlined in Schedule C of the CPA.

Annual reviews are performed on all Contracting Parties to ensure each entity continues to meet the Minimum Qualification Requirements as outlined in the CPA. ICE NGX monitors Contracting Parties' credit profile, including through news filtering services to identify bankruptcy and/or any other adverse credit events and using CRS to assess and detect changes in the credit profile of counterparties. If ICE NGX determines that a Contracting Party poses additional risk to the clearinghouse, the entity may be added to the "Watchlist". Contracting Parties on the Watchlist may be monitored more closely and credit reviews may be performed more frequently.

	<p>ICE NGX does not consider its current product offering to include items with complex risk; furthermore, ICE NGX does not currently believe it is, nor has been determined to be, systemically important in any jurisdiction.</p> <p>In addition to collateralized Contracting Party positions, ICE NGX maintains financial resources sufficient to meet 12 months operating expenses and under Cover 1, the single largest participant collateral shortfall in an extreme but plausible stress scenario. ICE NGX maintains a cash balance funded by equity. ICE NGX self-funds its guarantee fund of USD 215 million, comprising: (i) USD 200 million default insurance provided by Export Development Canada (“EDC”) with liquidity to resolve a settlement payment shortfall upon a default provided by a letter of credit issued by Royal Bank of Canada and held in trust at Royal Trust Corporation of Canada for all Contracting Parties in the same amount (the “ICE NGX Letter of Credit”); and (ii) USD 15 million restricted cash, to satisfy the USD 15 million first loss amount under the default insurance.</p> <p>Daily testing is performed to determine that ICE NGX holds sufficient financial resources in the event of a default of its largest single credit exposure. To ensure adequacy of total financial resources ICE NGX performs several pricing and volatility stress scenarios which are considered extreme but plausible. The largest customer portfolio shortfall given the scenarios is considered for financial resource purposes. Daily stress testing pricing scenarios include relevant peak historic price volatilities, which are considered extreme but plausible given a 5-year history. Sufficiency of financial resources and the guarantee fund are reviewed daily, with results reported quarterly to the Risk Committee, Board, ASC and CFTC. Financial resources must be equal to or greater than regulatory minimums. If results indicate financial resources are beginning to approach levels of insufficiency, immediate action is taken to address as required. Any breaches are reported to the Risk Committee, Board, ASC and CFTC.</p> <p>Should a Contracting Party fail to perform its contractual obligations with ICE NGX, the CPA together with the ICE NGX Default Management procedures outline the process to invoke the Liquidation and Close-out Procedures. This includes the withdrawal of the defaulting party’s collateral which is applied to any and all obligations resulting from such failure. In the event insufficient collateral is on hand to cure the total outstanding obligations of the defaulting party, ICE NGX may direct payment from the liquid financial resources or guarantee fund to enable it to meet any corresponding outgoing payment obligation.</p>
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<p><i>Principle 5: Collateral</i></p>	
<p><i>An FMI that requires collateral to manage its or its participants’ credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX requires collateral with low credit, liquidity and market risks to manage CP’s credit exposure to CPs.</p>

ICE NGX only accepts cash and letters of credit, each denominated in only USD and CAD, as eligible collateral support.

ICE NGX only accepts that are in LCs in ICE NGX's standard LC format and issued by an Approved Financial Institution ("AFI") (as defined in the CPA) through a North American branch in SWIFT form with a one business day payment period upon drawdown notification. LCs are subject to International Standby Practices 1998, International Chambers of Commerce Publication No. 590 ("ISP98") and for matters not addressed by ISP98 are generally governed by the laws of the Province of Alberta and applicable Canadian federal law.

ICE NGX calculates internal credit ratings using CRS in order to determine LC-issuing bank eligibility requirements. ICE NGX reviews such internal credit ratings on a monthly basis to monitor the financial stability of LC-issuing banks. Other factors to assess the eligibility of a bank include the bank country of origin, location of bank issuing branch, LC-issuing jurisdiction, bank organizational structure and financial ratios.

ICE NGX has established (i) a limit in respect of the total value of LC collateral issued by each LC-issuing bank, (ii) a limit on the maximum size of any LC, (iii) a limit on the maximum value of LC collateral issued by a particular LC-issuing bank (and its affiliates) in respect of a particular Contracting Party (and its affiliates), and (iv) a concentration limit per LC-issuing bank of a maximum of 25% of the total aggregate value of LC collateral accepted by ICE NGX. ICE NGX monitors aggregate issuing bank exposures daily to ensure issuing banks remain within these limits, to further help manage and mitigate potential concentration risk and risk of failure of an AFI. Regular exposure reports are provided to the Manager, Clearing & Credit Risk and CRO. For any Contracting Party that that is also an AFI, any LC provided as collateral must be issued by an unrelated AFI to protect against wrong-way risk.

Collateral balances are maintained in the Clearing System, which is updated daily upon receipt or return of collateral.

Since ICE NGX does not accept any asset classes outside of LCs and cash, MtM valuations are not required for collateral. Cash is liquid, therefore there is no change in the value of cash received as collateral. If drawn upon, LCs are converted into cash, therefore there is no change in the value of collateral LCs.

ICE NGX does not currently haircut the value of cash or LCs received as collateral. There is no credit risk, market risk, liquidity risk or legal risk relating to cash, and ICE NGX mitigates FX exposure through its FX margin concept, therefore no haircut is applied to the value of cash received as collateral. ICE NGX manages the key risks relating to LCs as follows: (i) Credit Risk – ICE NGX accepts LCs only from Approved Financial Institutions, and monitors Approved Financial Institutions for creditworthiness on an ongoing basis; (ii) Market Risk – LCs are not subject to market risk; (iii) Liquidity Risk – ICE NGX has significant liquid resources that

	<p>substantially mitigate liquidity risk relating to a payment delay or failure by the LC-issuing bank; (iv) Legal Risk – ICE NGX manages legal risk relating to LCs through accepting LCs only in a standardized form that has been reviewed by external counsel. Reflecting the nature of the collateral and the mitigation of the key risks described above, ICE NGX believes that a 0% haircut is appropriate for LCs provided as collateral.</p> <p>Furthermore, since LCs and cash are not subject to mark- to-market changes, procyclicality is mitigated in the nature of the instruments themselves. ICE NGX’s real time risk systems are presented as a Canadian dollar equivalent, and as such the prevailing daily USD-CAD foreign exchange rate is applied to collateral and requirements denominated in US dollars.</p> <p>All cash collateral is held at a Canadian Schedule I bank in interest-bearing, segregated bank accounts controlled by ICE NGX for the benefit of the Contracting Party providing the cash collateral, and explicitly named as such. Cash collateral is not reinvested or reused by ICE NGX. ICE NGX registers a first priority security interest (i.e., lien) in Alberta and other applicable jurisdictions against all cash collateral posted.</p> <p>ICE NGX’s collateral management records are maintained in the Clearing System, which is updated throughout each business day as collateral is received/returned. All collateral updates flow through to Real Time Risk Monitor and Margin Requirement reports enabling staff and customers to view current collateral levels along with associated margin requirements. Reconciliations and reviews are performed at least monthly by ICE NGX to ensure accuracy of collateral records.</p>
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Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

<p>Summary Narrative</p>	<p>ICE NGX covers its credit exposures to its CPs for all products through an effective margin system that is risk-based and regularly reviewed.</p> <p>ICE NGX’s margin methodology includes the valuation of credit risk through the (up to) 55-day physical settlement cycle, initial margin and variation margin (MtM) on all net open forward positions for each clearing account. Contracting Party positions are available through an online reporting portal that enables users to see positions and reports related to the Margin Methodology in real time. The Margin Methodology Guide without formula appendices is publicly available through the ICE NGX website and the same guide with formulas is available to any Contracting Party upon request. Clearing and Risk personnel work with participants on a regular basis to ensure an ongoing understanding of the margin methodology and associated margin requirements.</p> <p>Margin Requirements are comprised of the sum of the following three components:</p>
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1. **Accounts Payable/Accounts Receivable (“AR/AR”)** - the net value of gas/power/environmental products already delivered, or, at the discretion of ICE NGX, projected to be delivered that generates a net amount owing to ICE NGX, as applicable;
2. **Variation Margin** - the mark-to-market gains or losses of a portfolio of trades resulting from price movements;
3. **Initial Margin** - a buffer charged to account for potential adverse changes in market prices, as well as other risk concerns, during a liquidation scenario.

On a near real-time basis, ICE NGX’s systems automatically calculate margin requirements for all positions, in both physically settled and financially settled products, and automatically post these requirements in near real-time to the Contracting Party’s margin requirement account in the ICE NGX Clearing System.

For all physically settled products and financially settled gas products, ICE NGX applies its accrual variation margin methodology. For physically settled products and financially settled gas products, accrued variation margin, i.e., variation gains and losses, is calculated as the position size times the difference between mark-to-market price and the original traded price. Variation gains and losses are accrued from the time the transaction is reflected in ICE NGX’s systems and continuously until the natural expiry date of each contract.

- Before contract expiry, accrued variation gains and losses are fully collateralized but not settled.
- After contract expiry, variation accruals are replaced by AP/AR notional value for the delivered products. AP/AR is fully collateralized until settled on the corresponding settlement date.

For all financially settled Canadian power products, ICE NGX daily settles all variation gains and losses of each business day on a T+2 basis. Daily settled variation margin is calculated as the position size times the difference between mark-to-market price and

- the last settlement price, if the transaction occurs prior to the last settlement, or
- the original traded price, if the transaction occurs after last settlement.

Variation margin includes two components:

1. Offset Gain/Loss

Any long/short positions that are offset by the opposite short/long position in an equivalent contract for a given day in the future comprise the offset position. Offset positions result in a known (crystallized) gain or loss being applied to the margin requirement for each Contracting Party. If a Contracting Party purchased forward contracts at a price lower than they sold the equivalent contracts, they are marked with a gain in the amount of the difference between the two values. Conversely, if a Contracting Party purchased forward contracts at a price higher than they sold the equivalent contracts, they are marked with a loss in the amount of the difference between the two values. This difference comprises the offset

gain/loss portion of the variation margin. For clarification, offset positions are not closed out or legally settled until their natural expiry.

2. Open Variation Margin

The net of the long and short positions for a Contracting Party for a particular day comprise the net open position of that Contracting Party for that day.

The exposure to net open positions held by a Contracting Party is calculated by determining the difference between the value of the net open position at the time it was consummated, and its estimated value in the current market (mark-to-market).

ICE NGX Initial Margin includes a core component, which is the Portfolio Margin, and several add-on components: Shortfall Margin, FX Margin, Stress Loss Charge, Delivery Margin and Discretionary Margin.

The core component of Initial margin is the Portfolio Margin. It is calculated by assessing the actual price movements that have occurred in recent history of each product, then applying a Value at Risk (“VaR”) model to determine the probability of those price movements occurring during a liquidation period. Portfolio Margin is the result of applying this probability to the current market price of each product for each forward date and is an estimate of the risk within a certain confidence level. Initial margin rates may be estimated with the data that is available or may be set equal to a similar product with corresponding risk characteristics. As back-testing is performed on a daily basis, issues are identified in a timely manner for any product. Should discrepancies appear, further investigation is performed on the product to determine why the associated initial margin rate(s) are insufficient and recalibrated as required. Model back-testing and market dynamics are monitored by ICE NGX on a daily basis. The margin system has included configurable chargebacks to account for issues not covered by the core VaR model.

ICE NGX utilizes a non-parametric VaR calculation at the portfolio level based on an age-weighted historical simulation approach widely known as the BRW model (Boudoukh, et al., 1998). Daily portfolio value changes are estimated given current portfolio composition and historical returns for each product and forward tenor within the portfolio. The Historical VaR is estimated directly using the percentile of the empirical distribution, 99%. ICE NGX will prorate the result to a 2-day holding period. The model assumes (a) a Contracting Party portfolio could be liquidated within a two-day period upon default, and (b) historical weighted price changes are indicative of future price changes. Liquidation period model input has been estimated based on previous experience and expectations for future portfolio auctions.

ICE NGX products use a 2-day liquidation period. ICE NGX uses sample periods of 2 years of history with more weight applied to recent history. ICE NGX ensures that a period of stress remains in the look-back window of VaR calculation. ICE NGX will include additional observations for each of the market days during the stress period as if they occurred immediately following the end of the normal look-back window of 2 years. For new products ICE NGX often uses a proxy product

for determining initial margin rates to ensure that liquidation does not create adverse price effects. In the event of a default, ICE NGX management team members, including members from Risk, Legal, Operations, Marketing and Clearing, evaluate the defaulting customer's portfolio and other liquidation factors, including but not limited to current market conditions, the risk profile and portfolio composition, to determine the best liquidation approach.

Procyclicality is moderated by including a stress scenario after the two-year look back period, allowing cushion to stabilize rates in extreme conditions while still meeting regulatory requirements.

Besides the core Portfolio Margin component, Initial Margin also contains several add-on components.

The first add-on component is Shortfall Margin. It is designed to protect against Contracting Parties, as aggregated by clearing account, having risk beyond their credit capacity. Calculated daily, the Shortfall Margin amount is the amount by which the clearing account's stress exposure exceeds its Shortfall Allowance, which is the level of stress exposure allowed by ICE NGX for the clearing account based on the risk profile of the Contracting Parties aggregated in the clearing account. Seasonality adjustment is applied in the Shortfall Margin stress test calculation.

The second add-on component is Stress Loss Charge. In the event that a clearing account's financial resources stress exposure exceeds the guarantee fund, Stress Loss Charge is applied to cover the excess. Financial resources stress exposure is calculated as the largest stress loss in excess of Portfolio Margin and Shortfall Margin requirement.

The third add-on component is the Foreign Exchange ("FX") Margin. It is designed to cover the FX risk associated with fluctuations of clearing accounts' net exposure denominated in foreign currency.

The fourth add-on component is Delivery Margin, which applies to environmental products only. It is designed to safeguard against the risk of default during the delivery period of environmental products.

Further, ICE NGX has the ability to require a Contracting Party to provide Discretionary Margin and may consider any reasonably relevant risk factors in determining whether Discretionary Margin is appropriate. ICE NGX holds collateral against Contracting Party margin requirements in alignment with the collateral thresholds outlined in the CPA.

Margin calls can be made at any time during the day but are generally made within the first few hours of trading. When requesting additional collateral, ICE NGX will typically recommend a collateral amount which will reduce the Contracting Party's position to or below 80% of Net Equity utilization, and may provide room for further trading activity. If the Contracting Party's Initial Margin Requirement reaches 100% of Net Equity and ICE NGX makes a request for additional collateral at or before

9:00 AM Eastern Time on a business day that is not a recognized banking holiday, the Contracting Party is required to provide eligible collateral support within the same business day. Otherwise, the Contracting Party is required to provide additional collateral by the end of the next business day or, if the next business day is a banking holiday that is recognized by major Canadian and/or United States banks, then by the end of the first business day that is not a recognized banking holiday following any such request, unless ICE NGX specifies that the margin call must be met within a shorter timeframe. Should a Contracting Party fail to pay or deposit additional collateral, ICE NGX retains the right under the CPA to invoke the liquidation procedure which includes drawing on the collateral and liquidating the defaulting party's portfolio.

ICE NGX monitors portfolio and product level back-testing on a daily basis. Back-testing is performed on two levels to review actual value changes in comparison to initial margin, and exceptions are noted:

1. Product back-testing includes comparison of initial margin rate to 2-day product price changes.
2. Portfolio back-testing compares total Contracting Party Portfolio Margin across all positions to 2-day change in portfolio profit and loss ("PnL").

Coverage is evaluated across products and portfolios, including effects with other commodities within the commodity asset class. ICE NGX targets Portfolio Margin coverage not less than the generally accepted guidance appropriate for a single-tailed confidence level of 99 percent.

In addition to the back-testing exercises described under Key Consideration 6, ICE NGX reviews the back-testing results on a quarterly basis which achieves two key objectives:

- (i) ensuring that ICE NGX's systems are calculating Portfolio Margin as intended, in accordance with the model's specifications; and
- (ii) assessing the sufficiency of the Portfolio Margin in effect during the prior quarter as compared to actual price changes over that same period.

The results of the quarterly back-testing are provided to the ASC.

ICE NGX's contracts are primarily sensitive to changes in commodity price. As such, stress testing analysis is performed to determine impact of extreme events. The stress testing scenarios are set to include extreme market events, and extreme changes in correlations between prices.

Performance of ICE NGX's margin model has been sufficient to date for existing products including during extreme market conditions. If performance was considered lacking over a short period, i.e., less than a month, margin rates would be updated accordingly. If the margin methodology was found to underperform over multiple quarters, a more formal review would occur. ICE NGX discloses

	<p>margin model performance results to the ASC on a quarterly basis and publicly through quarterly updates to its PFMI quantitative disclosure document. Back-testing results are reported to Senior Management daily, and to the Risk Committee and ICE NGX Board on a quarterly basis.</p> <p>ICE NGX continuously reviews its margin model to ensure the methodology is in alignment with regulatory and risk management requirements. In addition, the model is validated by an independent party on at least an annual basis.</p>
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Principle 7: Liquidity Risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

<p>Summary Narrative</p>	<p>ICE NGX measures, monitors, and manages its liquidity requirements and resources through its liquidity resources framework, which is designed to ensure that ICE NGX has sufficient liquid resources to meet its payment obligations with a high degree of confidence and that ICE NGX meets applicable PFMI and CFTC liquidity requirements for financial resources including sufficient liquidity for the average daily variation margin settlement amounts.</p> <p>ICE NGX conducts liquidity stress testing using extreme but plausible scenarios on all daily variation margin settlement invoice payments that are subject to market volatility to ensure there are sufficient liquid resources available to resolve the largest potential non-payment. The extreme but plausible scenario used to determine the largest potential non-payment is calibrated at 99.9% confidence level. This scenario also assumes the same customer defaults on invoice payment on two sequential days.</p> <p>In addition to the daily variation margin settlement invoices, ICE NGX processes monthly settlement invoices for financially settled products and physically settled products. With respect to physical products, ICE NGX passes settlement payments for the notional value of the commodity from the buyer to the seller for physical delivery. Both the monthly financial and physical settlement invoices represent expired or delivered contracts, respectively, and therefore are not subject to market volatility. For prudent risk management purposes only, on monthly settlement dates, monthly settlement obligations are added to the daily liquidity stress testing results to reflect the full obligation of the largest potential non-payment.</p> <p>Liquidity stress testing is performed daily and results are reported to the Manager, Clearing & Credit Risk and the CRO. The stress testing methodology is reviewed regularly and is recalibrated for adequacy as required.</p>
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Liquidity resources that are used to cover the largest potential non-payment include that Contracting Party's cash on deposit ICE NGX's own liquid capital and ICE NGX's committed liquid credit facility (as further described below).

ICE NGX holds collateral and/or prepayment from each Contracting Party in the amount and currency of each of their respective invoices, whether daily variation margin settlement invoices or monthly financial or physical settlement invoices.

Contracting Party cash on deposit includes both cash collateral and cash prepayment. ICE NGX does not reinvest Contracting Party cash. Therefore, a Contracting Party's cash on deposit is a liquid resource for the purposes of a default by that Contracting Party (or its Contracting Party Affiliates).

Contracting Party cash collateral is held in segregated bank accounts at ICE NGX's primary settlement bank, controlled by ICE NGX for the benefit of the Contracting Party providing the cash collateral. ICE NGX therefore has direct control over Contracting Party cash collateral accounts and can initiate and authorize transfers between collateral accounts and ICE NGX's settlement accounts. ICE NGX uses direct, system-based correspondence with the settlement bank to process payments and transfers, and maintains online access to accounts and payment services.

ICE NGX only accepts as collateral LCs that require payment of proceeds by the next business day following a drawdown notification. To provide same-day liquidity in respect of LCs provided as collateral by a Contracting Party, ICE NGX maintains a USD 100 million (or CAD equivalent) committed daylight/ overnight credit facility from its primary settlement bank, available on demand. In addition, ICE NGX has a USD 200 million uncommitted daylight credit facility available on demand from its primary settlement bank. See Principle 5 for further discussion on collateral.

Supplemental liquid resources include ICE NGX's own capital of USD 45 million, comprising: USD 15 million held as restricted cash to satisfy the USD 15 million first loss amount under the default insurance; and (ii) ICE NGX cash in the amount of USD 30 million.

Additionally, ICE NGX's liquidity resources also include the USD 200 million (or CAD equivalent) ICE NGX Letter of Credit, the proceeds of which are available for disbursement to meet ICE NGX's obligations as a central counterparty within a 1-day settlement cycle.

ICE NGX's primary settlement bank is ICE NGX's main liquidity provider. ICE NGX reviews its primary and secondary settlement banks and collateral LC-issuing banks on a regular basis to provide a high level of confidence in liquidity performance for both credit facilities and collateral deposits. In the event that ICE NGX's primary settlement bank is not available, ICE NGX may effect settlements through its secondary settlement bank.

	ICE NGX does not currently use a central bank to manage credit facilities or cash deposits, including both ICE NGX cash and cash collateral, as it believes these items are adequately serviced through its primary settlement bank.
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Principle 8: Settlement Finality

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

<p>Summary Narrative</p>	<p>ICE NGX provides clear and certain final settlement upon payment and receipt of funds.</p> <p>Payments or receipts by the Contracting Party as a result of transactions cleared through ICE NGX are due in accordance with the CPA and respective settlement dates. Settlements are deemed final upon remittance to ICE NGX and constitute full satisfaction of the payment or receipt obligations. The CPA, as supplemented by Canadian bankruptcy and insolvency laws, provides for the intended discharges to satisfy settlement finality. ICE NGX has obtained legal opinions supporting this view that provide ICE NGX with a high degree of certainty that settlement payments are final once received.</p> <p>As a standalone FMI, ICE NGX does not have linkages to any other FMI.</p> <p>ICE NGX effects daily settlements with Contracting Parties for financially settled Canadian electricity contracts only. For all other cleared transactions, settlement occurs on a monthly basis. Settlement dates are published on the ICE NGX website. In the event ICE NGX is required to defer a settlement date, Contracting Parties would be notified immediately. To date ICE NGX has not experienced a significant event that would cause a deferral of final settlement.</p> <p>Settlement invoices are provided in advance of the settlement date and are for confirmed amounts that are not subject to additional market-based evaluations. All invoices are available through CS.</p> <p>The ICE NGX Clearing team manages payments on all settlement dates. All settlement payments are due by noon MT/ 2:00 PM ET on the corresponding settlement date.</p> <p>Settlement payments are processed intraday and reconciled at the end of the day to identify any outstanding payments. ICE NGX's rules state that, unless a Contracting Party has disputed an invoice or any item on an invoice, invoices are final and binding 30 days after settlement for environmental products, 120 days after settlement for physically settled Canadian and US natural gas and financially settled power products, and 180 days after settlement for invoices in respect of physically-settled U.S. power products. Settlement amounts are collateralized; the CPA provides ICE NGX with the right to realize on a Contracting Party's collateral to cure an outstanding settlement amount of that Contracting Party or its</p>
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	<p>Contracting Party Affiliate. Contracting Parties are advised of these requirements through the CPA as well as payment dates listed on ICE NGX's website.</p> <p>If a Contracting Party's settlement payment is not received on the relevant settlement date, the Contracting Party is notified of the default and that immediate resolution is required. The Manager, Clearing & Credit Risk and the CRO are notified of all non-payments, and adjustments are made to the Clearing system to capture the non-payment. ICE NGX must notify the ASC of all defaults, including a failure to pay, that are not remedied within two business days of the date of the default. Should a Contracting Party be unwilling or unable to resolve the default, ICE NGX may use that Contracting Party's collateral to cure the non-payment and may invoke the Liquidation and Close-out Procedures under the CPA.</p>
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Principle 9: Money Settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimize and strictly control the credit and liquidity risk arising from the use of commercial bank money.

<p>Summary Narrative</p>	<p>ICE NGX conducts its money settlements through approved commercial banks. The financial institutions that ICE NGX uses for the clearinghouse settlement banks are some of the largest banks in Canada. They are reputable organizations that employ accounting practices, safekeeping procedures and internal controls that protect the funds they hold. ICE NGX does not currently use a central bank to manage settlement payments as it believes these items are adequately services through its primary and secondary settlement banks.</p> <p>ICE NGX uses Canadian Schedule I commercial banks as its primary and secondary settlement banks to conduct all settlements in both Canadian and US denominations. In the event that ICE NGX's primary settlement bank is not available, ICE NGX may effect settlements through its secondary settlement bank.</p> <p>ICE NGX performs regular internal credit rating reviews and monitors the regulatory filings of its settlement banks on an ongoing basis. Factors considered in reviewing the credit rating include bank organizational structure, financial ratios, cost of settlement transactions, range, quality and reliability of services.</p> <p>ICE NGX uses the Lynx high value payment system which ensures that wire transfers are final. ICE NGX Clearing and Settlement personnel monitor settlement accounts for incoming and outgoing wire payments on an ongoing basis to ensure settlements are effected as intended.</p> <p>For tracking purposes ICE NGX calculates Contracting Parties' margin requirements (which include net accounts receivable, initial margin and variation margin) as a Canadian-dollar equivalent. ICE NGX products are transacted in Canadian dollar and US dollar currencies, therefore a customer may have invoices in multiple currencies. ICE NGX settles Canadian-dollar and US-dollar</p>
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	denominated invoices with each Contracting Party, separately by currency, on a net basis unless the Contracting Party has specifically asked to be invoiced in a different manner.
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Principle 10: Physical Deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

Summary Narrative	<p>ICE NGX's CPA clearly outlines all parties' obligations with respect to physical deliveries. ICE NGX regularly identifies, monitors and manages the risks associated with such physical deliveries.</p> <p>ICE NGX clears energy commodity futures for physical delivery at over 100 physical locations across North America. ICE NGX provides a 'handshake' title transfer at all its locations. Except in the case of a force majeure, ICE NGX provides assurance to Contracting Parties that it will either deliver or pay costs of failing to deliver the product contracted for.</p> <p>All physical delivery obligations are outlined in the CPA and all Contracting Parties agree to these obligations before entering into transactions.</p> <p>For physical gas products, Contracting Parties must provide valid pipeline account information in order to confirm their ability to physically deliver and receive natural gas products. ICE NGX has Market Operations personnel in both its Calgary and Houston offices who carry out specific responsibilities including nominating physical deliveries and ensuring those deliveries are effected in a timely manner and for the volumes expected. For almost every physical natural gas delivery point that ICE NGX clears, accounting for nearly all physical natural gas volume, Market Operations personnel will submit a nomination at least once per day. ICE NGX submits nominations at the first NAESB cycle (one day prior to delivery) to ensure time for alternate measures if necessary. ICE NGX Contracting Parties are expected to accept those nominations (for certain locations, having a nomination waiver in place is required), and a failure to either make or take delivery is considered a default under the CPA. Market Operations and Marketing teams work with Contracting Parties on an ongoing basis to ensure their awareness and understanding of delivery obligations. ICE NGX provides web-based reports to all participants with nominations and scheduling tools through CS.</p> <p>For physical power contracts, Contracting Parties must demonstrate that it is capable, either directly or through an agent, of scheduling energy or other ancillary products, as applicable, in accordance with the applicable rules and tariffs.</p> <p>ICE NGX also clears environmental futures for physical delivery of Alberta emissions offsets and emissions performance credits, at the applicable registries.</p>
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	<p>For physical environmental contracts, Contracting Parties must provide valid account numbers at the Alberta Emissions Offset Registry and/or the Alberta Emission Performance Credit Registry in order to confirm their ability to physically deliver and receive Alberta environmental products. ICE NGX has Market Operations personnel in its Calgary offices who carry out specific responsibilities including validating the delivered credits, nominating physical deliveries and ensuring those deliveries are effected in a timely manner and for the volumes expected.</p> <p>In the event a Contracting Party fails to make or take delivery, ICE NGX Market Operations maintain procedures for physical backstopping for certain products at certain locations - i.e., finding a replacement buyer or seller, as applicable. If delivery obligations are not met, all associated costs of remedying the default are passed on to the failing Contracting Party as outlined in the CPA. In the event that the commodity delivery cannot be backstopped, the CPA outlines contingencies where the failing Contracting Party is charged market price for the failed delivery.</p> <p>With respect to its physically settled Alberta environmental products, ICE NGX maintains a Revocation Warranty Fund in the amount of CAD 10 million to compensate the buyer, up to the then-current amount of the fund, if (i) a delivered credit is revoked or invalidated by the Alberta government and (ii) the seller that delivered the credit fails to pay its revocation obligations. ICE NGX maintains an insurance policy under which it would file a claim for the loss resulting from a payment from the Revocation Warranty Fund.</p>
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<i>Principle 11: Central Securities Depositories</i>	
<i>A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimize and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry.</i>	
Not applicable. ICE NGX is not a central securities depository.	

<i>Principle 12: Exchange-of-Value Settlement Systems</i>	
<i>If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.</i>	
Summary Narrative	All collateral payments, option premium payments and settlement payments to and from ICE NGX do not involve two linked obligations.

Principle 13: Participant-Default Rules and Procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Summary Narrative

ICE NGX has effective and clearly defined rules and procedures within the CPA that are designed to manage a CP default and to ensure that ICE NGX can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Default triggers are clearly outlined in the CPA, the current version of which is publicly available on ICE NGX’s website. A Default is triggered automatically upon the occurrence or continuation of a Failure to Deliver, Failure to Take, Failure to Pay, Failure to Provide Eligible Collateral Support, Failure to Satisfy Revocation Obligations, or failure to perform any other Obligations under a Transaction (each capitalized term as defined in the CPA) in respect of the Contracting Party or its Contracting Party Affiliate.

An “Event of Default” is triggered automatically upon the occurrence or continuation of a bankruptcy or related event relating to the Contracting Party, its Contracting Party Affiliate or Credit Support Provider. ICE NGX may also declare an “Event of Default” in respect of a Contracting Party on the occurrence or continuation of any of the following events in respect of the Contracting Party or its Contracting Party Affiliate: a default, a credit support default, misrepresentation in respect of credit support documents, a merger or other corporate transaction that results in the surviving entity failing to assume all ICE NGX obligations, or if an event of default is declared in respect of the Contracting Party or any of its affiliates at any other clearinghouse as “event of default” is defined in the respective rulebook of the other clearinghouse.

Upon the occurrence of a Default or Event of Default, ICE NGX management team will determine the appropriate course of action. In accordance with the terms of the CPA, ICE NGX may, among other things, exercise any or all of the following rights: (a) request additional collateral; (b) suspend the Contracting Party; (c) declare any amounts for delivered commodity or any unpaid invoices immediately due and payable and withhold payments due as if paid; (d) terminate any transaction or declare it immediately payable or to be performed; (e) cancel or amend any schedules to deliver or take power to or from the Contracting Party; (f) liquidate the Contracting Party’s portfolio with ICE NGX. If ICE NGX determines to invoke the Liquidation and Close-out Procedures, any posted collateral will be withdrawn, all current positions of the Contracting Party will be settled and any existing forward position transactions will be liquidated at the discretion of ICE NGX, which may include an auction process. ICE NGX does not mandate participation by Contracting Parties in a liquidation auction. All auctions will be structured so as to limit potential market price distortions. All obligations and costs arising from these actions will be cured first through the defaulting party’s

	<p>collateral. Following the liquidation, the defaulting party’s membership may be terminated.</p> <p>ICE NGX has delivery insurance in the amount up to USD 50 million in place to protect against risk of non-delivery relating to certain physical gas products.</p> <p>ICE NGX maintains liquidity resources to cover non-payment of settlement amounts, and financial resources to cover the single largest potential collateral shortfall in an extreme stress event plus 12 months of operating costs.</p> <p>ICE NGX has clearly defined Default Management Procedures that set out roles and responsibilities for the Clearing, Marketing, Market Operations and Legal departments as well as ICE NGX Management. The ICE NGX Default Management Procedures are reviewed at least annually by ICE NGX management and approved by the Board. The default discovery, notification and liquidation processes are simulated at least once annually and upon completion a report is delivered to ICE NGX management, the ICE NGX Board and the ICE NGX Risk Committee indicating the results and any recommendations for changes to default processes.</p> <p>ICE NGX’s Default Management procedures identify when relevant stakeholders must be contacted in an event of default. Key stakeholder personnel are contacted via email by the appropriate ICE NGX staff who can address the issue. Communication of default notices to the defaulting party and all relevant stakeholders including regulators, Senior Management, and the Board is conducted primarily by phone and email, and in-person or by courier as required or appropriate in the circumstances. Pursuant to CFTC Regulations, ICE NGX is required to post a public notice of a Contracting Party event of default to the ICE NGX website.</p> <p>In respect of a default by ICE NGX, recourse by the Contracting Party is solely against ICE NGX, due to ICE NGX’s non-mutualized structure. The Contracting Party is entitled to the rights of recourse against ICE NGX set forth under the CPA in the event of any Failure to Deliver, Failure to Take or Failure to pay by ICE NGX.</p>
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<p><i>Principle 14: Segregation and Portability</i></p>	
<p><i>A CCP should have rules and procedures that enable the segregation and portability of positions of a participant’s customers and the collateral provided to the CCP with respect to those positions.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX operates a direct access, non-mutualized clearing structure. There is currently no customer clearing on ICE NGX, and therefore Principle 14 is not applicable.</p> <p>If at any time an ICE NGX Participant requests to clear on anything other than a self-cleared basis, and ICE NGX determines in its discretion to accept this request,</p>

	ICE NGX would make the necessary adjustments to accommodate customer clearing, including a full legal assessment of the requirements relating to segregation and portability of customer funds under the relevant jurisdictions.
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Principle 15: General Business Risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Summary Narrative	<p>ICE NGX identifies, monitors and manages its general business risks and holds sufficient liquid net assets funded by equity to cover general business losses so that it can continue operations and services as a going concern if these losses materialize. As part of wider risk management processes, ICE NGX has established several mechanisms and metrics to monitor and manage clearing business, operational, regulatory and financial risks. Furthermore, ICE NGX's liquid net assets are at all times sufficient to ensure a recovery or orderly wind-down of critical operations and services.</p> <p>ICE NGX has robust management and control systems through governance, enterprise risk management, extensive financial reporting and controls, and internal audit to ensure that ICE NGX identifies and is aware of general business risk.</p> <p>ICE NGX's Risk Management Framework and ERM framework address risks arising from general business including financial and operational risks. ICE NGX identifies and measures risks arising from poor execution of business strategy, negative cash flows, and unexpected large operating expenses. General business risks are monitored on an ongoing basis through regular Senior Management meetings, monthly financial reporting, and ongoing review of management reporting. Formal measurement occurs on a monthly and quarterly basis and as required if a material change to inputs occurs.</p> <p>ICE NGX maintains a Financial Recovery and Wind-down Plan and holds sufficient liquid net assets to implement this plan. In addition to the resources held for participant defaults, ICE NGX holds liquid assets in the form of cash sufficient to cover 12 months of operating costs as required under CFTC financial resource requirements.</p> <p>ICE NGX conducts operational cash flow stress testing for scenarios that could negatively impact operational cash flow and liquidity of the business. Results of the stressed scenarios are compared against ICE NGX's regulatory requirements to ensure the business could withstand all stress scenarios and continue meet all obligations.</p>
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Principle 16: Custody and Investment Risks

An FMI should safeguard its own and its participants' assets and minimize the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Summary Narrative

ICE NGX safeguards its own assets and the assets of its Contracting Parties to minimize the risk of loss on and delay in access to these assets. ICE NGX does not reinvest Contracting Party collateral and only invests its own funds in instruments with minimal credit, market and liquidity risks.

All collateral assets are warehoused at a Canadian Schedule I commercial bank. The bank is subject to significant regulation and capital requirements under the *Bank Act* (Canada). To maintain compliance with the bank regulations, the bank must adhere to robust practices and have in place appropriate practices, procedures and internal controls. ICE NGX performs regular internal credit rating updates of its primary settlement bank using CRS.

ICE NGX conducts monthly reconciliation and reviews of all collateral records and completes regular reviews of procedures for collateral movements.

Contracting Party cash collateral is held in interest bearing, segregated accounts controlled by ICE NGX and indicated as for the benefit of the Contracting Party that provided the cash collateral, at ICE NGX's primary settlement bank. The holding and treatment of Contracting Party cash collateral is set out in the CPA. ICE NGX pays interest to Contracting Parties on cash collateral at an interest rate as notified by ICE NGX. ICE NGX maintains a first priority security interest over certain assets of its Contracting Parties.

ICE NGX's cash collateral custodian bank is also ICE NGX's advising bank for all LCs issued for the benefit of ICE NGX and provided as collateral. With respect to LCs received as collateral, ICE NGX monitors internal credit ratings relating to approved LC issuing banks using CRS and monitors LC issuing bank concentration limits.

Principle 17: Operational Risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Summary Narrative

ICE NGX identifies plausible sources of operational risk, both internal and external, and mitigates their impact through the use of appropriate systems, policies,

	<p>procedures and controls. ICE NGX’s systems are designed to ensure a high degree of security and operational reliability and have adequate, scalable capacity. ICE NGX’s business continuity management aims for the timely recovery of operations and the fulfillment of ICE NGX’s obligations, including in the event of a wide-scale or major disruption.</p> <p>ICE NGX’s operational risk is managed through policies embedded within the ERM Program and internal procedures which include a Business Continuity Plan (“BCP”) and Disaster Recovery Plan (“DRP”).</p> <p>ICE NGX has three primary sources of operational risk:</p> <ol style="list-style-type: none"> 1. Financial and liquidity risks which are mitigated through a conservative margining regime, ICE NGX’s liquid financial resources and banking facilities; 2. Physical delivery risks which are mitigated through ICE NGX’s practices and procedures including scheduling deliveries of natural gas and power and physical backstopping arrangements, as well as delivery insurance relating to certain physically settled natural gas products; and 3. Systems-related risks which ICE NGX manages on an ongoing basis through several mechanisms, including running redundant production servers (certain of which have built-in automatic failover protection), daily and weekly backups, and the DRP. <p>Technical risks are identified and managed using the DRP. ICE NGX technical infrastructure is housed in two geographically separate ICE data centers, available at all times. ICE data centers are subject to their own rigorous audit processes and meet high-level industry standards.</p> <p>These resources ensure transactional data and market price information continue to be processed so that physical deliveries and margining and settlement obligations are not interrupted. In addition, ICE NGX follows a Software Development Lifecycle Policy (“SDLC”) and a Change Management Policy (“CMP”). Both policies describe the milestones for technical development and testing, including functionality, capacity and security testing, and the processes and authorizations required each time ICE NGX upgrades its systems, authorizes a change to employee access or requires a change to one of its production databases.</p> <p>ICE NGX’s BCP and DRP consider these sources of risk collectively to ensure that necessary exchange and clearinghouse functions continue upon activation of either the BCP or DRP.</p> <p>ICE NGX has developed a risk framework and governance structure as outlined in Section B - General Organization of the FMI of this document.</p>
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ICE NGX operations, including systems and procedures, are subject to audit on an annual basis, ongoing security reviews, and an annual financial audit conducted by a national accounting firm. Results of the audits are reviewed by the ICE NGX management team and results are provided to the ICE NGX Board and, where appropriate, to the Risk Committee.

ICE NGX has an operational system uptime objective of 99.5% including the ongoing calculation of indices. These objectives are taken into consideration when making decisions concerning systems and through the strategic planning process.

ICE NGX is reliant on ICE's transactional platform reliability in order to receive trades in real time. This influences the operational risk management strategy as limited trades feeds may prevent effective position monitoring and margining. In the event connectivity between the ICE NGX Trading System and ICE NGX is interrupted, ICE NGX has discretion to close markets on the ICE NGX Trading System until the functionality is restored. ICE NGX has the ability to manually enter trades directly into the Clearing System platform if required. There are redundant technical fail safes in place to ensure connectivity remains at all times and ICE NGX's Operations and technical teams continuously monitor market availability and activity to ensure the clearing system remains current.

ICE NGX assesses system changes to determine whether a performance test should be conducted as part of a particular system change. ICE NGX performs load and stress testing on a regular basis, the results of which are reviewed by the ICE NGX Senior Management team which includes the VP, Technology and CRO. In addition, ICE NGX monitors system capacity and tests system capacity periodically. If an approaching capacity limit is forecasted, recommendations are presented to the ICE NGX Senior Management team for approval and implemented accordingly.

The policies and procedures, including CMP and project management procedures for addressing the plausible sources of physical vulnerabilities and threats on an ongoing basis, are found within appropriate documentation. ICE NGX policies, processes, controls and testing appropriately take into consideration relevant international, national and industry-level standards for physical security.

ICE has issued specific protocols regarding office security including policies regarding access cards and evacuation procedures. The physical security policies and procedures are operated by ICE Security and include the requirement of an authorization card to enter any ICE NGX/ICE premises including stairwells, washrooms, and offices. After-hours access to building floors requires authorization cards for elevator use as well. Additionally, ICE requires employee awareness regarding protocols and safety measures.

Electronic security is co-managed by ICE and ICE NGX and uses standard SSL based encryption which requires a password to access all systems and requires regular password changes.

	<p>ICE NGX’s BCP contains directions for ICE NGX to effectively respond to a disruptive incident in order to protect personnel and resources minimizing disruption to critical business services. Business recovery objectives maintain a level of service that will protect ICE NGX’s relationship with staff, participants, regulators, vendors and other entities and uphold ICE NGX’s reputation. The BCP identifies the steps necessary to achieve one or more of the following strategies:</p> <ol style="list-style-type: none"> 1. Utilize a remote connection from home; 2. Transfer work / processing responsibility to another geographic location; 3. Use manual procedures until systems (if disabled) are restored; 4. Identify and recreate Work-In-Progress lost during the event and re-enter it in an efficient manner; and/or 5. Address backlogged work created by task prioritization. <p>The BCP addresses potential points of failure relating to key staff, facilities, information systems, external service providers and information and procedures specific to key process by identifying effective recovery strategies and solutions for actual failure and by documenting in a prescribed format the resources and actions required.</p> <p>In addition, the DRP has recovery times for different scenarios. All recovery times are designed to be able to meet end of the day events.</p> <p>The BCP and DRP are reviewed and tested on at least an annual basis, however most BCP functions (remote connection, data centers, etc.) are used more often in the regular course of business. ICE NGX takes steps to ensure that a failover between sites is as transparent as possible to Contracting Parties. No changes are required to Contracting Parties’ networks or configurations.</p> <p>Settlement bank services are generally accessed through direct SWIFT-based messaging from ICE systems to ICE NGX’s primary settlement bank.. In the event ICE NGX’s primary settlement bank became unavailable, ICE NGX has arrangements with an alternate settlement bank to facilitate banking and settlement services.</p> <p>ICE NGX monitors a number of connections in real time relating to the ICE NGX Trading System. In the event of a system disruption, ICE and ICE NGX technical staff work to resolve issues as appropriate. ICE NGX’s participants do not provide any third-party services or utilities.</p> <p>ICE NGX does not have any links to any other FMI or CCP.</p>
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Principle 18: Access and Participation Requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access

Summary Narrative

ICE NGX maintains objective, risk-based and publicly disclosed criteria for participation, which permit fair and open access.

The membership requirements of ICE NGX are publicly disclosed in the CPA and are designed to permit fair and open access, while protecting ICE NGX and its CPs. The membership requirements are the same for all applicants and include fitness criteria, financial standards, operational standards and appropriate registration qualifications with applicable statutory regulatory authorities. ICE NGX applies a due diligence process to ensure that all applicants meet the required criteria and conducts on-going monitoring of CPs.

Prior to becoming a Contracting Party, an applicant must submit a completed application form, which requests various information about the company and its affiliates (if applicable), a list of the officers, directors, principals and significant shareholders, past Contracting Party status, a list of the regulatory authorities that have authority with respect to the applicant, and past or current disciplinary action imposed on the applicant or certain of its representatives by a regulatory authority.

An applicant must also satisfy the Minimum Qualification Requirement, that is, the applicant must be a business entity with a net worth exceeding \$5 million or total assets exceeding \$25 million, or the applicant must be controlled, directly or indirectly, by any one or more business entities satisfying these criteria.

Contracting Parties are required to satisfy the Minimum Qualification Requirement on an ongoing basis, and represent under the CPA that they will do so at all times. This is verified by ICE NGX on at least an annual basis. ICE NGX will notify a Contracting Party if ICE NGX determines the Contracting Party no longer satisfies the Minimum Qualification Requirements. ICE NGX may, depending upon the circumstances, allow the Contracting Party an opportunity to continue to trade/clear while working to correct the deficiency to ICE NGX's satisfaction or it may revoke access to ICE NGX's markets, including through a Contracting Party Suspension. The consequences of a Contracting Party suspension are clearly outlined in the CPA.

Where applicable, a Contracting Party must also maintain adequate and appropriate regulatory approvals to support its trading and clearing activities. Disciplinary actions taken against a Contracting Party by applicable regulatory authorities are considered with respect to ongoing participation eligibility.

Compliance staff routinely monitor for and review any disciplinary action imposed on a Contracting Party or any of its affiliates, including by applicable regulatory authorities, exchanges and clearinghouses. This monitoring helps Compliance staff stay up-to-date on whether a market participant or certain of its senior

personnel has been disciplined and/or restricted from certain types of activities, which may in turn impact the continuing eligibility of a Contracting Party. Information considered by Compliance staff in this context is generally available through the public domain unless otherwise provided by the Applicant or Contracting Party. While ICE NGX does not require that a Contracting Party re-submit the information required for new applicants on an annual basis, ICE NGX may request supplemental information from time to time to ensure a Contracting Party remains in good standing.

The CPA is publicly disclosed on ICE NGX's website and includes several representations to which market participants are held on an ongoing basis. These include, but are not limited to, understanding of all risks and costs associated with trading and clearing through ICE NGX, that the Contracting Party is willing to assume those risks, and that the Contracting Party is a sophisticated investor. In certain regulatory jurisdictions a representation may apply wherein Contracting Party asserts that it is eligible to transact and clear ICE NGX products. All sign up requirements and details of the sign-up process are available on ICE NGX's website. In addition, Marketing, Market Operations and Clearing staff work with existing and potential new participants to ensure their understanding of participation requirements.

Contracting Parties also represent that they have the requisite capacity to make/take delivery, can respond to and satisfy a request for additional collateral within one business day and will make invoice payments on an ongoing basis.

In addition to the minimum available margin requirements applicable to each product class that ICE NGX offers for trading and clearing, in order to maintain its participation in the ICE NGX markets each Contracting Party is required to maintain sufficient collateral in accordance with the CPA. Contracting Parties with a higher credit risk profile or with higher risk portfolios may be required to maintain additional available margin. ICE NGX reserves the right at any time to: (a) decline to enter into any Transaction which, in ICE NGX's sole determination, increases the credit exposure or adds additional risk of loss to or otherwise affects the risk profile of ICE NGX; or (b) take any other reasonable actions to preserve the integrity and security of ICE NGX, the ICE NGX Trading System and/or the ICE NGX Clearing System (including, without limitation, making a request of a Contracting Party for additional Eligible Collateral Support), as determined in the sole discretion of ICE NGX.

ICE NGX may adjust the participation requirements, subject to applicable regulatory requirements, by making amendments to the CPA.

If ICE NGX personnel are of the belief that a Contracting Party's credit risk profile or financial situation has deteriorated or may deteriorate, that Contracting Party may be added to the Watchlist. ICE NGX monitors companies on its Watchlist more closely and may request updated information, including financial statements and regulatory filings, more frequently.

Principle 19: Tiered Participation Arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Summary Narrative	ICE NGX does not currently have tiered participation arrangements.
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Principle 20: FMI Links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Summary Narrative	Not applicable. ICE NGX does not have links to another FMI.
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Principle 21: Efficiency and Effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Summary Narrative	<p>ICE NGX is efficient and effective in meeting the requirements of its CPs and the markets it serves.</p> <p>ICE NGX’s objective is to provide secure, capital-efficient counterparty risk management and post-trade services for ICE NGX markets.</p> <p>ICE NGX has evolved its operating structure, products and services since its inception in 1994 based on the ongoing feedback of market participants. Marketing, Operations and Clearing maintain daily contact with our Contracting Parties on many fronts and continually receive feedback on our product and service offerings. In addition to daily interaction, Clearing and Marketing meet regularly with Contracting Parties to present overviews of our clearing structure and services and to obtain feedback. The result of these interactions is an ongoing investment in technical system enhancements, regular introduction of new products and services, and changes to procedures and processes to ensure alignment with market requirements on the proviso that ICE NGX’s core clearinghouse and operating principles are not compromised.</p> <p>ICE NGX closely tracks volume trends in aggregate and by individual company, ensuring that it has a good understanding of the rationale for any change in volumes. If decreases in volumes are based upon shortcomings of ICE NGX’s services, technologies or structures, ICE NGX will take appropriate action to remedy the deficiency.</p>
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	<p>ICE NGX's website provides a number of customer resources to ensure participants have all necessary information related to ICE NGX products and services.</p> <p>ICE NGX uses industry benchmarks and comparisons (a) when available and (b) as applicable to ICE NGX's business, to evaluate its efficiencies in margin rates and volume trends. The evaluation of efficiency and effectiveness are performed on an ongoing basis.</p> <p>ICE has a defined performance compensation structure that ensures that all personnel are measured against objectives, and compensation varies in accordance with performance.</p>
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<p><i>Principle 22: Communication Procedures and Standards</i></p> <p><i>An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX uses relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement and recording through TCP/IP protocols. ICE NGX uses TLS encryption with complex keys and delivers services using a combination of HTTPS and SSH protocols.</p>

<p><i>Principle 23: Disclosure of Rules, Key Procedures, and Market Data</i></p> <p><i>An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.</i></p>	
<p>Summary Narrative</p>	<p>ICE NGX has clear and comprehensive rules and procedures that provide sufficient information to enable CPs to have an accurate understanding of the risks, fees and other material costs they incur at ICE NGX. The ICE NGX CPA and other pertinent information are publicly available on the ICE NGX website.</p> <p>The ICE NGX CPA clearly and comprehensively details CP rights, obligations and risks and documents the operation of ICE NGX in general as well as under non-routine, though foreseeable, events (e.g., CP default).</p> <p>The CPA provides clear descriptions relating to the risks, fees and costs of trading and clearing in ICE NGX's markets, as well as the rules, rights and obligations of the Contracting Party to ICE NGX and vice versa relating to trading and clearing in the ICE NGX markets. The CPA also sets out the basis for a Contracting Party default or event of default and the implications thereof a default. The CPA includes trade-in-error provisions, margining, settlement, and default rules, as well as the</p>

terms and conditions applicable if ICE NGX declares a force majeure or if ICE NGX or one of its regulators declares an emergency situation. In situations where ICE NGX or its regulators may exercise discretion the degree of discretion is also stated.

ICE NGX continuously reviews its rules and procedures for clarity and comprehensiveness. ICE NGX may amend or revise the ICE NGX rules, policies and procedures from time to time as considered appropriate to resolve uncertainties or ambiguities or otherwise. Amendments to the CPA are required to be approved by the ICE NGX Board; advance notice to several stakeholders, including ICE NGX's regulators is also required. Following the review of those stakeholders, the CPA provides that amendments to the CPA become effective not earlier than 6 business days' following notice to Contracting Parties. Notice is provided by email to all CPs and is posted on ICE NGX's website.

ICE NGX's trade matching engine is provided through ICE, and as such each Contracting Party must also execute an ICE Participant's Agreement to access the trading software. Because ICE is the software provider, ICE provides participants with the necessary technical documentation and appropriate related materials, including access to demonstration systems, specifications for submitting orders via API interface, etc.

ICE NGX's Clearing System is developed in-house and is accessible via any internet browser, negating the need for extensive systems-specific documentation. ICE NGX has made available to Contracting Parties a technical specification that provides guidance for accessing ICE NGX's reports via an API.

ICE NGX maintains technical documentation concerning its procedures for implementing key policies (e.g., SDLC, CMP) relating to its systems, but does not disclose any system information to participants or the public. ICE NGX will provide this information to its regulators upon request.

ICE NGX publicly discloses a Sign-up Guide, which describes the steps required to become a Contracting Party as well as specific requirements for acceptable forms of collateral, and a Margin Methodology Guide that explains ICE NGX's margining rules and triggers as well as settlement and payment cycles. Prior to executing the CPA, Marketing and Clearing staff will typically engage in discussion with an applicant to ensure there is a clear understanding of the rules pertaining to margining, settlement and defaults. The ICE NGX website includes overviews of ICE NGX's business and services; clearing & settlement function, including guarantee fund and liquidity resources; market operations function; and regulatory environment.

When ICE NGX staff identify a Contracting Party that struggles to comply with requests for additional collateral, making timely settlement payments, or making/taking physical delivery on a recurring basis, staff contact the Contracting Party to communicate the need to comply with ICE NGX's rules. Staff also apply additional cross-department monitoring procedures. ICE NGX staff work with the Contracting Party on these matters to ensure a clear understanding is achieved.

	<p>Encouraging the Contracting Party to regularly monitor its exposures and deliveries is often sufficient.</p> <p>The fees associated with ICE NGX's products and services are outlined in the CPA and publicly disclosed on its website. See above for discussion regarding amendments to the CPA, including relating to fees and products.</p> <p>ICE NGX publicly discloses various transactional and risk data through the quarterly PFMI Quantitative Disclosure. At the end of each trading day for each product and tenor offered for trading and clearing, ICE NGX makes available the number of transactions, total volume traded, open, high, low, and settlement price and open interest. This information may be retrieved on an historical basis, for up to 5 days prior through ICE NGX's website. Additional historical data is available to Contracting Parties via secure login.</p> <p>All information on ICE NGX's website is provided in the English language only.</p>
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Principle 24: Disclosure of Market Data by Trade Repositories

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

Not applicable. ICE NGX is not a trade repository.



V. LIST OF PUBLICLY AVAILABLE RESOURCES

From the ICE NGX website (www.ice.com/ngx)

- Contracting Party Agreement
- ICE NGX Fee Schedule
- ICE NGX Index Methodology Guide
- ICE NGX Margin Methodology Guide
- ICE NGX Product Summary
- ICE NGX PFMI Quantitative Disclosures
- ICE NGX Notices, including regulatory self-certifications

From the ICE website (www.ice.com) under Investor Relations

- ICE Quarterly and Annual Reports

From the Alberta Securities Commission website (www.asc.ca)

- ICE NGX Clearing Agency Recognition Order
- ICE NGX Exchange Recognition Order

From the US Commodity Futures Trading Commission website (www.cftc.gov)

- ICE NGX Derivatives Clearing Organization registration
- ICE NGX Foreign Board of Trade registration

From the European Securities and Market Authority website (www.esma.europa.eu)

- ICE NGX third country CCP recognition

From the Bank of England website (<https://www.bankofengland.co.uk/>)

- List of third-country CCPs

From Industry Canada website (www.ic.gc.ca) under Corporations

- List of Directors
(<https://www.ic.gc.ca/app/scr/cc/CorporationsCanada/fdrlCrpDtls.html?corpId=4224434>)