

**BUTTE CHOICE ENERGY**

# Energy Risk Management Policy

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# TABLE OF CONTENTS

## Table of Contents

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- CHAPTER 1: POLICY OVERVIEW ..... 1**
- BACKGROUND AND PURPOSE.....1
- OBJECTIVE .....1
- PROGRAM GOALS.....1
- SCOPE .....2
- POLICY ADMINISTRATION & INTERPRETATION .....2
- CHAPTER 2: ORGANIZATIONAL STRUCTURE AND RESPONSIBILITIES..... 4**
- BOARD OF DIRECTORS.....4
- RISK MANAGEMENT GUIDANCE .....4
- POWER MANAGER.....5
  - Power Manager and Schedule Coordination - Front Office* .....5
  - Power Manager – Middle/Back Office* .....5
- The Middle and Back Offices are functionally and organizationally separate from the Front Office.....5
- CHAPTER 3: RISK EXPOSURES ..... 7**
- RISK EXPOSURES .....7
  - Customer Opt-Out Risk:* .....7
  - Market Risk*.....8
  - Regulatory Risk* .....8
  - Volumetric Risk* .....8
  - Model Risk* .....9
  - Operational Risk* .....9
  - Counterparty Credit Risk*.....10
  - Customer Credit Risk* .....10
  - EDI Data Risk* .....10
  - Reputation Risk*.....11
- RISK MEASUREMENT METHODOLOGY .....11
- CHAPTER 4: BUSINESS PRACTICES ..... 12**
- GENERAL CONDUCT .....12
- TRADING FOR PERSONAL ACCOUNTS.....12

ADHERENCE TO STATUTORY REQUIREMENTS .....	12
TRANSACTION TYPE, REGIONS AND MARKETS.....	13
COUNTERPARTY SUITABILITY .....	14
SYSTEM OF RECORD .....	14
TRANSACTION VALUATION .....	14
TRADING PRACTICES .....	14
<b>CHAPTER 5: DELEGATION OF AUTHORITY .....</b>	<b>16</b>
RISK LIMITS.....	16
<i>Delegation Authority</i> .....	16
<i>Volume Limits</i> .....	16
MONITORING, REPORTING AND INSTANCES OF EXCEEDING RISK LIMITS.....	17
<b>CHAPTER 6: CREDIT POLICY AND COUNTERPARTY SUITABILITY .....</b>	<b>18</b>
MASTER ENABLING AGREEMENTS AND CONFIRMATIONS .....	18
COUNTERPARTY SUITABILITY .....	18
MAXIMUM CREDIT LIMIT .....	19
CREDIT REVIEW EXCEPTIONS.....	19
CREDIT LIMIT AND MONITORING .....	19
<b>CHAPTER 7: POSITION TRACKING AND MANAGEMENT REPORTING .....</b>	<b>21</b>
REPORTING REQUIREMENTS.....	21
<b>CHAPTER 8: POLICY REVISION PROCESS .....</b>	<b>22</b>
ACKNOWLEDGEMENT OF POLICY .....	<b>Error! Bookmark not defined.</b>
REVIEW.....	22
POLICY INTERPRETATIONS.....	<b>Error! Bookmark not defined.</b>
<b>APPENDIX A: AUTHORIZED TRANSACTION TYPES, REGIONS, AND MARKETS</b>	<b>23</b>
<b>APPENDIX B: ENERGY RISK HEDGING STRATEGY .....</b>	<b>24</b>
INTRODUCTION .....	24
GOVERNANCE .....	24
HEDGING PROGRAM GOALS.....	24
HEDGING TARGETS AND STRATEGIES.....	25
<i>Fixed Price Energy Fixed Price</i> .....	25
<i>Portfolio Content Category 1 Renewable Energy</i> .....	27
<i>Portfolio Content Category 2 Renewable Energy</i> .....	28

<i>Carbon Free Energy</i> .....	29
<i>Resource Adequacy Capacity</i> .....	30
HEDGE PROGRAM METRICS .....	30
REPORTING REQUIREMENTS.....	31
<b>APPENDIX C: NEW TRANSACTION APPROVAL FORM.....</b>	<b>32</b>
<b>APPENDIX D: DEFINITIONS .....</b>	<b>33</b>

## Chapter 1: Policy Overview

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### BACKGROUND AND PURPOSE

Butte Choice Energy (“BCE”) is a public agency located within Butte County, formed for the purpose of implementing a community choice aggregation program (“CCA”). Member Agencies of the BCE includes the City of Chico, a municipality located within the County of Butte (“County”) as well as the unincorporated areas of the County itself (together, the “Members” or “Member Agencies”), which have elected to allow BCE to provide electric generation service within their respective jurisdictions.

Currently, the following Member Agencies comprise BCE:

- County of Butte (unincorporated area)
- City of Chico

Providing retail electric generation service to customers enrolled in the CCA program exposes BCE to risks such as retail load uncertainty (due to weather, customer opt-out, and other factors), energy market price, counterparty credit, power supplier generation, PCIA rate competitiveness and other regulatory risks. The Energy Risk Management Policy (“Policy”) establishes policies and procedures to manage the risks associated with power procurement activities. The ultimate purpose of this Policy is to help BCE increase the likelihood of achieving its goals through the management of risk, including specifying management responsibilities, organizational structures, risk management standards, and operating controls and limits.

### OBJECTIVE

The Policy objective is to provide a framework for conducting procurement activities that maximizes the probability of BCE meeting the goals listed in Section 1.3.

### PROGRAM GOALS

To help ensure long term viability of BCE, the following Policy goals have been developed. These goals establish metrics that will be used for modeling and measuring risk.

- BCE will target competitive retail rates and utility programs after adjusting for the PCIA and Franchise Fee
- BCE will target, during the initial 8 years of operation, to fund financial reserves with the following objectives:
  - Establish long-term business sustainability
  - Build collateral for power procurement activities
  - Establish an investment grade credit rating
  - Develop a source of funds for investment in generation and other local programs
  - Stabilize rates and dampen year-to-year variability in procurement costs

The goals outlined above are incorporated into the financial models that are used in modeling and measuring risk exposures. It is important to note that the goals listed above are not intended to be a comprehensive list of goals for BCE. Rather, the above reflect a subset of goals critical to long-term business viability of BCE.

## SCOPE

Unless otherwise explicitly stated in this Policy, or other policies approved by the Board, this Policy applies to all power procurement and related business activities that may impact the risk profile of BCE. The Policy documents the framework by which management, staff, consultants and power management service providers will:

- Identify and quantify risk
- Develop and execute procurement strategies
- Create a framework of controls and oversight
- Monitor, measure and report on the effectiveness of the Program
- Provide the key performance indicators to measure the effectiveness of consulting and power management activities

To ensure successful operation, BCE has partnered with experienced consultants to provide energy-related services. BCE may contract with an external provider for power procurement services or may self-provide procure power services. Any external power procurement provider shall be considered the Power Manager as set forth in Section 2. At the outset of BCE, the Power Manager will be executing the preponderance of front- (transacting), middle- (monitoring) related activities on BCE's behalf as discussed at Section 2.4. In providing these services for BCE, the Power Manager will adhere to and be governed by this Policy. The Power Manager may maintain its own risk management policies and procedures, following industry practices regarding the segregation of duties, which also govern activities executed on BCE's behalf. BCE is not bound by the Power Manager's internal risk policy, however the Power Manager must adhere to this Policy when performing power management services on behalf of BCE. In the event of a conflict between this Policy and a Power Manager's risk policy, the Power Manager must inform the CEO as soon as practicable.

## POLICY ADMINISTRATION & INTERPRETATION

This Policy document has been reviewed and approved by the BCE Board of Directors (Directors). The Board must approve amendments to this Policy, except for the appendices, which may be amended by the Chief Executive Officer. The Chief Executive Officer must give notice to the Board of any amendments made to an appendix or a reference policy or procedure document.

This Policy shall be distributed to all BCE employees and third-party contractors who are engaged in the planning, procurement, sale and scheduling of electricity on BCE's behalf and/or in other

BCE departments providing oversight and support for these activities. All such employees and contractors are required to confirm in writing on an annual basis that they have:

- Read BCE's Policy
- Understand the terms and agreements of said Policy, and
- Will comply with said Policy
- Understand that any violation of said Policy shall be subject to employee discipline up to and including termination of employment.

Questions about the interpretation of any matters of the Policy should be referred to the Risk Management Committee. All legal matters stemming from this Policy will be referred to General Counsel.

## Chapter 2: Organizational Structure and Responsibilities

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### BOARD OF DIRECTORS

The BCE Board of Directors has the responsibility to review and approve the Policy. With this approval, the Board assumes responsibility for understanding the risks BCE is exposed to and how the policies outlined in this document help BCE manage those risks.

The Board of Directors is also responsible to:

- Determine BCE strategic direction
- Understand the procurement strategy employed
- Remain apprised of the performance of the Policy, the Chief Executive Officer and the Power Manager

### RISK MANAGEMENT GUIDANCE

The Chief Executive Officer is responsible for implementing, maintaining and overseeing compliance of this Policy. The Chief Executive Officer will receive input from staff and BCE's consultants on procurement activities. The primary goal is to ensure that the procurement activities of BCE are executed within the guidelines of this Policy and are consistent with Board directives.

The Chief Executive Officer maintains the responsibility to:

- Approve and ensure that all procurement strategies are consistent with this Policy
- Determine if changes in risk and procurement strategies, processes or structures are warranted
- Approve new transaction types, regions, markets and delivery points
- Understand financial and risk models used by the Power Manager and BCE's consultants
- Understand counterparty credit review models and methods for setting and monitoring credit limits
- Receive and review reports as described in this Policy
- Meet to review actual and projected financial and risk management activities
- Escalate to the Board of Directors with any risks beyond the Chief Executive Officer's authority
- Review summaries of limit violations and recommend corrective actions, if necessary
- Review the effectiveness of BCE's energy risk measurement methods
- Maintain this Policy through regular review, administration and enforcement
- Monitor regulatory and legislative activities

- Foster an environment that is supportive of BCE risk management goals and structure

## **POWER MANAGER**

BCE may contract externally for a power manager or may internally appoint one. The Power Manager must maintain a strong segregation of duties, also referred to as "separation of function" that is fundamental to manage and control the risks outlined in this Policy. The Power Manager will provide education to the Chief Executive Officer on the risk and credit models, methods and processes that it uses to fulfill its obligations under this Policy. Individuals responsible for legally binding BCE to a transaction will not also perform confirmation, or settlement functions.

The Power Manager's responsibilities are divided into front-middle-back office activities, as described below.

### ***Power Manager and Schedule Coordination - Front Office***

The Front Office has overall responsibility for:

1. Managing all commodity and transmission activities related to procuring and delivering resources needed to serve BCE's load, analyzing fundamentals affecting load and supply factors that determine BCE's net position, and
2. Transacting within the limits of this Policy, and associated policies, to balance loads and resources, and maximize the value of BCE's assets through the exercise of approved optimization strategies

Other duties associated with these responsibilities include:

1. Assist in the development and analysis of risk management hedging products and strategies, and bring recommendations to the Chief Executive Officer
2. Prepare a monthly operating plan for the prompt months that gives direction to the day-ahead and real-time trading and scheduling staff regarding the bidding and scheduling of CCA's resource portfolio in the CAISO market
3. Develop, price and negotiate hedging products
4. Forecast day-ahead and monitor/ forecast same-day loads
5. Accurately input, administer, schedule and track all power and transmission transactions

### ***Power Manager – Middle/Back Office***

The Middle and Back Offices are functionally and organizationally separate from the Front Office.

The Middle Office provides independent market and credit risk oversight.

The Back Office provides support with a wide range of administrative activities necessary to execute and settle transactions and to support the risk control efforts (e.g. transaction entry and/or checking, data collection, billing, etc.).

The Middle and Back Offices have primary responsibility for trading controls and for ensuring agreement with counterparties regarding the terms of all trades, including forward trading, including:

1. Estimating and publishing daily forward monthly power and natural gas price curves for a minimum of the balance of the current year through the next calendar year
2. Calculating and maintaining the net forward power positions of BCE
3. Ensuring that BCE adheres to all risk policies and procedures of both BCE and the Power Manager in letter and in intent
4. Maintaining the overall financial security of transactions undertaken by the Power Manager on behalf of BCE
5. Implementing and enforcing credit policies and limits
6. Handling confirmation of all transactions and reconciling differences with the trading counterparties
7. Reviewing trade tickets for adherence to approved limits
8. Ensuring all trades have been entered into the appropriate system of record
9. Ensuring that both pre-schedule and actual delivery volumes and prices are entered into the physical database
10. Carrying out month-end checkout of all transactions each month
11. Reviewing models and methodologies and recommending Chief Executive Officer approval.

## Chapter 3: Risk Exposures

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### RISK EXPOSURES

BCE faces a range of risks during launch and ongoing operation. The following are components of BCE's energy risk that will be assessed, monitored and managed. For this Policy, risk exposure is assessed on all transactions (energy, environmental attributes, capacity, etc.) executed by Power Manager on behalf of BCE, or by BCE unilaterally, as well as the risk exposure of open positions and the impacts of these uncertainties on the BCE's load obligations.

- Customer Opt-Out risk
- Market price and supply risk
- Regulatory risk
- Volumetric risk
- Model risk
- Operational risk
- Counterparty credit risk
- Customer credit risk
- EDI Data risk
- Reputation risk

#### ***Customer Opt-Out Risk:***

Customer opt-out risk is the primary risk BCE faces and includes any condition or event that creates uncertainty within, or a diminution, of BCE's customer base, thereby increasing the potential for BCE to not meet its Policy goals.

BCE will manage opt-out risk by:

- Having increased marketing into the communities
- Hiring an Energy Account Program Manager
- Attending community events
- Providing regular updates to members City Councils
- Maintaining strong relationships with the local community including elected leaders, stakeholders and all the customers BCE serves
- Actively monitoring and a for the interests of BCE and its customers in PG&E ratemaking proceedings, California Public Utilities Commission (CPUC) proceedings that potentially affect exit fees paid by BCE customers, as well as all regulatory and legislative proceedings where an adverse outcome may challenge the ability of BCE to deliver on customer commitments
- Regularly monitor and report actual and projected financial results including probability-based and stress-tested financial results assuming a range of possible future outcomes with respect to:
  - Future power supplier generation and PCIA rates
  - Future market costs for energy, environmental attributes and capacity

- Anticipated or threatened regulatory actions, when appropriate
- Adopt, implement and update, as needed, a formal Energy Risk Hedging Strategy (Appendix B) describing the strategy that BCE will follow for engaging in procurement activities
- Evaluate expansion of BCE’s customers base through incorporation of other eligible communities

***Market Risk***

Market risk is the uncertainty of BCE’s financial performance due to variable commodity market prices (market price risk), uncertain price relationships (basis risk) and the volume of power available in the market (supply risk). Variability in market prices creates uncertainty in BCE’s procurement costs and can materially impact BCE’s financial position.

BCE will manage market risk by:

- Regular measurement of market conditions
- Execution of approved procurement and Congestion Revenue Right strategies
- Strict adherence to the Energy Risk Management Policy
- Employ a hedging policy with up to date strategies that protect BCE from both extreme market highs and long term high price exposure during market troughs.

***Regulatory Risk***

CCAs remain comparatively new legal entities in the State of California and are subject to an evolving legal and regulatory landscape. Additionally, CCAs are in direct competition with Investor Owned Utilities (IOUs) in retail electricity, which face the risk of stranded investments in generating assets and power purchase agreements procured in the past to serve now departing CCA loads. The way the stranded costs of these legacy power supplies are allocated to departing CCA loads is the subject of regulatory proceedings at the CPUC, through the Power Charge Indifference Adjustment (PCIA). Continuing new and evolving regulations result in retail rate competitiveness risks that are unique to CCAs.

BCE will manage regulatory risk by:

- Regular monitoring and analysis of legislative and regulatory proceedings impacting CCAs
- Actively participating in and representing BCE customer interests during regulatory and legislative proceedings
- Regular monitoring and reporting of actual and projected financial results including probability based and stressed financial results assuming a range of market and retail rate scenarios (both BCE and PG&E)
- Structuring procurement strategies with the objective function of maintaining a favorable retail rate savings relative to PG&E and other neighboring retail providers

***Volumetric Risk***

Volumetric risk is the uncertainty of BCE's financial performance due to variability in the quantity of retail load served by BCE. Retail load uncertainty results from customer opt-outs, temperature deviation from normal, unforeseen adoption of behind the meter generation by BCE customers, as well as local, state and national economic conditions.

BCE will manage volume risk by:

- Quantifying anticipated power supplier generation and PCIA rates, and variability therein
- Quantifying variability in procurement costs
- Monitor and adjust for non-regulatory factors driving volumetric uncertainty (e.g., weather, economy)
- Adopting a formal procurement strategy
- Implementing a key accounts program and maintain strong relationships with the local community
- Monitoring trends in customer onsite generation, economic shifts, and other factors that affect electricity customer consumption and composition
- Expanding BCE's customer base by incorporating other eligible jurisdictions
- Proactively engage with customers in developing distributed energy resources and behind-the-meter generation and energy efficiency programs to better forecast changes in load

### ***Model Risk***

Model risk is the uncertainty of BCE's financial performance due to potentially inaccurate or incomplete characterization of a transaction or power supply portfolio elements due to fundamental deficiencies in models and/or information systems.

BCE will manage model risk by:

- Approval and ratification of financial and risk models
- Ongoing review of model outputs as part of controls framework
- Ongoing BCE and the Power Manager's staff education and participation in CCA industry forums
- Ongoing updates and improvements of models as additional information and expertise is acquired

### ***Operational Risk***

Operational risk is the uncertainty of BCE's financial performance due to weaknesses in the quality, scope, content, or execution of human resources, technical resources, and/or operating procedures within BCE. Operational risk can also be exacerbated by fraudulent actions by employees or third parties or inadequate or ineffective controls.

BCE will manage operational risk by:

- Strict adherence to the Energy Risk Management Policy
- Chief Executive Officer oversight of procurement activity

- Timely and effective management reporting
- Ensuring adequate staff resources, expertise and/or training are reinforcing a culture of compliance
- Ongoing and timely internal and external audits

### ***Counterparty Credit Risk***

Counterparty credit risk is the potential that a counterparty will fail to perform or meet its obligations in accordance with terms agreed to under contract.

BCE will manage counterparty credit risk by:

- Strict adherence to the Energy Risk Management Policy

### ***Customer Credit Risk***

BCE Customer credit risk is the potential that a customer will fail to pay their invoices provided by PG&E and BCE's power supplier. Customer credit risk can be mitigated by establishing a customer bad debt reserve as a percentage of revenues. In addition, tracking, monitoring, and follow-up action on delinquent active and closed accounts.

BCE will manage BCE Customer credit risk by:

- Strict adherence to the Energy Risk Management Policy
- Chief Executive Officer oversight of customer account aging
- Timely and effective customer aging reporting
- Ongoing communication with PG&E's CCA customer relationship manager and BCE's power supplier
- Prudent disconnection of delinquent customers back to the utility to minimize outstanding credit exposure

### ***EDI Data Risk***

Operations of a CCA is highly dependent on Electronic Data Interchange (EDI) transactional data. There are several risks and associated controls associated with EDI data: security and confidentiality, processing integrity, and system/information availability. EDI Data risk can be mitigated with the use of system validation tools to verify and identify invalid data prior to entering into the customer management systems and computer logs to ensure a transactional trail. Furthermore, in today's environment of virus, worm and hacker attacks, the data manager must provide business continuity plans, backup data and system recovery plans to ensure the CCA business continues. Most importantly, as BCE is a holder of customer information, controls and procedures must be maintained to ensure customer information integrity.

BCE will manage CCA EDI Data risk by:

- Strict adherence to the Energy Risk Management Policy
- Data Manager to maintain a strict Data Management Provider Security Breach Policy

- Data Manager to maintain a Disaster Recovery (DR) plan and periodic testing
- Data Manager to maintain a Cyber Security Insurance Policy

### ***Reputation Risk***

Reputation risk is the potential that BCE's reputation is harmed, causing customers to opt-out of BCE's service and migrate back to PG&E.

BCE will manage reputation risk by:

- Implementation and adherence to this Energy Risk Management Policy
- Establishment and adherence to industry best practices including both those adopted by other CCAs, as well as those adopted by traditional municipal electric utilities

### **RISK MEASUREMENT METHODOLOGY**

A vital element in the Policy is the regular identification, measurement and communication of risk. To effectively communicate risk, all risk management activities must be monitored on a frequent basis using risk measurement methodologies that quantify the risks associated with BCE's procurement-related business activities and performance relative to identified goals.

Risk measurement of BCE's position will be performed using a method that calculates projected procurement costs on an annual basis at various probabilities and that further provides a comparison of projected BCE retail rates to those of PG&E and other neighboring retail providers.

The rate comparison will be adjusted for actual and projected PCIA and Franchise Fee charges. Risk measurement methodologies will be re-evaluated on a periodic basis to ensure BCE and the Power Manager adjust its methods to reflect the evolving regulatory and competitive landscape. The implementation of these methods shall be overseen and validated by the Power Manager and ratified by the Chief Executive Officer.

## **Chapter 4: Business Practices**

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### **GENERAL CONDUCT**

It is the Policy that all personnel, including the Directors, management, and agents, adhere to standards of integrity, ethics, conflicts of interest, compliance with statutory law and regulations and other applicable BCE standards of personal conduct while employed by BCE affiliated with BCE.

### **CONFLICTS OF INTEREST**

All BCE Directors, management, employees, consultants, and agents participating in any transaction or activity within the coverage of this Policy are obligated to give notice in writing to BCE of any interest such person has in any counterparty that seeks to do business with BCE, and to identify any real or potential conflict of interest such person has or may have with regard to any existing or potential contract or transaction with BCE. Further, all persons are prohibited from personally participating in any transaction or similar activity that is within the coverage of this Policy, or prohibited by California Government Code § 1090, and that is directly or indirectly related to the trading of electricity and/or environmental attributes as a commodity.

If there is any doubt as to whether a prohibited condition exists, then it is the employee's responsibility to discuss the possible prohibited condition with her/his manager or supervisor.

### **TRADING FOR PERSONAL ACCOUNTS**

All BCE Directors, management, employees, consultants, and agents participating in any transaction or activity within the coverage of this Policy are obligated to give notice in writing to BCE of any interest such person has in any counterparty that seeks to do business with BCE, and to identify any real or potential conflict of interest such person has or may have with regard to any existing or potential contract or transaction with BCE. Further all persons are prohibited from personally participating in any transaction or similar activity that is within the coverage of this Policy, or prohibited by California Government Code § 1090, and that is directly or indirectly related to the trading of electricity and/or environmental attributes as a commodity. If there is any doubt as to whether a prohibited condition exists, then it is the employee's responsibility to discuss the possible prohibited condition with her/his manager or supervisor.

### **ADHERENCE TO STATUTORY REQUIREMENTS**

Compliance is required with rules promulgated by the state of California, California Public Utilities Commission, California Energy Commission, Federal Energy Regulatory Commission (FERC), Commodity Futures Trading Commission (CFTC), and other regulatory agencies.

Congress, FERC and CFTC have enacted laws, regulations, and rules that prohibit, among other things, any action or course of conduct that actually or potentially operates as a fraud or deceit

upon any person in connection with the purchase or sale of electric energy or transmission services. These laws also prohibit any person or entity from making any untrue statement of fact or omitting to state a material fact where the omission would make a statement misleading. Violation of these laws can lead to both civil and criminal actions against the individual involved, as well as BCE. This Policy is intended to comply with these laws, regulations and rules and to avoid improper conduct on the part of anyone employed by BCE. These procedures may be modified from time to time by legal requirements, auditor recommendations, Chief Executive Officer requests, and other considerations.

BCE employees are prohibited from working for another transmission provider, system operator, balancing authority, power supplier, CCA, or utility in a related position while they are simultaneously employed by BCE unless an exception is authorized by the Directors. For clarity, this prohibition is not intended to prevent BCE staff from performing non-CCA activities on behalf of BCE in the normal course of its business.

In the event of an investigation or inquiry by a regulatory agency, BCE will provide legal counsel to employees. However, BCE will not appoint legal counsel to an employee if BCE's General Counsel and Chief Executive Officer determine that the employee was not acting in good faith within the scope of employment. BCE employees are prohibited from working for another power supplier, CCA or utility in a related position while they are simultaneously employed by BCE unless an exception is authorized by the Board. For clarity, this prohibition is not intended to prevent BCE staff from performing non-CCA activities on behalf of BCE in the normal course of its business.

## TRANSACTION TYPE, REGIONS AND MARKETS

Authorized transaction types, regions and markets are listed in Appendix A to this Policy. These transaction types, regions and markets are and shall continue to be focused on supporting BCE's financial policies, including approved procurement strategies. New or non-standard transaction types may provide BCE with additional flexibility and opportunity but may also introduce new risks.

Therefore, transaction types, regions and markets not included in Appendix B, or transactions within already approved transaction types that are substantially different from any prior transaction executed by BCE, must be approved by the Chief Executive Officer prior to execution using the process defined below. When seeking approval for a new or non-standard transaction type, region, and/or market, a New Transaction Approval Form, as shown in Appendix C, is to be drafted describing all significant elements of the proposed transaction.

The proposal write-up will be prepared by Power Manager and will, at a minimum, include:

- A description of the benefit to BCE, including the purpose, function and expected impact on costs (i.e.; decrease costs, manage volatility, control variances, etc.)

- Identification of the in-house and/or external expertise that will manage and support the new or non-standard transaction type
- Assessment of the transaction’s risks, including any material legal, tax or regulatory issues
- How the exposures to the risks above will be managed by the limit structure
- Proposed valuation methodology (including pricing model, where appropriate)
- Proposed reporting requirements, including any changes to existing procedures and system requirements necessary to support the new transaction type
- Proposed accounting methodology
- Proposed work flows/methodology (including systems)

It is the responsibility of Power Manager’s Middle Office to ensure that relevant departments have reviewed the proposed transaction and that material issues are resolved prior to submittal to the Chief Executive Officer for approval. If approved, Appendix A to the Policy will be updated to reflect the new transaction type.

## COUNTERPARTY SUITABILITY

Counterparty credit limits and approval processes will govern counterparty suitability for all transactions executed by Power Manager on behalf of BCE. The Power Manager will provide a credit review and recommendation, consistent with the credit policies described in Section 6, for any counterparty with whom BCE contracts directly.

## SYSTEM OF RECORD

The Power Manager’s Middle Office will maintain a set of records for all transactions executed in association with BCE procurement activities. The records will be maintained in US dollars and transactions will be separately recorded and categorized by type of transaction. This system of record shall be auditable.

## TRANSACTION VALUATION

Transaction valuation and reporting of positions shall be based on objective, market-observed prices. Open positions will be valued (marked-to-market) monthly, based on consistent valuation methods and data sources. Whenever possible, mark-to-market valuations should be based on independent, publicly available market information and data sources.

## TRADING PRACTICES

It is the expressed intent of this Policy to prohibit the acquisition of risk beyond that encountered in the efficient optimization of BCE’s generation portfolio and execution of procurement strategies. Prohibited transactions are those transactions that are not related to serving retail electric load and/or reducing financial exposure. Speculative buying and selling of energy products or maintenance of open positions that do not conform with agreed upon thresholds is prohibited. Speculation is defined as buying energy in excess of forecasted load

plus reasonable planning reserves, intentionally under procuring energy relative to minimum load hedging targets or selling energy or environmental attributes that are not yet owned by BCE. In no event shall speculative transactions be permitted. Any financial derivatives transaction including, but not limited to futures, swaps, options, and swap options are also prohibited. During developing operating plans and conducting procurement activities, BCE recognizes that expertise must be employed by the Power Manager's staff, and it is not the intent of this Policy to restrain the legitimate application of analysis and market expertise in executing procurement strategies intended to minimize costs within the constraints of this Policy. If any questions arise as to whether a proposed transaction(s) constitutes speculation, the Power Manager shall conduct an analysis of the transaction and the Chief Executive Officer shall review the transaction(s) to determine whether the transaction(s) would constitute speculation and document its finding in the meeting minutes.

Staff and consultants engaged in procurement activities will also observe the following practices:

- Persons shall conduct business in good faith and in accordance with all applicable laws, regulations, tariffs and rules
- Persons shall not arrange or execute wash trades (i.e. offsetting transactions where no financial risk is taken)
- Persons shall not disseminate known false or misleading information or engage in transactions to exploit such information
- Persons shall not game or otherwise interfere with the operation of a well-functioning competitive market
- Persons shall not collude with other market participants
- Persons shall immediately report any known or suspected violation of the ERMP

## Chapter 5: Delegation of Authority

### RISK LIMITS

The following limits apply to all BCE procurement activities. These limits are Board-approved and define the limits that BCE must operate within. The metrics and management of risk within these limits are further described in the Energy Risk Hedging Strategy.

#### ***Delegation Authority***

Through its approval of the Policy, the Board has delegated operations and oversight to the Chief Executive Officer, in consultation with the Chief Executive Officer, as outlined through the Policy.

Specifically, to facilitate daily operations of BCE, the Board has delegated transaction execution authorities shown in the table below.

Position	Maturity Limit	Term Limit	Volume Limit (MWh) <sup>1</sup>	Value Limit <sup>2</sup>
Chief Executive Officer in Consultation with the Board (RPS PPA SB 350)	20 Year	10-20 Year	N/A	N/A
Chief Executive Officer in Consultation with the Board	60 months	48 months	3,000,000	\$10,000,000
Chief Executive Officer	36 months	24 months	2,000,000	\$5,000,000
Power Manager	24 months	12 months	1,000,000	\$2,000,000

<sup>1</sup>Volume limit applies only to energy purchases, including index-based renewable and carbon-free energy purchases.

<sup>2</sup>Value limits apply to non-energy product transactions (e.g., Resource Adequacy).

These authorities will be applied to wholesale power procurement executed outside of the California Independent System Operator (“CAISO”) markets. These limits provide both BCE and Power Manager needed authorities to manage risks as they arise. Transactions falling outside the delegations above require Board approval prior to execution.

Activity with CAISO is excluded from this table due to the nature of the CAISO market, where prices for activity may not be known until after transactions are committed.

All procurement executed under the delegation above, must align with the BCE’s underlying risk exposure (load requirements, locational, and temporal) that is being hedged consistent with the approved Energy Risk Hedging Strategy.

#### ***Volume Limits***

Transactions should not be executed that exceed BCE's load (energy and capacity), renewable or Carbon Free Energy requirements. If there is an adjustment to BCE requirements resulting in the volume of existing transactions exceeding 100% of BCE's requirements, the Chief Executive Officer will determine the offsetting strategy deployed in enough proportion to mitigate the encroachment.

***Exception***

An exception to the above limits may be made by the Chief Executive Officer if executing a transaction exceeding load will minimize costs or is necessary to ensure compliance. For example, procuring Resource Adequacy (RA) for the entire year could cause BCE to hold excess RA in certain months. Such a transaction would be acceptable if a lower cost alternative transaction or set of transactions that more closely matches monthly needs is unavailable.

***Locational Limits***

The delivery location for all transactions must support the requirements of BCE's source or sink locations (the point of exit from the transmission system).

***CAISO Submission Limits***

BCE shall bid at least 90% of its forecast load requirements in the Day-Ahead Market and bids shall not exceed 100% of forecast load requirements.

BCE shall offer no more than 100% of the forecasted generation capability in the Day-Ahead Market. BCE shall follow CAISO protocols for all activity within CAISO.

**MONITORING, REPORTING AND INSTANCES OF EXCEEDING RISK LIMITS**

The Power Manager's Middle Office is responsible for monitoring and reporting compliance with all limits within this Policy. If a limit or control is violated, the Power Manager's Middle Office will send notification to the Power Manager's trader responsible for the violation and the Chief Executive Officer. The Chief Executive Officer will discuss the cause and potential remediation of the violation to determine next steps for curing the violation.

## Chapter 6: Credit Policy and Counterparty Suitability

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### MASTER ENABLING AGREEMENTS AND CONFIRMATIONS

Transactions are governed by master agreements, the forms of which must be prepared by General Counsel and approved by the Board. No transactions may be executed without a fully executed master agreement, or a long-form confirmation with agreeable commercial terms and conditions, being on file. Written confirmations of each transaction will contain standard commercial terms and provisions. Material modifications or additions to standard commercial terms in confirmations require approval by legal counsel.

It is the Policy to confirm all transactions in writing. All confirmations received from counterparties will be matched against trades in the system of record. Any discrepancies between a confirmation and the system of record may be handled by the Front Office representative that executed the transaction, or if necessary, a Middle Office representative will seek resolution with the counterparty. All confirmations will be kept on file.

Prior to execution of any transaction, the Front Office will verify that BCE has executed a master agreement with the counterparty, that the counterparty has been evaluated for creditworthiness, and that an approved Credit Limit has been established. No transactions may be executed without first ensuring the transaction falls within the unutilized Credit Limit for the counterparty.

#### ***Exceptions***

It is standard industry practice to not provide written confirmation of certain short-term transactions with a term of one day or less. Additionally, BCE may agree with certain counterparties to alternative methods for confirming certain transactions. Transactions executed in a recorded telephone conversation or recorded instant message in which the offer and acceptance shall constitute the agreement of the parties must be confirmed in writing after-the-fact, with notice being provided to the counterparty within 72 hours.

### COUNTERPARTY SUITABILITY

All counterparties shall be evaluated for creditworthiness by the Middle Office prior to execution of any transaction and no less than annually thereafter. Additionally, counterparties shall be reviewed if a change has occurred, or is perceived to have occurred, in market conditions or in a company's management or financial condition. This evaluation, including any recommended increase or decrease to a Credit Limit, shall be documented in writing and include all information supporting such evaluation in a credit file for the counterparty.

A Credit Limit for a counterparty will not be recommended or approved without first confirming the counterparty's senior unsecured or corporate credit rating from one of the nationally recognized rating agencies (S&P, Moody's, and/or Fitch) and/or performing a credit review or analysis of the counterparty's or guarantor's financial statements. The credit analysis shall

include, at a minimum, current audited financial statements or other supplementary data that indicates financial strength commensurate with an investment grade rating and consider factors such as:

- Liquidity
- Leverage (debt)
- Profitability
- Net worth

Trade and banking references, and any other pertinent information, may also be used in the review process. Once a counterparty has been determined to be creditworthy, the Middle Office will propose a Credit Limit for approval by the Chief Executive Officer, in consultation with staff and BCE's consultants. Although a counterparty may qualify for a certain maximum Credit Limit, the types of products to be transacted, as well anticipated transaction volumes, terms and other business factors may prompt BCE to select a lower limit that is considered more appropriate.

Counterparties that do not qualify for an unsecured Credit Limit must post an acceptable form of credit support or prepayment prior to the execution of any transaction. A counterparty may choose to provide a guarantee from a third party, provided the third party satisfies the criteria for a Credit Limit as outlined herein.

## **MAXIMUM CREDIT LIMIT**

Each new counterparty Credit Limit or increase to an existing limit will be reviewed by the Chief Executive Officer. The maximum amount of any Credit Limit extended to a counterparty shall not exceed \$25 Million unless approved in writing by the Board.

## **CREDIT REVIEW EXCEPTIONS**

Counterparties not subject to the above credit review criteria include those associated with Day-Ahead and current day purchases where risks associated with market movements is minimal.

## **CREDIT LIMIT AND MONITORING**

The Middle Office will monitor the current credit exposure for each counterparty with whom BCE transacts and include such information in the Current Counterparty Credit Risk Report. This report will be submitted to the Chief Executive Officer for review pursuant to the reporting requirements outlined in Section 7.

Current credit exposure is a measure of the known exposures and composed of two primary exposures – (1) realized exposure, and (2) forward exposure. Realized exposure, a payable or receivable amount owed between counterparties, is a measurement of cash flow for billed and

unbilled transactions. Forward exposure is a measure of mark-to-market, or fair value, of contracted volumes not yet delivered.

## Chapter 7: Position Tracking and Management Reporting

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### REPORTING REQUIREMENTS

A vital element in the Policy is the regular identification, measurement, and communication of risk. To effectively communicate risk, all risk management activities must be monitored on a frequent basis using risk measurement methodologies that quantify the risks associated with BCE's procurement-related business activities and performance relative to identified goals.

Minimum reporting requirements are shown below. The reports outlined below will be made available to the Chief Executive Officer, staff and BCE's consultants:

- Weekly Financial Model Forecast
- Latest projected financial performance, marked to current market prices, and shown relative to financial goals.
- Monthly Net Position Report
- Prepare a forward net position report, not less frequently than monthly, and report the results to the Chief Executive Officer.
- Monthly Pass-through Counterparty Credit Exposure
- This report will show how the credit exposures for transactions that the Power Manager executes on behalf of BCE will pass-through the Power Manager to BCE.
- Quarterly Board Report
- Update on activities and projected financial performance to be presented quarterly at BCE Board meetings.

## Chapter 8: Policy Revision Process

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### REVIEW

BCE's Energy Risk Management Policy will evolve over time as market and business factors change. On an annual basis, or more frequently if needed, the Chief Executive Officer will review the Policy and associated procedures to determine if they should be amended, supplemented, or updated to account for changing business conditions and/or regulatory requirements.

If an amendment is warranted, the Policy amendment will be submitted to the BCE Board of Directors for approval. Changes to appendices to this Policy may be approved and implemented by the Chief Executive Officer.

## Appendix A: Authorized Transaction Types, Regions, And Markets

All transaction types listed below must be executed within the limits set forth in this Policy. (The following transaction types can be 'nonstandard' at BCE subject to Chief Executive Officer approval)

Over the Counter (OTC) Products:

- CAISO Ancillary Products
- Day-ahead and Real-time Energy
- Congestion Revenue Rights
- Convergence
- Inter Scheduling Coordinator Transactions
- Tagging into and out of CAISO
- Physical Power Products
- Short and Long-Term Power
- Physical Resource Adequacy Capacity
- Physical Environmental Products
- Renewable Energy Credits
- Specified Source Power
- Carbon Allowances and Obligations

## Appendix B: ENERGY RISK HEDGING STRATEGY

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### INTRODUCTION

BCE is routinely exposed to commodity price risk and volume variability risk in the normal conduct of serving the power supply requirements of its customers. This Energy Risk Hedging Strategy (ERHS) describes the strategy and framework that BCE will use to hedge the power supply requirements of its customers during the prompt calendar year (the calendar year after the current calendar year) plus the following four calendar years. Specific focus is on procurement of the following market-based products:

- Fixed Priced Energy
- Portfolio Content Category 1 Renewable Energy
- Portfolio Content Category 2 Renewable Energy
- Carbon Free Energy
- Resource Adequacy Capacity

In addition to market-based transactions entered into pursuant to this ERHS, BCE will also enter into longer-term power purchase agreements (PPAs) pursuant to statutory requirements (e.g., SB 350 mandate to, by 2021, procure a minimum of 65 percent of RPS requirements under a 10-year or longer power purchase agreement), as well as voluntary long-term resource acquisition decisions made independently by BCE pursuant to its Integrated Resource Plan or other approved Board-approved strategies. Long-term Power Purchase Agreements (PPAs) will count as hedges as described later in this ERHS. Furthermore, pursuant to SB 100 mandate to, by 2045, procure renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers.

### GOVERNANCE

This ERHS shall be updated, as necessary, from time to time and governed by the Energy Risk Management Policy (EMRP) approved by the BCE Board of Directors.

### HEDGING PROGRAM GOALS

The overall goal of the ERHS is to limit financial losses, identify exposure to commodity prices, quantify the financial impact variability in commodity prices, load requirements and generation output may have on the ability of BCE to meet its financial program goals, and manage the associated risk. The primary goals that guide this ERHS are:

- Acquire a portfolio of resources with lower greenhouse gas emissions and higher renewable content than PG&E
- Meet reliability requirements established by the state of California, and operate in a manner consistent with prudent utility practice

- Maintain competitive retail rates with PG&E after adjusting for exit fees (currently the Power Charge Indifference Adjustment or PCIA) and Franchise Fees paid by BCE customers
- Build financial reserves to ensure the BCE’s long-term financial objectives are achieved.

All hedging activities will be conducted to achieve results consistent with the above goals and to meet the power supply requirements of BCE’s customers. Any transaction that cannot be directly linked to a requirement of serving BCE’s customers, or that serves to reduce risk as measured by the Power Supply Cost at Risk (PSCaR) described below is prohibited.

## HEDGING TARGETS AND STRATEGIES

### ***Fixed Price Energy Fixed Price***

Energy purchases provide for suppliers to deliver energy – for which BCE will receive energy market revenues – to BCE at a fixed price. They are used to manage the electricity commodity price risk that the BCE faces as a Load Serving Entity. Specific to BCE’s customers, Fixed Price Energy hedges are used to provide cost certainty, retail rate competitiveness and rate stability.

In the near-term, BCE will predominantly employ Fixed Price Block Energy contracts, which provide for suppliers to deliver a predetermined volume of energy at a constant delivery rate. As BCE enters into long-term, fixed price contracts for renewable and/or carbon-free energy, these will likewise hedge BCE’s market risk and, subsequently, reduce the required volume of Fixed Price Block Energy purchases.

When assessing its requirements for Fixed Price Energy, the BCE will forecast the monthly energy requirements of its customers during heavy and light load hours<sup>1</sup> each month. Forecast load will be determined through use of an econometric model that forecasts both total energy usage and peak demand by customer load class. The model will use historical data to estimate relationships between energy consumption and economic, demographic and/or weather variables. The econometric model will be refined through time as additional load data is acquired through BCE operations.

BCE will observe the following schedule when hedging its Fixed Priced Energy Requirements:

Time Period	Minimum Hedge % <sup>2</sup>	Maximum Hedge %
Prompt Month	90	100

<sup>1</sup> Heavy load hours in wholesale energy markets are 6am to 10pm, Monday through Saturday, excluding New Years Day, Memorial Day, 4th of July, Labor Day, Thanksgiving and Christmas. Light load hours are all non-heavily load hours.

<sup>2</sup> BCE will exclude the estimated amount of hedge provided to BCE’s customers by PG&E’s portfolio under the current PCIA construct when calculating compliance with the hedge schedule.

Prompt Calendar Year	70	90
CY + 1	0	70
CY + 2	0	50
CY + 3	0	50
CY + 4	0	50

The hedge schedule for the Prompt Month will be measured as of 5 days prior to the first day of the month. The hedge schedule for the Prompt Calendar Year (CY), as well as subsequent 2 calendar years, will be measured as of the first day of each new calendar year.

*For Example, on April 1, 2021, BCE will have hedged 90 to 100 percent of its projected energy requirements during May 2021. On January 1, 2022, BCE will have hedged 70 to 90 percent of its forecast energy requirements for CY 2022; 50 to 70 percent of its forecast energy requirements for CY 2023 and 30-50 percent of its forecast energy requirements for CY 2024.*

The minimum hedge level will be achieved by implementing a time-driven programmatic strategy. Time driven programmatic hedges are executed at a predetermined rate pursuant to a time schedule and without regard for market conditions. The purpose of these hedging transactions is to achieve a reduction in variability in power supply costs by gradually increasing the amount of energy hedged as the actual date of consumption approaches. Time-driven strategies avoid the inherent impossibility of trying to consistently and accurately “time the market” to purchase energy at least cost when making hedging decisions. Additionally, a load serving entity the size of BCE needs to spread its procurement efforts over time to effectively manage the potential negative price impacts of procuring a large volume of energy, over a short period of time, in an illiquid market.

Hedging decisions to reach targets between the minimum and maximum hedge levels will be based on price-driven or opportunistic strategies. The purpose of price-driven or opportunistic strategies is to capitalize on market opportunities when conditions are favorable. BCE will base its decision to execute opportunistic hedges on the anticipated impact to projected power supply costs and the resulting reduction in PSCaR.

Opportunistic hedges may be executed when energy price levels are favorable to lowering the cost of power relative to established program goals and financial projections; alternatively, opportunistic hedges can be executed in adverse market conditions relative to financial goals in order to reduce the potential negative impact of continued upward or downward trending commodity prices relative to established goals.

In executing this ERHS, Fixed-Price Energy hedges may be modified, repositioned or unwound for the purpose of maintaining hedge coverage that matches changes in forecast electric load. This includes the ability of the BCE to use liquid market products to hedge

average loads over a defined time period and then later modify its hedges to more precisely match load.

**Portfolio Content Category 1 Renewable Energy**

In order to cost-effectively meet its GHG-reduction and renewable energy goals, BCE intends to meet a growing share of its energy supply requirements with renewable energy, a large portion of which will be Product Content Category 1 (PCC1) renewable energy. PCC1 renewable energy is sourced from a renewable generator that is either directly interconnected to the California Independent System Operator (CAISO) or another California Balancing Authority or directly scheduled into CAISO without use of substitute energy.

In order to manage price risk of long-term renewable energy, and to allow BCE to prudently and methodically build a portfolio of long-term assets, BCE intends to meet its PCC1 energy targets with a blend of short and long-term contracts. In the 2021 period, this balance will include a relatively higher share of short-term contracts as the BCE focuses on launching its CCA and establishing a strong financial foundation. While hedging its PCC1 requirements during the next one to two years with contracts that are primarily shorter in term, BCE will observe the following schedule. The hedge schedule percentages shall be measured such that a 100% hedge position equals 75%<sup>3</sup> of the RPS energy BCE will need to serve all customers at their chosen rate option (e.g. 50% RPS). The hedge schedule shall be measured on December 1 of each year for the Prompt Calendar year and the four subsequent calendar years.

**PCC1 Hedge Targets Applicable During Calendar Year 2021**

Time Period	Minimum Hedge %	Maximum Hedge %
Prompt Calendar Year	75	100
CY + 1	0	80
CY + 2	0	70
CY + 3	0	70
CY + 4	0	70

Between 2022 and 2023, BCE will increase its focus to longer-term PCC1 contracts, particularly for Calendar Year 2022 and beyond. This shift is necessary to comply with the renewable procurement requirements of SB 350, as well as the fact that new renewable generating facilities typically require long-term PPAs with terms that can range from ten to twenty-five years. BCE’s strong interest in renewable generation may eventually require voluntary execution of long-term PPAs beyond what is mandated by SB 350.

<sup>3</sup> SB350 requires a minimum of 75% of RPS product used for compliance to come from PCC1 resources.

BCE’s eventual goal is to reach a steady state of procurement in which it contracts for four to eight percent of its projected annual PCC1 requirements each year via long-term contract. Doing so will i) allow BCE to steadily reduce its exposure to renewable energy and energy market price risks in a fashion similar to the programmatic hedging approach for Fixed-Price Block Energy and ii) ensure that BCE is in a position to make strategic procurement decisions and, if appropriate, commitments every year.

As BCE’s PCC1 portfolio is increasingly comprised of long-term contracts in line with long-term contracting requirements mandated under SB 350, in 2022 and thereafter, BCE shall observe the following schedule while hedging its PCC1 requirements. This hedge schedule shall first be measured on December 1, 2021 and then on December 1 of each subsequent year for the Prompt Calendar year and the two following calendar years.

**PCC1 Hedge Targets Applicable Beginning in Calendar Year 2022-2023**

Time Period	Minimum Hedge %	Maximum Hedge %
Prompt Calendar Year	65	100
CY + 1	60	95
CY + 2	55	90
CY + 3	55	90
CY + 4	55	90

***Portfolio Content Category 2 Renewable Energy***

BCE shall diversify its renewable energy portfolio further by incorporating Portfolio Content Category 2 (PCC2) renewable energy purchases. PCC2 renewable energy is sourced from renewable generators located outside the state of California where that generation is “firmed and shaped” for delivery into California. PCC2 purchases are typically less expensive and shorter in term than PCC1, so they provide a cost-effective and flexible method of augmenting BCE’s renewable energy purchases to meet renewable portfolio content commitments to customers.

BCE will observe the following schedule when hedging its PCC2 renewable energy requirements. The hedge schedule percentages shall be measured such that a 100% hedge position equals 25%<sup>4</sup> of the RPS energy BCE will need to serve all customers at their chosen rate option (e.g. 50% RPS). In other words, if BCE’s PCC2 position is 100% hedged, then 75% of the RPS energy will come from PCC1 resources. The hedge schedule shall be measured on December 1 of each year for the Prompt Calendar year and the two subsequent calendar years.

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<sup>4</sup> SB 350 allows a maximum of 25% of RPS product used for compliance to come from PCC2 resources.

Time Period	Minimum Hedge % <sup>5</sup>	Maximum Hedge %
Prompt Calendar Year	50	100
CY + 1	0	75
CY + 2	0	50
CY + 3	0	25
CY + 4	0	10

It should be noted that there is currently a proceeding underway at the California Public Utility Commission to implement California legislature’s AB 1110, which may impact the reporting and accounting methodologies that apply to PCC2 renewable energy, so the hedging schedule above is subject to change as BCE gains clarity regarding any potential revised methodology.

**Carbon Free Energy**

In pursuit of its GHG-reduction objections, BCE shall augment its renewable energy purchases outlined above with energy purchases from carbon-free energy generating facilities, which are typically hydro- 31 electric resources located in California that are too large to qualify as Eligible Renewable Resources (30 MW or greater) or located outside of California. Similar to PCC2 renewable energy contracts, carbon-free energy purchases are typically short-term, most frequently one to three years in length.

BCE will observe the following schedule when hedging its Carbon-Free renewable energy requirements. The hedge schedule shall be measured on December 1 of each year for the Prompt Calendar year and the two subsequent calendar years.

Time Period	Minimum Hedge % <sup>6</sup>	Maximum Hedge %
Prompt Calendar Year	75	100
CY + 1	0	75
CY + 2	0	50
CY + 3	0	25
CY + 4	0	10

In setting the above targets, it is important to note that the purchase of Carbon Free Energy is a voluntary requirement set by the BCE Board to exceed PG&E’s GHG emissions goals. In

<sup>5</sup> RPS compliance rules set minimum requirements for PCC1 procurement and maximum limits for PCC2 procurement as a percentage of the total RPS compliance portfolio. If insufficient PCC2 product is available in the market, the Executive Director may approve shifting volumes from the PCC2 hedge schedule into the PCC1 hedge schedule

<sup>6</sup> RPS compliance rules set minimum requirements for PCC1 procurement and maximum limits for PCC2 procurement as a percentage of the total RPS compliance portfolio. If insufficient PCC2 product is available in the market, the Executive Director may approve shifting volumes from the PCC2 hedge schedule into the PCC1 hedge schedule

determining the total volume of Carbon Free Energy to be hedged, the BCE Board may elect to increase or reduce the total quantity of Carbon Free Energy included in BCE’s portfolio as it seeks to balance multiple program objectives, including financial goals such as targets for financial reserves and retail rates. The Board will determine BCE’s target quantity of Carbon Free Energy annually during the rate-setting process.

**Resource Adequacy Capacity**

As a Load-Serving Entity (LSE) in California, BCE is required to demonstrate both annually and monthly that it has secured sufficient energy capacity to provide for its share of California’s energy load; this capacity is referred to as Resource Adequacy (RA). Because BCE serves customers in PG&E’s service territory, BCE has local RA requirements specific to the Sierra LARA local area, as well as general RA requirements for Northern California (“North Path of Path 26 System”), a portion of which must be Flexible RA. Flexible RA requirements ensure resources are available on the grid to provide ancillary services such as ramping and regulation.

RA is typically transacted via contracts that vary in length from one month to three years, and it is currently bought and sold via a bilateral market, which not only provides cost-effective contracting opportunities but also proves at times to be fragmented and volatile. While a waiver process exists to excuse LSEs from their RA requirements, it is the goal of BCE to meet its requirements and not use the RA waiver process.

BCE will observe the following schedule when hedging its RA requirements. The hedge schedule shall be measured for each RA product that BCE is required to procure on December 1 of each year for the Prompt Calendar year and the two subsequent calendar years.

Time Period	Minimum Hedge % <sup>7</sup>	Maximum Hedge %
Prompt Calendar Year	90	100
CY + 1	50	90
CY + 2	0	80
CY + 3	0	30
CY + 4	0	15

**HEDGE PROGRAM METRICS**

The success of the Energy Risk Hedging Strategy will be measured by realizing power supply costs in line with the budgeted power supply costs used to set customer rates, as well as by

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<sup>7</sup> RPS compliance rules set minimum requirements for PCC1 procurement and maximum limits for PCC2 procurement as a percentage of the total RPS compliance portfolio. If insufficient PCC2 product is available in the market, the Executive Director may approve shifting volumes from the PCC2 hedge schedule into the PCC1 hedge schedule

reducing BCE's exposure to commodity price risk. The following two metrics will be utilized to manage the Energy Risk Hedging Strategy:

- Current projected power supply costs will be compared to budgeted power supply costs where budgeted costs will be based on the assumptions used at the time customer generation rates are set. Current power supply costs shall use all fixed priced contracts executed as of the date of the report. All open positions will be marked to market and compared to the budgeted power supply costs.
- Power Supply Cost at Risk (PSCaR). PSCaR represents a statistical view of what could happen to BCE's power supply costs assuming that no action is taken to manage its portfolio from the date of the analysis through the end of the period of time being analyzed. The potential cost will be calculated using a historical sampling methodology that considers on- and off-peak periods separately over the remaining life of the transactions. The PSCaR calculation will consider potential variability in load and generation supply. The PSCaR will be calculated by rank ordering the portfolio cost and measuring the difference between the 95th percentile and the expected power cost outcome.

These metrics will be reviewed when making price-driven or opportunistic hedging decisions to ensure that the transactions are consistent with the goals of the Energy Risk Hedging Strategy. These metrics will be updated and reported by the Power Manager to the BCE on a monthly basis.

## REPORTING REQUIREMENTS

The following reports are required to manage the hedge program and to ensure its success:

- Net Position Report for each product
- Current Projected Power Supply Costs compared to budget
- Power Supply Cost at Risk
- GHG intensity

## Appendix C: New Transaction Approval Form

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### New Transaction Type Approval Request

**Prepared By:**

**Date:**

**New Transaction Type Name:**

**Business Rationale and Risk Assessment:**

- Product description – including the purpose, function, expected impact on net revenues (i.e., increase, manage volatility, control variances, etc.) and/or benefit to BCE
- Identification of the in-house or external expertise that will be relied upon to manage and support the new or non-standard transaction
- Assessment of the transaction’s risks, including any material legal, tax or regulatory issues
- How the exposures to the risks above will be managed by the limit structure
- Proposed valuation methodology (including pricing model, where appropriate)
- Proposed reporting requirements, including any changes to existing procedures and system requirements necessary to support the new product
- Proposed accounting methodology
- Proposed Middle Office work flows/methodology, including systems
- Brief description of the responsibilities of various departments within CPA who will have any manner of contact with the new or non-standard transaction

**Reviewed By:**

\_\_\_\_\_  
**[Power Manager Front-Office Representative]**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**[Power Manager Mid-Office Representative]**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Chief Executive Officer – BCE**

\_\_\_\_\_  
**Date**

## Appendix D: Definitions

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**Back Office:** That part of a trading organization which handles transaction accounting, confirmations, management reporting, and working capital management.

**Bilateral Transaction:** Any physical or financial transaction between two counterparties, neither of which is an exchange or market entity (e.g., MISO).

**Cash Flow at Risk (CFaR):** A measure of the potential shortfall in cash flow from a specified level during a specified period of time at a specified confidence level. The CFaR of any Portfolio is equal to the Portfolio's current Mark-to-Market value less its Terminal Value.

**CAISO:** California Independent System Operator. CAISO operates a California bulk power transmission grid, administers the State's wholesale electricity markets, and provides reliability planning and generation dispatch.

**CCA:** Community Choice Aggregator. CCAs allow local government agencies such as cities and/or counties to purchase and/or develop generation supplies on behalf of their residents, businesses and municipal accounts.

**CFTC:** Commodity Futures Trading Commission. The CFTC is a U.S. federal agency that is responsible for regulating commodity futures and swap markets. Its goals include the promotion of competitive and efficient futures markets and the protection of investors against manipulation, abusive trade practices and fraud.

**Commodity:** A basic good used in commerce that is interchangeable with other commodities of the same type. Commodities are most often used as inputs in the production of other goods or services. The quality of a given commodity may differ slightly, but it is essentially uniform across producers. When they are traded on an exchange, commodities must also meet specified minimum standards, also known as a basis grade.

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

**Congestion Revenue Right:** A point-to-point financial instrument in the Day-Ahead Energy Market that entitles the holder to receive compensation for or requires the holder to pay certain congestion related transmission charges that arise when the transmission system is congested.

**Counterparty Credit Risk:** The risk of financial loss resulting from a counterparty to a transaction failing to fulfill its obligations.

**CPUC:** California Public Utilities Commission Day-ahead Market: The short-term forward market for efficiently allocating transmission capacity and facilitating purchases and sales of energy and scheduled Bilateral Transactions conducted by an Organized Market prior to the operating day.

**Delivery point:** The point at which a commodity will be delivered and received. Energy Risk Management Policy: Energy Risk Management Policy is defined on page 3 of this document.

**FERC:** Federal Energy Regulatory Commission. FERC is a federal agency that regulates the interstate transmission of electricity, natural gas and oil. FERC also reviews proposals to build liquefied natural gas terminals, interstate natural gas pipelines, as well as licenses hydroelectric generation projects.

**Front Office:** That part of a trading organization which solicits customer business, services existing customers, executes trades and ensures the physical delivery of commodities.

**Franchise Fee:** A franchise fee is a percentage of gross receipts that an IOU pays cities and counties for the right to use public streets to provide gas and electric service. The franchise fee surcharge is a percentage of the transmission (transportation) and generation costs to customers choosing to buy their energy from third parties. IOUs collect the surcharges and pass them through to cities and counties.

**Hedging products:** Hedging products means capacity, energy, renewable energy credits or other products related to a specific transaction.

**IOU:** An Investor Owned Utility (IOU) is a business organization providing electrical and/or natural gas services to both retail and wholesale consumers and is managed as a private enterprise.

**Limit structure:** A set of constraints that are intended to limit procurement activities.

**Limit violation:** Any time a defined limit is violated. Mark to Market Value: the value of an asset based on its current market price.

**Mark-to-Market (MTM):** is a measure of the fair value of accounts that can change over time, such as purchases or sales of power. Mark-to-market aims to provide a realistic appraisal of a firm's replacement value of forward power contracts.

**Middle Office:** That part of a trading organization that measures and reports on market risks, develops risk management policies and monitors compliance with those policies, manages contract administration and credit, and keeps management and the Board informed on risk management issues.

**Net Forward Position:** A forecast of the anticipated electric demands of a load serving entity compared to existing resource (generation and/or power purchase agreements) commitments.

**Nonstandard:** Nonstandard refers to any product that is not commonly transacted among market participants in forward markets. The nonstandard attribute of the product could be a function of several factors such as volume, delivery period and/or term.

**Opt-out Rate:** Typically expressed as a percentage, the Opt-out Rate measures the ratio of eligible customers of a CCA that have elected to remain a bundled service customer of the IOU rather than take generation services from the CCA.

**PCIA:** Power Cost Indifference Adjustment. The PCIA is intended to compensate IOUs for their stranded costs when a bundled customer departs and begins taking generation services from a CCA.

**Schedule:** Schedule or Scheduling means the actions of the counterparts to a transaction, and/or their designated representatives, of notifying, requesting and confirming to each other the quantity and type of product to be delivered on a given day.

**Separation of function:** Separation of function, also referred to as “segregation of duties,” is part of a complete risk control framework. Individuals responsible for legally binding the organization to a transaction should not also perform confirmation, clearance or accounting functions. BCE will maintain appropriate segregation of duties in its organization and activities.

**Settlement:** Settlement is the process by which counterparties agree on the dollar value and quantity of a commodity exchanged between them during a particular time interval.

**Speculation:** Speculation is the act of trading an asset with the expectation of realizing financial gain resulting from a change in price in the asset being transacted.

**Stranded cost:** Stranded costs commonly refer to generation costs that an IOU (although could be any load serving entity) can collect from customers through retail rates but that will not be recovered if the generation is sold in wholesale electricity markets.

**Stress testing:** Stress testing is the process of simulating different financial outcomes to assess potential impacts on projected financial results. Stress testing typically evaluates the effect of negative events to help inform what actions may be taken to lessen the negative consequences should such an event occur.

**Terminal Value:** The Terminal Value is the present value of all future cash flows.