ENERGY RISK MANAGEMENT REGULATIONS

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Objective of the Energy Risk Management Regulations

San José Clean Energy (SJCE) provides a variety of wholesale and retail energy services to customers within the service area. The Energy Department (ED) is the administrator of the SJCE program for the City of San José. ED should develop a supply portfolio to meet the load requirements of SJCE's customers cost effectively within acceptable risks.

The purpose of these Energy Risk Management Regulations (ERMR or Regulations) is to implement the philosophies and objectives specified in the Council Policy 1-23 "Energy Risk Management Policy" (ERMP); and to document and describe the roles, strategies, controls, and authorities that will govern SJCE's comprehensive energy risk management program.

Part I: Energy Risk Management

1. Scope of Regulations and Procedures

1.1. Overview

The City Council adopted Council Policy 1-23 "Energy Risk Management Policy" which addresses risks from ED's procurement activities on behalf of SJCE in Energy and related markets. ED will develop metrics that guide procurement decisions which include analysis of net open position (discussed further in Appendix 9), and mark-to-market position. The ERMP mandates adoption of these Regulations to address specific risk management issues. Controls, strategies, and processes for managing risks outlined in the ERMP are documented in these Regulations. A Risk Oversight Committee (ROC), as outlined in the ERMP, reviews and recommends approval of these Regulations to ED.

1.2. Applicability, Amendments and Updates

The City Manager or designee shall approve these Regulations and any amendments from time to time, subsequent to ROC consideration and recommendation.

2. Definitions of Risk

The term "risks," as used herein, refers specifically to those categories of risk which relate to ED's participation in Energy and related markets for the purchase and sale of Approved Products for SJCE, as further described in these Regulations. These risks include, but are not limited to, volumetric, price, counterparty, regulatory and political, and operational risks.

2.1. Volumetric Risk

Volumetric risk is the risk that fluctuations in supply or demand will adversely affect net revenues. Thus, if actual load demands are higher than anticipated, and market prices have increased beyond expectations, the costs to serve such load will be greater than expected. Alternately, if load demands are less than expected, then surplus supply may be sold back into the market. If market prices have declined since the Energy was originally purchased, the ED may be unable to recoup the full purchase price from sales of the excess. For SJCE, demand variability is largely attributable to three factors: (1) changes in demand related to the weather, (2) changes in demand related to customers joining and exiting SJCE service, and (3) changes in demand related to economic activity. This second portion of demand uncertainty is unique to Community Choice Aggregators (CCAs) and the risks associated with it needs to be carefully considered. Though the CCA is the default service provider, the ability of the customers to opt out and choose the investor-owned utility (IOU) or other method of sourcing energy creates a certain level of uncertainty in SJCE's revenue stream (customer opt-out risk). Customer opt-out risk poses some challenge in the ability to effectively plan for long-term resources. Monitoring opt-out activity of other CCAs with longer histories may indicate possible trends in opt-out rates. The third portion of the demand uncertainty

includes addition of large loads, specifically data centers and advanced manufacturing. These loads are distinct from standard residential and commercial demand due to their large energy requirements. Forecasting of load for these additions is challenging due to uncertainty in project timing and overall viability of large-scale additions. Inaccurate load forecasts may lead to over-procurement and stranded assets if the large load fails to materialize, is delayed, or even opts-out of SJCE service.

If supply availability is uncertain, such as when hydroelectric generation capacity is impacted by uncertain rainfall patterns, a resulting shortfall in generation may necessitate the purchase of alternative supply through the wholesale market when prices may be rising, which may also result in increased costs. Volumetric risk also covers unforeseen loss of generation resources, transmission curtailments, and extreme weather events that can result in insufficient resources to meet load demands.

Volumetric risk is managed by maintaining financial reserves, diversifying the resource portfolio, accounting for volumetric uncertainty related to long-term resource commitments, and developing a regular update of load and resource forecasts. Customer opt-out risk is managed by maintaining strong relationships with the local community and stakeholders, developing products and services that align with customer's values and drivers, and actively engaging and advocating the interests of SJCE and its customers in regulatory, legislative, and policy proceedings. Large load forecast risk is managed by probability-weighted forecasting, continuous customer engagement, and the use of short-term power products.

2.2. Price Risk

Price risk is the risk associated with changes in the market prices of Energy and Energy-related products. Price risk is the possibility that the price of an Energy or Energy-related product will fluctuate in an unfavorable manner, thereby exposing SJCE to potential cost increases or loss in value to its customers. SJCE will be exposed to price risk any time its fixed-price supply does not match demand. There are a number of ways that supply and demand may be mismatched. In its simplest form, demand may exceed supply, and any unhedged demand is exposed to changes in prices. With renewable supply, it is common that the production profile of the supply resource does not match the consumption profile of customers. Since hourly prices for electricity vary greatly within the day, this creates risk. This is referred to as "shape" risk. Another mismatch results from locational differences – an entity with generation in one region serving load in another region is exposed to price differences between the two regions. This is referred to as "basis" risk. These risks can manifest themselves over different time periods ranging from sub-hourly mismatches to long-term mismatches.

Price risk is managed by closely monitoring and measuring the supply portfolio against estimated demand. The supply portfolio should be constructed to match resources against load obligations, taking into account the various risks. Supply portfolios can benefit from diversification of power resources, fuel sources, start dates, duration, pricing terms, types of products, and geographic location, and from actively managing portfolios and assets.

Example of Price Risk

ED will focus on the price risk of its entire portfolio for SJCE, which is comprised of many individual transactions. When managing risk, ED will focus on the impact of all of the transactions in the portfolio rather than a single transaction. That said, the portfolio is comprised of a series of individual transactions, and the examples below illustrate how the value of an individual transaction can be impacted by changes in prices.

For example, assume ED needs to buy 10,000 MWh of electric power for the last quarter of the coming year (October through December). On January 15th, the market price for that power was $28.90/MWh, for a total cost of $289,000. On March 15th, the market value was $39.00/MWh, or $390,000. If the budget was set as of the January 15th market price, but the product was not purchased until March 15th, then the cost would be $101,000 more than budgeted.

Price risk can be viewed as the possibility of a change in the Mark- to-Market (MTM) value of a transaction. To illustrate this definition, assume as above that the 10,000 MWh for October – December was purchased on March 15th for $390,000. If the price for that product drops to $25/MWh or $250,000 on September 15th the MTM of the transaction is negative $140,000 as of September 15th.

2.3. Counterparty Credit Risk

Counterparty credit risk means risks which City incurs as the result of transacting with other entities. In the context of wholesale electric utility operations, both buyers and sellers are exposed to counterparty credit risk. These risks are of six general types:

a. Counterparty may fail to render payment for Energy related products delivered, or otherwise default under the terms of the transaction;
b. Counterparty may fail to deliver Energy related products;
c. Counterparty may fail to take delivery of Energy related products sold to them, necessitating a resale elsewhere (potentially at a loss);
d. Counterparty may refuse to extend credit to City;
e. Counterparty or its guarantor may seek bankruptcy protection; and
f. Counterparty may go out of business.

Counterparty credit risk can be mitigated through counterparty diversification, credit risk premiums, covenants, and collateral requirements. Credit derivatives (credit default swaps) are not permitted.

The Finance Department will perform required counterparty credit risk analysis pursuant to Part II of these Regulations. When this function is being referenced in these Regulations, it will be termed, Middle Office Support (Finance).

2.4. Regulatory and Political Risk

Regulatory and political risks are the risks that regulatory agencies, courts, and

legislatures may take action or adopt measures which:

a. Result in fines, assessments, or other unrecoverable costs;
b. Make a transaction unlawful or adversely change its economic benefit;
c. Adversely affect market prices or liquidity, leading to trading losses and stranded asset costs;
d. Impair the capability or willingness of City's trading counterparties and wholesale suppliers to perform;
e. Prevent City from performing to its own contractual obligations;
f. Interfere with the operation of ED's generation or related assets to serve SJCE's customers;
g. Negatively impact the City's ability to finance capital projects; or
h. Regulatory uncertainty can interfere with ED's ability to conduct long-term planning and cost projections for SJCE.

Regulatory and political risks are difficult to measure and manage. State regulatory agencies, including the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and the California Independent System Operator (CAISO), define California energy markets through regulatory requirements and tariff designs. For instance, the CPUC regulates IOU cost recovery mechanisms and authorizes IOUs to impose "exit fees" on customers leaving IOU service to take CCA service. These exit fees, or Power Charge Indifference Adjustment (PCIA) fees, are intended to ensure past IOU investment costs are borne by all electric customers, on whose behalf the IOU made initial generation investments. The CPUC has introduced some market uncertainty by approving changes to the underlying methodology used to determine PCIA levels and thereby increasing CCA customer costs.

ED has an active legislative and regulatory group which monitors and influences the outcome of legislative and regulatory actions for the benefit of SJCE and its customers. The City of San José seeks a robust and active legislative advocacy function. A team of key City Department staff developed, reviewed, and updated legislative priorities which are consolidated under the City's Legislative Guiding Principles. This document provides a framework for directing the City's support, opposition, sponsoring, or co-sponsoring of State and Federal legislation. ED's team is also focused on a number of CPUC proceedings that could impact operations and is proactive when there are opportunities to influence the outcome toward a more beneficial impact to the SJCE program and its customers.

2.5. Operational and Business Risk

Operational risk consists of the potential failure to act effectively to plan, execute and control business activities. Operational risk includes the potential for:

a. An organizational structure that is ineffective in addressing risk (i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, inadequate internal controls, incomplete and untimely reporting, failure to separate incompatible functions, etc.);
b. Absence, shortage, or loss of key personnel;

c. Lack or failure of facilities, equipment, systems, and tools, such as computers, software, communications links, and data services;
d. Inability to meet financial obligations incurred in the course of wholesale operations in a timely manner;
e. Exposure to litigation or sanctions as a result of violating laws and regulations, failure to meet contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting and analyzing contracts effectively, etc.;
f. Exposure to customer defection in favor of competing products offered by IOUs or direct access providers;
g. Inability to collect on customer accounts due to changes in economic conditions;
h. Errors or omissions in the conduct of business, including failure to execute transactions, violation of guidelines and directives, etc.;
i. Reliance on third parties for key functions, such as the regulatory requirement for CCAs to rely on the IOU for distribution and billing, and changes in SJCE's relationships with key suppliers and service providers;
j. Interruptions in the supply chain; or
k. Cyber threats, including but not limited to, hacking, viruses/malware, and other attacks on ED's information and communication assets.

Operational risk can be managed through adequate oversight and the existence of, and adherence to, contracts, policies, regulations, and procedures. Operational risk is reduced through streamlined, well-defined, and simple processes that are managed by qualified and competent staff that are properly resourced and provided the necessary authority to perform the required duties. Business risks are mitigated by adequate operational planning, budgeting, training of staff, maintaining appropriate insurance coverage, funding the required operating reserve, and ensuring the department has a credit facility to support cash flow needs and collateral requirements.

2.6. Market Risk

Market risk is manifested by the interdependencies of a market where the failure of a single entity, or cluster of entities that may or may not be counterparties, can cause a cascading failure which could affect an entire market. Market risks are mitigated by adequate planning, monitoring key market activities, funding the required operating reserve, and ensuring the department has ample liquidity access to respond quickly to changing market conditions.

2.7. Legal Risk

Legal risk arises when a counterparty is not capable of entering into,or has procedurally failed to obtain appropriate approvals to enter into, a contract or fails to meet legal obligations. Legal risk is managed by ensuring counterparty representatives are authorized by the counterparty. Regarding long-term contracts, SJCE will manage legal risk by rigorously vetting and reviewing wholesale electricity contracts with appropriate legal and market experts.

2.8. Concentration Risk

Concentration risk denotes the overall spread of exposure over the number or variety of counterparties. Concentration risk is calculated using the percentage of outstanding exposures each counterparty represents against the expected load. Concentration risk may result from an uneven distribution of exposure to an individual counterparty, or an uneven distribution of exposure to particular industry sectors or geographic regions.

Concentration Risk is managed pursuant to Section 14.3 of Part II of these Regulations which requires City Manager, or designee, approval to authorize awarding contract to a counterparty to whom SJCE has concentrations above recommended limits and developing an integrated resource plan which includes appropriate diversification.

Every two years, consistent with the schedule promulgated by the CPUC, ED shall develop an integrated resource plan for SJCE that includes an adequate level of diversification in fuel type, contract duration, geographic location, counterparties, pricing terms, cash reserves and product types.

The Middle Office maintains a report with the respective procurement by counterparty. The Front Office reviews this report prior to undertaking procurement to ensure that concentration limits are maintained.

2.9. Liquidity Risk

Liquidity risk is financial risk due to uncertain liquidity. Liquidity risk may include insufficient net cash flow on a short-term basis, lack of access to credit facilities, the inability to liquidate an asset or position on short notice, and inadequate or unavailable reserves.

Counterparty liquidity risk is mitigated through recurring and timely credit evaluations, credit enhancements (if required), and counterparty diversification. Asset liquidity risk is mitigated by utilizing contractual instruments (e.g., approved enabling agreements). Per Section 4.80.4050 of the San José Municipal Code, the City has created an SJCE operating fund that shall at all times be maintained and segregated from all other funds and accounts of the City. SJCE shall strive to build and maintain financial reserves as outlined in the SJCE Financial Reserves Policy.

2.10. Custodial Credit Risk

Custodial credit risk is the risk that the entity charged with safeguarding financial assets of the City and ED becomes unable to recover the value of City or ED deposits, investments, or collateral securities placed in the possession of the custodian.

Custodial credit risk is mitigated by keeping deposits at FDIC insured institutions below insurance thresholds, maintenance of at least 100% of the required collateral by the custodian, and actively monitoring the creditworthiness of the custodian.

3. Risk Management, Energy Trading Strategies

An important aspect of implementing an overall energy risk management program is the development of related strategies to mitigate all of the related risks associated with Energy product trading activities. The key strategies used by SJCE are outlined below.

3.1. Balanced Portfolio

ED shall strive to maintain an integrated and balanced portfolio of resources to cover SJCE's customers' load serving obligations, maintain the value of power supply resources to serve SJCE and its customers, and manage resources within SJCE's financial requirements. ED will utilize the portfolio optimization tools that provide the insights necessary to make procurement decisions and include an analysis of the net open position limits (discussed further in Appendix 9). ED staff and Wholesale Market Consultant also provides scenarios of SJCE portfolio costs under low and high market costs for the open position.

3.2. Minimum Coverage Requirements

3.2.1 Minimum Coverage Requirements for Energy

ED shall strive to manage price and volatility risk by implementing a diversified procurement strategy purchasing energy products to hedge costs for serving SJCE's load. ED shall strive to purchase amounts of energy based on defined minimum coverage thresholds as set forth in Appendix 9 (Recommended Coverages) of these Regulations. ED shall develop a procurement strategy focused on hedging against the risk of open load positions, as measured over time, and to mitigate SJCE's exposure to market price volatility and other pricing risks. The actual covered positions, reflected as a percentage of forecasted load, may deviate from the recommended coverages based upon ED's staff evaluation of current market conditions and other applicable requirements (e.g., regulatory requirements, quantity/production uncertainty of long-term power purchase agreements, and anticipated regulatory and legislative changes, such as Direct Access expansion, increased exit fees, and reduced autonomy on procurement decisions).

3.3. Purchases to Cover Load Serving Obligations (No Speculation)

ED's primary objective for energy product procurement activities is to cover the load serving obligations of SJCE customers. In the course of performing these activities, ED shall not engage in Speculative Buying and Selling and shall only utilize approved products and transaction parameters as defined in these Regulations.

3.4. Authority to Transact Approved Products

The type of Energy-related products ED may transact will have a direct impact on the amount of risk SJCE assumes as a result of such activities. The types of Energy-related products that ED is authorized to transact (herein after referred to as "Approved

Products") are specifically identified in Appendix 6 of these Regulations.

3.5. Measurement of Risks

ED measures risk by estimating how high or low future supply costs and revenues of SJCE could be, given a particular portfolio position and specific confidence level of market price movements. These estimates apprise ED management as to the risks inherent in a particular position and are used to make decisions to accept that risk or to reduce the risk by changing the position or the portfolio management strategy going forward. Risk management reports that are presented to ED management and the ROC are described in Appendix 7 of these Regulations. Each member of the ROC is responsible for raising significant issues that could impact SJCE or the City of San José more broadly. Each member of the ROC can call a special meeting to discuss significant issues.

3.6. Risk Mitigation

ED will mitigate SJCE's risk exposure within the broad objectives of optimizing the value of power supply resources obtained for SJCE, and serving customer loads at cost-effective and stable prices. ED will utilize portfolio optimization tools for SJCE to track the various industry standard metrics and guide the procurement decisions. Transaction limits authorized in Appendix 4 shall comply with the requirements described in Section 3.7 and 3.8. Current risk limits include: (1) underwriting standards and qualification criteria for counterparties, including creditworthiness and required contractual provisions, (2) counterparty credit limits, and (3) preferred contractual terms. Counterparty credit risk limits are intended to monitor and contain potential losses due to counterparty default.

Risk limits may be employed to indicate either:

a. An exception, which requires an Exception Report to the ROC;
b. A warning, which indicates that a risk measure is outside of an acceptable tolerance, and should be reported to the ROC promptly; or
c. A standard, such as minimum qualifications or contract provisions.

Credit risk limit metric methodologies and limits are further explained in Part II of these Regulations.

3.7. Basic Principles for Setting Risk Limits

The following set of basic principles shall guide the general approach to setting risk limits including but not limited to: credit exposure limits, contract duration, volume, and transaction limits.

a. Enable staff to conduct required business effectively.
    1. Volume and dollar limits are adequate to reliably meet physical and financial requirements at prevailing prices.
b. Reflect the risk-reward tradeoffs consistent with ED's risk tolerance for SJCE.

1. Duration, volume, dollar, and exposure limits are appropriate for associated risks.

c. Favor strong counterparty attributes, including, but not limited to:
    1. Creditworthiness and financial strength
    2. Favorable contractual terms
    3. Demonstrated performance
d. Promote fair and competitive procurement and transacting processes.
    1. Should not narrow field to a single supplier or unduly favor any supplier.
e. Promote diversification.
    1. Avoid too great a concentration or exposure with any single supplier.
f. Facilitate operational flexibility.
    1. Allow for load uncertainty, resource uncertainty, and other contingencies.
g. Facilitate conformance to the ERMP and Regulations.
    1. Limits should be clear, measurable, consistent, and enforceable.
h. Balance burden of monitoring and enforcing limits with value.
    1. Limits shall not be so complex and cumbersome that it takes too many resources to manage.

3.8. Portfolio Risk Guidelines

In developing a portfolio for SJCE, ED must take into account:

a. Load and resource balance variability – monthly and seasonal variation;
b. Load and resource balance uncertainty – confidence intervals around expected values;
c. Minimum feasible wholesale transaction size and price premiums for standard vs non-standard products – Approved Products are traded in large discrete package sizes and the price premium for standard products tends to be lower than for non-standard products; and
d. Operational flexibility and constraints – customer responsiveness, system reliability.

Risk limits may be developed and shall be reviewed and updated by ED, in conjunction with development of the long-term power supply forecast, as part of the annual budget process, or more frequently as deemed necessary.

3.9. Transaction Capture Process

All transactions[1] of Approved Products must be formally and officially documented by ED.

Transaction capture procedures shall address all the following elements:

a. Authorization/approval;

[1] Transaction for a term of balance-of-month or shorter are not subject to certain elements of the transaction capture process, as further described in the respective transaction procedures.

b. Competitive bidding;
c. Written commitment to the transaction;
d. Confirming the transaction with the counterparty with a written and executed confirmation;
e. Actual product delivery; and
f. Billing and settlement.

4. Roles and Responsibilities for Energy Risk Management

4.1. City Council

The Council approves and establishes policies for energy risk management and delegates to the City Manager the responsibility for implementing the ERMP.

Pursuant to Chapter 26.40 of the Municipal Code, Long-Term Agreements for Power Products must be authorized by the City Council.

4.2. City Manager

Pursuant to Section 701 of the City Charter of the City of San José, the City Manager serves as the chief administrative officer of the City and is responsible for the administration of all departments, offices, and agencies of the City.

The City Manager or the City Manager's designee may also enter into and execute for and on behalf of the City, without the prior approval of the City Council, Short-Term and Medium-Term Agreements to procure Power Products and Master Purchase and Sale Agreements pursuant to Chapter 26.40 of the Municipal Code.

In addition, the City Manager or designee is responsible for the below:

a. Oversee implementation of SJCE's risk strategy;
b. Approving these Regulations;
c. Approving relaxation of underwriting standards and exemptions from application of credit limits for counterparties;
d. Approving deviations from recommended coverage thresholds;
e. Approving new products;
f. Approving award of contracts to a counterparty above the recommended concentration limit;
g. Approving acceptance of parental guaranties from entities outside US/ Canada;
h. Approving relaxation of requirements for letters of credit.

4.3. Director of Energy

The Director of Energy (Director) has overall responsibility for the ERMP and for communicating risk management issues to the City Manager and Council. The Director shall be responsible for delegating specific duties to carry out the ERMP and these Regulations and ensuring compliance with the ERMP and these Regulations by all ED

employees, service providers, and contractors.

The Director or the Director's designee may also enter into and execute for and on behalf of the City, without the prior approval of the City Council, Short-Term Agreements to procure Power Products pursuant to Chapter 26.40. of the Municipal Code.

4.4. Risk Oversight Committee

The Risk Oversight Committee (ROC) is responsible for advising ED on risk management related to SJCE activities and compliance with the ERMP. The ROC shall consist of seven (7) voting members: the City Manager or his or her designee, the Director of Energy, the Director of Finance, the City's Risk Manager, the Budget Director, the ED's Deputy Director of Power Resources, and the ED's Division Manager of Risk Management and Contracts Administration. The City Attorney will provide legal advice to the ROC. A quorum for the ROC to conduct business shall be not less than five (5) ROC members or their designees, including three (3) non-SJCE members. Each ROC member shall appoint an alternate. All correspondence shall be provided to the ROC members and alternates.

ROC responsibilities are:

a. Advising the ED on risk management and compliance with risk management policies related to SJCE activities;
b. Reviewing Management Reports as outlined in Appendix 7;
c. Reviewing and advising ED on Exception Reports to the ERMP and these Regulations;
d. Reviewing and recommending changes to the ERMP prior to Council approval;
e. Recommending appropriate cash reserve levels as outlined in SJCE Financial Reserves Policy to support ED's Approved Product transaction activities for SJCE and updating these recommendations as needed;
f. Reviewing and advising ED on long-term agreements, prior to submission to City Council;
g. Advising on whether these Regulations are adequate to achieve the requirements of the ERMP including:
    - Reviewing and assessing the adequacy of controls and reporting mechanisms;
    - Reviewing and recommending appropriate transaction authority levels and delegation of authority to ED personnel, Approved Product transactions and controls (e.g., limits, risk/performance methodology, etc.), including the addition of new products and instruments as described in these Regulations; and
    - Reviewing and recommending other changes to these Regulations, as needed.

Additional and detailed responsibilities of the ROC members and advisors are described in Appendix 2 of these Regulations.

4.5. Front Office

The Front Office staff is responsible for the provision of wholesale energy services, which include, but are not limited to, planning and portfolio management, Approved Product transacting, contract origination, schedule coordination, and real-time dispatch operations. The Front Office provides recommendations for load and resource balances, and portfolio optimization. These activities are conducted in order to meet the physical, financial and contractual requirements of ED for SJCE. As part of these functions, the Front Office is responsible for transacting Approved Products on behalf of SJCE, in accordance with certain transactional limits, as further defined in these Regulations.

All Approved Products that the Front Office is authorized to transact are identified in Appendix 6 of these Regulations. The Front Office is responsible for ensuring that the procedures and processes needed to transact business within the requirements and guidelines of the ERMP and these Regulations are fully implemented and shall perform all duties related to actual transacting in the wholesale Energy markets. The Front Office is the primary interface with potential wholesale transacting counterparties. The Deputy Director of Power Resources is responsible for managing the Front Office. The Front Office may also utilize support from ED's Wholesale Energy Services Provider and consultants to carry out the duties described herein.

The Front Office is primarily responsible for:

a. Day-to-day purchases and sales of Approved Products for ED;
b. Developing transaction strategies that are consistent with the ERMP and established risk tolerances;
c. Ensuring that procedures and systems can effectively and efficiently support the Front Office activities;
d. Ensuring training is completed by Front Office staff, as required by CAISO, to comply with minimum participation requirements for participation in CAISO markets;
e. Conducting needs analysis for meeting load forecasts, optimizing the value of resources, and satisfying regulatory and/or compliance requirements;
f. Recommending transactions for authorization and approval;
g. Proposing modifications to commercial provisions of City Council approved contracts to the Director of Energy for consideration and approval, consistent with the applicable City Council resolutions and in consultation with City Attorney's Office;
h. Purchasing and/or selling Approved Products and services based on meeting the load forecast, optimizing the value of SJCE assets, and satisfying regulatory and/or compliance requirements;
i. Conducting sales transactions for surplus resources;
j. Nominating and managing Congestion Revenue Rights in the annual and monthly allocation processes;
k. Preparing and submitting bids in the Congestion Revenue Rights annual and monthly auction processes;

l. Transacting Approved Products to satisfy applicable regulatory and compliance requirements (e.g., renewable energy requirements, emission compliance obligations, etc.);
m. Development and maintenance of Renewable Energy Products compliance tracking procedures and coordinate with Middle Office on management of the WREGIS account;
n. Development and maintenance of GHG reduction compliance tracking procedures;
o. Competitively shopping and negotiating transactions in accordance with the ERMP;
p. Generating trade confirmations (as needed);
q. Ensure transactions are recorded timely and accurately;
r. Identifying new products and markets that may add value to SJCE;
s. Prepare reports as outlined in Appendix 7 of these Regulation;
t. Develop long-term planning and forecasting of Energy supply requirements;
u. Initiate requests for new counterparty reviews; and
v. Prepare and maintain written Front Office procedures.

Programs such as demand response, energy efficiency, load-shifting, which are related to Approved Products, are procured by Programs team of ED, after consultation with the Front Office and in accordance with applicable requirements of ERMP and ERMR.

4.6. Middle Office

The duties of the Middle Office staff are conducted by ED's Risk Management and Contracts Administration Division. Its primary purpose is to manage risk oversight and controls. The Middle Office provides independent oversight of the risks assumed by the Front Office in the course of transacting Approved Products and services. The Middle Office must be independent from the Front Office functions. The Division Manager of Risk Management and Contract Administration is responsible for managing the Middle Office. The Middle Office may also utilize support from the Division Manager of Budget and Financial Planning, ED's Wholesale Energy Services Provider and other consultants to carry out the duties described herein, in addition to collaboration with the Finance Department, separately outlined in "Middle Office Support (Finance)" below.

The Middle Office is responsible for the following duties:

a. Managing and overseeing risk, including reviewing controls, and valuation and risk management methodologies;
b. Monitoring SJCE's current and potential risk exposures and ensuring compliance with the ERMP and these Regulations;
c. Ensuring infrastructure (hardware/software) is in place to support accurate and timely measurement and reporting of risk;
d. Ensuring Middle Office staff is fully trained on their responsibilities;
e. Verifying that Approved Product transactions are authorized and executed based on the requirements of the ERMP and these Regulations, and are properly recorded.

f. Reviewing and approving changes and provisions relating to credit terms in enabling agreements in consultation with City Attorney;
g. Monitoring the effectiveness of the internal control structure, including the segregation of duties and independence of oversight;
h. Maintaining a list of individuals who are authorized to approve and execute Approved Product transactions;
i. Maintain forward price data;
j. Preparing, reviewing, and distributing all risk management reports;
k. Processing and verifying market data (where market data is available) provided by the Front Office;
l. Evaluating the performance of Approved Product procurement and hedging transactions relative to market indices;
m. Notifying the ROC of credit limit exceptions;
n. Serving as secretary of the ROC, developing meeting agendas, taking and compiling meeting minutes, and distributing meeting materials for ROC;
o. Maintaining archives of risk management policy and regulation documents;
p. Coordinating risk management education and training;
q. Ensuring settlements are made timely in accordance with contract terms;
r. Verifying and reporting compliance with procedures as reflected in the transaction tracking documentation;
s. Cross-checking counterparties' confirmation documents for individual trade transactions to ED's own records of those transactions, and investigating and resolving exceptions; Disputing any charges from the ISO in coordination with ED's Wholesale Market Consultant;
t. Various credit management duties including Mark-to-Market analysis in coordination with Middle Office Support (Finance);
u. Manage WREGIS account and track deliveries of Renewable Energy Credits and low carbon energy products; and
v. Preparing and maintaining written Middle Office procedures.

Middle Office Support (Finance) is responsible for the following duties:

a. Developing, implementing, maintaining, and updating counterparty credit risk analysis policies and procedures;
b. Conducting counterparty credit analysis, establishing and modifying counterparty credit limits;
c. Responding to external auditor inquiries on counterparty credit analysis and limits;

4.7. Back Office

The Back Office staff is primarily responsible for settlement of invoices, verifying transactions, bookkeeping and accounting. The Back Office is responsible for providing assurance of accurate payment records including CAISO settlement payments. The Division Manager of Budget and Financial Planning is primarily responsible for managing the Back Office. The Back Office may also utilize support from ED's Wholesale Energy Services Provider and consultants to carry out the duties described herein, in addition to collaboration with the Finance Department, separately

outlined in "Back Office Support (Finance)" below.

The Back Office is responsible for the following duties:

a. Tracking actual costs against the budget;
b. Preparing, monitoring, and recommending adjustments to the budget in collaboration with the City Manager's Budget Office;
c. Confirming amounts billed for Approved Product transactions;
d. Processing accounts receivable and payable and ensuring timely payments;
e. Maintaining accounting records and preparing quarterly financial statements and reports:
    1. Statement of Fund Net Position
    2. Statement of Revenue, Expenses, and Changes in Fund Net Position
    3. Statement of Cash Flow;
f. Performing and monitoring invoicing and settlements with the California ISO;
g. Verification of transaction data entry; and
h. Preparing and maintaining written Back Office procedures.

Back Office Support (Finance) is responsible for the following duties:

a. Coordinating and participating in audits;

5. Authorities, Limits and Prohibitions

5.1. Transaction Authority Limits

All executed transactions shall conform to the policies set forth in the ERMP and these Regulations. ROC will advise ED on the appropriate transaction authority limits for the various staff involved in the Front Office function. All Middle Office and Back Office staff are strictly prohibited from executing any Approved Product transactions. Transaction authority limits for individual agreements for various staff shall be as outlined in Appendix 4 of these Regulations. Splitting of transactions or agreements for the purpose of evading the transaction authority limits is prohibited.

5.2. Permitted Transactions and Approved Products

The ROC is responsible for reviewing and recommending all Approved Products that may be transacted by ED on behalf of SJCE. Transacting products that are not authorized as Approved Products is strictly prohibited.

All transactions shall conform to the following general principles:

a. Transactions are for an Approved Product;
b. Transactions are duly authorized and within risk limits, and shall not cause either aggregate or individual counterparty credit limits to be exceeded;
c. Transactions are executed with a counterparty with an approved credit limit;
d. Transactions shall utilize contract terms intended to minimize the risk of loss

if a counterparty fails to deliver, take delivery, or remit amounts due and payable;
e. Transactions are executed and documented following standardized procedures; and
f. Transactions are in compliance with applicable laws, regulations, and court orders.

Approved Products are listed in Appendix 6 of these Regulations. Appendix 6 also contains certain limitations for each authorized Approved Product.

Any member of staff who enters into an unauthorized transaction may be subject to disciplinary action up to and including termination of employment.

5.3. Compliance Exceptions and Reporting

5.3.1 Compliance Exceptions

Compliance exceptions are actions which violate the provisions and/or requirements as set forth in the ERMP and these Regulations, and/or the procedures adopted by ED.

The following types of occurrences shall not be considered compliance exceptions:

a. Losses incurred on wholesale transactions which were undertaken in compliance with the ERMP and these Regulations;
b. Adverse changes in credit standing, financial condition or the ability to perform of a wholesale trading counterparty which occurs subsequent to the execution of a transaction or contract;
c. Adverse changes in capital asset valuations, or MTM exposures, resulting from fluctuations in prices subsequent to the execution of a transaction or contract; and
d. Actions compelled by order of regulatory authorities or by legislation, which are otherwise in violation of the ERMP, these Regulations, and/or related procedures.

5.3.2 Exception Reporting

In the event a compliance exception occurs, the Director is responsible for notifying the ROC in accordance with the requirements of the ERMP. The Report shall identify the issue or violation, and discuss any alternative remedial actions, document the action taken in response, and describe the steps that should be taken to prevent a reoccurrence of the event. A summary of all exceptions shall be reported annually to the City Council by the Director, unless the City Manager decides they should be reported more frequently.

5.4. Unauthorized Transactions

The following provides the minimum procedures for managing unauthorized transactions:

a. If a transaction is unauthorized, the Director of Energy shall determine the course of action. If the transaction involves market risk, the Director of Energy may enter into a risk neutralizing transaction, or attempt to unwind the transaction with the original counterparty. The offsetting transaction only offsets market price; operational and credit risk may still exist. Unwinding the transaction would likely remove all risk from the trade. These options may not be possible, which is why it is important to ensure compliance with the ERMP and Regulations and to maintain an adequate operating reserve.

b. Once available corrective steps have been taken, the Director of Energy shall review the transaction to understand if the risks have been reduced or fully offset and report the results in the Exception Report to the ROC. The Director of Energy is also responsible for working with staff and Human Resources to ensure appropriate steps are taken to ensure unauthorized transactions are minimized. These steps may include additional training and potential disciplinary action, including up to termination of employment.

6. Systems, Tools and Training

ED employees (or supporting consultants) and City staff providing support to SJCE program who are authorized to perform energy risk management functions on behalf of ED for the administration of SJCE may request to be provided with the systems and tools to support risk management processes, including:

a. Accessing real-time market activity, prices, and other data;
b. Systematically evaluating the financial condition, credit standing and ability to perform of other entities with whom ED does business;
c. Analyzing the trends of supply, demand, market prices, and costs of service;
d. Measuring key indicators and risk parameters; and
e. Generating complete and accurate management and financial reports.

Funding for systems, tools, and training shall be included in the ED's budget. Subject to appropriation, funding may be related to market risk management functions performed on behalf of ED, for the acquisition and maintenance of computer systems, software, communications equipment, data services, and other analytical, measurement, and reporting tools. The ED budget shall also include funding for managers and staff to attend seminars and courses related to risk management, as required to comply with the ERMP and these Regulations.

7. Risk Controls on Procurement Processes

7.1. Control Principles

ED will strive to conduct its energy risk management activities for SJCE in accordance with best practices of the wholesale electric industry; implementing such practices must be justified and balanced as to their costs and benefits. Processes and control systems must be in place that allow ED to identify, measure, monitor, control, and track SJCE's risk exposures. These processes and control systems shall be consistent with the following risk management control principles:

a. Appropriate segregation of duties and internal controls;
b. Appropriate systems to ensure accurate and effective management reporting;
c. Necessary resources in place to achieve management objectives;
d. Attract and retain skilled and trained personnel;
e. Cross-train and provide cross-coverage;
f. Employees conducting Energy transactions have no conflicts of interest;
g. Authority and approval delegation that is commensurate with accountability and capability;
h. Performance measurement and reporting incorporate risk and return measures; and
i. Ongoing monitoring of control effectiveness.

7.2. Functional Responsibilities

ED has integrated, but segregated, responsibilities to control risks in a manner that is consistent with the above control principles by means of clearly defined roles and responsibilities for the Front Office, Middle Office, and Back Office. Oversight functions are performed at an operational level by these offices, and managed at an executive level by the City Manager, Director of Energy, and the ROC. These functional responsibilities are described in detail in Section 4 of these Regulations. ED may utilize the services of its Wholesale Energy Services Provider and consultants for performing such functions.

7.3. Authorization/Approval

The appropriate authorizations and approvals must be obtained by Front Office staff prior to transacting Approved Products as specified in ERMP and these Regulations. In the case of a compliance exception, ED shall comply with Section 5.3 and 5.4, as applicable.

7.4. Procurement Procedures

Under Chapter 26.40 of the Municipal Code, the City may purchase and sell Power Products in accordance with the authority, limits, and procedures set forth in the ERMP as approved by City Council, and these Regulations. The ERMP sets forth the procurement procedures applicable to ED's purchase and sale of Power Products for SJCE's operations.

7.4.1. Commitment to the Transaction

A commitment is a legally binding contract between City and a counterparty. The Front Office must be the point of commitment for all Approved Product transactions. Final price commitments may only be made by authorized ED transacting personnel. Commitments may be made electronically in the case of an electronic exchange but must be confirmed with a fully executed confirmation. Transacting personnel shall only transact with counterparties who are listed on the Approved Counterparties List including variances that have been approved by the City Manager or designee.

7.4.2. Confirmation

A confirmation is a written document evidencing an electronic commitment made by ED transaction personnel and approved as to form by the City Attorney. All confirmations must agree with the transacting person's commitments, as evidenced by an email exchange, or other supporting documentation. All confirmations must be reviewed and confirmed by Middle Office personnel for accuracy. The Front Office shall generate a written confirmation, when required, in any case where the counterparty does not provide or require a written confirmation. Any transaction that is not confirmed by the counterparty and approved by authorized personnel within five (5) business days after the transaction has been executed may be subjected to review and identification by the Middle Office. Middle Office staff shall review and confirm the consistency and accuracy of the confirmation using the electronic commitments made by the Front Office staff as needed. All written transaction confirmations shall be stored by ED and adhere to City's records retention policies.

7.4.3. Billing and Settlement

Middle Office staff reviews bills for transactions to verify that the bills match the terms of the contract and the amount of product actually delivered.

Back Office staff ensures issuance of bills to counterparties with outstanding accounts receivable, collection of energy invoices receivable to ED and payment of energy invoices payable by ED (generally referred to as the "checkout process").

7.4.4. Insurance

The Director of Finance is authorized to require insurance for long-term agreements.

7.5. Management Reporting Framework

The key to energy risk management is monitoring of risks. Accurate and timely information must be provided to all parties involved in any aspect of energy risk management, to allow them to perform their functions appropriately. Risk

Management reports can be categorized into three main areas:

a. Risk Monitoring – illustrate risks that are faced ahead;
b. Oversight – show compliance with policies, authorities, or risk limits; and
c. Performance – compares actual past and present performance of the portfolio to appropriate budget and market benchmarks.

A complete list of management reports for each level of oversight is provided in Appendix 7 of these Regulations. These reports shall be prepared on a frequency as indicated in Appendix 7. New reports, or changes to existing report formats, may be recommended by the ROC, and approved by the Director of Energy.

7.6. Internal Controls

Internal controls shall be based on proven principles that meet the stringent requirements of generally accepted auditing standards (GAAS), financial institutions, and credit rating agencies. The required controls shall include all customary and usual business practices designed to prevent errors and improprieties, ensure accurate and timely reporting of results of operations, provide information pertinent to management and facilitate attainment of business objectives.

The required controls shall include the following:

a. Segregation of duties between Front Office and Middle/Back Offices;
b. Delegation of authority that is commensurate with responsibility and capability;
c. Complete and precise capture of transaction and other data, with standardization of electronic and hard copy documentation;
d. Meaningful summarization and accurate reporting of transactions and other activity at regular intervals;
e. Regular independent compliance review to ensure that the ERMP and these Regulations are adhered to; and
f. Active participation of senior management in the risk management process.

7.7. Process for Adding New Approved Products

All requests to add a new Approved Product to Appendix 6 must be analyzed by the Front Office, Middle Office, Back Office staff, and ED's legal counsel to determine what risks a product may create for SJCE, and what business needs exist that provide the basis for adding the new product to the Approved Products list. All requests to add a new Approved Product to these Regulations must be presented to the ROC for review, and if recommended by the ROC and approved by the City Manager shall be added to Appendix 6 as an Approved Product. Any product not listed as an Approved Product in Appendix 6 of these Regulations is considered to be a new product.

A report to the ROC recommending approval of a new Approved Product shall address the issues described in the New Product Approval Checklist contained in Appendix 5 of these Regulations. The New Product Approval Checklist is a guideline for activities

that should be performed in evaluating and mitigating the market and credit risks associated with use and deployment of new products.

Front Office staff have primary responsibility for developing the report to identify the business needs for the new Approved Product being requested. The Middle Office staff have primary responsibility for presenting risks that SJCE may be exposed to by transacting the new Approved Product. Middle Office staff are responsible for presenting the report to the ROC for review and recommendation. Primary Front Office responsibilities may be delegated by staff to individuals that have special knowledge or expertise of the activity or new product type.

8. Policy Review

Prudence is required in implementing any and all policies and procedures. Market and industry conditions, technology and risk tolerances tend to change over time. Therefore, the ERMP and these Regulations should be reviewed annually, or as necessary, in order to make adjustments in response to changes in business objectives and/or industry conditions. All recommended amendments to the ERMP are to be reviewed by the ROC and presented to the City Council for final review and approval. Changes to these Regulations shall be reviewed and approved by the City Manager or designee, subsequent to review and recommendation by the ROC.

Part II: Counterparty Risk Management

9. Organizational Philosophy Toward Counterparty Risk

9.1. Objective and General Risk Policy

ED's wholesale energy market activities are directed toward the goal of providing Energy, capacity, clean power products, transmission, and related services to SJCE customers cost effectively while remaining within acceptable levels of risk as outlined in the ERMP and these Regulations. ED fulfills SJCE's supply obligations contracting with counterparties for the purchase or sale of Power Products of various terms. Effective wholesale counterparty management and credit analysis is essential to mitigate the counterparty risks associated with Approved Product transactions in the Energy wholesale markets. The objective of the counterparty risk policy is to preserve capital, liquidity and supply reliability by limiting counterparty credit risk and counterparty concentration to acceptable levels for SJCE.

9.2. Managing Counterparty Risk

Analytical procedures are required for granting credit limits and managing counterparty exposures. However, ED recognizes that the models used in managing credit risk are not predictive; they are explanatory. Credit risk management models cannot predict individual or collective credit events. The Risk Management and Contracts Administration Division is expected to manage counterparty risks to acceptable levels as outlined in the ERMP and these Regulations.

10. Counterparty Risk Definitions

10.1. Counterparty Risk

Counterparty risk is the exposure to economic loss resulting from default by another party to a contract. Such risk exists in all financial and commodity markets and can be distinguished from other financial risks such as market risk, operational risk and regulatory risk.

Counterparty risk affects both contracts requiring physical settlement and those specifying monetary settlement. Contractual payments can result from purchases or sales. Under a sale, the counterparty owes cash and a receivable is created. The holder of the receivable is at risk of financial loss if the receivable is ultimately uncollectible. Under a purchase, the counterparty is obligated to deliver a product. However, the counterparty may also be required to reimburse the purchasing party for financial loss in the event of delivery failure. Therefore, the purchasing party is at risk of financial loss if the counterparty is unwilling or unable to reimburse for financial losses.

The ERMP states that for all fixed price energy transactions, the counterparty must possess a public credit rating of at least BBB- (or equivalent investment grade rating) by a nationally recognized statistical rating organization (NRSRO). Credit limits for

Approved Products shall be determined in accordance with Sections 11, 14 and Appendix 10. If ratings differ among NRSROs, the lowest available rating will be used for this determination.

10.2. Credit Risk

Credit risk occurs when a counterparty fails to fulfil its contractual obligations.

For a purchase of an Energy related product, if the current market price is greater than the contracted price, a positive MTM exists, thus exposing the purchaser to credit risk in the event of supplier default.

If the current market price is less than the contracted price, a negative MTM exists. The purchaser has credit exposure with a negative MTM if the deal is subject to termination or MTM damages.

There is no credit exposure with negative MTM if the deal is subject to one-way liquidating damages and the purchaser is not the defaulting party.

If the seller has a positive MTM position (i.e., current market price is less than the contracted price) in a transaction, the seller is exposed to profit risk in the event the counterparty defaults, where the seller would lose its opportunity to above market revenue. In contrast, if the seller has a negative MTM position (i.e., current market price is greater than the contracted price) in a transaction, the seller is exposed to liquidity risk and may be subject to margin calls if the MTM exceeds established credit limits.

ED is generally a net buyer of Energy. Exposure to wholesale counterparty credit risk will normally be greater in periods of rising market prices due to higher replacement costs in a rising market.

10.3 Credit Risk Measurement

Credit risk exposure should be measured as: (1) current exposure, and (2) potential exposure. Current credit risk exposure to a single counterparty is defined as the sum of: (1) the dollar value of all amounts invoiced and unpaid, and (2) the dollar amount of all uninvoiced deliveries. Potential credit exposure is the MTM value of all forward contracts from today forward, as reported by the business unit.

Total credit risk exposure is the sum of the variables shown in the formula below, less all offsetting amounts that are supported by legally binding netting agreements or available collateral. SJCE's credit exposure measurement is defined by the following formula:

Credit Exposure = Current and Prior Month Sales (Net) + MTM – Credit Enhancements

11. Underwriting Standards

All transacting counterparties, as specified in Section 14, shall be reviewed for creditworthiness. This review shall include:

a. A search of unsecured issuer credit ratings as published by a NRSRO such as Standard & Poor's, Moody's Investor Services and Fitch; when issuer ratings are not available, long-term debt ratings will be applied as proxies; when there are no NRSRO ratings, the S&P implied ratings will be applied;
b. Review of at least the three (3) most recent years or as available audited financial statements receiving an unqualified opinion from a certified public accounting firm and the most recent financial quarter of unaudited or audited financials, if available; and
c. Other information, as available, from news services, trade publications, financial websites, etc.

For transacting counterparties without NRSRO ratings, Middle Office Support (Finance) shall determine an implied rating according to SJCE's internally-developed methodology and rating scale. Counterparties shall require an implied "investment grade" rating of BBB- or its equivalent for all Approved Products.

Credit limits for Approved Products based on an implied rating shall be determined in accordance with Section 14 and Appendix 10.

12. Relaxation of Underwriting Standards and Exemptions from the Application of Credit Limits

12.1 Counterparties with Credit Rating Below BBB- or No Credit Rating

ED Front Office staff may consider counterparties for Approved Products, including fixed price energy transactions, with a credit rating below BBB- (or equivalent investment grade credit rating), or counterparties with no NRSRO credit rating, on a case-by-case basis. All sub-investment grade rated or unrated counterparties require initial written approval from the City Manager or designee before transacting beyond a minimal transaction amount of $1,000,000, and may require credit assurances or other considerations. Any subsequent increases in credit limits of sub-investment grade rated or unrated counterparties require written approval from the City Manager or designee.

The Director of Energy and Director of Finance may request in writing an exemption from application of underwriting standards from the City Manager or designee. The City Manager or designee may approve or disapprove the request in writing.

12.2 Counterparties for Products in Limited Supply or Facing Market Disruptions

As a load serving entity, ED must procure some particular types of Approved Products for SJCE such as Resource Adequacy, Renewable Portfolio Standard credits, and low

carbon energy to comply with annual and monthly regulatory requirements or, otherwise, face substantial penalties. From time to time, the market for these products may experience limited supply or other disruptions.

The Front Office may determine that certain products have limited supply or are subject to other market disruptions subsequent to competitive solicitations, and/or obtaining additional market data. If this occurs, the Front Office may make a recommendation to the Director of Energy that certain products are in limited supply, or subject to other market disruptions, which may make the application of the underwriting standards or the credit limits contrary to the public's interest.

The Director of Energy and Director of Finance may request in writing an exemption from application of underwriting standards or credit limits from the City Manager or designee for a limited time period. The City Manager or designee may approve or disapprove the request in writing.

If the City Manager or designee approves, the Front Office may undertake purchases of the relevant Approved Products without applying the underwriting standards, credit limits, or with such less stringent credit limits as the City Manager may deem appropriate for the approved time period. Purchases made under these circumstances shall be (1) for products required to meet upcoming compliance requirements; and (2) within the authorized procurement and agreement limits as outlined in Appendix 4. If adverse conditions persist, the Director of Energy and Director of Finance may submit a written request to the City Manager or designee to extend the duration for undertaking such procurement.

13. Credit Enhancements

Except to the extent approved by the City Manager or designee in accordance with Section 12, Counterparties that do not meet the minimum requirements for an extension of a credit limit, as set forth in these Regulations, must post at least one (1) of the following types of security prior to the execution of transactions:

13.1. Guaranty and Surety Bond

Counterparties may only provide a guaranty from a corporate third party, or parties, which meet(s) the creditworthiness requirements set forth in these Regulations. If a counterparty provides a guaranty, the amount of any credit limit will be determined through an analysis of the financial strength of the guarantor. In the event a surety bond is provided, ED will consider the surety bond as primarily liable for the obligations of the counterparty. All guarantees must be approved as to content and form by SJCE's legal counsel.

Preferred terms for guaranties include, but are not limited to:

a. A statement that the guaranty is one of payment and not of collection;
b. A statement that the guarantor agrees to pay the guaranteed obligations upon demand if payment has not been made by the primary obligor;

c. A statement that the guarantor has an Investment Grade Credit Rating, and has a tangible net worth of at least One Hundred Million Dollars ($100,000,000) and, if it can be obtained through negotiation, a statement that the guarantor's obligations under the guaranty rank pari passu with its senior unsecured debt obligations;
d. A statement restricting the guarantor's right to terminate the guaranty before either 1) guarantor has paid all amounts it guaranteed or 2) guarantor has provided acceptable replacement security;
e. A statement that the guaranteed obligations are unconditional, irrespective of genuineness, validity, waiver, release, alteration, amendment, and enforceability of the guaranteed obligations, and a statement that the guarantor may assert for itself no greater defenses, setoffs, or counterclaims than the PPA Seller has or may be entitled to assert against SJCE;
f. A statement that the guaranty reinstates if any guaranteed payment made by the primary obligor is recaptured as a result of the primary obligor's bankruptcy or insolvency;
g. A statement that the guarantor waives its right to subrogation until the guaranteed obligations are paid in full;
h. A statement that the guaranty is binding on successors of the guarantor and a statement that SJCE is a beneficiary of the guaranty;
[redacted]
j. A statement that the guarantor has subjected itself to jurisdiction and service of process in the jurisdiction in which the guaranty is to be performed (i.e., State of California).

Departures from the above preferred terms of guaranty require approval from the Division Manager of Risk Management and Contracts Administration. Director of Energy and Director of Finance may request in writing to the City Manager or designee to accept guaranties from entities domiciled outside the U.S. or Canada. The City Manager or designee may approve or disapprove the request in writing.

13.2. Letter of Credit

Counterparties may provide an irrevocable Letter of Credit in an amount sufficient to cover the amount in excess of the approved credit limit at the date the transactions are entered into (e.g., MTM in excess of credit limit). Counterparties shall maintain the validity of the Letter of Credit as required by the Power Purchase or Sale Agreement. Letters of Credit must be issued by a domestic bank (or domestic branch of a foreign bank) with a senior debt rating of at least "A-" by S&P, "A3" by Moody's, or its equivalent by a NRSRO. Exceptions to these concepts require approval from the City Manager or designee. Director of Energy and Director of Finance may request in writing an exemption from City Manager or designee. The City Manager or designee may approve or disapprove the request in writing.

Approved Letters of Credit shall be monitored in aggregation for credit quality and credit exposure by bank throughout the terms. If a Letter of Credit is terminated for contractual reasons or an issuing bank experiences a rating downgrade below the

aforementioned minimum requirements, the counterparty shall provide a replacement Letter of Credit meeting the requirements above, or make cash deposits with ED.

13.3. Prepayments

Counterparties may provide a prepayment or cash margin deposit in an amount that is sufficient to cover the related transactions. Discounts for prepayment, consistent with industry standards, may be applied to the sum owed as authorized by the Director of Finance and Director of Energy.

14. Quality Assessment

14.1. Counterparty Credit Analysis

Middle Office Support (Finance) is responsible for ensuring a standardized credit screening process for all counterparties. All counterparties, as specified in Table 1, must be reviewed for financial creditworthiness according to these guidelines. Middle Office Support (Finance) will calculate a credit limit and submit a credit review report to the appropriate approval authority for consideration and action. All counterparty credit limits and credit reviews will be submitted to the appropriate authority level as authorized in Section 15 of these Regulations. City Manager or designee actions can result in the approval or rejection of a proposed counterparty, or in an amendment to credit limits approved under delegated approval authorities. Approved counterparties will be grouped as active, inactive, and long-term PPA counterparties depending on product type and total amount of forward contracts. Credit review and monitoring will be based on the credit evaluation matrix found in Table 1. More frequent monitoring may be required if a counterparty is subject to the possibility of a credit event (e.g., if their credit rating falls one full letter grade or greater, or if their credit rating falls below investment grade), or if industry factors dictate. Active counterparties engaged in energy transactions shall be reviewed on a quarterly basis, or at such intervals as deemed appropriate by Finance. Inactive counterparties with no past transactions shall be reviewed once every two years and are subject to a transaction limit of $25 million. Such counterparties will be considered as active and be subject to on-going review post first transaction.

Table 1: Credit Evaluation Matrix

Type of counterparties	Product	Forward Contracts	Credit Review	Credit Limits	Scope of Credit Review
Active counterparties: counterparties with contracts	Energy	not applicable	√	√	F +R+N
	RA/ RPS/ Low Carbon	>=$1 million	√	X	F+R+N
		<$1 million	X	X	X
Inactive counterparties: counterparties	Not Applicable	$0	√	√	F: bi-annual, R+N

with no past contracts					
Long-term PPA counterparties	Energy/RA /RPS	>=$1m	√	X	F+R+N
√: Required X: Not Required					
F: Financial statements review, R: Ratings check, N: News; Ongoing unless specified otherwise					
If product and amount of potential transaction is not known in advance, new counterparties will be classified as inactive until transaction is executed. If product and amount are known, guidance under active will be followed.					

14.2. Credit Limits

Once a counterparty has been determined to be creditworthy, a credit limit will be proposed. A credit limit may be extended up to the [redacted] of the counterparty's adjusted tangible net worth[2] or SJCE's maximum counterparty credit limits. Credit limits for counterparties for fixed energy transactions must comply with the requirements of Sections 10.1 and 11.

In the case of community choice aggregations and municipal or other governmental organizations, a credit limit for energy transactions may be [redacted] or as established by Middle Office Support (Finance), whichever is higher.

For example, if a municipal counterparty qualifies for a credit limit of [redacted] based on the adjusted net assets test, but only qualifies for an investment grade rating for BBB+, then the maximum policy limit allowed would be [redacted].

Although a counterparty may qualify for a certain maximum credit limit, anticipated transaction volumes and other business factors may prompt the selection of a lower limit that is considered more appropriate. As a result, the credit limit methodology provides limit ceilings while allowing flexibility in response to normal business activities.

14.3. Concentration Limits

In addition to complying with credit limits, ED staff shall strive to diversify transactions among counterparties. Two maximum concentration limits are recommended as follows:

a. For energy, no more than [redacted] of the expected load requirement for the next 20 calendar years and no more than [redacted] of the expected load requirement for any calendar year by any one counterparty (calculated as quantity MWh of the outstanding commitments to a counterparty divided by the expected wholesale

[2] Adjusted Tangible Net Worth (TNW) =Total equity– Restricted assets and affiliate assets (net of any matching liabilities, assuming the result is positive value) – intangible assets – derivative assets (net of any matching liabilities, assuming the result is positive value)

load requirement MWh of the applicable period).

b. Concentration limits are not applied to RA and RPS products. Procurement of RA and RPS will be monitored for reasonable efforts in diversification.

These concentration limits shall be applied at the time a contract is entered into.

The Director of Energy and Director of Finance may request the City Manager, or designee, to authorize awarding a contract to a counterparty in excess of the recommended concentration limit. The request in writing shall document the business reasons (e.g., differences in bid price, lack of other qualified suppliers, limited suppliers of desirable products, etc.) for awarding such contracts. The City Manager or designee may approve or disapprove the request in writing.

In addition, ED shall develop an integrated resource plan for SJCE that includes an adequate level of diversification in fuel type, contract duration, geographic location, counterparties, pricing terms, cash reserves and types of products.

15. Approval Authorities

15.1. Credit Authorization

Authority to establish credit limits is segregated as follows:

Table 2: Credit Limit Authorities	
Director of Energy or designee: **(Designee cannot be staff in the Power Resources group)**	Up to $15 Million
Director of Finance or designee:	Up to $35 Million
City Manager or designee:	Up to $50 Million

The maximum amount of any credit limit to be extended to any customer or counterparty shall not exceed $50 million unless recommended by the ROC, subject to approval by the City Council. In addition, the City Manager or designee may approve for business reasons, credit limits that exceed the credit limit that results from application of the underwriting standards, subsequent to review and recommendation from Director of Energy.

15.2. Increases to Wholesale Counterparty Limits

Any increase to an existing credit limit must have the written approval of the Director of Energy, the Director of Finance, or the City Manager, within the authorized limits stated in Section 15.1, Table 2.

15.3. Credit Review Exceptions

Wholesale counterparties not subject to the above credit review criteria include those with forward contracts of less than $1 million for Resource Adequacy, Renewable

Portfolio Standard credits and low carbon products, and those associated with day-ahead and current day purchases where risk associated with market movements is minimal.

Sales transactions within the day-ahead and current day can be consummated with a counterparty that has not been assigned a pre-approved credit limit if the counterparty maintains a credit rating of at least BBB- from an NRSRO. Such transactions may not exceed $250,000 per counterparty.

16. Wholesale Credit / Counterparty Management

16.1. Monitoring and Reporting Exposures

Middle Office staff are responsible for monitoring and reporting on the risk management program. A list of reports, which document trade positions, risk exposure, authorization, and policy compliance, may be found in Appendix 7 of these Regulations. The credit exposure for each customer or counterparty described in these Regulations shall be monitored according to concentration in the following areas: credit rating, counterparty, contract type, contract term and MTM exposure.

Middle Office staff are also responsible for communicating this information to management under the timelines outlined in Appendix 7 of these Regulations, and for establishing a violation reporting process to document exceptions to the ERMP or these Regulations. Exception Reports will document the nature of exception, and the actions taken to correct exceptions.

16.2. Master Enabling Agreements

The use of master enabling agreements to document trading relationships with counterparties is considered to be the preferred practice and should be followed whenever reasonably possible. The general form of such master enabling agreements shall be approved by the City Council before any such master enabling agreement is used for any individual counterparty transaction. Transactions entered into under such agreements are subject to the requirements of these Regulations and limited to Approved Products. ED staff are responsible for ensuring that master enabling agreements are developed in conjunction with legal counsel review, approved by the City Council and used for the following transactions:

a. The Western Systems Power Pool (WSPP) Agreement may be used as the master agreement for transacting Approved Products with WSPP members.
b. The Edison Electric Institute (EEI) Agreement, or its equivalent, as modified by a set of City Council approved special provisions, may be used as the master 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).
c. Transmission transactions shall be consummated under an Open Access

Transmission Tariff or City Council approved bilateral agreement.

A master enabling agreement executed by City and a counterparty provides the general terms and conditions for all transactions entered into with that counterparty. All master enabling agreements are to be executed and entered into in accordance with the ERMP and these Regulations, and in accordance with applicable ED policy and procedures.

16.3. Margin Calls

A margin call is necessary when counterparty credit exposure exceeds an established credit limit. If a counterparty has exceeded a credit limit, the Middle Office is responsible for initiating a margin call if such action is authorized under the applicable master enabling agreement. Calling margin may include a request for cash collateral or other credit enhancement (i.e., letter of credit, etc.). The appropriate timing of a margin call is not dictated by these Regulations. However, factors such as counterparty financial capacity, volume of business, overall portfolio concentration and market conditions should be considered. A margin call should be considered necessary if the credit exposure exceeds the counterparty's limit by more than one rating notch. The same would apply if the counterparty suffers a rating downgrade.

City as a buyer or seller may be exposed to margin calls from counterparties on contracts entered on behalf of SJCE. Middle Office staff must be aware of collateral thresholds assigned to the City by counterparties, and monitor these limits weekly, and shall keep the Director of Energy informed in the event of market volatility. The City may be exposed to margin calls if a significant level of purchases or sales is reached.

16.4. Transaction Authority

No new transactions are to be entered into with counterparties that have exceeded their credit limits unless: (1) the new transactions are used to mitigate (offset) existing exposure, and (2) if those transactions have prior approval of the Director, or City Manager within authorized limits as established in these Regulations.

17. Segregation of Duties

Controls over counterparty inputs and systems operations are of particular importance in ensuring the integrity of data used in counterparty risk control and management. In all cases Middle Office Support (Finance) will be responsible for managing the counterparty review and ratings. Front Office staff is responsible for recommending new counterparties to the Middle Office for review and approval.

APPENDIX 1
DEFINITIONS

1. Definitions

Whenever used in these Regulations, the following terms shall have the following respective meanings, provided, capitalized terms used in these Regulations that are not defined in this Appendix 1 shall have the meaning indicated in Appendix A Master Definition Supplement of the CAISO Tariff:

1.1. "Approved Counterparties List" is a list, maintained by Middle Office, of the active trading counterparties that have been authorized for trading.

1.2. "Approved Product" means transaction types or products that are authorized pursuant to these Regulations, as specifically identified in Appendix 6.

1.3. "BAA" means Balancing Authority Area, which is the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area. CAISO is one of the balancing authorities in California.

1.4. "Balance-of-Month Transaction" means a purchase or sale of electric Energy, capacity and/or other related attributes for a term not greater than one month to be performed or delivered within the current or next succeeding calendar month.

1.5. "CAISO Tariff" means the CAISO FERC Electric Tariff.

1.6. "California Independent System Operator Corporation" or "CAISO" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.7. "Cap and Trade Program" means CARB's Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms as set forth in title 17, California Code of Regulations, chapter 1, subchapter 10, article 5 (commencing with section 95800), as such may be amended from time to time, or
(ii) other GHG compliance obligations, including but not limited to, federal, regional, state, or local jurisdictions.

1.8. "CARB" means the California Air Resources Board, or its regulatory successor. "CARB Offset Credit" means a tradable compliance instrument issued by CARB that represents a GHG reduction or GHG removal enhancement of one metric ton of carbon dioxide equivalent.

1.9. "Capacity" means the qualifying megawatt amount from a project under the CAISO and the CPUC rules that establish Resource Adequacy Requirements applicable to San José Clean Energy.

1.10. “City Council” means the City of San José City Council.

1.11. “Commercial Compliance Policy” means the Commercial Compliance Policy adopted by the City Council, as such may be amended from time to time.

1.12. “Energy Department” or “ED” means the department of the City established under Title 2, Chapter 2.04, Part 46 of the Municipal Code responsible for administration of the San José Clean Energy program.

1.13. “Congestion Revenue Right” or “CRR” means a financial instrument made available through the CAISO’s CRR Allocations and Auctions. CRRs are acquired primarily for the purpose of offsetting integrated forward market transmission congestion costs that are incurred in the day-ahead market on CAISO managed transmission paths.

1.14. “Counterparty” has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.15. “CPUC” means the California Public Utilities Commission or successor agency.

1.16. “CRR Allocation” means the process of allocating CRR source-to-sink combinations, both annually and monthly, based on nominations by registered Candidate CRR Holders.

1.17. “CRR Auction” means the awarding of bids for CRR source-to-sink combinations, by the CAISO, made by Candidate CRR Holders based on criteria established by the CAISO.

1.18. “Deputy Director of Power Resources” means the Department of Energy’s Deputy Director.

1.19. “Director of Energy” means the Director of the Department of Energy in the City of San José.

1.20. “Director of Finance” means the Director of Department of Finance in the City of San José.

1.21. “Division Manager of Budget and Financial Planning” means the Department of Energy’s Division Manager responsible for Back Office.

1.22. “Division Manager of Risk Management and Contracts Administration” means the Department of Energy’s Division Manager responsible for the Middle Office as described in Appendix 2.

1.23. “Emission Allowance” means a limited tradable authorization to emit up to one

metric ton of carbon dioxide equivalent.

1.24. "Energy" has the meaning set forth in Council Policy 1-23.

1.25. "ERMP" means the Energy Risk Management Policy.

1.26. "FERC" means the Federal Energy Regulatory Commission, or its regulatory successor.

1.27. "Fixed Price Energy" means energy procured pursuant to a contract that sets forth a fixed price or a formula for a price for the energy.

1.28. "Forward Contract" means an agreement that starts beyond the Balance- of-Month.

1.29. "GHG Compliance Instrument" means any instrument, including but not limited to, Emission Allowance, CARB Offset Credit, or Sector-Based Offset Credit that can be used to fulfill a GHG emissions compliance obligation.

1.30. "Greenhouse Gas" or "GHG" includes, but is not limited to, carbon dioxide ("CO2"), methane ("CH4"), nitrous oxide ("N2O"), sulfur hexafluoride ("SF6"), hydro fluorocarbons ("HFCs"), perfluorocarbons ("PFCs"), and other fluorinated gasses.

1.31. "Investor-Owned Utility" or "IOU" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.32. "Letter of Credit" means a document, typically from a bank, guaranteeing that a buyer's payment to a seller will be received on time and for the correct amount. In the event that the buyer is unable to make a payment on the purchase, the bank will be required to cover the full or remaining amount of the purchase.

1.33. "Long-Term Agreement" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.34. "Master Power Purchase and Sale Agreements" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.35. "Medium-term Agreement" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.36. "MTM" means Mark-to-Market. MTM is a measure of the fair value. Fair value of accounts that can change over time, such as assets and liabilities. MTM aims to provide a realistic appraisal of an institution's or company's current financial situation. The accounting act of recording the price or value of a security, portfolio or account to reflect its current market value rather than its book value.

1.37. "Natural Gas" means a flammable gas, consisting largely of methane and other hydrocarbons, occurring naturally underground (often in association with petroleum) and used as fuel.

1.38. "NRSRO" means nationally recognized statistical rating organization.

1.39. "Power Charge Indifference Adjustment" or "PCIA" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.40. "Power Products" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.41. "Prompt quarter" means the next full calendar quarter beyond the current quarter.

1.42. "Prompt 1-4 quarters" means the next four calendar quarters beyond the current quarter.

1.43. "Prompt year" means the next full calendar year beyond the current year.

1.44. "Regulations" means these Energy Risk Management Regulations.

1.45. "Renewable Energy Credit" or "REC" has the meaning set forth in Council Policy 1-23.

1.46. "Renewable Energy Products" means any combination of Energy, capacity, RECs, or other environmental attributes produced by a generation facility or resource that is eligible to satisfy applicable renewable Energy mandates as defined by federal, state, or local jurisdictions.

1.47. "Renewable Portfolio Standard" or "RPS" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.48. "Resource Adequacy" means the resource adequacy requirements established for load serving entities by their respective governing body having jurisdiction.

1.49. "ROC" means the Risk Oversight Committee.

1.50. "San José Clean Energy" or "SJCE" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.51. "Sector-Based Offset Credit" means a credit issued from a sector-based crediting program once the crediting baseline for a sector has been reached.

1.52. "Short-term Agreement" has the meaning set forth in Chapter 26.10 of the Municipal Code.

1.53. "Speculative Buying and Selling" has the meaning set forth in Chapter 26.10 of

the Municipal Code.

1.54. "Title 26" Established Community Choice Aggregation in the City to be called "San José Clean Energy" and to give its residents and businesses local control over electricity prices, resources and quality of service.

1.55. "Transmission" means the bulk transfer of electrical Energy, from generating power plants to electrical substations located near demand centers. This is distinct from the local wiring between high-voltage substations and customers, which is typically referred to as electric power distribution.

1.56. "Wholesale Energy Provider" means the service provider for scheduling coordinator, portfolio management, and optimization services.

APPENDIX 2
RISK OVERSIGHT COMMITTEE

1. Roles and Responsibilities

ROC members' and all advisors' roles and responsibilities are detailed below:

1.1 ROC Members

All members of the ROC have the following responsibilities:

a. Review proposed changes to the ERMP and these Regulations.
b. Attend all ROC meetings or ensure that fully-briefed alternates attend.

1.1.1 City Manager Representative

The City Manager Representative has the following responsibilities:

a. Oversee implementation of SJCE's risk strategy.
b. Review proposed changes to ERMP.

1.1.2 Director of Energy

The Director of Energy has the following responsibilities:

a. Serve as Chairperson for ROC.
b. Ensure that the ERMP is reviewed by the ROC on an annual or as needed basis.
c. Ensure that the operational performance of the Front, Middle and Back Offices are in conformance with approved policies and procedures.
d. Ensure that the ROC is provided with reporting that is consistent with the ERMP and these Regulations.
e. Present recommendations for changes to ERMP for consideration by the City Council, giving consideration of recommendations of the ROC.
f. Develop and maintain these Regulations, giving consideration of recommendations of the ROC.

1.1.3 Director of Finance

The Director of Finance has the following responsibilities:

a. Provide ROC with "market view" of financial market conditions and implications on an as needed basis.
b. Provide management oversight to Finance Investment staff charged with staffing Middle Office Support (Finance), which includes the responsibility of reviewing counterparties and determining credit limits.

c. Advise on operating reserve limits.

1.1.4 City Manager's Budget Office Director

The City Manager's Budget Office Director has the following responsibilities:

a. Provide ROC with budget implications regarding proposed actions on an as needed basis.
b. Advise on operating reserve amounts and budget issues.
c. Collaborate with ED's Budget and Financial Planning Division and ED's Account Management Group to prepare the budget and calculations of rates used to bill customers for their power supply usage.

1.1.5 Risk Manager

The Risk Manager has the following responsibilities:

a. Advise on insurance provisions for City's agreements in order to minimize SJCE's risk exposure.

1.1.6 ED Deputy Director of Power Resources (Front Office)

The ED Deputy Director of Power Resources has the following responsibilities:

a. Verify to the Director of Energy that operational performance of the Front Office is in conformance with the ERMP and these Regulations.
b. Verify that the ROC is provided with Front Office reporting that is accurate and consistent with the ERMP and these Regulations.
c. Advise ROC on potential enabling agreements with regard to Front Office operations.
d. Advise ROC on analysis of potential long-term agreements with regard to portfolio needs and market risks.
e. Advise ROC on proposed trader limits.
f. Advise ROC on procurement needs, strategies, and plans considering a range of possible future market conditions and results of portfolio management modeling.
g. Oversee activities of Front Office.
h. Develop and maintain Front Office Procedures.

1.1.7 SJCE Division Manager of Risk Management and Contracts Administration (Middle Office)

The SJCE Division Manager of Risk Management and Contracts Administration has the following responsibilities:

a. Verify to Director of Energy that rules related to transacting authority and speculations are complied with by Front Office.
b. Verify that Front Office staff are in compliance with all policies and regulations.

c. Verify that the ROC is provided the most accurate forecast possible of market trends.
d. Verify to the Director of Energy that operational performance of the Middle Office is in conformance with the ERMP and these Regulations.
e. Provide accurate quarterly report of all transactions.
f. Ensure that the ROC is provided with accurate reports on any transactions which exceeded limits, and proposed actions on strengthening compliance procedures and recommendations for corrective action.
g. Ensure that the ROC is provided with reporting that is consistent with the ERMP and these Regulations.
h. Advise ROC on consideration of pending enabling agreements and large agreements with regard to market and credit risk.
i. Monitor key activities of Front, Middle and Back Offices.
j. Ensure Middle Offices, and Legal Counsel participate on new product or transaction type development team.
k. Advise ROC on education needs on risk management at all levels within SJCE.
l. Develop and maintain Middle Office Procedures

1.2 ROC Advisors

SJCE's legal counsel has the following responsibilities:

a. Review and approve all forms of contracts used by ED to consummate transactions of Approved Products for SJCE.
b. Determine required legal documentation, and propose, monitor, and review procedures to ensure legal and regulatory compliance with the ERMP and these Regulations.
c. Review processes and procedures associated with transaction activities to ensure legal compliance with all local, state and federal laws and regulations.

1.2.1 City Attorney

The City Attorney has the following responsibilities:

a. Verify to the City Manager, ED and the ROC that all adopted Regulations are consistent with applicable law.
b. Verify to the City Manager, ED and the ROC that all approved contracts and enabling agreements have followed a process that is consistent with applicable law.
c. Provide timely support and legal advice to the Front, Middle and Back Office and to the ROC.
d. Review documentation and processes to ensure consistency with applicable law.
e. Ensure Front and Middle Offices, and Legal Counsel participate on new product or transaction type development team.

APPENDIX 3
AUTHORIZED CRR TRANSACTING GUIDELINES

1. Congestion Revenue Rights Transacting Guidelines

Congestion Revenue Rights (CRR) are used by CAISO market participants to hedge against the cost of congestion associated with delivering resources to serve load obligations within a locational marginal price (LMP) market.

1.1 CRR Allocation Process

ED staff or ED's Wholesale Energy Provider shall participate in the CRR Allocation and Auction markets for the benefit of SJCE and its customers as follows:

ED or ED's Wholesale Energy Provider staff nominates its CRRs during the allocation process in general conformance with the following methodology:

a. Consider prioritizing SJCE scheduling points as sources and the DLAP_PGAE_APND pricing nodes as the sink, such that downside risk is minimized when:
    1. Average expected congestion is statistically greater than zero.
    2. No historical period exhibited large negative congestion.
    3. Nomination amounts are relative to expected congestion (i.e. increase nominations as expected congestion increases).
b. CRR nominations are limited by the seasonal/monthly eligible quantities.
c. CRR valuation of source/sink combinations are based upon the historical congestion component of the LMP. If access to an Integrated Forward Market (IFM) pricing model becomes available, simulated prices may be used in the CRR valuation process.
d. ED or ED's Wholesale Energy Provider will nominate source/sink combinations that statistically have positive average congestion across historical periods with, no substantial negative congestion, as follows:
    1. Rank the CRRs by congestion value.
    2. Nominate the highest valued CRRs first, working down the possible Source-Sink combinations until the seasonal/month eligible quantities are exhausted.
    3. Avoid large positions at any one non-SJCE sourced CRR.
    4. Avoid clustered CRRs (e.g., source CRRs in the same geographic area that would expect to have the same or similar congestion component price).
e. Avoid nominating both SJCE and non-SJCE sourced CRRs when data and experience shows that the CRR will not clear the allocation feasibility test.
f. Once the above selection criteria result in a nomination portfolio, and prior to final submission; ED or ED's Wholesale Energy Provider will stress test the

portfolio on historical data for any large negative single period positions. If ED or ED's Wholesale Energy Provider finds large negative single period positions, ED or ED Wholesale Energy Provider will remove that position prior to submission.

1.2 CRR Auction Process

ED staff or ED's Wholesale Energy Provider bids into the CRR Auction in general conformance with the following methodology:

a. Bids are made only to unwind CRRs obtained in the allocation process that are non-hedged or are expected to have a negative value due to operational changes.
b. Prices on the bid curves start at zero and go negative.
c. Bids that result in revenue to SJCE and reduce overall risk by unwinding existing un-hedged allocation portfolio positions.
d. Auction revenue is left in the SJCE CRR collateral account until the monthly/seasonal period is over.

1.3 CRR Valuation and Risk Assessment

CRR valuation is based upon historical data. CRR holdings are valued individually and as a portfolio. Along with the average valuation, the fifth (5th) percentile and 95th percentile position of each CRR Source/Sink combination are calculated.

SJCE's Scheduling Agent performs a stress test on CRR nominations. The stress test identifies the minimum, maximum and expected revenue for each available seasonal/monthly historical period.

The highest risk to SJCE's CRR allocation and auction portfolios is a collateral call. The CAISO does not net the portfolios, so the risk is a result of the separate collateral requirements for each portfolio. The expected value of SJCE's allocated CRR portfolio is positive. SJCE's auction portfolio consists only of unwound allocated CRR; as such, the expected value is negative. A collateral call could occur if an event increased the expected negative value of the auction portfolio even though the actual day-ahead market position would be offset by an increase in the expected value of the allocation portfolio.

SJCE mitigates this risk by leaving all its auction revenue in the CRR collateral account at the CAISO. SJCE's initial deposits of $500,000 for the annual auction, and $100,000 for the monthly also remain in the collateral account.

SJCE will only request a return of its auction revenue after the end of each monthly/ seasonal period, thereby maintaining usable secured available credit well in excess of its required collateral.

APPENDIX 4
AUTHORIZED APPROVED PRODUCT PROCUREMENT AND AGREEMENT LIMITS

1.1 City Council

a. Approves Integrated Resource Plans.
b. Approves all Long-Term Agreements (10 years or more) for purchase or sale of Approved Products.

1.2 City Manager

The City Manager has:

a. Authority to purchase or sell Approved Products pursuant to Short-Term and Medium-Term Agreements, with an initial delivery date of no later than 5 years from the agreement execution date.
b. Authority to enter into Master Power Purchase and Sale Agreements of a form previously approved by City Council. Any purchases or sales of Power Products pursuant to such Master Power Purchase and Sale Agreements is subject to authority limits as outlined in this Appendix.

1.3 Director of Energy

The Director of Energy has:

a. Authority to purchase or sell Approved Products pursuant to Short-Term Agreements with an initial delivery date of no later than 3 years from the agreement execution date.
b. Authority to incur and pay CAISO charges and administrative fees which result daily from the scheduling of load and resources with the CAISO.

1.4 Deputy Director of Power Resources

Subject to delegation by the Director of Energy, the Deputy Director of Power Resources has:

a. Authority to purchase and sell Approved Products pursuant to Short-Term Agreements with an initial delivery date of no later than 3 years from the agreement execution date, and with a contract value not to exceed $5 million dollars. When possible, the Deputy Director of Power Resources should seek written approval from the Director of Energy for all product transactions over $1 million.

1.5 Principal Power Resources Specialist

Subject to delegation by the Director of Energy, the Principal Power Resources Specialist has:

a. Authority to purchase and sell Approved Products pursuant to Short-Term Agreements with a term no longer than 1 year with an initial delivery date of no later than 3 years from the agreement execution date and not to exceed $250,000 dollars.

Approved Product Limits Summary

	City Council	**City Manager**	**Director of Energy**	**Deputy Director of Power Resources**	**Principal Power Resources Specialist**
Agreement Term Limits:	Long-Term Agreements (10 years or more) for purchase or sale of Approved Products.	As authorized by City Council. Without Council approval, agreements up to 10 years with an initial delivery date no later than 5 years from the agreement execution date, and Master Purchase and Sale Agreements.	As authorized by City Council. Without Council approval, agreements not to exceed a term of 3 years with an initial delivery date no later than 3 years from the agreement execution date.	After delegation by the Director, agreements for a term of 3 years or less and an initial delivery date of no later than 3 years from the agreement execution date and $5 million dollars or less.	After delegation by the Director, agreements for a term of one year or less and an initial delivery date of no later than 3 years from the agreement execution date, and $250,000 dollars or less.

APPENDIX 5
NEW PRODUCT DEVELOPMENT PROCEDURES

1. New Product Development

When the Front Office staff requests to transact a new product type, several control processes must take place to ensure ED can identify, manage, control, and report on the risks for SJCE from the new product type.

The process for submitting a request for a new Approved Product type is as follows:

1. The Front Office staff notifies the Middle Office staff of the desire to enter into transactions for a new product type. The Front Office staff is responsible for reviewing the product type details, including all the business needs and strategy, pricing, and operational elements of the product type with the Middle Office staff. The Middle Office staff assumes responsibility for undertaking all of the risk and processing implications of the proposed product type.
2. Legal Counsel identifies applicable California and local regulatory restrictions for product or business, verifies counterparty power and authority to enter into activity, determines what legal documentation is required, proposes monitoring and review procedures to ensure legal and regulatory compliance, and determines if sufficient resources are available to support regulatory and legal requirements.
3. The Middle Office staff first ascertains if the Front Office staff has the ability to accurately price the product type. Secondly, the Middle Office staff determines whether the risk of the product types can be accurately measured. The Middle Office staff is responsible for preparing a new product report for review and consideration. This report requires the Middle Office staff to document all of the risk attributes of the product type, and how they will be controlled (primarily focusing on market and credit risk). The Middle Office staff shall review the new product report and begin the process of determining ED's ability to record, process, and manage the product type.
4. The Front, Back, and Middle Offices are responsible for Operational Risks. This includes verifying consistency with ERMP, defining a product types tracking plan and procedures, settlement procedures, ensuring appropriate authorization/approvals are obtained, and developing procedures for transactions for the product type.
5. The Middle Office staff then gathers all of the new product report summaries and prepares a written recommendation to the ROC for consideration. This written recommendation will consider whether or not the risks and potential control considerations, if any, warrant approving the new product type
6. The ROC is responsible for recommending all new products to ED and Director of Energy may request approval from City Manager or designee.

7.

New Product Approval Checklist Risk/Task to be Completed During the Analysis	Primary Accountability
Business Strategy	
Identify business needs and benefits	Front Office
Understand and document the economics of the new product	Front Office
Define the resource requirements for the new product	Front Office
Regulatory and Legal Risks	
Identify applicable California and local regulatory restrictions for product or business	Legal Counsel
Verify counterparty power and authority to enter into activity	Legal Counsel
Determine what legal documentation is required	Legal Counsel
Propose monitoring and review procedures to ensure legal/regulatory compliance	Legal Counsel
Determine if sufficient resources are available to support regulatory and legal requirements	Front Office
Market Risks	
Identify and analyze market risk	Middle Office
Specify management's intention (hold positions, actively trade or hedge)	Front Office
Propose fair market value and risk measurement methodology	Middle Office
Establish product trading limits	Middle Office
Determine impact on total position limits	Middle Office
Define and recommend management reporting requirements	Middle Office
Present report format for communication of positions on a timely basis	Middle Office
Check if the new product involves commitments, guaranties, contingencies off-balance sheet items	Middle Office
Credit Risks	
Identify and analyze credit risk of counterparty	Middle Office Support (Finance)
Develop methodology for measuring credit risk and concentration exposures	Middle Office
Define procedure for monitoring credit exposure	Middle Office
Identify target counterparties, determine suitability, and request credit facilities	Middle Office
Determine proper procedure for perfecting collateral, netting agreements	Middle Office
Recommend maximum credit exposure limits for counterparties	Middle Office Support (Finance)
Develop capability to report credit limit compliance	Middle Office
Operational Risks	
Verify consistency with ERMP	Front Office/Middle Office
Define transaction tracking plan and procedures	Middle Office
Settlement procedures – how will transaction payment/billing be handled	Back Office
Authorizations/approvals – propose approval levels or delegation of authority is required	Front Office/Middle Office
Develop procedure for transacting from start to finish	Front Office/Middle Office/Back Office
City Manager Approval	
Approve all new products	City Manager

APPENDIX 6
APPROVED PRODUCTS

1. Approved Products

The Power Products that ED is authorized to buy on behalf of SJCE are as follows:

Approved Products	Pre-Approved Examples
1. Energy	• Forward purchases and sales of Energy, including dispatchable Energy. • Liquidating "in the money" and "out of the money" transactions for optimization. • Fuel commitments to support authorized Energy purchases and sales. • Balance-of-Month Transactions.
4. Day-Ahead and Real-Time Power Transactions Through a BAA (e.g., CAISO)	• Purchases of Energy and Ancillary Services from the CAISO day-ahead and/or real-time market to serve load. • Sales of Energy and Ancillary Services from the CAISO day- ahead and/or real-time market from contracted or generation resources. • Paying CAISO fees.
5. Purchase/Sale of Capacity	• Forward purchases and sales of Capacity products (e.g., Ancillary Services, Resource Adequacy products including demand-side management, and energy storage).
6. Transmission	• Purchases and sales of firm and non- firm transmission capacity required for the delivery of Energy and Capacity.
7. GHG Compliance Instrument	• Purchases of Emission Allowances from bilateral trades, and from the CARB administered Cap and Trade Program auctions and reserve auctions to satisfy actual and/or forecasted GHG emissions compliance obligations attributed to ED generation, contracting and scheduling activities (e.g., imports) on behalf of SJCE.
8. Renewable Energy and Low Carbon Products	• Purchases of Renewable Energy Products and low carbon products to satisfy any requirement for such products under applicable law, including City Council goals. • Sales of Renewable Energy Products and low carbon for the sole purpose of eliminating a surplus.
9. Congestion Revenue Rights	• Participation in the CRR Allocation and CRR Auction processes through the submission of nominations and/or bids in the Annual and/or Monthly Congestion Revenue Right Allocation and Auction processes administered by the CAISO.

APPENDIX 7
MANAGEMENT REPORTS

1. Management Reports

The following energy risk management reports shall be developed and presented as further described in the following table:

		Primary Responsibility			Report Frequency				Approval
	Management Report	**Front**	**Middle**	**Back**	**Monthly**	**Quarterly**	**Annual**	**As Needed**	
a.	**Concentration Balance**		X		X				ED Division Manager of Risk Management and Contracts Administration
b.	**Portfolio Performance (MTM)**		X		X				ED Division Manager of Risk Management and Contracts Administration
c.	**Exceptions Report**		X					X	ED Division Manager of Risk Management and Contracts Administration
d.	**Annual Regulations Update**		X				X		City Manager or designee
e.	**Credit Limit Status by Counterparty and Master Agreements**		X		X				ED Division Manager of Risk Management and Contracts Administration
f.	**Coverage Ratio – Procurement Report**	X			X				ED Deputy Director of Power Resources
g.	**Integrated Resource Plan**	X	X	X				X	ED Deputy Director of Power Resources
h.	**Credit Exposure to LOC Issuers**		X		X				ED Division Manager of Risk Management, Contracts and Administration
i.	**Power Transactions**		X			X			ED Division Manager of Risk Management and Contracts Administration
j.	**Bilateral Transactions Reports**	X			X				ED Deputy Director of Power Resources
k.	**Variance Report**		X		X				ED Division Manager of Risk Management and Contracts Administration

1.1 Description of Management Reports

a. Concentration Balance: The Middle Office reports showing concentration by counterparty in terms of total covered portfolio, expected costs and expected load.
b. Portfolio Performance (MTM): A Middle Office report comparing the cost of the portfolio of contracts to the current market value of the portfolio (tracking what SJCE paid for the contract to what it is worth now). This is also known as MTM and is used to monitor collateral needs.
c. Exceptions Report: A Middle Office report summarizing current exception and violation reports.
d. Annual Regulations Update: A Middle Office report providing an annual review of the Energy Risk Management Regulations and recommendations for needed updates. Revisions to the ERMR are approved by the City Manager or designee.
e. Credit Limit Status by Counterparty and Master Agreements: A Middle Office report showing counterparty credit limits, credit used, credit remaining, as well as current set of approved master agreements. Special flagging of counterparties nearing their credit limits should also be included.
f. Coverage Ratio – Procurement Report: A Front Office report detailing the load forecast and coverage ratio for periods as outlined in Appendix 9.
g. Integrated Resource Plan: This is a plan prepared every few years that shows long-term supply and resources plan.
h. Credit Exposure and Credit Quality to LOC Issuers: A Middle Office report tracking credit exposure and credit quality to LOC issuers at the portfolio level.
i. Power Transactions: A Middle Office quarterly report submitted to the Council of all transactions carried out since the last submitted quarterly report.
j. Bilateral Transactions Report: A Front Office report setting forth transactions entered into pursuant to bilateral discussions.
k. Variance Report: A Middle Office report summarizing the variances approved by the City Manager or designee with respect to use of competitive solicitations, coverage thresholds, concentration limits, relaxation of underwriting standards, credit limits, and credit enhancements.

APPENDIX 8
MARK-TO-MARKET METHODOLOGY

Mark-to-Market Methodology

The MTM calculation is a method to value future, or forward open trading, or hedge positions on an on-going basis to track market price changes. Once a position is taken in the market for some future delivery period, the value of that position must be monitored and managed on a routine basis. The volatility and volume of activity for a particular traded product will dictate how often it is necessary to update the MTM valuation of such product. SJCE will "mark" all open energy positions on no less than a weekly basis, or as necessary, given market dynamics.

The following is the calculation used to calculate MTM:

MTM = (Forward Price - Contract Price) * volume of energy purchased.

Several trading hubs host the majority of physically traded contracts such as Palo Verde (PV), California Oregon Border (COB), Mid-Columbia (Mid-C), California South (SP15), and California North (NP15). There are also several emerging hubs in the desert southwest and rocky-mountain areas. Publications such as *Megawatt Daily* and *Energy Market Report* list the daily prices traded at more heavily traded hubs. Information sources such as McGraw- Hill publishing report broker trades for forward contracts at the most active trading points. For illiquid products or trading points, the MTM may be applied less frequently than weekly. In these circumstances a monthly mark may be appropriate.

However, periodic market inquiries, as appropriate, should be made to capture any market movement.

The following information sources, or their equivalents as approved by the Middle Office and Front Office, are to be used to mark open positions for the traded products listed below:

a. **Energy and related products:** The standard forward traded electricity products as reported in the broker/trade reporting system.
b. **Resource Adequacy, Renewable and Low Carbon Products:** These products are likely to change value less often than Energy and related products. Periodic (quarterly) probing of the market may be necessary to obtain current valuation.

APPENDIX 9
RECOMMENDED COVERAGE

SJCE will manage risks associated with its load obligation through procurement of energy consistent with Table 3 below, and through short, medium and long-term agreements that are consistent with SJCE's Integrated Resource Plan (IRP). To access the market at different times, SJCE will hedge its load obligation by soliciting energy supply offers at regular intervals during favorable buying periods during the year (focusing on Spring and Fall). The Director of Energy, or designee, will review each solicitation; solicitation reviews shall cover pre-solicitation portfolio positions, expected coverage, procurement limits and market analysis. Supply offers will be selected with respect to the risks outlined in this document (i.e. price risk, counter party credit worthiness, concentration risk, etc.).

ED will seek to achieve coverage ratios for SJCE energy contracts consistent with Table 3 Coverage Thresholds. ED will apply coverage ratios within the ranges set forth in Table 3 taking into account market and system conditions during particular time periods, such as higher risks of price spikes during the Summer and early Fall, uncertainty as to online date and expected volatility of output of long-term power purchase agreements, opportunities to take advantage of low prices from favorable hydro conditions during the Spring, and schedules for natural gas storage reports. Specifically for the Spring, staff will optimize the targeted coverage levels based on assessment of market and environmental variables, including but not limited to drought severity, hydrological conditions, and snowpack accumulation.

For the purposes of coverage calculations, the load obligation includes all currently enrolled customers with loads less than 20 MW. Large load customers (20 MW or more) are included subject to Director of Energy review of a customer-provided load forecast, expected energization date, ramping schedule, verified power resources (behind-the-meter or power purchase agreements), if any, confirmed enrollment, and any other considerations deemed appropriate to mitigate the risk of stranded assets. To further improve load forecast accuracy and optimize procurement decisions, ED will independently monitor historical energy usage, City of San José's permitting/development status, and may co-ordinate with customers before integrating prospective large load additions. This approach mitigates stranded asset risk in the interests of protecting existing SJCE customers.

Further, load growth from demand-side modifiers - including transportation electrification and building electrification, energy efficiency, and distributed resources) is inherently embedded in historical load trends and extrapolated within the load forecast. For coverage calculations, SJCE will take a conservative approach by excluding additional electrification or efficiency adjustments from the load forecast until those are certain.

Table 3: Coverage Thresholds

Time Period	Minimum Coverage	Maximum Coverage
[redacted]		

From time to time, the Front Office staff may recommend procurement strategies outside of these Coverage Thresholds for ROC review and recommendation. The Director may, upon review of the recommendation of the ROC, request in writing a deviation from coverage thresholds from the City Manager or designee. The City Manager or designee may approve or disapprove the request in writing.

The Front, Middle and Back Office shall prepare an IRP every few years in accordance with State law requirements and City policy. The IRP shall be presented to City Council for approval and filed with the California Public Utilities Commission. The Front Office shall propose long-term transactions for recommendation by the ROC and approval by City Council as appropriate and consistent with the requirements of law and the approved IRP.

APPENDIX 10
COUNTERPARTY CREDIT LIMITS

Credit Rating	Maximum Credit Limit ($m)	Percentage of Adjusted Tangible Net Worth or Adjusted Net Assets
AAA	[redacted]	[redacted]
AA+	[redacted]	[redacted]
AA	[redacted]	[redacted]
AA-	[redacted]	[redacted]
A+	[redacted]	[redacted]
A	[redacted]	[redacted]
A-	[redacted]	[redacted]
BBB+	[redacted]	[redacted]
BBB	[redacted]	[redacted]
BBB-	[redacted]	[redacted]

APPENDIX 11
SUPPLEMENT HISTORY TABLE

The table below reflects revisions to Risk Management Regulations adopted 07/01/26. Previous revisions can be found in the prior version with an effective date of 07/01/24.

Adopted Date	Description
07/01/2026	• Updating language relating to Volumetric risk to incorporate uncertainties in large load demand and load forecasting risks. (2.1, Volumetric Risk) • Clarifying that the guaranty provided by the counterparties must be a corporate guaranty. (Section 13.1, Guaranty and Surety Bond) • Clarifying that active counterparties with energy transactions are reviewed on a quarterly basis or at such intervals as deemed appropriate by Finance. (14.1, Counterparty Credit Analysis) • Clarifying that the credit limit calculation is to be based on adjusted tangible net worth or adjusted net assets. (Section 14.2, Credit Limits, Appendix 10 Counterparty Credit Limits) • Correcting pagination. (Appendix 3 and Appendix 4) • Clarifying the load obligation and forecast for the purpose of coverage ratios. (Appendix 9) • Changing coverage ratios [redacted] in Appendix 9 – Recommended Coverages. Added language that if the [redacted] (Appendix 9) • Revising references to Director of Community Energy and Director of ED to instead reference Director of Energy (Document wide)