

San Diego Community Power

Energy Risk Management Policy

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Energy Risk Management Policy

1.0 General Provisions

1.1 Background and Purpose of Policy

San Diego Community Power (SDCP) participates in energy markets for purposes of fulfilling its role as a Community Choice Aggregator serving retail electricity customers located within the San Diego region. This Energy Risk Management Policy (Policy) has been developed to facilitate the achievement of SDCP's organizational objectives while adhering to policies established by SDCP's Board of Directors (Board), power supply and related contract commitments, good utility practice, and applicable laws and regulations.

This Policy defines SDCP's general energy risk management framework and provides management with the authority to establish processes for monitoring, measuring, reporting, and controlling market and credit risks to which SDCP is exposed in its normal course of business.

1.2 Scope of Business and Related Market Risks

SDCP provides electric energy to retail customers within its service territory, which requires completion of the following business activities: bilateral purchases and sales of electricity under short-, medium- and long-term contracts; scheduling of load and generation of electricity into California Independent System Operator (CAISO) markets; retail marketing of electricity to consumers within its service territory; compliance with voluntary objectives and regulatory requirements that relate to carbon-free and Renewables Portfolio Standard (RPS) compliance; participation in the CAISO-administered Congestion Revenue Rights ("CRRs") market; management of the balance between load and generation over the short-, medium- and long-term planning horizons; and compliance with California Public Utilities Commission (CPUC) Resource Adequacy (RA) requirements. Participation in such activities expose SDCP to certain risks, which include, but are not limited to, the following:

- Market Price Risk
- Counterparty Credit and Performance Risk
- Load and Generation Volumetric Risk
- Operational Risk
- Liquidity Risk
- Regulatory/Legislative Risk

To mitigate SDCP's exposure to such risks, this Policy has been drafted to focus on the following areas of concern:

- Risk Management Goals and Principles
- Definitions of Risks
- Internal Control Principles
- Risk Management Business Practices
- Risk Management Governance

This Policy does not address the following types of general business risk, which should be treated separately in other policies, ordinances and regulations pertaining to SDCP: fire, accident and casualty;



health, safety, and workers' compensation; general liability; and other such typically insurable perils. The term "risk management," as used herein, is therefore understood to refer solely to market risks as defined herein, and not those other categories of risk.

1.3 Policy Administration

This version of the Energy Risk Management Policy was adopted by the SDCP Board of Directors on June 25, 2020. This Policy may be amended as needed by SDCP's Board. SDCP's Finance and Risk Management Committee (FRMC) may periodically recommend policy updates to the Board.

1.4 Policy Distribution and Acknowledgment

This Policy shall be distributed to all SDCP employees and third-party contractors who are engaged in the planning, procurement, sale and scheduling of electricity on SDCP's behalf and/or in other SDCP departments providing oversight and support for these activities. All such employees and contractors are required to confirm in writing on an annual basis that they have:

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

1.5 Policy Interpretation

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

2.0 Risk Management Goals

The goals of SDCP's energy risk management practices are to:

- [1] assist in achieving the business objectives of retail rate stability and competitiveness;
- [2] avoid losses and excessive costs, which would materially impact the financial condition of SDCP;
- [3] establish the parameters for energy procurement and sales activity to minimize costs while ensuring compliance with approved risk limits and policy objectives;
- [4] assist in assuring that market activities and transactions are undertaken in compliance with established procurement authorities, applicable laws, regulations and orders; and
- [5] encourage the development and maintenance of a corporate culture at SDCP in which the proper balance is struck between control and facilitation and in which professionalism, discipline, technical skills, and analytical rigor come together to achieve SDCP objectives.

3.0 Risk Management Principles



3.1 General Risk Management Principles

SDCP manages its energy resources and transactions with the objectives of reducing greenhouse gas emissions, supporting local economic development and providing customers with stable, competitive electric rates while contemporaneously minimizing risks. SDCP's risk management principles include the identification of relevant risks, systematic risk measurement and reporting, and strict adherence to established risk policies. SDCP will not engage in transactions without proper authorization or if such transactions are determined to be inconsistent with this Policy.

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

3.2 Conflicts of Interest

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

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

3.3 Adherence to Statutory Requirements

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

Congress, FERC and CFTC have enacted laws, regulations, and rules that prohibit, among other things, any action or course of conduct that actually or potentially operates as a fraud or deceit upon any person in connection with the purchase or sale of electric energy or transmission services. These laws also prohibit any person or entity from making any untrue statement of fact or omitting to state a material fact where the omission would make a statement misleading. Violation of these laws can lead to both civil and criminal actions against the individual involved, as well as SDCP. This Policy is intended to comply with these laws, regulations and rules and to avoid improper conduct on the part of anyone employed by SDCP. These procedures may be modified from time to time by legal requirements, auditor recommendations, FRMC and ROC requests, and other considerations.

In the event of an investigation or inquiry by a regulatory agency, SDCP will provide legal counsel to employees. However, SDCP will not appoint legal counsel to an employee if SDCP's General Counsel and Chief Executive Officer determine that the employee was not acting in good faith within the scope of employment. SDCP employees are prohibited from working for another power supplier, CCA or utility in a related position while they are simultaneously employed by SDCP unless an exception is authorized by



the Board. For clarity, this prohibition is not intended to prevent SDCP staff from performing non-CCA activities on behalf of SDCP in the normal course of its business.

3.4 System of Records

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

4.0 Definitions of Market Risks

The term "market risks," as used herein, refers specifically to those categories of risk which relate to SDCP's participation in wholesale and retail markets as a Load Serving Entity (LSE) as well as SDCP's interests in certain long-term contracting opportunities. Market risks include market price risk, counterparty credit and performance risk, load and generation volumetric risk, operational risk and liquidity risk, as well as regulatory and legislative risk. These categories are defined and explained as follows.

4.1 Market Price Risk

Market price risk is defined as exposure to changes in wholesale energy prices. Market price risk is a function of price volatility and the volume of energy that is contracted at fixed prices over a defined period of time. Prices in electricity markets exhibit high volatility, and appropriate forward procurement and hedging approaches are necessary to manage exposure to pricing volatility within the CAISO or bilateral energy markets.

Market price risk is also impacted by market liquidity, which may be an issue for certain energy or capacity products that SDCP procures. Illiquid markets are characterized by relatively few buyers or sellers, making it more difficult to buy or sell a commodity and often resulting in higher premiums on purchases or deeper discounts on sales.

Another dimension of market price risk is congestion or "basis" risk. Congestion risks arise from the locational differences in prices between the point of delivery of SDCP's load (meaning, power consumed by customers) and its contracted supply.

For SDCP, market price risk manifests in two types of exposure. The first type of market price risk exposure is the potential for variations in power costs that are related to SDCP's "open positions", meaning the volume of energy that will ultimately be required for delivery to SDCP customers but that has not yet been purchased. Increases in market prices will increase SDCP's costs when those open positions are eventually filled at the higher prices. Incurrence of higher than anticipated power costs can reduce funds available for financial reserves or other planned uses and can lead to the need for rate increases. Market price risk exposure related to open positions are monitored through net open position valuations and value at risk metrics as described in Section 6.1 of this Policy.

The second type of market price risk exposure is the potential for wholesale trading positions, long-term supply contracts and generation resources to move "out of the money," that is, become less valuable when compared to similar positions, contracts or resources obtainable at present prices. These same positions can also be "in the money" if such positions become more valuable when compared to similar positions, contracts or resources obtainable at present market prices. This valuation methodology is



commonly referred to as “Mark to Market.” Transaction valuation and reporting of positions shall be based on objective, market observed prices. If SDCP is “out of the money” on a substantial portion of its contracts, it may have to charge higher retail rates relative to competitors. Such a situation could erode SDCP’s competitive position and market share if other market participants (e.g., Direct Access providers or SDG&E) are able to procure power at a lower cost and offer lower retail electric rates.

4.2 Counterparty Credit and Performance Risk

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

- [1] counterparties and wholesale suppliers may fail to deliver energy or environmental attributes, requiring SDCP to purchase replacement products elsewhere, possibly at higher costs;
- [2] counterparties may fail to take delivery of energy or environmental attributes sold to them, necessitating a quick resale of the product elsewhere, possibly at a lower price;
- [3] counterparties may fail to pay for delivered energy or environmental attributes; and
- [4] counterparties and suppliers may refuse to extend credit to SDCP, possibly resulting in higher collateral posting costs, which could impact SDCP’s cash position and/or bank lines of credit.

An important subcategory of credit risk is concentration risk. When a portfolio of positions and resources is concentrated with one or a very small number of counterparties, generating resources, or geographic locations, it becomes more likely that major losses will be sustained in the event of non-performance by a counterparty/supplier or as a result of unexpected price fluctuations at one location.

4.3 Load and Generation Volumetric Risk

Energy deliveries must be planned in consideration of forecasted load. SDCP forecasts load over the long and short term and enters into long- and short-term fixed price energy contracts to hedge its load consistent with the provisions of its Integrated Resource Plan (IRP).

Load forecasting risk arises from inaccurate load forecasts and may result in the over- or under-procurement of energy and/or customer rate revenues that deviate from approved budgets. Energy delivery risk occurs if a generator fails to deliver expected or forecasted energy volumes. Variations in wind speed and cloud cover, for example, can also impact the respective amount of electricity generated by wind and solar resources. Furthermore, the occasional oversupply of power on California’s electric grid can lead to curtailment of energy deliveries or reduced revenue resulting from low or negative prices at certain energy delivery points. In general, weather is an important variable that can result in higher or lower electricity usage due to its impact of customer electricity usage (heating and cooling needs, for example) as well as energy production (by generators that are commonly impacted by ambient weather conditions).

In the CAISO markets this situation can result from both the oversupply and undersupply of electricity relative to SDCP’s load as well as the over- or under-scheduling of generation or load into the day ahead market (relative to actual energy consumed or delivered in the real-time market). Load and generation volumetric risk may result in unanticipated open positions and imbalance energy costs, which are assessed



when actual and scheduled loads do not align. More specifically, imbalance energy costs result from temporal pricing differences that often exist in the day-ahead and real-time energy markets during discrete scheduling intervals. For example, if SDCP's actual load is higher than scheduled in the day-ahead market, and real-time prices are comparatively high during such instances, then SDCP bears the risk of higher-than-anticipated energy costs due to such variation. .

4.4 Operational Risk

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

[1] organizational structure that proves to be ineffective in addressing risk, i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, ineffective internal checks and balances, incomplete, inaccurate and untimely forecasts or reporting, failure to separate incompatible functions, etc.;

[2] absence, shortage or loss of key personnel or lack of cross-functional training;

[3] lack or failure of facilities, equipment, systems and tools, such as computers, software, communications links and data services;

[4] exposure to litigation or sanctions resulting from violating laws and regulations, not meeting contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting and analyzing contracts effectively, etc.; and

[5] errors or omissions in the conduct of business, including failure to execute transactions, violation of guidelines and directives, etc.

4.5 Liquidity Risk

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

[1] breach of SDCP credit covenants or thresholds – SDCP has credit covenants included in its banking agreements and may, eventually, have similar covenants within its energy contracts. Breach of credit covenants or thresholds could result in the withdrawal of SDCP's line of credit or may trigger the requirement to post collateral;

[2] contractual requirements to post collateral (with counterparties) due to a decline in market prices below the contract price; and

[3] from time to time SDCP may be the subject of legal or other claims arising from the normal course of business. Payment of a claim by SDCP could reduce SDCP's liquidity if the cause of loss is not covered by SDCP's insurance policies.

4.6 Regulatory/Legislative Risk



Regulatory risk encompasses market structure and operational risks associated with shifting state and federal regulatory policies, rules, and requirements that could negatively impact SDCP. An example is the potential increase in exit fees for customers served by Community Choice Aggregators that could result in higher overall electricity costs for SDCP customers (relative to SDG&E or DA service options).

Legislative risk is associated with actions by federal and state legislative bodies, which may impose adverse changes or requirements that could infringe upon SDCP's autonomy, increase its costs, or otherwise negatively impact SDCP's ability to fulfill its goals and objectives.

5.0 Internal Control Principles

Internal controls are based on proven principles that meet or exceed the requirements of financial institutions and credit rating agencies while also being considerate of good utility practice. 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 as well as information pertinent to management, and facilitate attainment of business objectives. These controls shall remain fully integrated in all activities of the business and shall be consistent with stated objectives. There shall be active participation by senior management in risk management processes.

The required controls include the following:

[1] Segregation of duties and functions between front, middle, and back office activities. In general terms, the designation of responsibilities shall be organized as follows:

- Front office is responsible for planning (e.g. preparation of the IRP and other planning activities) and procurement (e.g. solicitation management, contract negotiation, structuring and pricing as well as contract execution), contract management, compliance and oversight of scheduling coordinator functions with the CAISO;
- Middle office is responsible for controls and reporting (e.g., risk monitoring, risk measurement, risk reporting, procurement compliance, counterparty credit review, approval and monitoring); and
- Back office is responsible for settlements and processing (e.g., verification, validation, reconciliation and analysis of transactions, tracking, processing and settlement of transactions).

[2] Delegation of authority as defined in section 6.5 (below) that is commensurate with responsibility and capability, and relevant training to ensure adequate knowledge to operate in and comply with rules associated with the markets in which such personnel may transact (e.g., CAISO). Contract origination, commercial approval, legal review, invoice validation, and transaction auditing shall be performed by separate staff or contractors for each transaction. No individual staff member shall perform all of these functions on a single transaction.

[3] Defining authorized products and transactions. In general terms, authorized and prohibited transactions are defined as follows:

- Authorized transactions are those transactions directly related to the procurement and/or administration of electric energy, reserve capacity, transmission and distribution service, ancillary services, congestion revenue rights, renewable energy, renewable energy credits, scheduling

activities, tolling agreements, and bilateral purchases of energy products. All transactions must be consistent with this Policy and the Board approved IRP.

- It is the expressed intent of this Policy to prohibit the acquisition of risk beyond that encountered in the efficient optimization of SDCP's generation portfolio and execution of procurement strategies. Prohibited transactions are those transactions that are not related to serving retail electric load and/or reducing financial exposure. Speculative buying and selling of energy products or maintenance of open positions that do not conform with agreed upon thresholds is prohibited. Speculation is defined as buying energy in excess of forecasted load plus reasonable planning reserves, intentionally under procuring energy relative to minimum load hedging targets or selling energy or environmental attributes that are not yet owned by SDCP. In no event shall speculative transactions be permitted. Any financial derivatives transaction including, but not limited to futures, swaps, options, and swap options are also prohibited. If any questions arise as to whether a proposed transaction(s) constitutes speculation, SDCP shall conduct an analysis of the transaction and the Board shall review the transaction(s) to determine whether the transaction(s) would constitute speculation and document its finding in the meeting minutes.

[4] Defining proper process for executing power supply contracts. SDCP will ensure power supply contracts are approved by pertinent technical personnel. Legal review will be required of various forms of agreement used by SDCP.

[5] Accurately capturing transactions and other data, with standardization of electronic and hard copy documentation.

[6] Summarizing and reporting of transactions and other activity at regular intervals.

[7] Measuring risk and performance in a timely manner and at regular intervals.

[8] Regularly reviewing compliance to ensure that this Policy and related risk management guidelines are adhered to, with specific guidelines for resolving instances of noncompliance.

[9] Ensuring active participation by senior management in risk management processes.

6.0 Risk Management Business Practices

6.1 Risk Measurement Metrics and Reporting

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

SDCP measures and updates its risks using a variety of tools that model programmatic financial projections, market exposure and risk metrics, as well as through short-term budget updates. The following items are measured, monitored and reported:

- [1] Mark-to-Market Valuation – marking to market is the process of determining the current value of contracted supply. A mark-to-market valuation shall be performed at least once per quarter.

[2] Exposure Reporting – calculates the notional dollar risk exposure and value at risk of open portfolio positions at current market prices. The exposure risk calculations shall be performed at least once per quarter.

[3] Open Position Monitoring – on a monthly basis, SDCP shall calculate/monitor its open positions for all energy and capacity products. If energy open positions for the month following the then current month (prompt month) exceed 10% of load, SDCP will solicit market energy to close open positions and make a commercial decision to close the position. Open positions for terms beyond the prompt month will be monitored monthly and addressed in accordance with SDCP’s planning models and related policies.

[4] Counterparty Credit Exposure – calculates the notional and mark-to-market exposure to each SDCP counterparty by deal and in aggregate. Counterparty credit exposure shall be reported on a quarterly basis. Counterparty exposure reporting includes contingent collateral posting risks arising from changes in market prices and other factors.

[5] Reserve Requirement Targets – no less than once per year, SDCP staff will monitor SDCP’s reserves to ensure that they meet the targeted thresholds.

Consistent with the above, the Middle Office will develop reports and provide feedback to the Risk Oversight Committee. If a limit or control established by this Policy is violated, the Middle Office will send notification to the responsible party and the Risk Oversight Committee. The Risk Oversight Committee will discuss the cause and potential remediation of any violation to determine next steps for curing the violation.

Risk measurement methodologies shall be re-evaluated on a periodic basis to ensure SDCP adjusts its methods to reflect the evolving competitive landscape.

6.2 Market Price Risk

SDCP manages market price risk using its planning models which define forecasted load, energy under contract and SDCP’s open positions across various energy product types including renewable energy (Portfolio Content Category I, II and III), carbon-free energy and system power relative to SDCP’s procurement targets.

SDCP determines the quantity of energy it intends to place under contract each year through the use of its planning models and in consideration of stated procurement targets. The planning models include an outline of the delivery term and quantity of each energy product that SDCP intends to fill in the upcoming year. The planning models inform SDCP’s solicitation planning, including solicitation timing and strategy as well as the person/team responsible for related solicitations.

In general, SDCP will seek to purchase some long-term renewable energy each year for purposes of diversifying market exposure while also avoiding potential “planning cliffs”, which can occur when a significant portion of long-term contracts expire at or near the same point in time.

For products generally purchased through short- and medium-term contracts, SDCP follows a similar temporal diversification strategy, with multiple procurement cycles occurring throughout the year.



Congestion risk is managed through the contracting process with a preference for day-ahead energy delivery at the SP 15 trading hub. Once energy is procured, SDCP manages congestion risks through the application of CRRs consistent with its Congestion Revenue Rights Risk Management Guidelines. CRRs are financial instruments used to hedge against transmission congestion costs encountered in the CAISO day-ahead market. SDCP uses a third-party scheduling coordinator to manage its CRR portfolio. SDCP primarily uses CRRs to reduce its exposure to congestion charges.

6.3 Counterparty Credit and Performance Risk

SDCP shall evaluate and monitor the financial strength of its suppliers in consideration of adopted Credit Guidelines. Generally, SDCP manages its exposure to energy suppliers by exhibiting a preference for counterparties with Investment Grade Credit ratings as determined by Moody's or Standard and Poor's and through the use of security requirements in the form of cash and letters of credit. SDCP measures its mark-to-market counterparty credit exposure consistent with industry best practices.

6.4 Load and Generation Volumetric Risk

SDCP manages energy delivery risks by ensuring that contracts include appropriate contractual penalties for non-delivery, acquiring energy from a geographically and technologically diverse portfolio of generating assets (with a range of generation profiles that are generally complementary to the manner in which SDCP's customers use electric power). Due to known production variability and supply uncertainty related to renewable and other carbon-free energy products, SDCP includes planning margins in its procurement of such products to ensure that related targets/mandates are achieved.

SDCP manages load forecasting and related weather risks by contracting with qualified data management and scheduling coordinators, which independently or jointly provide the systems and data necessary to forecast and schedule load using good utility practice. Load variability is also considered in establishing appropriate planning margins for renewable and other carbon free energy sources.

SDCP's load scheduling strategy, as executed by its scheduling coordinator, shall be in accordance with adopted Load Bidding/Scheduling Guidelines. This strategy shall ensure that price risk in the day-ahead and real-time CAISO markets is managed effectively and is consistent with good utility practice.

6.5 Operational Risk

Operational risks are managed through:

- Adherence to this Policy, and oversight of procurement activity including delegation of authority;
- Conformance with applicable human resources policies and guidelines;
- Staff resources, expertise and/or training reinforcing a culture of compliance;
- Use of qualified, highly experienced contractors on an as-needed basis in the event that necessary expertise does not exist within SDCP's own organization;
- Ongoing and timely internal and external audits; and
- Cross-training amongst staff

In order to ensure proper controls for executing energy transactions and to facilitate the efficient operation of SDCP in its ordinary course of business, the Board delegates transactional authority that is commensurate with responsibility and capability. Accordingly, by approving this Policy, the Board



delegates the following energy procurement authority by product type, tenor, volume, and notional value to its Chief Executive Officer:

| Delegation of Authority per Transaction by Position/Title | Product Type | Tenor Limit | Volumetric Limit | Notional Value Limit |
|---|-------------------|-------------|------------------|----------------------|
| Chief Executive Officer | System Power | 3 years | 1,500,000 MWh | \$ 50,000,000 |
| | Resource Adequacy | 3 years | 10,000 MW | \$ 50,000,000 |
| | Renewables | 3 years | 2,500,000 MWh | \$ 50,000,000 |
| | GHG-free | 3 years | 5,000,000 MWh | \$ 50,000,000 |
| Risk Oversight Committee* | | | | |
| SDCP Board | All Products | Any | Unlimited | Unlimited |

* Limits delegated to the Risk Oversight Committee will be adopted following its formation.

The Board further delegates to the Chief Executive Officer all necessary and proper authority to negotiate and approve an administrative amendment to an existing Board approved contract where such amendment (a) does not exceed the Chief Executive Officer’s delegated authority as set forth in the table above, and (b) further reduces SDCP’s risk in furtherance of this Policy. An administrative amendment must be reported to the SDCP Board and at the next ROC meeting.

Any changes to the delegation of authority will require Board approval.

6.6 Liquidity Risk

SDCP manages liquidity risk through adherence to its loan and power purchase agreement credit covenants; limiting commitments to provide security consistent with adopted Credit Guidelines; ensuring it has adequate loan facilities, prudent cash and investment management; and adherence to any applicable reserve policies. SDCP monitors its liquidity (defined as unrestricted cash, investments, and unused bank lines of credit) no less than weekly. SDCP utilizes scenario and sensitivity analyses while preparing budget, rate, and pro forma analyses to identify potential financial outcomes and ensure sufficient liquidity under adverse conditions.

6.7 Regulatory/Legislative Risk

SDCP manages its regulatory and legislative risk through active participation in working groups and advocacy coalitions such as the California Community Choice Association. SDCP regularly participates in regulatory rulemaking proceedings and legislative affairs to protect SDCP’s interests.

7.0 Risk Management Policy Governance

7.1 SDCP Board of Directors

The SDCP Board is responsible for adopting this Policy. The Board also approves SDCP’s annual budget, contracting authorities and delegated responsibilities for the management of SDCP’s operations to its Chief Executive Officer and staff.

7.2 Finance and Risk Management Committee

The FRMC is responsible for reviewing and recommending approval of substantive changes to this Policy, as needed, and for initiating and overseeing a review of the implementation of this Policy as it deems



necessary. The Chief Executive Officer and Risk Oversight Committee may make reports and seek approval for any substantive changes to this Policy from the FRMC, which will recommend changes to the Board.

7.3 Risk Oversight Committee (ROC)

To ensure with implementation and compliance with this Policy, the Chief Executive Officer will establish a Risk Oversight Committee prior to the commencement of retail electric service by SDCP. The members of the ROC will be selected by the Chief Executive Officer. The ROC will have authority to:

- Meet once per quarter, or as otherwise called to order by the Chair of the ROC.
- No less than once per quarter, provide a report to the FRMC regarding its meetings, deliberations and any other areas of concern.
- From time to time, adopt and/or adapt risk management guidelines defining internal controls, strategies and processes for managing market risks incurred through or attendant upon wholesale trading, retail marketing, long-term contracting, CRR trading and load and generation scheduling.
- Specify the categories of permitted transactions and set risk limits for wholesale trading. The ROC will receive and review information and reports regarding risk management, wholesale trading transactions, and the administration of supply contracts.
- Have direct responsibility for enforcing compliance with this Policy. Any gross violations to this Policy, as determined by the Chair of the ROC, shall be reported to the FRMC for appropriate action.



Addendum 1 to San Diego Clean Power’s Energy Risk Management Policy: Methodology for Evaluating and Mitigating Congestion Risk

I. Transmission Costs

The CAISO has assumed operational control of all 66 kV and above voltage transmission of all Participating Transmission Owners (PTO) including private firms (such as Citizens Energy) that have turned their operating rights over to the CAISO. The CAISO operates this transmission to minimize daily transmission costs for the entire system.¹

Each PTO utility charges the CAISO the total cost of its transmission plus a rate of return on any owned transmission assets. The charge is called a utilities Transmission Revenue Requirement (TRR). The CAISO aggregates the TRRs of all PTOs and then divides this amount by the forecasted energy use on its system for the year in order to develop a transmission wheeling rate, or Transmission Access Charge (TAC) that is paid based upon the total metered load of the LSE. This rate is a “postage stamp” rate paid by the Load Serving Entity (LSE) that takes final delivery of the energy. It is called a postage stamp rate because every entity pays the same amount regardless of the voltage or how far energy is wheeled across the system.

Each LSE pays the Locational Marginal Price (LMP) for energy that it withdraws at its delivery point(s). The LMP has three components – 1) the marginal energy price that is the same for all LSEs in the CAISO for that period and market (day-ahead market, 5 and 15-minute market; 2) marginal transmission losses and 3) congestion costs.

Any generator or load can use the CAISO transmission system. To manage the use of the transmission system, the CAISO uses congestion pricing. In effect, if entities schedule more energy over a transmission path than the path’s capacity, the CAISO begins increasing congestion charge to encourage entities to either move energy to other transmission paths or to back generation down that uses that path. The congestion charge will keep increasing until generation is reduced to the transmission limits over a specific path².

Congestion charges can be quite high over some constrained paths, sometimes more than the price of energy.

These rights to receive congestion charges are known as congestion revenue rights (CRRs). The CRR is a tradable commodity with entities being allowed to purchase and trade the rights to receive congestion charges over a specific transmission line segment. There are two ways LSE’s acquire congestion rights; first, through a CAISO allocation process and, secondly, a CRR auction process.

The CAISO uses a three-stage process to allocate CRRs. First, an annual allocation process that is tied to generating resource ownership or control, then a monthly allocation process and finally a CRR auction process.

Congestion costs are charged on all paths so congestion payments at the end of a period should roughly equal congestion payments for the allocated CRRs. The CRRs created in the auction process are outside

¹In PG&E and SDG&E’s service territory, the CAISO controls transmission lines equal to 66 kV or larger while in SCE’s service territory the CAISO controls line 115 kV or greater.

² This is done by a mathematical algorithm approach that creates a large enough congestion charge to push higher priced resources out of the dispatch order.

the scope of the CAISO and those can result in significantly larger or smaller congestion payments than the congestion costs³

Load serving entities that use a specific transmission path are eligible to receive an allocation of free CRRs tied to the length of their ownership or power sales purchases from specific generators. Generally, only about two-thirds of the available transmission capacity in a path is allocated to LSEs requesting CRRs with the utility (or LSE) subject to congestion charges for the remaining generation. If the LSE wants to protect itself against congestion charges for all its generation, it will need to participate in the CRR monthly allocation process and CRR auctions and bid against other entities for the right to recover any potential congestion charges.

The CAISO allocates its transmission capacity to LSE's based upon existing unit specific generation contracts. If an LSE has a power purchase agreement (PPA) or generator entitlement, it can request CRRs from the CAISO through an annual or monthly allocation process. Because the revenues that the CAISO receives in congestion charges should approximately equal payments to CRR owners, the CAISO is indifferent to congestion revenues paid on a specific line so long as it does not allocate more transmission capacity than available on a specific path.

Entities requesting CRRs on a specific path will only receive their full request if the path has excess capacity after all existing CRR holders and LSE's without rights on a particular path have applied to the CAISO for transmission right during the annual allocation process. If the CAISO has already allocated all the CRRs on a path, the requesting entity may not receive any CRRs or only a portion of their request in the allocation process.

If an entity does not receive the desired allocation of CRRs, it can enter the CRR auction process. In the auction process, any (creditworthy) entity can offer to "buy or sell" CRR revenues for a price determined in a monthly auction along a specific transmission path. If an entity sells CRRs, it is responsible for paying the CRR costs to the purchasing entity.

The risk of a CRR is that if a LSE has CRRs over a particular path and the congestion changes to the opposite direction or has low congestion prices during the month, the owner of the CRRs could lose money. That is, acquiring CRRs is not a risk-free proposition. Generally, congestion costs are high for energy imported from the east into California and low for entities exporting from the basin.

SDCP will not acquire more CRRs on a particular path than what is needed to hedge existing power purchase agreements.

II. Evaluating SDCP Congestion Risk

SDCP does not currently have any generation resources although it has been allocated CRRs on some paths from SDG&E as part of the CCA creation process. SDCP does not know what CRRs SDG&E will initially allocate to it.

SDCP will begin evaluating the risk associated with each CRR as they take ownership. SDCP will use the following methodology for evaluating the risk of a unit CRR:

1. SDCP will calculate the monthly congestion on each path by calculating the average congestion cost for the past three (3) years.

³ For the past few years, payments to CRR holders has significantly exceeded revenues from congestion. As a result, the CAISO is redesigning the way payments are made to reduce payments on smaller lines with high congestion.

2. SDCP will calculate the mean on and off-peak congestion on each path and the standard deviation of the congestion pricing.
3. Using the mean and the standard deviation along each path, SCP will estimate the expected range of congestion costs along each path.
 - a. SDCP will attempt to determine if any paths are expected to be out of service or constrained for any month based upon available planned outage data. Planned outages will affect historic averages.
4. The expected congestion cost will be used to estimate SDCP's monthly congestion exposure and confidence interval of the results.

An example of the calculations to determine monthly risk and standard deviation is shown in Appendix 1.

SDCP will always participate in the annual and monthly allocation process as a no-cost means of reducing congestion risk. Participation in the auction process will depend upon the potential exposure along a path and how the congestion risk affects SDCP's total power supply costs as outlined in SDCP's Risk Management Plan.

