

Energy Portfolio Risk Management Regulations

For Communities, By Communities



**COMMUNITY
POWER COALITION
OF NEW HAMPSHIRE**

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Introduction

Scope of Regulations

The Energy Portfolio Risk Management Regulations (EPRMR) outline the procedures, methodologies, and regulations relied upon by the Community Power Coalition (CPCNH) in making decisions necessary to provide the credit support, portfolio analytics, forward portfolio management, contracting, hedging, wholesale market scheduling, and related operating activities required to implement and provide for Community Power Aggregation (CPA) power supply services.

The Risk Management Committee (RMC) is responsible for ensuring the development and maintenance of CPCNH's Energy Portfolio Risk Management Regulations (EPRM Regulations) to expand on the roles, strategies, controls, and authorities authorized in the Energy Portfolio Risk Management Policy (EPRM Policy), to ensure that a comprehensive energy and portfolio risk management program is carried out for the benefit of Member CPAs.

Applicability

These EPRM Regulations are effective immediately upon its adoption by the Board. It applies to CPCNH's wholesale supply operations, long-term contracting for energy/capacity and services, acquisition of generation resources, credit risk management and other related ancillary activities undertaken by CPCNH.

CPCNH Officers, Directors, staff, and contractors engaged in portfolio risk management will adhere to and be governed by the EPRM Policy and Regulations.

Amendments

The ability afforded to the CEO, RMC, and others to address any issues that arise promptly and efficiently under these regulations is intended to provide the flexibility necessary to maintain CPCNH's risk management program.

As CPCNH implements and develops its portfolio risk management strategy, it is anticipated that changes to these regulations will be required. EPRM Regulations may be amended with approval of the CEO, in consultation with the RMC. The CEO will send prompt written notice to the Board of any such amendments.

Interpretations

Questions regarding the interpretation of any matters of these regulations should be referred to the RMC. All legal matters arising from these regulations will be referred to CPCNH Counsel for legal review.

In the event that EPRM Regulations are found to conflict with EPRM Policy at any time, the EPRM Policy shall govern.



Summary of Risk Exposures & Mitigations

CPCNH must procure electric power supplies and operate in the wholesale energy market, which exposes CPCNH, and ultimately the customers of participating Members, to various risks. The primary risks related to CPCNH's participation in wholesale and retail markets as a Load Serving Entity (LSE) are summarized below.

Each section begins with a brief description of the risk, taken from the EPRM Policy, followed by (i) the management and mitigation guidelines, and (ii) the measurement and metrics for each risk that are provided for under these EPRM Regulations.

Gross Margin

EPRM Policy Definition

Gross Margin is the total of all revenues received (from retail sales to customers and from the sale of any energy products that were surplus or unneeded) less the total costs (including the costs of long-term contracts, forward transactions, and spot market purchases plus all other operating costs). It represents the “commercial bottom line” for CPCNH and determines the financial viability of the power agency.

Gross Margin risk is the risk of not meeting budget projections due to adverse fluctuations in one or more of its components (e.g., adverse changes in market prices or retail sales volumes, customer attrition, etc.).

Management and Mitigation

Gross Margin risk is managed by:

- ⚡ Procuring energy at competitive rates and managing attrition risk.
- ⚡ Structuring and managing a diversified portfolio (or “book”) of physical and financial energy contracts to meet load serving requirements with the goal of achieving a lower cost than rates determining revenues.
- ⚡ Building financial reserves to support rate stability and potential net revenue shortfall.

Measurement and Metrics

1. Gross Margin at Risk.

Market Risk

EPRM Policy Definition

Market risk is the uncertainty of CPCNH's financial performance due to variable commodity market prices (market price risk) and uncertain price relationships (basis risk). Variability in market prices creates uncertainty in CPCNH's procurement costs, which has a direct impact on customer rates.



Management and Mitigation

Market risk is managed by:

- ⚡ Execution of approved procurement and hedging strategies.
- ⚡ Structuring and managing a diversified portfolio (or “book”) of physical and financial energy contracts
- ⚡ Active monitoring of market price and volatility conditions
- ⚡ Forecast and adequately plan for adverse contingencies (such as power supply shocks, economic downturns and changes in policy and regulations)
- ⚡ Regular measurement of net position exposures exposed to market price fluctuations
- ⚡ Use of the limit structure set forth in the EPRM policy

Measurement and Metrics

1. Gross Margin at Risk.
2. Net Position Reports.

Volumetric Risk

EPRM Policy Definition

Volumetric risk reflects the potential adverse financial outcomes due to the uncertainty in the quantity of different power supply products required to meet the needs of CPCNH and its members. Customer load is subject to fluctuation due to customer opt-outs or departures, temperature deviation from normal, unforeseen changes in the growth of behind the meter generation by CPCNH customers, unanticipated energy efficiency gains, new or improved technologies, as well as local, state, and national economic conditions.

Management and Mitigation

Volumetric risk is managed by taking steps to:

- ⚡ Implement robust short- and long-term load and generation supply forecast methodologies, including regular monitoring of forecast accuracy through time and refining such forecasts as additional information becomes available.
- ⚡ Account for volumetric uncertainty in load and/or generation supply in in the Energy Portfolio Risk Management Strategy.
- ⚡ Monitor trends in customer onsite generation, economic shifts, and other factors that affect electricity customer consumption and composition.
- ⚡ Proactively engage with customers in developing distributed energy resources and behind-the meter generation and energy efficiency programs to better forecast changes in load.



- ⚡ Innovative Local Programs & Customer Services with new retail products and services that enable customers to:
 - Intelligently moderate their use of electricity from the grid during times of high wholesale power prices and when the physical grid is constrained (at-risk of not being able to deliver enough power to meet all customers' usage requirements during the hours of "peak demand").
 - Increase their use of electricity from the grid when wholesale prices are relatively low, and the physical grid is not constrained.

Measurement and Metrics

1. Gross Margins at Risk.
2. Position and Risk Reports.

Opt-Out Risk (Customer Attrition Risk)

EPRM Policy Definition

Opt-out or attrition risk occurs when customers opt-out of the program by choosing a different supplier. Opt-out risk may be realized by any condition or event that creates uncertainty within, or a diminution of, CPCNH's customer base. Opt-out risk is manifested in two separate ways:

1. First, the ability of customers to return to bundled service from NH utilities creates uncertainty in CPCNH's revenue stream, which is critical for funding EPRM goals
2. Second, customer opt-out risk can potentially challenge the ability of CPCNH to prudently plan for, and cost effectively implement, long-term resource commitments made on behalf of its member communities and the customers it serves

Management and Mitigation

Customer opt-out risk is managed through the following means:

- ⚡ Maintain competitive rates, as market prices and NH utilities default rates change over time, is a primary goal for the program. Competitive rates will significantly reduce the risk that customers opt-out of CPCNH members and allow the program to achieve our medium- to long-term goals.
- ⚡ Implement a key accounts program and maintain strong relationships with the local community including elected leaders, stakeholders, and all of the customers CPCNH members.
- ⚡ Design and enact programs that enable the intelligent use of electricity and will help CPCNH members to:



- Lower electricity supply costs and risk for the program in aggregate, along with the electricity bills of participating customers from a “full bill” perspective (inclusive of transmission and distribution charges).
 - Strengthen customer relationships and local brand recognition.
 - Protect against customer attrition and potentially grow the program’s customer base over time.
- ⚡ Adopt, implement, and update, as needed, a formal Energy Portfolio Risk Management program describing the strategy that CPCNH will follow for engaging in procurement activities.
 - ⚡ Evaluate expansion of CPCNH’s customer base through incorporation of other eligible communities into the coalition.

Measurement and Metrics

1. Internal Assessment, ERM Dashboard (Impact, Trend, Main Developments, Mitigation).
2. Gross Margin at Risk

Counterparty Credit Risk

EPRM Policy Definition

Performance and credit risk refers to the inability or unwillingness of a counterparty to perform according to its contractual obligations or to extend credit. Failure to perform may arise if an energy supplier fails to deliver energy as agreed. There are different general performance and credit risk scenarios:

- ⚡ Counterparties and wholesale suppliers may fail to deliver energy or environmental attributes, requiring CPCNH to purchase replacement products elsewhere, possibly at a higher cost.
- ⚡ Counterparties may fail to take delivery of energy or environmental attributes sold to them, necessitating a quick resale of the product elsewhere, possibly at a lower price.
- ⚡ Counterparties and suppliers may refuse to extend credit to CPCNH, possibly resulting in higher collateral posting costs impacting CPCNH’s cash and bank lines of credit.

During the normal course of business CPCNH is exposed to counterparty risk from energy suppliers. In this context, an important subcategory of credit risk is concentration risk. When a portfolio of positions and resources is concentrated in one or a very few counterparties, sources, or locations, it becomes more likely that major losses will be sustained in the event of non-performance by a counterparty or supplier or as a result of price fluctuations at one location.



Management and Mitigation

Counterparty credit risk exposure is managed by:

- ⚡ Diversifying counterparty power supply procurement
- ⚡ Entering into enabling Master Agreements (e.g., EEI Master, ISDA) with Counterparties and negotiating collateral terms to try to limit unsecured credit exposures.
- ⚡ Ongoing analysis of counterparty creditworthiness
- ⚡ Setting counterparty unsecured credit exposure limits
- ⚡ Regular measurement of current and potential credit exposures

Measurement and Metrics

1. Current unsecured exposures.
2. Potential Future Exposures.
3. Counterparty Ratings.

Liquidity and Collateral Risk

EPRM Policy Definition

During the normal course of business CPCNH is exposed to liquidity risk to fund operations, meet ISO-NE collateral requirements and potential collateral obligations from bilateral power purchases.

Liquidity Risk is the risk that CPCNH will be unable to meet its financial obligations. This can be caused by unexpected financial events and/or inaccurate pro forma calculations, rate analysis, and debt analysis. Some unexpected financial events impacting liquidity could include:

- ⚡ Breach of CPCNH credit covenants or thresholds. Any breaches of existing and future credit covenants on CPCNH agreements could result in the withdrawal of CPCNH's line of credit or trigger the requirement to post collateral.
- ⚡ Calls for collateral from the ISO-NE or CPCNH's counterparties based on terms of transacting agreements.
- ⚡ CPCNH may be the subject of legal or other claims arising from the normal course of business. Payment of a claim by CPCNH could reduce CPCNH's liquidity if the cause of loss is not covered by CPCNH's insurance policies.

Failure to meet maintain liquidity sufficient to meet ISO-NE payment and financial obligations may result in suspension from the ISO-NE market and the return of CPA customers back to utility default service.



Management and Mitigation

CPCNH facilitates pooled power procurement across participating Member CPAs, and will explore opportunities to jointly satisfy collateral obligations within these arrangements. To manage its actual and potential collateral calls and liquidity risk, CPCNH monitors and tracks contract commitments and market prices.

Liquidity risk exposure to suppliers is managed by:

- ✦ Entering into enabling Master Agreements (e.g., EEl Master) with suppliers and other counterparties and negotiating collateral terms that limit margin calls.
- ✦ Minimizing posting requirements, and unlimited posting requirements, where possible, while posting collateral when it is financially advantageous.
- ✦ Attempting to optimize credit terms and minimize procurement costs by clearly communicating CPCNH's business model and related credit worthiness to suppliers.
- ✦ Using a lockbox as a method to lessen or avoid collateral requirements.
- ✦ Accruing financial reserves and providing for emergency rate adjustments to maintain solvency pursuant to Retail Rates Policy and Financial Reserves Policy.
- ✦ Not providing collateral nor credit assurances to support long term renewable energy power purchase agreements absent sufficient reserves. CPCNH may consider collateral or credit enhancements to support short term transactions and conventional power transactions.

Measurement and Metrics

1. Collateral Call at Risk.
2. ERM Dashboard (Impact, Trend, Main Developments, Mitigation)

Regulatory and Legislative Risk

EPRM Policy Definition

CPCNH is subject to an evolving legal and regulatory landscape. Regulatory risk encompasses risks associated with shifting state and federal regulatory policies, rules, and regulations that could negatively impact CPCNH. Legislative risk is associated with actions by federal and state legislative bodies, such as any adverse changes or requirements that may infringe on CPCNH's autonomy, increase its costs, impact its customer base, or otherwise negatively impact CPCNH's ability to fulfill its mission.

Management and Mitigation

Regulatory and legislative risks is managed by:

- ✦ Regularly monitoring and analyzing legislative and regulatory proceedings impacting CPCNH and its members.



- ✦ Actively participating in, and advocating for, the interests of CPCNH, its members, and their customers during regulatory and legislative proceedings.
- ✦ Actively participating in working groups and advocacy coalitions.

Measurement and Metrics

1. ERM Dashboard (Impact, Trend, Main Developments, Mitigation)

Operational Risk

EPRM Policy Definition

Operational risk is the uncertainty of CPCNH's financial performance due to weaknesses in the quality, scope, content, or execution of human resources, technical resources, and/or operating procedures within CPCNH. Operational risk includes the potential for:

- ✦ Organizational structure that is ineffective in addressing risk (i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, ineffective internal checks and balances, incomplete, inaccurate, and untimely forecasts or reporting, etc.).
- ✦ Absence, shortage or loss of key personnel or lack of cross functional training.
- ✦ Lack or failure of facilities, equipment, systems, and tools such as computers, software, communications links and data services.
- ✦ Exposure to litigation or sanctions resulting from violating laws and regulations, not meeting contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting and analyzing contracts effectively, etc.
- ✦ Errors or omissions in the conduct of business, including failure to execute transactions, violation of guidelines and directives, etc.
- ✦ Model risk that results in an inaccurate or incomplete representation of CPCNH's actual or forecast financial performance due to deficiencies in models and/or information systems used to capture all transactions.

Management and Mitigation

Operational risk is managed through:

- ✦ The controls set forth in the EPRM policy.
- ✦ Staff resources, expertise and/or training reinforcing a culture of compliance.
- ✦ RMC oversight of procurement activity.
- ✦ Timely and effective reporting to the CEO in consultation with the RMC, and the Board.
- ✦ Implementation of a compliance training program for CPCNH staff and vendors.



- ⚡ Ongoing CPCNH and Portfolio Manager staff education/training and participation in industry forums.
- ⚡ Annual audits to test compliance with the EPRM.
- ⚡ RMC ratification of models used to forecast financial performance, net positions and/or measure risk.
- ⚡ Ongoing review of model inputs and outputs.
- ⚡ A requirement to record all procurement transactions in a single trade capture system.
- ⚡ Ongoing update and improvement of models as additional information and expertise is acquired.

Measurement and Metrics

1. ERM Dashboard (Impact, Trend, Main Developments, Mitigation)

Reputation Risk

EPRM Policy Definition

Reputation risk is the potential that CPCNH's reputation is harmed, causing members or customers to opt-out of CPCNH service and migrate back to NH utilities. It includes the potential for energy market participants to view CPCNH as an untrustworthy business partner, thus reducing the pool of potential counterparties and/or having counterparties apply a CPCNH-specific risk premium to pricing.

Management and Mitigation

Reputational risk is managed through:

- ⚡ Implementation of and adherence to the EPRM.
- ⚡ Engaging in ethical, transparent, and honest business practices during trading activities.
- ⚡ Establishment and adherence to industry best practices including both those adopted by other CPAs, as well as those adopted by traditional municipal electric utilities.
- ⚡ Using a lockbox as a means to assure suppliers of payment.

Measurement and Metrics

- ERM Dashboard (Impact, Trend, Main Developments, Mitigation)



Overview of Risk Control Structure

Any CPCNH Officers, Directors, staff, and contractors engaged in portfolio risk management activities or transactions within the scope of the EPRM Policy and Regulations shall sign a statement approved by the RMC, on an annual basis or upon any significant revision, attesting that such person:

1. Has read the EPRM Policy and Regulations;
2. Understands the terms and agreements thereof;
3. Will comply with the EPRM Policy and Regulations; and
4. Understands that any violation of the EPRM Policy and Regulations will be reported to the CEO, Board Chair and Vice-Chair, and General Counsel, and shall be subject to disciplinary action.

Roles and Responsibilities

This section of the EPRM regulations defines the overall roles and responsibilities of personnel across several divisions to successfully implement CPCNH's risk management program. The basic roles and responsibilities of each organizational function are outlined below and complement those listed in the EPRM policy.

CPCNH Board of Directors

The Board has the ultimate oversight over CPCNH operations and is responsible for establishing an organizational-wide framework for risk management and ensuring that risk management results are achieved as planned. The Board approves and establishes organizational policies for risk management and delegates to the CEO the responsibility for implementing the EPRM. With responsibility for the ultimate oversight over CPCNH operations, the Board shall be responsible to ensure that risk management results are achieved in accordance with the EPRM Policy and Regulations. The Board responsibilities are summarized in Table 4.

Chief Executive Officer or Board Chair

The CEO (alternatively herein, in the absence of the CEO, the Board Chair) has overall responsibility for implementing the EPRM and for communicating risk management issues to the Board. The CEO shall be responsible for delegating specific duties for carrying out the EPRM Policy and Regulations, maintaining clear lines of authority and responsibility, and ensuring compliance by all affected CPCNH employees or contractors. The Board acknowledges that the CEO may delegate certain functions to the RMC, where delegation is ratified by the EPRM Policy. The CEO responsibilities are summarized in Table 4.

Risk Management Committee (RMC)

The RMC is responsible for maintaining and overseeing compliance to the EPRM Policy and EPRM Regulations. The primary responsibility of the RMC is to ensure that



the procurement activities carried out on behalf of CPCNH are executed within the adopted guidelines and are consistent with the Member's goals. RMC responsibilities are summarized in Table 4.

- ✦ Evaluating and voting on all proposed hedging recommendations.
- ✦ Determining if changes in the hedging strategy, or changes to the EPRM policy or EPRM regulations, are warranted.
- ✦ Understanding the financial and risk models relied upon to support hedging decisions.
- ✦ Understanding and reviewing the risk reports used to monitor for compliance with the EPRM policy and regulations.
- ✦ Reviewing the effectiveness of all hedging and procurement activities.
- ✦ Reviewing any reported violations to the EPRM policy and regulations and determining the best course of action to manage the violation.

Front, Middle and Back Offices

In addition to the oversight of the RMC, the separation of duties between Front, Middle and Back Office is the cornerstone of the risk control structure.

CPCNH's Portfolio Manager will have dedicated personnel to conduct Front Office, Middle Office and Back Office activities:

Front Office

CPCNH's Front Office role has the responsibility to transact with counterparties, subject to the EPRM Policy and Regulations, and for managing CPCNH's market price risk associated with Member CPA load serving requirements. The main responsibilities of the Front Office are described in the EPRM Policy and summarized in Table 4.

Middle Office

CPCNH Middle Office provides independent oversight of the Front Office functions and adherence to these regulations. The main responsibilities of the Middle Office are described in the EPRM Policy and summarized in Table 4.

Back Office

CPCNH Back Office provides the administrative activities to support the execution of Front Office transactions. The Back Office provides a wide range of supporting activities necessary to settle transactions with counterparties and support Middle Office risk control responsibilities consistent with the EPRM policy and regulations.

The Back Office has the responsibility for ensuring that transactions with counterparties meet all the terms intended by the Front Office. The main responsibilities of the Back Office are described in the EPRM Policy and summarized in Table 4.



Load Serving Entity

CPCNH's Load Serving Entity is registered with ISO-NE as a Market Participant and entity responsible for scheduling and settling load on behalf of CPCNH in the wholesale market. Among other responsibilities, the Load Serving Entity submits demand bids each day to schedule CPCNH's load in the ISO-NE Day Ahead Market, and subsequently reviews and verifies the twice-weekly invoices for credits and net charges incurred by CPCNH's load. The Load Serving Entity is also financially responsible for posting collateral and remitting timely payments to ISO-NE on behalf of CPCNH.

CPCNH, the Portfolio Manager and the Data Services Manager each have time-sensitive reporting obligations to the LSE to support and enable CPCNH's wholesale market operations. Refer to the [Appendix: Load Serving Entity Operational Reporting Requirements](#) for the complete list of reporting responsibilities.

CPCNH's Front Office and Back Office functions are supported by, and in certain key respects enabled, by the Load Serving Entity.

Supporting Functions

Some energy portfolio risk management activities fall outside the roles and responsibilities covered by the front, middle and back-office functions.

Those include accounting, legal, audit and IT amongst others. To the extent that those functions are required to conduct EPRM activities, the RMC will ensure effective coordination and communication with those functions to fulfill the goals in the EPRM policy and regulations.

Risk Management Principles

The following principles shall guide the RMC's general approach to portfolio management activities and decision-making regarding transacting within the limits set by the EPRM Policy:

- ⚡ Enable the Portfolio Manager to conduct required hedge transactions effectively.
- ⚡ Reflect risk-reward tradeoffs consistent with CPCNH's risk appetite.
- ⚡ Facilitate operational flexibility to respond to new information regarding loads, prices, and net open positions.
- ⚡ Promote a fair and competitive transaction process with counterparties.
- ⚡ Facilitate compliance with EPRM policies and regulations.
- ⚡ Keep them as simple as necessary to reduce compliance related costs and exceptions.



Training, Reporting Guidelines, Systems & Tools

Risk Management Committee Training

Training materials covering the main topics discussed in the EPRM Policy and Regulations will include reference to online materials, links to recorded training sessions and other relevant information relative to CPCNH energy portfolio risk management activities, inclusive of the following topics of critical importance:

- ✦ Market Intelligence: Energy, Capacity, Ancillaries. Spot and Forward market dynamics in New England.
- ✦ Forward Price Curves and Load forecasting.
- ✦ Hedge Instruments: Uses and Risks Transfer Mechanisms.
- ✦ Meaningful Uncertainty Simulation Framework.
- ✦ Risk Metrics and Risk Reports for Market, Volumetric, Credit, Liquidity Risk.
- ✦ Optimal Hedge Ratios.

The Middle Office will develop a competency test based on the EPRM Policy and EPRM Regulations for RMC members to use in assessing their familiarity with key concepts and knowledge relied upon for EPRM decision-making.

System and Tools

Different systems and tools will be required to support EPRM activities. A list with the critical tools supporting EPRM decisions will be maintained and reported to RMC by the portfolio manager, delineating:

- ✦ System(s) relied upon to access market activity, prices, and other information to conduct portfolio risk management activities.
- ✦ System to record electronic trade negotiation and execution.
- ✦ System of record to ensure transactions are recorded accurately and completely.
- ✦ Analytical, measurement and reporting tools.
- ✦ Which material changes to those systems and tools would impact EPRM activities.

Measurement and Reporting Guidelines

CPCNH measures and updates its risks using a variety of tools that model programmatic financial projections, market exposure and risk metrics, as well as through short term budget updates.

Hedge execution decisions by the RMC and/or adjustments decisions are supported through timely and automated reporting that presents essential factors behind CPCNH success such as headroom and attrition potential.

Reports are intended to accomplish the following objectives:



- ⚡ Monitor forward-looking risks.
- ⚡ Measure performance relative to budget and other benchmarks.
- ⚡ Provide market-based projections of key metric with up-to-date information.
- ⚡ Ensure compliance with current authorities, limits, and policies.
- ⚡ Favor trading with counterparties in a way that considers credit risk and potential collateral requirements.

In compliance with the EPRM Policy, **Table 5** shows the main RMC open position, Gross Margin, Financial Reserves and Risk reports as well as Primary Responsibility and Frequency of distribution.

Compliance Exceptions and Reporting

Compliance exceptions are actions which violate the authority limits or directives set forth herein or in the EPRM Regulations as developed and adopted pursuant hereto by the RMC. The following events are **not** considered to be compliance exceptions:

1. Realized or unrealized losses on hedge transactions that were undertaken in compliance with the EPRM Policy and Regulations.
2. Adverse changes in the credit rating of one of CPCNH counterparties.
3. Actions compelled by order of regulatory authorities or by legislation, which are otherwise in violation of the EPRM Policy or Regulations and/or related procedures.

The Middle Office is responsible for monitoring, and reporting compliance with, all limits within the EPRM Policy and EPRM Regulations.

- ⚡ Exceptions to mandated policies, procedures and regulations shall be reported to the RMC within two business days after they are identified.
- ⚡ The Front Office shall prepare a full report for review and discussion at the next RMC meeting to determine next steps to manage the limit exception.

A summary of all exceptions will be reported at least annually to the Board of Directors by the RMC.



Counterparty Enabling Agreements, Credit & Liquidity

CPCNH will enter into fixed and variable price forward contracts and Power Purchase Agreements (PPAs) to purchase energy, capacity, carbon-free attributes, renewable attributes, and other products to serve load and manage portfolio price risk.

Effective wholesale counterparty management and credit analysis is essential to monitor and manage the counterparty risks associated with purchasing wholesale power products. Counterparty risk is defined as the exposure to economic loss resulting from default by another party to a contract.

- ⚡ Suppliers are at risk of financial loss if CPCNH — as a startup power agency with limited credit and no track record of successful operations — proves unable to pay in full after power has been delivered.
- ⚡ CPCNH is at risk of financial loss if suppliers fail to deliver under the contract. As a net buyer, CPCNH's exposure to wholesale counterparty credit risk will normally be greater in periods of rising market prices, due to higher replacement costs for power that would be incurred in the event the supplier fails to deliver under the contract (e.g., because the supplier goes bankrupt, etc.)

To address these risks, contracts typically include termination payments, require parties to post cash collateral in response to changing market conditions, or agree to other means of payment assurance. To alleviate supplier concerns and provide for assurance of payment:

1. CPCNH will implement a secured revenue account (“lockbox”) under which customer revenues are deposited into an account controlled by an independent financial institution, which will disburse revenues to CPCNH's Load Serving Entity (to pay ISO-NE wholesale market charges) and suppliers, and maintain a \$1 million reserve balance, prior to depositing net revenues into CPCNH's financial reserve account.
2. CPCNH has adopted policies requiring that rates are set at a level that ensures cost recovery and may agree to covenants that ensure the Board's adherence to this and other commitments for a set period of time and/or until the agency has accrued financial reserves sufficient to alleviate payment default concerns.

In practice, the credit risk exposure for CPCNH and suppliers will vary depending on how market prices move relative to the contracted price:

- ⚡ If the market price rises above the contracted price:
 - CPCNH is exposed to the risk of supplier default.
 - Suppliers, if they have agreed to post collateral when market prices rise above a certain threshold, may be subject to collateral calls and exposed to liquidity risk.
- ⚡ If the market price falls below the contracted price:



- Suppliers are exposed to profit risk if CPCNH defaults and the opportunity to realize above-market revenue is lost.
- CPCNH, if the contract requires cash collateral posting, may be subject to collateral calls and exposed to liquidity risk. (Or, similarly, if utility default rates fall with the market while CPCNH remains paying higher contracted prices, Member CPAs may lose customers to a degree that causes liquidity risk.)

Lastly, contractual assurances may be insufficient to pay for the financial loss that could be incurred in the event of default.

Counterparties to wholesale energy transactions are subject to creditworthiness assessments and credit limits based on these considerations.

Enabling Agreements

Pursuant to the EPRM Policy, the Board will approve Master Enabling Agreements (e.g., EEI, ISDA) for each counterparty to provide the general terms and conditions for all transactions subsequently entered into with that counterparty.

Enabling agreements are expected to be either:

- ⚡ The Edison Electric Institute (“EEI”) Master Agreement, or its equivalent, may be used as the enabling agreement for transacting Approved Products. The EEI Agreement provides for an array of reciprocal credit and collateral requirements for each party, and includes negotiated provisions as specified on a “Cover Sheet”. The EEI Agreement can also be supplemented with specific annexes (e.g., Credit Annex, Collateral Annex, REC Annex), and/or special provisions negotiated between parties; or
- ⚡ The International Swap Derivatives Association (“ISDA”) Master Contract, or its equivalent, additionally allows for trading financial products and may be used as the enabling agreement for transacting Approved Products.

Enabling agreements may be recommended to the Board by the CEO for approval and subsequent amendment.

- ⚡ The CEO is responsible for ensuring that enabling agreements are developed in conjunction with CPCNH Counsel legal review.
- ⚡ The Middle Office is responsible for advising on, reviewing and approving changes and provisions to enabling agreements (including all credit terms).

Negotiating Performance Assurance, Credit & Payment Terms

Master enabling agreements require credit and performance assurances from a counterparty that provide protection against counterparty credit risk. When negotiating with energy suppliers, CPCNH will seek termination payment and cash



collateral posting requirements, and extended payment terms to better align payments to suppliers with the receipt of customer revenues.

CPCNH will consider accepting credit enhancements such as Letters of Credit, Parent Guarantees, Surety Bonds, or Pre-Payments.

- ✦ Credit enhancements offered by suppliers will be analyzed by Middle Office on a case-by-case basis as part of the creditworthiness assessment process.
- ✦ Any credit enhancements will be reviewed by legal counsel and approved by the CEO.

Energy suppliers may request that CPCNH posts collateral on hedge transactions. Collateral requirements usually take the form of cash or letter of credit.

- ✦ In some cases, posting collateral can reduce the overall cost of energy or enable CPCNH to diversify sources of supply. In these situations, the RMC will determine whether the benefits of cost reduction and/or risk diversification outweigh the costs associated with providing collateral.
- ✦ However, use of cash and letter of credit as collateral reduces CPCNH's liquidity.

Until CPCNH builds sufficient reserves, it is critical to ensure that any potential liquidity demands are understood and managed to avoid any shortfalls.

- ✦ The RMC will monitor potential liquidity demands under different market scenarios that may negatively impact reserves.
- ✦ When negotiating enabling agreements, CPCNH will attempt to minimize potential collateral requirements or performance assurance as a result of market fluctuations and take into account the costs of covering those potential collateral calls for CPCNH.

Lockbox and Covenants

As an alternative to the use of cash and letter of credit as collateral, CPCNH will communicate the advantages of the lockbox in negotiating terms with counterparties.

The "lockbox" is a financial structure to give confidence and reduce risk to suppliers that are concerned about CPCNH creditworthiness, particularly during the period between launch and the accumulation of sufficient financial reserves.

Revenues from the sale of electricity are deposited into the lockbox account, which is controlled by a financial institution that acts in the interest of CPCNH's secured creditors (e.g., CPCNH's Load Serving Entity and suppliers) to ensure that customer revenues will be used to pay suppliers prior to disbursing any net revenues to CPCNH.

CPCNH may additionally need to accept enabling agreement covenants ensuring that hedge ratios are maintained that rates will be set to cover costs, and other measures intended to ensure the agency's fiscal stability. These considerations are reflected in CPCNH's Retail Rates Policy (emergency rate authority), Financial



Reserve Policy (minimum and target reserve levels), and Energy Portfolio Risk Management Policy (minimum and maximum hedge ratios).

- ⚡ CPCNH General Counsel is responsible for informing the RMC and Middle Office regarding any covenants entered into by the Board.
- ⚡ The Middle Office is responsible for ensuring CPCNH's portfolio risk management activities remain in compliance with applicable covenants.

Communicating CPCNH Creditworthiness

CPCNH will effectively communicate its credit worthiness to obtain the best possible credit support terms and prices from suppliers.

- ⚡ In the near-term, CPCNH's Portfolio Manager will support negotiations with suppliers by preparing and discussing 'pro forma' versions of CPCNH's financial projections.
- ⚡ Going forward, CPCNH will make available audited and interim financial statements (once they are available) on a timely basis and maintain records available to energy suppliers containing all information relevant to understanding and assessing CPCNH's credit worthiness.
- ⚡ Over the longer term, CPCNH intends to pursue an investment grade rating by the main NRSROs (e.g., Moody's, S&P).

The CEO is responsible for communicating CPCNH's credit worthiness to suppliers, banks, rating agencies and other interested parties.

Credit Sleeving Agreements

Over the near-term, CPCNH intends to negotiate a credit sleeve with one or more suppliers. Under this arrangement:

- ⚡ The supplier would enter into transactions with other suppliers at CPCNH's direction, for transactions negotiated by the Front Office (provided that the proposed transaction did not violate the supplier's own credit requirements).
- ⚡ The supplier would then act as the guarantor, honoring the contract in the event the other supplier defaults, in exchange for a nominal fee charged to CPCNH.
- ⚡ Subsequently, the supplier would pass-through the charges, plus the sleeve fee, for payment out of CPCNH's lockbox account.

The benefit to CPCNH is the ability to transact with a wider range of counterparties, for various products, from a relatively early stage, until such time as CPCNH has negotiated and put in place enabling agreements with a sufficient number of counterparties to do so directly.

The Portfolio Manager may make a recommendation to transact with other counterparties under a credit sleeve whenever the terms are beneficial for CPCNH. The recommendation would balance the costs of the credit sleeve for CPCNH relative



to the preferred pricing and collateral terms from other alternatives. The credit sleeve may require additional costs but mitigates collateral call risk.

Overview of Counterparty and Liquidity Risk

Forward contracts and PPAs are an effective tool to manage energy price volatility and provide stable rates to customers. However, these contracts may give rise to credit and liquidity risk to both energy suppliers and CPCNH as forward market prices change over time and that impacts the market value of those contracts.

Counterparty credit exposures arise when the market value of energy contracts with a given counterparty is positive (e.g., market prices rise above agreed contract prices in supply agreements) because a potential supplier default would result in higher costs related to the purchase of replacement energy and (if necessary) renewable attributes.

Credit exposures can be limited or unlimited depending on the potential obligation of the supplier to post a fixed or variable amount of collateral above a particular threshold of actual credit exposure in the enabling Master Agreements negotiated with each counterparty (e.g., EEI, ISDA).

Credit exposures at the counterparty level are measured at a given point in time (Current Credit Exposures or Loss in Event of Default) as well as the potential changes in credit exposures over different delivery windows or time horizons under different market scenarios (Potential Future Exposures) at a given confidence level (e.g., P95).

Potential (contingent) liquidity risk arises when CPCNH enters into energy contracts that require CPCNH to post collateral based on changes in market prices or an adverse credit event. To manage their credit risk against CPCNH, suppliers may request contract terms that obligate CPCNH to post collateral in the form of cash or letter of credit in either a fixed or variable amount. When CPCNH needs to post collateral, that ties up cash and credit lines and reduces overall liquidity.

Potential liquidity risk at the counterparty level is measured using a probabilistic metric over different delivery windows or time horizons under different market scenarios (Collateral Call Risk).

Refer to section [Risk Metrics, Monitoring, and Mitigation Procedures](#) for additional context and detail regarding counterparty credit risk metrics and contingencies.

Measuring Creditworthiness; Underwriting Standards

Before transacting with suppliers, Middle Office will undertake credit due diligence of prospective suppliers. Front Office is responsible for recommending new counterparties for credit review and approval.

The creditworthiness of a counterparty will be determined by both qualitative and quantitative factors. Those factors may include, but are not limited to:



- ⚡ A company's debt credit ratings provided by the Nationally Recognized Statistical Rating Organizations (NRSRO) such as Moody's and S&P.
- ⚡ Expected Default Frequencies (EDF) or similar metrics that provide implied ratings based on market information.
- ⚡ Financial data such as an analysis of the income statement, balance sheet, and cash flow, as well as liquidity and capital structure.
- ⚡ Stock price performance, bond yields and credit default swap premiums when available
- ⚡ Subjective factors such as company's overall size, risk management policy and internal controls, geographic diversity, and market intelligence.
- ⚡ Material news, mergers, acquisitions, business sale, company reorganization, and name changes.

For unrated counterparties, CPCNH Middle Office shall determine an Implied rating using available information regarding the creditworthiness of the counterparty.

The Middle Office will assess creditworthiness of existing suppliers on an ongoing basis. The assessment will include counterparty ratings, rating actions (e.g., credit watches and outlooks) and any other available changes based on market and model-based indicators. Any significant changes in counterparty credit worthiness will be included in the RMC reports.

Credit Limits for Conventional Energy Suppliers

Maximum Counterparty Credit Limits

A counterparty credit limit is described as the amount of unsecured credit granted to a counterparty. Unsecured credit exposures represent the expected losses in event of default (assuming zero recovery rates).

- ⚡ Trading with below investment grade and unrated counterparties requires RMC approval; the Middle Office will recommend a credit limit based on collateral, parental guarantees, or mutual concessions in credit requirement negotiations.
- ⚡ Credit limits will be reviewed at least on an annual basis and can be modified by the CEO after consultation with the RMC.
- ⚡ Any changes on the maximum limit table (below) will be promptly notified to the Board of Directors.

As shown below, CPCNH's maximum counterparty credit limits for conventional energy suppliers are a function of their external credit ratings. If a counterparty has a split rating between Moody's and S&P, the lower of the ratings shall apply unless otherwise authorized by the RMC.



Table 1: Maximum Counterparty Credit Limits

S&P Rating	Moody's Rating	Maximum Counterparty Credit Limit
A- and above	A3 and above	\$30,000,000
BBB+ to BBB-	Baa1 to Baa3	\$25,000,000
Below BBB-, and not rated	Below Baa3-, and not rated	\$20,000,000

Note: The maximum credit limits are based on expected load for Wave 1 and Wave 2 at the time of launch as well as expected discount to utility rates, hedge ratios, and market volatility conditions. Should these factors change, the maximum counterparty limits will be re-assessed by the Middle Office and reported to the CEO and RMC.

Internal Credit Limits

Although a counterparty may qualify for a certain maximum credit limit based on its external rating:

- ⚡ The CEO, after consultation with RMC, may set a lower internal credit limit that reflects the risk appetite of CPCNH towards that counterparty.
- ⚡ The CEO will notify the Middle Office of any changes in internal credit limits.
- ⚡ The Middle Office will maintain a list with current Internal Credit Limits by Counterparty and communicate any changes to the Front Office.

The maximum credit limits in Table 1 provide a ceiling while the internal limits allow additional flexibility to manage counterparty exposures.

The internal credit limit will be set at the minimum of:

1. Maximum Credit Limit
2. Collateral Threshold (Counterparty posts collateral to CPCNH); or
3. Level set by CEO below collateral threshold (up to maximum credit limit based on the counterparty external rating).



Hedging Products & Transaction Procedures

All executed transactions shall conform to the policies set in the EPRM policy and these EPRM regulations.

Transaction Authorities

The RMC will approve any hedges and procurement contracts, such as renewable PPAs, with the following limited exceptions:

1. Any option sales (either standalone sales or as part of a hedge structure such as a collar) need to be approved by both the CEO and the RMC.
2. The CEO and the Front Office may execute trades to balance hedge transactions previously approved by the RMC, to adjust portfolio positions within the limited term and volume limits set in **Table 3** (below).
3. The CEO and the Front Office may, in the event an unauthorized transaction was executed, attempt to unwind the trade and/or enter into a risk-neutralizing transaction intended to help offset the impact of the unauthorized transaction.

The Portfolio Manager's Front Office personnel and contractors shall have no authority to execute transactions unless approved by CPCNH.

- ✦ All Front Office personnel and contractors allowed to execute transactions will be assigned individual transacting authority limits, which will be recommended by the Portfolio Manager, and approved by the CEO and RMC.
- ✦ A list of authorized traders will be maintained and communicated to CPCNH trading counterparties by the Middle Office.

All transactions shall conform to the following general principles:

- ✦ Be for an Approved Product;
- ✦ Be duly authorized and within risk limits, and shall not cause either aggregate or individual counterparty credit limits to be exceeded;
- ✦ Be executed with a counterparty with an approved credit limit;
- ✦ Shall utilize contract terms intended to minimize the risk of loss if a counterparty fails to deliver, take delivery or pay for transactions provided;
- ✦ Be executed and documented following standardized procedures; and
- ✦ Be in compliance with applicable laws, regulations and court orders.

Approved Products

CPCNH will transact in certain types of physical and financial products to mitigate various risks outlined in the EPRM policy and regulations. The Approved Products in the EPRM Policy are listed below.



CPCNH's enabling agreement(s) provide procedures for CPCNH and suppliers to negotiate and execute the following products:

- ✦ Physical power (e.g., Internal Bilateral Transactions (IBTs), physical tolls, etc.).
- ✦ Environmental products to meet the Renewable Portfolio Standard (RPS).
- ✦ Products to hedge ISO-NE non-energy costs (Capacity, Ancillaries, etc.).

CPCNH may transact the following products subsequent to qualifying as an Eligible Contract Participant pursuant to Section 1a(12) of the Commodity Exchange Act and entering into one or more International Swap Derivatives Association ("ISDA") Master Contracts, or its equivalent, allowing for trading financial products, subject to approval by the Board:

- ✦ Financial power or gas swap or futures (e.g., fixed-for-floating swaps, basis swaps, exchange-traded futures contract).
- ✦ Financial power or gas options.
- ✦ Financial Transmission Rights (FTR) obligations.
- ✦ Financial Transmission Rights (FTR) options.

Process for Approving New Products

The RMC is responsible to authorize the transaction types that can be used within the portfolio.

When seeking approval for a new or non-standard transaction type, location, and/or market, the **Front Office** will draft a New Transaction Approval Form describing all significant elements of the proposed transaction.

The **RMC** needs to approve any new transaction types not specified in the EPRM Policy and EPRM Regulations before the deal is entered into.

The proposal write-up should, at a minimum, include:

1. A description of the benefit to CPCNH, including the purpose, function and expected cost impact (i.e., decrease costs, manage volatility, insurance, etc.).
2. Assessment of the transaction's risks, including any material legal, tax or regulatory issues.
3. How the exposures to the risks above will be managed.
4. Proposed valuation methodology (including pricing model, where appropriate).
5. Proposed reporting requirements, including any changes to existing procedures and system requirements necessary to support the new transaction type.
6. Brief description of the departments within CPCNH who will be involved in the lifecycle of the transaction.



Forward Hedging Procedures

The steps to propose, approve, execute, monitor, and allocate the results of forward hedges are shown in **Table 2** below:

Table 2: Hedge Trade Lifecycle

Step	People
Daily Market Monitoring and Weekly Portfolio Risk Monitoring	Front Office to monitor and report net open positions, market forwards, optimal hedge ratios and risk metrics from model updates
Hedge Recommendations	<p>Front Office to provide hedge recommendations (instruments, price levels, volume, tenor) and rationale.</p> <p>Middle Office to review recommendations and ensure transaction within policy limits; provide feedback; review pricing relative to market to Front Office.</p> <p>As applicable: LSE to review requests from Front Office for exceptions to Hedge Ratio Percentage limits (increasing 110% up to 125% for allowable periods).</p>
Authorization / Approval by RMC	<ul style="list-style-type: none"> (i) Front Office sends memo to RMC for review and approval. RMC to provide decision and degree of flexibility in RMC approvals (duration of approval in hours/days, price range) (ii) For trades within authority delegation (e.g., cash month), memo sent to CEO for approval. Front Office can conduct trades within delegated authority levels (volumes, tenors, price).
Competitive Bidding	Front Office to contact qualified counterparties for market quotes to trade directly or through credit sleeve with counterparties with existing enabling agreements.
Trade Execution	Front Office approved personnel to conduct trade with counterparty following guidelines in enabling agreements.
Recording of Transaction	If verbal commitment, must be recorded following Portfolio Manager's record retention policy. If electronic, must have audit trail. Time and date stamped at time of commitment for all transactions.
Entry into Trade Capture System	Front Office to record transaction details in PowerSimm and add trade to Master Portfolio with inactive* flag.



Confirmation	Middle Office to receive record of transaction and confirm main contract clauses (e.g., volumes, price, periods). Confirmation to be stored in SharePoint drive shared with CPCNH. Middle Office to perform validation check of contract details to ensure accurate entry and addition to Master Portfolio. If validation is successful, trade will be turned to active* in PowerSimm. Any differences to be reconciled before active flag is checked. Middle Office to include LSE on confirm distribution list, sent no later than two (2) business after trade execution.
Mark-to-Market and Collateral Calculation	Back Office to perform Mark-to-Market calculations weekly and check if any collateral needs to be posted or received.
Billing and Settlement	Back Office to conduct Billing and Settlement tasks for transaction, with support from Load Serving Entity
Allocations	Ascend will allocate Hedge P/L results for Member CPAs (not system of record reporting). Final allocations by CPCNH accounting (system of record).

**Active flag is a feature in PowerSimm that allows for a trade to be in a Master Portfolio, but the trade will be excluded from model runs and reports if not confirmed and active.*

Hedge Authorization Procedures

Hedging transaction proposals will be brought to the RMC for approval under the process below:

- 1.** Front Office submits Hedge Recommendation Memo to Middle Office, including the following information:
 - a.** Requested Maximum Hedge Volume by On/Off Peak and Month: X MW.
 - b.** Delivery Point.
 - c.** Current Mid-Market Pricing as available from ICE/Nodal Exchange or any other available source.
 - d.** Requested Price limit by On/Off Month (based on current Mid-Market Pricing, volatility, and bid-ask spreads): X \$/MWh.
 - e.** Positions for hedge period: Net Position before and after hedging.
 - f.** Current GMar and reduction in GMar if hedge is executed.
 - g.** Impact to Portfolio Costs relative to Budget and relative to last RMC financial projections (based on current mid-price and requested price limit).
 - h.** Requested approval window to execute transaction up to 6 business days or until next RMC meeting.



- i. Rationale for Transaction and any additional considerations.
- 2. Middle Office ensures proposal complies with EPRM Policy and submits to RMC.
 - a. Middle Office reviews the hedge and checks against EPRM Policy limits. If there are any limit exceptions, then, as appropriate:
 - i. Front Office is directed to submit an **Energy Hedge Requirement Exception Request Form** to the LSE, and provides LSE's confirmation of acceptance back to Middle Office for review; and/or
 - ii. The proposal is sent back to Front Office for revision and resubmission to Middle Office for review.)
 - b. Middle Office confirms transaction will not trigger limit exceptions and approves with Time and Date Stamps.
 - c. Middle Office sends proposal to RMC for review and approval.
- 3. RMC reviews and approves with RMC Chair providing Time and Date stamps.
 - a. RMC reviews and discusses the hedge proposal. Any written amendments proposed by RMC are subject to Middle Office approval, which may be provided during the meeting.
 - b. RMC votes to approve the proposal.
 - c. RMC Chair, or substitute with delegated authority, signs proposal and sends to Front Office and Middle Office.

Hedge Adjustment Procedures

The CEO and the Front Office may execute trades to balance hedge transactions previously approved by the RMC, to adjust portfolio positions within the limited term and volume limits set in **Table 3** (below).

Table 3: RMC Delegation of Authority for Product Terms and Hedge Ratio Limits**

Term	Load/Hedge Ratio Limits	Products	Authority
Day Ahead to Balance of Week	Peak Hour Load Forecast +/- 20% Peak Load	Trades Approved by RMC	CEO
Cash Month*	Average Hourly Load Forecast Change +/- 20%	Trades Approved by RMC	CEO
+1 to 6 Months	+/- 10% hedge ratio adjustments on any month since last RMC meeting	Trades Approved by RMC	CEO
>6+ Months	N/A	Trades Approved by RMC	RMC retains



**Load Forecast Change for the tradeable block product is relative to the latest weather-normal average load forecast going into the month. This limit applies up to the balance of month.*

*** Any trades outside risk EPRM policy boundaries need to be approved by RMC.*

The purpose of this delegation of authority is to allow CPCNH to optimally adjust its portfolio in response to changing market conditions, load expectations, and market opportunities.

- ✦ All procurement activities executed under the above delegations above must align with CPCNH load being hedged consistent with the approved EPRM Policy minimum and maximum hedge boundaries by month.
- ✦ Any hedges conducted will be reported at the next available RMC meeting.

The sections below provide context and procedures for each adjustment authority:

Day Ahead up to Balance of Week

In the event that daily or basis trades are required for peak month scenarios, for example when there is anticipation of a weather-related demand spike or congestion within certain zones, then:

1. Trades need to be signed off by CEO prior to Front Office execution.
2. Executed trades will be notified to RMC by Middle or Back Office.

Cash Month

Cash month trade adjustments (Balance of Month or “BalMo”, Balance of Week, Next Weekend, Next Week, etc.) are expected to be rare, and largely dependent on unanticipated weather changes.

The bid-ask spreads for short-term hedges are often large and include a significant risk premium. In the event that short-term portfolio rebalancing is required:

1. Front Office will consider risk reduction benefits relative to costs.
2. Trades need to be signed off by CEO prior to Front Office execution.
3. Executed trades will be notified to RMC by Middle or Back Office.

Hedges from +1 Month to +6 Months

The Front Office has the authority to conduct hedge ratio adjustments within +/- 10% of the levels approved at the latest RMC meeting levels on any month in this period, from the Prompt Month (e.g., the next calendar month) out through six months out:

1. Trades need to be signed off by CEO prior to Front Office execution.
2. Executed trades will be notified to RMC by Middle or Back Office.

Hedges above 6 Months

Adjustments to hedge transactions with delivery windows above 6 months from the hedge evaluation date are subject to RMC review and approval.



Unauthorized Transactions

As stated in the EPRM Policy, the Middle Office shall be responsible for informing counterparties of transacting authority limits. Any changes in authorized personnel to execute transactions on behalf of CPCNH will be promptly communicated to counterparties by Middle Office.

Any transaction not listed in the section “Permitted Transactions and Approved Products” requires RMC authorization following the process outlined in this document under “Process for Approving New Products”.

From the perspective of risk mitigation, CPCNH’s primary objective is to cover load and optimize the value of assets. Taking risks unrelated to CPCNH’s normal power supply business activities, is not permitted.

Authority to Mitigate Unauthorized Transactions

The following provides the minimum procedures for managing unauthorized transactions:

1. The Middle Office shall immediately, upon identifying an unauthorized transaction, inform the CEO and RMC Chair and submit an Exception Report.
2. The CEO, in consultation with the Front Office, shall determine the course of action.
 - a. If the transaction involves market risk, the CEO may elect to authorize the Front Office to either (i) enter into a risk neutralizing transaction, or (ii) attempt to unwind the transaction with the original counterparty. However, the first alternative (offsetting transaction) only offsets market price; operational and credit risk may still exist. Unwinding the transaction would likely remove all risk from the trade.
 - b. Once the corrective steps have been taken, the CEO shall review the transaction to ensure all risks have been offset and report the results in the Exception Report.
3. The Front Office shall prepare a full report for review and discussion at the next RMC meeting to determine next steps to manage the limit exception.

Hedging in the ISO-NE Day Ahead Market

The ISO-NE administers the wholesale market using a two-settlement system:

1. Day Ahead Market: the first settlement takes place in the day-ahead energy market. This is a forward market where market participants buy and sell power for the following operating day. The day-ahead market is often considered a financial market because there is no physical requirement that the energy bought and sold in this market be consumed or delivered in real-time.
2. Real-Time Market: The second settlement occurs in the real-time energy market. This is a spot market that coordinates the dispatch of resources in real time based



on actual power system conditions. The real-time market is a physical market because the transactions that occur in this market correspond to actual power flows.

CPCNH's Load Serving Entity will participate in the Day Ahead Market by submitting "demand bids", which are hourly load volumes that CPCNH wishes to hedge at the price that clears in the Day Ahead Market.

- ⚡ Demand bids can either be "fixed", in which case, all load bid is priced at Day Ahead Market price, or "price-sensitive", whereunder the Load Serving Entity specifies up to 10 paired \$/MW tranches, and the load volumes bid in at prices up to the price that the Day Ahead Market clears at are hedged at the clearing price.
- ⚡ Differences between (i) the load volume the Load Serving Entity has elected to hedge in the DAM and (ii) actual load volumes during the trading day are charged at the Real Time Market price.

While prices in the Day Ahead Market tend to be, on average, slightly higher than prices in the Real Time Market, the Real Time Market is more volatile and may clear at much higher (or much lower) prices on an hour-by-hour basis.

CPCNH intends to employ third-party bidding optimization software and strategies to actively manage and optimize its exposure between the Day Ahead and Real Time Markets.

The RMC is responsible for oversight of the tools and strategies employed through its Load Serving Entity, using software or strategies, through clear understanding of their intent, effectiveness, and risks.

Bidding tools will not be employed at initial launch, as such tools require data for analysis, testing, Machine Learning (ML) rule creation and strategy options.

After CPCNH, the Portfolio Manager, and Load Serving Entity collect sufficient data:

1. The Portfolio Manager will inform the RMC on the scope of tools and optimization strategies to be employed, the methods used, back testing results from different strategies prior to implementation, and how ongoing results will be actively monitored.
2. The Middle Office will recommend volumetric as well as stop-loss limits for those algorithmic based strategies.
3. The RMC must approve bidding optimization strategies and limits prior to implementation and may vote to suspend the use of those strategies at any time by notifying the Portfolio Manager and Load Serving Entity.

The intent of CPCNH's Day Ahead and Real Time Market demand bidding strategy will be to manage costs by optimizing overall price-risk exposure in the ISO-NE market.



Risk Metrics, Monitoring & Mitigation Procedures

This section details the methodologies used to compute metrics required pursuant to the EPRM Policy, provides key context regarding the nature of the risks measured and use of metrics in the decision-making process, and proscribes risk mitigation procedures triggered by key metric thresholds and monitored conditions / events.

Net Position, Hedge Ratio Limits, Exceptions & Mitigations

While relying on risk metrics to guide procurement decisions over time, CPCNH will purchase energy on a forward basis to hedge against the risk of open load positions within the minimum and maximum Hedge Ratio Percentages defined in the EPRM Policy and tracking CPCNH's residual Net Position.

This section provides and makes specific reference to the following definitions:

- ⚡ “On-Peak” means, in New England, the interval between 7:00 a.m. and 11:00 p.m. on all nonholiday weekdays, with holidays defined by NERC.
- ⚡ “Off-Peak” means all hours that are not On-Peak hours.
- ⚡ “Load Forecast” means weather normalized average MWh, calculated monthly, in On-Peak and Off-Peak periods, adjusted for customer attrition, for the prompt month forward twenty (20) months.
- ⚡ “Energy Contract Volumes” the average total MWh, calculated monthly, in On-Peak and Off-Peak periods, of CPCNH's contracted supply resources (Power Purchase Agreements) and fixed price purchases for day-ahead power delivered to the ISO-NE New Hampshire Zone.
- ⚡ “LSE Hedge Volumes” means the average total MWh, calculated monthly, in On-Peak and Off-Peak periods, of CPCNH's direct fixed-price contracts with LSE and with third parties sleeved through LSE for day-ahead power delivered to the ISO-NE New Hampshire load zone.
- ⚡ “Utility Standard Offer Flow Period” refers to the periods over which utility default supply rates are fixed for residential customers, which are from August to January and February through July of each year, unless and until otherwise ordered by the NH PUC.

Net Position Calculations

The Portfolio Manager is responsible for **Net Position Calculations**:

- ⚡ Net Positions are calculated by subtracting hedges and any resources such as local projects and assets under Power Purchase Agreements from load obligations (in MWh).
- ⚡ Net Position reporting starts at the Prompt Month. Current month positions will not be actively managed except in circumstances where it is required.



- ⚡ REC positions relative to RPS will be developed to communicate procured annual RECs relative to RPS obligations.

Hedge Ratio Percentages & Limits

Pursuant to the EPRM Policy, **Hedge Ratio Percentages** are calculated monthly, separately for On-Peak and Off-Peak periods, as (i) the average total MWh of CPCNH's contracted supply resources (Power Purchase Agreements) and fixed price purchases for day-ahead power delivered to the ISO-NE New Hampshire Zone divided by (ii) the Load Forecast:

$$\text{Hedge Ratio Percentages} = \text{Energy Contract Volumes} / \text{Load Forecast}$$

The EPRM Policy defines the limits for Hedge Ratio Percentages depending upon which rate setting methodology is relied upon to set rates for customers over different periods.

The limits required for hedging load volumes offered rates over the same periods as the incumbent utilities, which CPCNH intends to employ to offer default service, are provided for reference below:

- ⚡ Leading up to and during the Utility Standard Offer Flow Period:
 - By one month prior to the period, Hedge Ratio Percentages shall be maintained between 40% and 110% for the period.
 - By the last trading day prior to the period, Hedge Ratio Percentages shall be maintained between 60% and 110% for the period.
 - By one month prior to power delivery, Hedge Ratio Percentages for the delivery month shall be maintained between 80% and 110%.
 - By one month prior to power delivery and thereafter, throughout the current period, Hedge Ratio Percentages may be increased up to 125% with the approval of the LSE.
- ⚡ For the period following the current Utility Standard Offer Flow Period:
 - For the twelve-month period following the current Utility Standard Offer Flow Period, Hedge Ratio Percentages may be up to 70%.
 - For the subsequent period, Hedge Ratio Percentages may be up to 50% for the period extending 24-months from CPCNH's Power Start Date.
 - Beginning one year after CPCNH's Power Start Date, Hedge Ratio Percentages may be up to 50%, for the period extending 36-months from the current trading day.

Refer to [Appendix: Hedge Ratio Percentage Limits](#) for chart visualizing the above requirements.



LSE Supplier Hedge Ratio Percentages & Limits

CPCNH's Load Serving Entity (LSE), pursuant to an enabling agreement approved by the Board, may transact authorized products directly and via a credit sleeve with CPCNH pursuant to the EPRM Policy and these Regulations.

LSE Supplier Hedge Percentages are computed monthly, separately for On-Peak and Off-Peak periods, as (i) the average total MWH of such direct and sleeved transactions for fixed-price contracts for day-ahead power delivered to the ISO-NE New Hampshire load zone divided by (ii) CPCNH's Load Forecast.

$$\text{LSE Supplier Hedge Percentages} = \text{LSE Hedge Volumes} / \text{Load Forecast}$$

LSE Supplier Hedge Percentages may not, without LSE's prior approval:

- ⚡ Exceed 40% for the subsequent to next Utility Standard Offer Flow Period.
- ⚡ Exceed 60% for the next Utility Standard Offer Flow Period, by one month prior to the next Utility Standard Offer Flow Period.
- ⚡ Exceed 80% for the next Utility Standard Offer Flow Period, except for the prompt month, by the last trading day prior to the next Utility Standard Offer Flow Period.
- ⚡ Exceed 110% for the delivery month, by one month prior to power delivery.

Hedge Ratio Percentage Limit Exception Requests to LSE

The Front Office may request an exception from the LSE to the Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages by submitting an [Energy Hedge Requirement Exception Request Form](#) to LSE's designated personnel at least two (2) business days prior to the applicable deadlines set forth above.

Hedge Triggers based on Limit Violations

When Hedge Ratio Percentages and/or LSE Supplier Hedge Percentages are above the maximum or below the minimum limits for a given On-Peak and/or Off-Peak monthly period:

1. The Portfolio Manager will flag the exception on RMC risk reports; and
2. The RMC will, unless the procedures hereunder authorized have already been employed to mitigate the violation, decide the best course of action to bring CPCNH into compliance.

Note that the CEO and Front Office also have authority to take certain actions to adjust hedge positions, within limits set in [Table 3](#) and to mitigate unauthorized transactions.

LSE Supplier Procedures

CPCNH's LSE will have the right, but not the obligation, to take corrective action in accordance with these EPRM Regulations to bring CPCNH closer to compliance with the Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages if:



1. Beginning one month prior to delivery, Hedge Ratio Percentages are not maintained between limits by the applicable deadlines set forth in the EPRM Policy; and/or
2. On the 15th day of any calendar month (or if the 15th is not a Business Day, the next Business Day), Hedge Ratio Percentages are not maintained between limits set forth in the EPRM Policy for the balance of month or prompt month; and/or
3. If changes to the Load Forecasts cause any of the Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages to fall outside of the limits required in the EPRM Policy and these Regulations, respectively, then:

The LSE may unilaterally execute transactions with CPCNH, pursuant to this section and the enabling agreement, in each case for the account of CPCNH and without assumption of any obligation to take any such action in the future, subject to the procedures and pricing terms below:

1. The LSE will notify the Front Office of any observed Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages outside the guideline ranges.
 - a. The Front Office will promptly notify the CEO and RMC Chair, and review and notify CPCNH's LSE of any differences in calculations within one (1) business day; and/or
 - b. After discussing the required hedge percentage adjustments with the CEO and Front Office, the LSE will notify the Front Office regarding its final decision regarding whether Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages need to be brought back within the limits.
2. The Front Office, in consultation with the CEO, may within one (1) business day either:
 - a. Take corrective action to bring Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages back within the limits; or
 - b. Request an exception from the LSE to the Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages by submitting an **Energy Hedge Requirement Exception Request Form** to LSE's designated personnel.
3. If the LSE does not grant CPCNH's request for an exception within one (1) business day, then:
 - a. The Front Office will take corrective action within one (1) business day to bring Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages back within the limits; and/or
 - b. In the event that the Front Office fails to take corrective action within three (3) business days of limit breach notice, the LSE may act on CPCNH's behalf to execute the relevant transactions to bring the Hedge Ratio Percentages and/or LSE Supplier Energy Hedge Percentages back within the limits as



set forth in the EPRM Policy and these Regulations, respectively and as applicable, subject to the following conditions:

- i. Commercial Terms of the Direct Transaction (such as the price, term, quantity, and product) shall be determined by the LSE in a commercially reasonable manner and provided to the CEO and Front Office with a written statement explaining Supplier's determination in reasonable detail.
- ii. To address any limit breach(es) in the balance of month and for the prompt month, the LSE may unilaterally execute transactions on behalf of CPCNH.
- iii. To address any limit breach(es) in future periods, the CEO may authorize the Front Office to execute the relevant transactions proposed by the LSE; **failure by CPCNH to subsequently take corrective action within one (1) business day constitutes an event of default under CPCNH's contract with the LSE.**

All incidents of exceptions, actions, and transactions executed pursuant to this section will be (i) promptly reported to the CEO and RMC Chair and document on RMC risk reports by the Portfolio Manager and (ii) agendaized for review at the next regularly scheduled RMC and Board meetings.

Market and Volumetric Risk Management

Market and volumetric risk will be measured and managed using risk metrics that provide forward-looking guidance on gross margin uncertainty, potential rate increase as well as financial reserve accumulation.

Gross Margin at Risk (GMar) Metric

Gross Margin is the total of all revenues received (from retail sales to customers and from the sale of any energy products that were surplus or unneeded) less the total costs (including the costs of long-term contracts, forward transactions, and spot market purchases plus all other operating costs). Gross Margin is the "commercial bottom line" for CPCNH as it determines the financial viability of the power agency.

Gross Margin = Revenues – Portfolio Costs

*Revenues: Rates * Load Served*

Portfolio Costs: Load Serving Entity Costs Net of Hedge P/L + Wholesale Non-Energy Costs

Gross Margin at Risk (GMar) measures the potential adverse changes in Gross Margin for a given window relative to the mean GMar at a given confidence level.



Optimal Hedge Ratios

Optimal hedge ratios represent the percentage of load to be hedged for a given month, taking price and volumetric uncertainty into account, in order to minimize GMaR for each period.

Optimal hedge ratios will be included in RMC Reports for discussion.

- ⚡ The frequency and size of hedge transactions will be dependent on market liquidity and associated costs.
- ⚡ The generic hedge ratio calculations assume use of standard monthly on/off-peak block power products. However, this does not preclude the use of other products for reducing risk (e.g., shaped hedges, FTRs, options, etc.)

Hedge Triggers based on Risk Tolerance

During the budget setting process, the CEO, after consultation with the RMC, will set a “P5 GM” as the “GM Threshold”, reflecting CPCNH’s risk tolerance for upcoming year. (P5 GM means the Gross Margin projection based upon the 5th percentile of forecasts of CPCNH’s financial performance over the course of the year.)

During the period covered by the budget (e.g., 1 year):

1. If the then-current Gross Margin P5 forecast is greater than the GM Threshold, EPRM activities will be subject to the hedge ratio limits and other constraints set in the EPRM Policy and these regulations.
2. However, if at any time through the year, the Gross Margin P5 forecast for the current budget year is lower than the Gross Margin P5 used in the Budget (GM Threshold), then:
 - a. The Front Office will recommend the optimal trades to reduce Gross Margin at Risk within two business days.
 - b. The Front Office will initiate the hedge recommendation and approval process.

Rates at Risk (RaR) Metric

Rates at Risks for the following rate setting period are estimated as a function of CPCNH rate setting approach.

If offering a discount to the utility tariff, RaR represents the risks upon the impact of the rates to be charged to customers relative to what they currently pay. Under a discount to tariff rate setting process, competitiveness relative to the other utilities is largely insured by offering a discount. However, rates can naturally fluctuate based upon market conditions in the utility auction process. As such, this metric will measure the degree to which customers may experience a rate increase in a future period relative to current rates.

Rates at Risk (Rate Setting Period) = P95 of future rates – Current Rates



Assumptions:

- ⚡ Utility rates for future periods in which rates are not yet set are projected based upon forward price curve at any given evaluation date.
- ⚡ Percent discount to utility rate which CPCNH expects to offer for the future rate setting period.

Alternative metrics may provide an estimate of the expected future rate changes as well as potential adverse changes to CPCNH's rate competitiveness, relative to the four default utility supply rates, for any given delivery window at the P95 confidence level. This alternative approach would be employed if CPCNH decouples rate setting from utility rates and instead offers rates based on a build-up cost of service methodology.

Financial Reserves at Risk (FRaR)

FRaR is a measure of the potential shortfall in reserve accumulation (or use) at the 5th percentile for a given period. The level of cumulative reserve build for a given scenario at time horizon is calculated as:

$$\text{Cumulative Reserve Build (scenario } i) = \text{Revenues} - \text{Portfolio Costs} - \text{Operating Costs}^* - \text{Financing Costs}^*$$

**not modeled directly in PowerSimm*

The Reserves at Risk for a given month at the 5th percentile is calculated as:

$$\text{Reserves at Risk (month } X) = \text{Expected Cumulative Reserve Build (Mean)} - \text{P5 Level}$$

Forecasted Under Collection Trigger

When the expected level of reserves for a given period are below a given threshold, an advisory flag will be shown in RMC reports. The process to determine the course of action for the RMC is the following:

1. Monitoring of Reserves at Risk by the Portfolio Manager.
 - a. If 5th percentile is lower than annual reserve target, the CEO, RMC, and Finance Committee will be notified.
 - b. If they 5th percentile is below the minimum level target, the CEO, RMC, and Finance Committee will be notified. Until the minimum target level of reserves is reached, the threshold will be based on the expected reserve build to reach the minimum target in the time period set by the Financial Reserves Policy.
2. If there is a high likelihood that reserve levels will not be met during the period, then the RMC and Finance Committee, in consultation with the CEO, will deliberate on path forward to achieving the annual reserve target.
3. RMC will provide a recommendation to Board for approval.



Counterparty Credit Exposure Guidelines

Current Credit Exposure (CCE) and Potential Future Exposure (PFE) will be used to track counterparty credit exposures from bilateral contracts. Exposure metrics are included in RMC reports.

Current Credit Exposure (CCE) Metric

Current credit Exposure (CCE) or 'Loss in Event of Default' is a measure of CPCNH's unsecured counterparty credit exposures at a given point in time.

It is composed of settlement exposures and forward Mark-to-Market exposure:

- Settlement exposure is a payable or receivable amount owed between counterparties for both billed and unbilled transactions.
- Forward Mark-to-Market exposure measures the risk associated with the need to replace a transaction at prevailing market prices in the event of default.

Note that CPCNH's exposure to a counterparty is reduced if there are credit risk mitigants in place that would lower the credit losses in the event of non-performance by the counterparty (e.g., cash collateral).

Current Credit Exposure (CCE) for a given counterparty X is calculated as:

$$\mathbf{CCE (Cpty X) = A - B - C}$$

Where:

A is the sum of the positive mark-to-market value of all forward trades.

B are all offsetting amounts that are supported by legally binding netting agreements and

C are Credit Risk Mitigants (e.g., letters of credit or cash collateral posted).

CCE (X) is often reported as 0 for negative values, as there is no Mark-to-Market loss in the event of the counterparty defaulting at the measurement date:

$$\mathbf{CCE (Cpty X) = MAX (CCE , 0)}$$

Potential Future Exposure (PFE) and Maximum PFE Metrics

Potential Future Exposure (PFE) is the maximum expected credit exposure with a counterparty over a specified period of time, calculated at some level of confidence (i.e., at a given probability).

- PFE metrics are calculated with Monte Carlo simulation by evaluating the Mark-to-Market of existing trades under possible future market price scenarios during the lifetime of transactions.
- While current counterparty exposure represents the single point estimate of the potential credit losses, if a counterparty were to default at the calculation time,



potential future exposure is based on a range or distribution of hypothetical future outcomes.

- ✦ The PFE is calculated for each time horizon at a given level of aggregation (e.g., monthly steps) and reported as a 'profile' by creating a line graph showing the PFEs for each month in the future.
- ✦ The metric used for reporting purposes is the Maximum PFE, which is the maximum potential credit exposure between the calculation time and the expiration of the forward contracts with a given counterparty.

For counterparty with a collateral threshold, the PFE is assumed to be capped at the collateral threshold.

PFE at a given horizon t with Collateral Thresholds for Counterparty X:

$$\text{PFE (Cpty X, t)} = \text{MIN [MAX (Potential P95 MtM (t), 0), Cpty X Collateral Threshold]}$$

Maximum PFE is the maximum potential credit exposure between the calculation time and the expiration of the hedge contracts with a given counterparty.

Counterparty Credit Limit Management

A credit limit breach occurs when the unsecured credit exposure with a counterparty is larger than the internal credit limit. Credit limits for a given counterparty may be exceeded as a result of different type of events such as:

- ✦ Increase in Mark-to-Market exposures of existing trades above the credit limit due to market volatility.
- ✦ Changes in the collateral threshold amounts or other credit risk mitigants that result in unsecured exposures being higher than the internal limit.
- ✦ Counterparty downgrade and subsequent credit limit reduction.
- ✦ Changes in counterparty internal credit limits by the RMC.
- ✦ Failure to post collateral by the counterparty.
- ✦ All credit limit exceptions will be documented and reported to the RMC as policy exceptions.

Action in Response to Credit Limit Breach

In the event of a credit limit breach:

1. The Portfolio Manager will provide a recommendation to the CEO and RMC on a recommended course of action.
2. RMC will make a determination on how to manage the credit exposure (e.g., credit limit increase, reduce exposures gradually, suspend additional trades, etc.) and notify the CEO.



Liquidity/ Collateral Risk Metrics

Collateral Call Risk (CCR) and Maximum CCR Metrics

Collateral Call Risk (CCR) is a probabilistic metric that measures the potential collateral calls with a given counterparty over different delivery windows or time horizons under different market scenarios

CCR is an estimate of the maximum amount of collateral that CPCNH may have to post with a given counterparty over a specified period of time calculated at some level of confidence (i.e., at a given probability).

CCR metrics are calculated using Monte Carlo simulation by evaluating the hypothetical Mark-to-Market of existing trades under possible future market price scenarios during the lifetime of transactions.

The CCR is calculated for each time horizon at a given level of aggregation (e.g., monthly steps) and reported as a 'profile' by creating a line graph showing the CCRs for each month in the future.

Maximum CCR is the maximum potential collateral call between the calculation time and the expiration of the hedge contracts with a given counterparty.



APPENDICES

Definitions

“Board” means the Board of Directors of CPCNH.

“CEO” means the Chief Executive Officer of CPCNH, or, in the absence of a CEO, the Board Chair (unless where otherwise provided for herein or in the EPRM Policy).

“Cost Sharing Agreements” means the agreements entered into by CPCNH and individual Members pursuant to Article V, Section 3 of the CPCNH Joint Powers Agreement.

“Confirmation Letter” means a letter agreement between two counterparties that details the specific commercial terms (e.g., price, quantity and point of delivery) of a transaction.

“CPA” means Community Power Aggregation.

“CPCNH” means the Community Power Coalition of New Hampshire.

“Data Services Manager” is the entity that provides Electronic Data Interchange (EDI), data management, reporting, and other related services. Calpine Energy Solutions, LLC is CPCNH’s Data Services Manager.

“EPRM Policy” means the Energy Portfolio Risk Management Policy.

“EPRM Regulations” means the Energy Portfolio Risk Management Regulations.

“ERM Policy” means the Enterprise Risk Management Policy.

“GAAS” means generally accepted auditing standards.

“ISO-NE” means ISO New England, Inc., the entity serving as the regional transmission operator and which oversees the operation of New England's bulk electric power generation and transmission system and administers the regional wholesale markets for electric energy and other electricity products, or its successors.

Financial power or gas swap or futures: Includes fixed-for-floating swaps, basis swaps, exchange-traded futures contracts. Swaps and futures are financial settled instruments based on the difference between a fixed and floating reference price times a contracted volume. CPCNH could be the fixed side or float side of the settlement depending upon whether is buying or selling financial power.

Financial power or gas option: The buyer of an option pays a premium to have the right, but not obligation, to exercise the option prior to expiry and receive a financial settlement.

“Financial Transmission Rights (FTRs) obligations”: An FTR provides the FTR holder a revenue stream that equals the quantity of the FTR multiplied by the hourly price difference (day-ahead) between the source and sink locations specified in the FTR. An FTR can be used by CPCNH as a Load Serving entity to hedge congestion risk



between a load zone and a supply location such as a generator or hub. The payoff of a FTR can be positive or negative,

“Financial Transmission Rights (FTRs) options”: FTR option buyers pay a premium to have the right, but not the obligation to exercise the payoff of an FTR settlement.

“Gross Margin at Risk” is a measure of the potential adverse changes in net revenues for a given time period and confidence level.

“IBT” or “Internal Bilateral Transaction” is a contract tool that transfers the ISO load obligation between the buyer and the seller. Participants with load or generators often sign bilateral contracts with each other to obtain price certainty rather than risking the uncertain energy market price. A CPCNH’s load obligation decreases and therefore pay less to the ISO while a Seller’s load obligation increase and pay more to the ISO.

“Load Serving Entity (LSE)” means an entity that is registered with ISO-NE as a market participant and secures and sells electric energy and related services, which may include transmission service if not provided by the distribution utility, to serve the demand of end-use customers at the distribution level. CPCNH’s LSE is Champion Energy Services, LLC.

“MTM” or Mark-to-Market is a measure of the current replacement value of physical or financial contracts based on prevailing market forward curves rather than the book value.

“NRSRO” means nationally recognized statistical rating organization.

“Physical Power Purchases and Sales”: see IBT.

“Portfolio Manager” is the entity or organization responsible for energy portfolio risk management activities. Ascend Analytics, LLC is CPCNH’s Portfolio Manager.

“Potential Future Exposure for counterparty credit risk” means the maximum MTM counterparty exposures for a given time period and confidence level.

“Potential Collateral Exposure” means the maximum of collateral that CPCNH may have to post for a given period and time horizon with a given counterparty.

“Rates at Risk” is a measure of the potential adverse changes to CPCNH’s rate competitiveness, relative to the four default utility supply rates, for a given time period and confidence level.

“RMC” means the CPCNH Risk Management Committee.

“Financial Reserve Uncertainty” is a measure of the potential adverse change in reserves for a given time period and confidence level.

“Stress tests” refer to analysis of portfolio performance under stress scenarios of material risk drivers. Used to understand the potential variability in CPCNH’s projected procurement costs and resulting retail rate impacts and competitive positioning.



Matrix with Roles and Responsibilities

Table 4: Main Roles and Responsibilities for EPRM

Role	FO	MO	BO	RMC	CEO	Board
Ultimate oversight over CPCNH operations						XX
Responsible for establishing an organizational-wide framework for risk management						XX
Ensuring that risk management results are achieved as planned.						XX
Approve and establish organizational policies for risk management and delegate to the CEO the responsibility for implementing the EPRM.						XX
Assignment of members of RMC and approval of RMC Chair role						XX
Implementing the EPRM					XX	
Communicating risk management issues to the Board					XX	
Responsible for delegating specific duties for carrying out the policy and regulations					XX	
Ensuring compliance with it by all affected CPCNH employees or contractors. Delegate certain functions to the RMC, where delegation is ratified by the EPRM Policy.					XX	
Ensure that the procurement activities carried out on behalf of CPCNH are executed within the adopted guidelines and are consistent with the Member's goals.				XX		
Review and assessment of RMC Performance based on third party evaluation firm					XX	XX
Evaluate, vote and provide guidance on all proposed hedging recommendations.				XX		
Determine if changes in the hedging strategy, or changes to the EPRM policy or EPRM regulations, are warranted.				XX		
Understand the financial and risk models relied upon to support hedging decisions.				XX		
Understand and review the risk reports used to monitor for compliance with the EPRM policy and regulations.				XX		
Review the effectiveness of all hedging and procurement activities.				XX		
Review and vote on new product type requests from Front Office				XX		
Review any reported violations to the EPRM policy and regulations and determine best course of action to manage the violation.				XX		



Role	FO	MO	BO	RMC	CEO	Board
Analyze fundamental factors affecting load and supply, and net position	XX					
Analyze CPCNH's net position's exposure to market price risk	XX					
Maintain a list of authorized personnel approved to transact by the RMC. Any changes on the list of authorized traders will promptly be communicated to the Middle Office and RMC by the Front Office.	XX					
Communicate results to the RMC and propose transactions within the limits of the EPRM policy and regulations to balance those positions.	XX					
Recommend additional transaction types for approval by RMC, pursuant to the EPRM regulations New Product Approval Process.	XX					
Negotiate the price and structure of hedging transactions with counterparties.	XX					
Transact with counterparties only after approval from the RMC or within delegated limits approved by the RMC, and subject to those transactions: <ul style="list-style-type: none"> o Being for an approved product and executed with a counterparty with an approved credit limit o Being duly authorized, within risk limits, and not causing either aggregate or individual counterparty credit limits to be exceeded. o Utilizing contract terms intended to minimize the risk of loss if a counterparty fails to deliver, take delivery, or pay for transactions provided. o Being executed and documented following standardized procedures. o Being in compliance with applicable laws, regulations and court orders. 	XX					
Monitor, and reporting compliance with all limits within the EPRM Policy and EPRM Regulations.		XX				
Maintain the list of approved products and traders including authority limits and communicate counterparties		XX				
Validation of risk management models, including price and load forecasts and simulations.		XX				
Maintain a list with current Internal Credit Limits by Counterparty and communicate any changes to Front Office		XX				
Prepare position and risk reports for the RMC.		XX				
Exceptions Report and RMC communication		XX				



Role	FO	MO	BO	RMC	CEO	Board
Review transactions adherence to approved limits			XX			
Confirmation of all transactions and reconciliation of differences with the counterparty.			XX			
Ensure all trades have been entered into the system of record			XX			
Monitor Counterparty Credit Exposure and report mark to market exposures relative to contractual contract requirements.			XX			
For exchange traded products through a clearing broker, conduct daily balance daily with the broker statement.			XX			



RMC Reports, Primary Responsibility and Frequency

Table 5: RMC Reports

Report	F0	Middle Office	Back Office	RMC	Frequency
Market Developments and forward curves	XX	X		Review	Daily/Weekly
Load Forecasts and Resources	XX	X		Review	Weekly
Executed Hedges	XX	X		Review	Weekly
Open Position (MWh)		XX	X	Review	Weekly
Open Position (\$)		XX	X	Review	Weekly
Expected Gross Margins vs. Budget		XX	X	Review	Weekly
Expected Cost of Supply vs. Budget		XX	X	Review	Weekly
Expected Reserve Levels vs. Budget		XX	X	Review	Weekly
Gross Margin at Risk		XX	X	Review	Weekly
Counterparty Risk Reports		XX	X	Review	Weekly
Liquidity Risk Reports		XX	X	Review	Monthly
Rates at Risk Reports		XX	X	Review	Monthly
Financial Reserve Risk Reports		XX	X	Review	Monthly
Stress Test Reports*		XX	X	Review	Seasonal
Exceptions Report		XX	X	Review/Manage	Weekly

XX Primary Responsibility; X Backup Resources

*Stress tests will also be used to understand the potential variability in CPCNH's projected procurement costs, and resulting retail rate impacts and competitive positioning, associated with adverse scenarios of material risk drivers.



Load Serving Entity Operational Reporting Requirements

After the launch of CPA Program service, the Data Services Manager is responsible for providing the LSE with the following reports and data streams (note that CPCNH is responsible for certifying certain reports below prior to submission):

1. Accounts Receivable Aging Report. Each week, an accounts receivable aging report for CPCNH stating by customer the current aging of accounts receivable, current sales, collections, adjustments and ending balances of accounts receivable, in a form reasonably acceptable to the LSE and certified by an officer of CPCNH as true and correct.
2. Collection Report. Each calendar month, a report of collection and payment activity for CPCNH detailing aged accounts receivable, collections to date, late payment status, total sales, dilution, write-offs and similar customer collection activity as of the end of the immediately preceding calendar month, in a form reasonably acceptable to the LSE.
3. Unbilled Receivables Report. Each month, a report stating the amount of all unbilled Receivables from the customers in respect of electricity delivered as of the end of the immediately preceding month, in a form reasonably acceptable to the LSE and certified by the chief executive officer or chief financial officer (or if CPCNH does not have a chief financial officer, an officer) of CPCNH as true and correct.
4. Monthly Churn Report. Each month, a churn report listing the amount and states of all new customers and the number that have ceased being customers of CPCNH during the previous calendar month then ended, in a form reasonably acceptable to the LSE.
5. Data Feed. A direct daily data feed of a raw data file containing all of CPCNH's wholesale and aggregated class level customer load data, in a mutually acceptable electronic file format.
6. Other Information. Promptly, any other information reasonably requested by LSE.
7. Short Term Forecasts. Forecast files each day, providing hourly forecasts in MW's aggregated up to the ISO zone, provided in an MS Excel file via Secure File Transfer Protocol (SFTP), or other mutually agreed upon format and process, per the following schedule: (i) Preliminary Short Term Forecast: no later than 5 PM Eastern Prevailing ("EDT") daily for flow dates from the current day plus two (+2) days to the current day plus fourteen (+14) days; and (ii) updated Short Term Forecast: no later than 8 AM eastern prevailing time daily for flow dates from the current day plus one (+1) day to the current day plus fourteen (+14) days.

CPCNH's Portfolio Manager is responsible for directly providing the LSE with:

1. Mid Term Forecast. Forecast files submitted via an MS Excel file or other agreed upon format by the 15th of each month for the prompt month and provide: (i)



monthly total volumes for on-peak and off-peak hours as established by Designated ISO, weather adjusted using the latest forecast, if applicable; and (ii) scenarios for a 5% deviation (+/-) from normalized weather load.

2. Long Term Forecasts. Forecast files submitted by the end of every month via MS Excel file or other agreed upon format, providing weather normalized monthly total volumes for on-peak and off-peak hours, as established by ISO-NE, and adjusted for attrition, for the prompt month plus 20 months. Any potential material changes to the forecast, including changes regarding new or departing Members of the CPA program, Demand Response, behind the meter generation plans, and energy efficiency programs will be noted.
3. Open Market Position Report. Each Business Day, a report, in a form reasonably acceptable to the LSE and effective as of the close of the immediately preceding Business Day, setting forth the risk position book and the hedge book of CPCNH.
4. Transaction Confirmations. Provided within two (2) business days of executing transactions on behalf of CPCNH.



Hedge Requirement Exception Request Form

Request Date			
Purpose			
Delivery Start Date			
Delivery End Date			
Expiration of Exception			
Requested Hedge Ratio Percentages	Delivery Month	On-Peak %	Off-Peak %
Requested LSE Supplier Energy Hedge Percentages	Delivery Month	On-Peak %	Off-Peak %

