

VALLEY CLEAN ENERGY ALLIANCE

Staff Report Item 16

TO: Valley Clean Energy Alliance Board of Directors

FROM: Mitch Sears, Interim General Manager
Gary Lawson, Sacramento Municipal Utility District (SMUD)

SUBJECT: Wholesale Energy Risk Management Policy

DATE: December 14, 2017

RECOMMENDATION

Adopt a resolution approving the proposed Wholesale Energy Risk Management Policy

BACKGROUND AND ANALYSIS

As previously reviewed with the Board at the November 16th meeting, the Wholesale Energy Risk Management Policy provides the primary guidance for managing the energy commodity risks faced by VCEA. The policy establishes VCEA's Risk Management Program, with the focus on commodity risk. The policy further identifies specific risk management functions and procedures to manage energy commodity risks. Lastly it establishes risk management standards.

Key Elements of the Policy

Key elements of the policy include:

Enterprise Risk Oversight Committee

The Policy establishes an Enterprise Risk Oversight Committee that is delegated by the Board to be responsible for implementing, maintaining, and overseeing compliance of the Policy. The composition of the Enterprise Risk Oversight Committee would be the VCEA Executive Officer and key Directors, as well as the Wholesale Energy Services Provider (WESP) and the Chief Legal Officer both serving in advisory roles.

Business Practices

The Policy lays out specific business practices to be followed. The business practices support standard practice and conduct for maintaining sound risk practices including:

- General Conduct Requirements
- Notification of conflicts
- Counterparty suitability
- Transaction records
- Transaction valuation
- Stress testing

Functional Separation Criteria for Wholesale Energy Services Provider

The policy requires that the Wholesale Energy Services Provider keep the procurement activities separate from the activities of assessing portfolio risk, assigning credit, and conducting wholesale energy settlements. Functions are separated into:

- Front Office
- Middle Office
- Back Office

Delegations of Authority

The delegations of authority will establish the authority that Board gives to the Enterprise Risk Oversight Committee, the Executive Officer, and the Wholesale Energy Services Provider (WESP) for executing power transactions.

Staff is proposing the following delegations matrix for the Policy:

Authorization/Delegation Level		
Level	Transaction	Limit of Authorization/Delegation
Enterprise Risk Oversight Committee	Non-CAISO Transactions, terms up to 24 months	\$16,000,000 per calendar year
General Manager	Non-CAISO Transactions, terms up to 24 months	\$8,000,000 per calendar year
WESP	Non CAISO Transactions up to 13 months	\$4,000,000 per calendar year
WESP	CAISO Transactions	Not Limited

Delegation to the WESP

The delegation to the WESP for CAISO transactions covers the daily purchases of market energy necessary for the direct supply of VCEA’s load. SMUD as the WESP has no choice but to always serve load, at whatever the market price turns out to be. (Forward price hedging contracts are used to fix VCEA’s market energy supply costs.) As such, SMUD must have an unrestricted delegation to procure CAISO market purchases.

The delegation to the WESP for non-CAISO transaction covers transactions for an unmet need by VCEA for power products. One example at launch would be needing to procure additional renewable power supplies after launch, once it becomes clear how many PG&E customers have opted out of the VCEA program. Initial procurement will be based upon an assumption of given number of assumed opt-outs (10% has been considered). Should VCEA have only a 5% opt out, SMUD will need to procure additional renewable supplies to meet the Power Mix Targets. The delegation term is set at 13 months to cover a transaction that might span from mid-month plus a year (not uncommon). The amount of the delegation is scaled to the cost of a 25MW

block of on-peak power purchased for a 12-month term. Once the annual dollar limit has been met, the WESP would need to seek a higher level authorization for any deals that would cause that limit to be exceeded.

Delegation to the General Manager

The delegation to the General Manager is scaled to a contract term up to 24 months, with an annual total limit of \$8,000,000 of authority. Once the annual dollar limit has been met, the General Manager would need to seek a higher level authorization for any deals that would cause that limit to be exceeded.

Delegation to the Enterprise Risk Oversight Committee

The Delegation to the Enterprise Risk Oversight Committee (EROC) is scaled to an annual total limit of \$16,000,000, with the same 2-year term. Once the annual dollar limit has been met, the EROC would need to seek Board approval for any deals that would cause that limit to be exceeded. Furthermore, any contract of a term longer than 24 months would require Board Approval.

Risk and Credit Monitoring

Establishes that the Wholesale Energy Services Provider will provide risk and credit monitoring for the energy portfolio.

Analysis

This policy was modeled on the energy risk policy that Redwood Coast Energy Authority adopted, tailored to VCEA's situation. The Redwood Coast Energy Authority CCA is very similarly situated to VCEA, with regard to its power procurement, having a vendor that is providing power credit services similar to what SMUD is providing to VCEA under Task Order 3 of the Master Service Agreement.

Staff believes that the Wholesale Energy Risk Policy provides an appropriate balance between highlighting key elements to managing VCEA's energy commodity risk, without being overly prescriptive. Furthermore, the policy itself envisions that it can and will be revised from time to time and provides a process for such revisions as may be needed to accommodate changed circumstances.

Staff review of the policy included the review by VCEA's Energy Consultant (Don Dame), whose comments were incorporated into the final draft.

CONCLUSION

Staff recommends that the Board adopt the attached Wholesale Energy Risk Policy.

Attachments

1. VCEA Wholesale Energy Risk Policy
2. Resolution

ATTACHMENT A

Wholesale Energy Risk Policy



Valley Clean Energy Alliance

Wholesale Energy Risk

Management Policy

Adopted on: _____

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1 Policy Overview

1.1 Background and Purpose

The Valley Clean Energy Alliance (VCEA) is a public joint powers agency located within the geographic boundaries of Yolo County. VCEA is governed by a six-member Board of Directors (Board), with two members each from the Davis City Council, Woodland City Council, and the Yolo County Board of Supervisors.

VCEA members desire to implement and administer a Community Choice Aggregation (CCA)/Community Choice Energy (CCE) Program (hereinafter “Program”). VCEA’s Program will give its members an opportunity to join together to procure electricity supplies and implement local energy programs that meet the goals of the local community. Electricity procured to serve customers will continue to be delivered over Pacific Gas and Electric’s (PG&E’s) transmission and distribution system.

Providing retail electric generation service to customers enrolled in VCEA’s Program exposes VCEA to risks such as retail load uncertainty (due to weather, customer opt-out, and other factors), energy market price volatility, counterparty credit, PG&E generation and power charge indifference adjustment (PCIA), rate competitiveness and other regulatory risks.

This Wholesale Energy Risk Management Policy (Policy) establishes VCEA’s Energy Risk Management Program (ERMP) including risk management functions and procedures to manage risks associated with power procurement activities.

The purpose of this Policy is to aid VCEA in achieving its goals by specifying roles, responsibilities, organizational structures, risk management standards, operating controls and limits necessary to properly identify and manage VCEA’s exposure to risk.

1.2 Scope

Unless otherwise explicitly stated in this Policy, or other policies approved by the Board, this Policy applies to all power procurement and related business activities that may affect the risk profile of VCEA. This Policy documents the framework by which VCEA staff and Wholesale Energy Services Provider (WESP) will:

- Identify and quantify risk
- Develop and execute procurement strategies
- Create a framework of controls and oversight
- Monitor, measure and report on the effectiveness of the ERMP

To ensure successful operation of VCEA’s Program, VCEA will contract with an experienced WESP to provide energy-related services. At the beginning of VCEA’s Program, the WESP will be executing the front, middle and back-office (transacting, monitoring and settlement) related activities on VCEA’s behalf. In providing these services, the WESP will observe the policies and procedures outlined in this document. The WESP will maintain its own risk policies and

procedures including following industry practices of segregation of duties, which will also govern WESP activities and transactions executed on VCEA's behalf.

1.3 Wholesale Energy Risk Management Objective

The objective of this Policy is to provide a framework for conducting procurement activities that strengthens VCEA's portfolio and aids in meeting goals listed in Section 2.

Pursuant to this Policy, VCEA will identify and measure the magnitude of the risks to which it is exposed and that contribute to the potential to deviate from identified goals.

1.4 Policy Administration

Once approved, this Policy can be amended or revised from time to time. The Board must approve amendments or revisions to this Policy, except for the appendices, which may be amended, revised, or added with approval of the Enterprise Risk Oversight Committee ("EROC") as identified in Section 3. The EROC must give notice to the Board of any amendment it makes to or addition of an appendix, a reference policy or procedure document at the next following regularly scheduled Board meeting. VCEA's General Counsel should also review changes to documentation.

2 Risk Exposures and Goals

2.1 Risk Exposures

Throughout launch and ongoing operation the Program faces a range of risks including:

- PG&E generation rates and Power Charge Indifference Adjustment
- Customer Opt-out
- Power Market Volatility
- Volumetric Deviations
- Modelling Uncertainties
- Counterparty credit
-

These risks are not all-inclusive but are the known major risk factors impacting the business success of VCEA. This Policy addresses these risk types below.

For the purpose of this Policy, risk exposure is assessed on all transactions (energy, environmental attributes, capacity, etc.) executed by the WESP on behalf of VCEA, or by VCEA on its own behalf, as well as the risk exposure of open positions and the impacts of these uncertainties on VCEA's costs, revenues, load and other obligations.

2.2 PG&E Generation Rates and Power Charge Indifference Adjustment

The ability of VCEA to attain financial margins sufficient to fund programs and to remain rate competitive is dependent upon 4 key factors: 1) the level of PG&E's generation rates; 2) the level of the Power Charge Indifference Adjustment (PCIA); 3) power supply costs; AND 4) operating expenses (including any debt service). Historically the PCIA and power supply costs have seen significant variation, putting significant financial uncertainty on CCAs.

PG&E's generation rates are designed to recover power supply costs, primarily of historical contracts, but also of current market costs, to the extent PG&E has unhedged positions. These rates are set annually, but may be adjusted mid-year if actual costs prove significantly different than expected. PG&E rates, over time, should be positively correlated to market power supply costs. This means that over time if power supply costs rise PG&E rates, which serve as VCEA's rate benchmark, should also rise.

The Power Charge Indifference Adjustment is the current CCA exit fee calculation, and is designed to reimburse PG&E for the above-market costs of historical contracts entered into on behalf of departing CCA customers. It is calculated annually and reviewed by the CPUC. Discussions are currently underway on proposed changes to the PCIA to provide better forecasts of future costs, and to adjust the methodology used to estimate market costs.

To help manage exposure to PCIA variability, having a robust reserve policy that focuses on early accumulation of reserves will help give VCEA the ability to weather periods from the impact of high PCIA.

2.3 Customer Opt-Out Risk

Customer opt-out risk includes any condition or event that creates uncertainty in VCEA's customer base which would cause customers to choose to opt-out of VCEA's Program. A declining customer base could decrease the potential for VCEA to attain its Policy goals. VCEA faces other business risks, but a significant concern is how those other risks may affect customer opt-out decisions.

The most relevant measures for the success of this Policy include:

- Retail rate competitiveness with PG&E
- Financial reserve levels

2.4 Market Risk

Another risk to VCEA is the uncertainty of VCEA's financial performance due to variable commodity market prices (market price risk) and uncertain price relationships (locational risk). Variability in market prices creates uncertainty in VCEA's procurement costs and can materially impact VCEA's financial position. Market risk is mitigated by regular market exposure measurement, execution of approved procurement strategies, inclusion of hedging products that serve to fix energy prices, implementation of Congestion Revenue Right strategies, and adherence to limits as set forth in this Policy.

2.5 Volumetric Risk

The uncertainty of VCEA's financial performance due to unpredictability in the quantity of retail load served by VCEA can create volumetric risk. Retail load uncertainty can result from temperature deviation from normal, customer opt-outs, unforeseen adoption of behind the meter generation by VCEA customers, as well as local, state and national economic conditions. Volumetric risk is managed by taking steps to:

- Monitor trends in customer onsite generation, macro economic shifts and other factors that affect electricity customer energy consumption and composition;
- Monitor and adjust for non-regulatory factors driving volumetric uncertainty (e.g. weather);
- Expand the customer base of VCEA into non-member jurisdictions of Yolo County and consider expansion into neighboring counties, and market to direct access loads to increase load magnitude and customer diversity;
- Quantify anticipated generation and PCIA rates, and variability therein;
- Quantify variability in procurement costs;
- Adopt a formal procurement strategy;

- Implement a key accounts program and maintain strong relationships with the local community.

2.6 Model Risk

The uncertainty of VCEA's financial performance due to potentially inaccurate or incomplete characterization of a transaction or power supply portfolio elements due to fundamental deficiencies in models and/or information systems can create model risk. Model risk is managed by:

- The WESP with VCEA approval of assumptions and guidelines;
- Ongoing update and improvement of models as additional information and expertise is acquired;
- Ongoing review of model outputs as part of controls framework;
- Ongoing VCEA and WESP staff education and participation in CCE industry forums as warranted.

2.7 Counterparty Credit Risk

Counterparty credit risk is the potential that a counterparty will fail to perform or meet its obligations in accordance with terms agreed to under contract. VCEA's exposure to counterparty credit risk is controlled by the limit controls set forth in the Credit Policy described in Section 6.

2.8 Policy Goals

The following Policy goals have been outlined by VCEA to help ensure the long-term sustainability of the Program. These goals will inform metrics used for modeling and measuring risk exposures of VCEA.

- After adjusting for the PCIA and Franchise Fee, VCEA will target to maintain competitive retail rates with PG&E.
- VCEA will target during the initial years of operation to fund financial reserves with the following objectives:
 - Establish cash flow objectives that enable obligations to be covered under expected variations in budgeted versus actual expenses.
 - Develop a source of funds for investment in generation and other local programs.
 - Stabilize rates and dampen year-to-year variability in procurement costs.
 - Establish long-term business sustainability practices.
 - Build collateral for power procurement activities.
 - Establish an investment grade credit rating.

The goals outlined above are incorporated into financial models that are used to evaluate and measure risk exposures. It's important to note that the goals listed above are not intended to be a comprehensive list of goals for VCEA. Rather, they reflect a subset of Program goals that are critical to long-term business viability for VCEA.

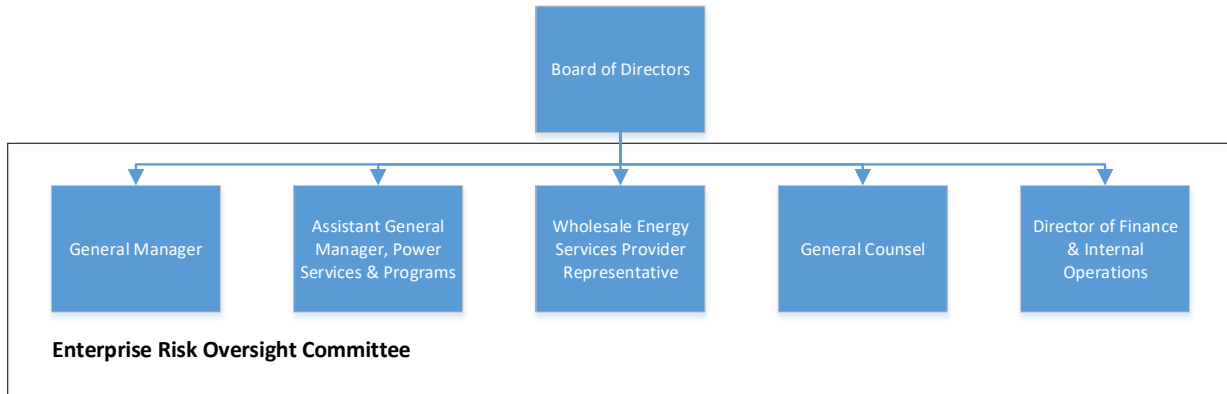
2.9 Risk Measurement Methodology

A vital element in 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 and periodic basis (as detailed in Section 7) using risk measurement methodologies that quantify the risks associated with VCEA's procurement-related business activities and measure performance relative to goals.

3 Organizational Structure and Responsibilities

3.1 Risk Management Organizational Structure

Below is a high-level organization chart describing VCEA’s risk management governance.



3.2 Board of Directors

The Board has the responsibility to review and approve this Policy. Upon approval, the Board assumes responsibility for understanding the risks to which VCEA is exposed due to Program activities and how the policies outlined in this document help VCEA manage the associated risks. The Board is also responsible to:

- Determine VCEA strategic direction.
- Understand and approve the procurement strategy employed.
- Delegate risk and credit management authority.
- Approve and appoint voting members of the Enterprise Risk Oversight Committee.

3.3 Enterprise Risk Oversight Committee

The Enterprise Risk Oversight Committee (EROC) is responsible for implementing, maintaining, and overseeing Policy compliance. The voting members of the EROC shall be the Board approved positions described below. It is recommended that this committee maintain an odd number of members, although this may not be feasible at the startup of VCEA’s Program. This approach allows the EROC to avoid split decisions and to make decisions in a timely manner. Each voting member will be assigned one vote. The current members of the EROC are:

Voting Members

- General Manger
- Director of Finance & Internal Operations, or other position designated by the VCEA Board
- Assitant General Manager, Power Services & Programs, or other position designated by the VCEA Board.

Advisory Members

- The WESP Representative
- General Counsel

The WESP representative will serve as the EROC Facilitator. The primary goal of the EROC is to ensure that procurement activities of VCEA are executed within the guidelines of this Policy and are consistent with Board directives. The EROC is also responsible for considering and proposing recommendations for changes to this Policy when conditions warrant.

Pursuant to direction from the Board and the limitations specified by this Policy, the EROC and the General Manager maintain full authority over all procurement activities for VCEA. This authority includes, but is not limited to, taking any or all actions necessary to ensure compliance with this Policy, meeting customer load, resource sufficiency and regulatory obligations. The WESP will only procure resources for the VCEA portfolio pursuant to EROC or General Manager instructions outside the delegation authority.

The EROC is responsible for overseeing implementation of this Policy, procurement strategies and the adoption of new product types. The EROC is also responsible for ensuring that procurement strategies are consistent with VCEA's strategic objectives and for reviewing financial results. The EROC shall meet at least quarterly and record business in meeting minutes that will be approved by the EROC. No decision of the EROC is valid unless a majority of voting members has stated approval with a quorum of voting members participating in the vote, including the General Manager. All decisions by the EROC, other than those made by common consent, shall be made by simple majority vote of the EROC members with the General Manager having veto authority.

Any voting or advisory member of the EROC may initiate an emergency EROC meeting by giving notice to all other ERCO members. Such notice shall include a brief summary of the situation, event or action believed to warrant such emergency meeting. A requested emergency meeting will be scheduled not later than the end of the next following business day, or if this is not possible, as soon as practicable. Minutes of any findings, actions or vote taken at an emergency meeting will be taken and reported in the same manner as any non emergency EROC meeting.

The EROC maintains the authority and responsibility to:

- Approve and ensure that all procurement strategies are consistent with this Policy;
- Determine if changes in procurement strategies are warranted;
- Approve new transaction types, regions, markets and delivery points;
- Understand financial and risk models used by the WESP;
- Understand counterparty credit review models and methods for setting and monitoring credit limits;
- Monitor regulatory and legislative activities;

- Approve and update Policy appendices if changes in procurement strategies are warranted;
- Receive and review reports as described in this Policy;
- Meet to review actual and projected financial results and potential risks;
- Escalate to the Board of Directors any risks or situations beyond the EROC's authority to act;
- Review summaries of Policy exceptions and limit violations;
- Review the effectiveness of VCEA's energy risk measurement methods;
- Undertake other activities as direct by the Board;
- Maintain this Policy.

3.4 Portfolio Manager

VCEA has partnered with the WESP as its Portfolio Manager. The WESP's risk policy must demonstrate a strong segregation of duties, also referred to as "separation of function" that is fundamental to manage and control the risks outlined in this Policy. The Portfolio Manager will provide education to the EROC on risk and credit models, methods and processes that it uses to fulfill its obligations under this Policy. Individuals responsible for legally binding VCEA to a transaction will be separate from those individuals performing confirmation, clearance or accounting functions. With this in mind, the WESP's responsibilities are divided into front-middle-back office activities, as described below.

3.5 Front Office

The Portfolio Manager's Front Office has overall responsibility for:

1. Managing all activities related to procuring and delivering resources needed to serve VCEA's load.
2. Analysing fundamentals affecting load and supply factors that determine VCEA's net position.
3. Transacting within the limits of this Policy and associated policies and risk tolerances established by the EROC, to balance loads and resources, and augment the value of VCEA's assets through the exercise of approved optimization strategies.

Other duties associated with these responsibilities include:

- Assist in the development and analysis of risk management hedging products and strategies, and bring recommendations to the EROC.
- Prepare a monthly operating plan for the prompt month that gives direction to the day-ahead and real-time trading and scheduling staff regarding the bidding and scheduling of VCEA's resource portfolio in the CAISO market.
- Develop, price and negotiate hedging products.
- Forecast day-ahead and monitor/forecast same-day loads.
- Keep accurate records of all transactions.

3.6 Middle/Back Office

The Portfolio Manager's Middle and Back Offices are functionally and organizationally separate from the Front Office. The Middle Office provides independent market and credit risk oversight and is functionally and organizationally separate from the Front Office. The Back Office provides support with a wide range of administrative activities necessary to execute and settle transactions and to support risk control efforts (e.g. transaction entry and/or checking, data collection, billing, etc.) consistent with this Policy.

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

- a. Maintaining and calculating the net forward portfolio positions of VCEA.
- b. Ensuring adherence to all risk policies and procedures of both VCEA and the Wholesale Energy Services Provider in letter and in intent.
- c. Maintaining the overall financial security of transactions undertaken by the Portfolio Manager on behalf of VCEA.
- d. Enforcing and implementing credit policies and limits.
- e. Ensure that the energy portfolio is within the risk tolerance established by the EROC.
- f. Handling confirmation of all portfolio transactions and reconciling differences with the trading counterparties.
- g. Reviewing trade tickets for adherence to approved limits.
- h. Ensuring all trades have been entered into the appropriate system of record.
- i. Ensuring actual delivery volumes and prices are entered into the physical database.
- j. Carrying out month-end checkout of all physical and financial transactions.
- k. Reviewing models and methodologies and recommending EROC approval.

4 Business Practices

4.1 General Conduct

It is the policy of VCEA 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 VCEA standards of personal conduct while employed by or affiliated with VCEA.

4.2 Trading Personal Accounts

All VCEA directors, management, employees and agents participating in any transaction or activity within the coverage of this Policy are obligated to give notice in writing to VCEA of any interest such person has in any counterparty that seeks to do business with VCEA, and to identify any real or potential conflict of interest such person has or may have with regard to any contract or transaction with VCEA unless mitigated or exempt as approved by VCEA. Further, all employees are prohibited from personally participating in any transaction or similar activity that is within the coverage of this Policy 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 agent, manager or VCEA representative. Violations of this Policy by VCEA employees may result in disciplinary action up to and including dismissal. Violations of this policy by agents, consultants or contractors may result may result in contract termination or other legally available remedy.

4.3 Counterparty Suitability

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

4.4 System Record

The WESP's Middle Office will maintain a set of records for all transactions executed in association with VCEA 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 procurement records for VCEA shall be auditable by VCEA during regular business hours and at VCEA's expense.

4.5 Transaction Valuation

Transaction valuation and reporting of positions shall be based on objective, market-observed prices. Open positions are to be valued (marked-to-market) monthly, based on consistent

valuation methods and data sources. Whenever possible, mark-to-market valuations should be based on independent, publicly available market information and data sources.

4.6 Stress Testing

In addition to limiting and measuring risk using the methods described herein, stress testing shall also be used to examine performance of the VCEA portfolio under adverse conditions. Stress testing is used to understand the potential variability in VCEA's projected procurement costs. The WESP's Middle Office will perform stress testing of the portfolio on a monthly basis and distribute results.

4.7 Policy Compliance

The WESP's Middle Office will provide to the EROC a monthly report monitoring compliance with the limits established by this Policy.

5 Delegation of Authority

With the approval of this Policy, the VCEA Board is explicitly delegating operational control and oversight to the EROC and the Portfolio Manager, as outlined through this Policy. Specifically, to facilitate daily operations of VCEA, the Board is delegating the authority to approve transaction executions and limitations as shown in the table below.

Authorization/Delegation Level		
Level	Transaction	Limit of Authorization/Delegation
Enterprise Risk Oversight Committee	Non-CAISO Transactions, terms up to 24 months	\$16,000,000 per calendar year
General Manager	Non-CAISO Transactions, terms up to 24 months	\$8,000,000 per calendar year
WESP	Non CAISO Transactions up to 13 months	\$4,000,000 per calendar year
WESP	CAISO Transactions	Not Limited

These authorities will be applied to wholesale power activity transactions that are executed bilaterally where pricing is not based upon the California Independent System Operator (CAISO) market clearing prices. These limits provide both VCEA and the WESP needed authorities to manage risks as they arise. Transactions falling outside the delegations above require Board approval prior to execution. Activity with the CAISO is excluded from this table due to the nature of the market, where prices for activity may not be known until after transactions are committed.

All procurement executed under the delegation above, must align with the VCEA's underlying risk exposure (locational and temporal) that is being hedged, consistent with the approved Procurement Strategy.

5.1 Procurement to Serve Load

The general focus of all VCEA wholesale power procurement activities, whether undertaken by the WESP or VCEA directly, will be to assure adequate resources and any ancillary financial products are available and sufficient to serve VCEA's Program. Generally, the procurement of energy, capacity, RECs, or other power products in excess of VCEA's forecast load, regulatory requirements, or financial goals are to be avoided unless approved by the EROC. Speculative market positions are specifically prohibited by VCEA.

5.2 Monitoring, Reporting and Instances of Exceeding Risk Limits

The WESP's Middle Office is responsible for monitoring, and reporting compliance with, all limits within this Policy including limits established by the EROC. If a limit or control is violated, the WESP's Middle Office will send notification to the trader responsible for the violation and the EROC. The EROC will discuss the cause and potential remediation of the exceedance to determine next steps for curing the exceedance.

6 Credit Policy

During startup of VCEA's Program, most transactions will be executed by the WESP utilizing WESP's enabling agreements, and with this activity VCEA is exposed to pass-through credit risk. As VCEA builds its own counterparty master trading agreements, transactions executed directly by VCEA agreements will carry direct credit risk. For activity on the WESP and/or VCEA agreements, VCEA will scale its credit limits to WESP's credit limits based on VCEA's risk tolerance. For VCEA counterparties, where an agreement exists between VCEA and a VCEA counterparty, the WESP will recommend limits within VCEA's risk tolerances, subject to EROC approval.

All procurement activities executed by the WESP on behalf of VCEA, using WESP's counterparty agreements, will be subject to the credit policies and procedures outlined in the WESP's Energy Risk Management Policy. The WESP's credit policy requires the WESP's Credit Manager, on an ongoing basis, to monitor all counterparties for creditworthiness. Additionally, counterparties shall be reviewed if a change has occurred in credit ratings, market conditions, or financial condition.

This evaluation, including any recommended increase or decrease to a credit limit, shall be documented in writing and include all information supporting such evaluation in a credit file for the counterparty. A credit limit for a counterparty will be based on the counterparty's senior unsecured or corporate credit rating from one of the nationally recognized rating agencies and/or performing a credit review or analysis of the counterparty's or guarantor's financial statements. Third party credit analysis, trade, banking references, and any other pertinent information may also be used in the review process.

Counterparties that do not qualify for a credit limit must post an acceptable form of credit support or prepayment prior to the execution of any transaction. A counterparty may choose to provide a guarantee from a third party, provided the third party satisfies the criteria for a credit limit as outlined in the WESP's Energy Risk Management Policy.

6.1 Credit Limit and Monitoring

In executing transactions on VCEA's behalf, the WESP will observe a pass-through counterparty credit maximum limit equal to \$1.5 million.

The WESP Credit Manager will continuously monitor the current credit exposure for each counterparty with whom the WESP transacts on behalf of VCEA and include such exposure in the current counterparty Credit Exposure Report. This report will be made available, reviewed and communicated to the EROC pursuant to the reporting requirements outlined in Section 7.

7 Management Reporting and Position Tracking

Minimum reporting requirements are shown below. The reports outlined below will be made available to EROC members and the WESP staff:

- **Monthly Financial Model Forecast**

Latest projected financial performance, marked to current market prices, and shown relative to VCEA financial goals.

- **Monthly Net Position Report**

Prepare a forward net position report, not less frequently than monthly, and report the results to the EROC.

- **Monthly Pass-through Counterparty Credit Exposure**

This report will show how the credit exposures for transactions that the WESP executes on behalf of VCEA will pass-through the WESP to VCEA.

- **Monthly Risk Analysis**

Provide a risk assessment of power supply portfolio costs to VCEA to express the portfolio risk at the 95% confidence level based on past price and volume volatility.

- **Monthly Compliance Summary**

Provide a summary of compliance with Board and EROC directives.

- **Quarterly Board Report**

Update on activities and projected financial performance to be presented quarterly at VCEA Board meetings.

Appendix A Definitions

Commodity Price/Market Price

The price at which electricity, gas, capacity, and renewable attributes are bought and sold.

Congestion Revenue Right

Congestion Revenue Rights (CRR) are financial instruments used in the Day Ahead market to hedge the difference in price between two locations caused by congestion.

Counterparty

An entity to which an exposure to financial risk might exist.

Credit Risk

A credit risk is the risk of default on a debt or purchase obligation that may arise from a borrower or counterparty failing to make required payments.

Customer Load

A single customer's power usage that receives power from the electric system.

Day-Ahead

Refers to the following before actual power flow begins. In the CAISO, the Day-Ahead market for Tuesday's flow date closes on Monday at 10am.

Financial Product

A contract in which the value is derived from an underlying physical commodity but which does not require physical delivery or receipt of the commodity.

Long Position

A long position means there is not an open or short position, and that excess supply exists. In addition, as load forecasts are updated, if an excess exists, that excess is also considered a long position. For the renewable power purchase example (see *Open Position*), if 60,000 MWhs has been procured for a 50,000 MWh need, a long position of 10,000 MWhs will exist.

Mark-to-Market

Method of valuing positions based on current market prices.

Open Position

For any given timeframe, any commodity requirement that is unfilled is considered to be an open position. For instance, if there is a requirement to procure 50,000 MWhs of renewable

power in a calendar year, until 50,000MWhs of renewable power purchases have been secured, there will be an open position equal to the remaining MWh value needed to reach 50,000 MWhs.

Physical Product

A contract which requires the seller to physically deliver, and the buyer to physically receive a given commodity.

Portfolio

The aggregation of commodity related products (both physical and financial) procured to serve load and meet other policy goals.

Portfolio Manager

A core service provided by the WESP which broadly encompasses the responsibility for managing the purchase and sale of energy commodity related products in the commodity portfolio in an effort to serve load and meet other policy goals.

Real-Time

Refers to the actual day in which power flows. In the CAISO, the Real-time market opens at 1pm the day before flow date and closes for each hour 75 minutes prior to the start of scheduled flow.

Risk Policies

Statement of mitigation strategies to reduce a entity's exposure to identified risks. The type of strategies employed dictate which risks are reduced.

Short Position

A short position is an open position. The volumetric value of a short position is determined by the shortfall in volume to the requirement. For the renewable power purchase example, if 30,000 MWhs of the 50,000 MWh requirement has been procured, a short position of 20,000 MWhs remains.

Stress Test

Using scenarios or historic data to simulate how a portfolio reacts to internal and external changes. This process is done to find and treat weaknesses in a portfolio.

System Load

The summation of all customers' loads that receive power from the electric system. System Load includes applicable transmission and/or distribution losses.

Volumetric Risk

The effect of fluctuations in demand for load or for production of generation from a generator.

VALLEY CLEAN ENERGY ALLIANCE

RESOLUTION NO. 2017- _____

A RESOLUTION OF THE VALLEY CLEAN ENERGY ALLIANCE ADOPTING
A WHOLESALE ENERGY RISK MANAGEMENT POLICY

WHEREAS, the Valley Clean Energy Alliance (“VCEA”) is a joint powers agency established under the Joint Exercise of Powers Act of the State of California (Government Code Section 6500 et seq.) (“Act”), and pursuant to a Joint Exercise of Powers Agreement Relating to and Creating the Valley Clean Energy Alliance between the County of Yolo (“County”), the City of Davis (“Davis”), and the City of Woodland (“City”) (the “JPA Agreement”), to collectively study, promote, develop, conduct, operate, and manage energy programs; and

WHEREAS, managing energy commodity risks is a critical function that will allow VCEA to carry out its Mission; and

WHEREAS, VCEA will benefit from a Wholesale Energy Risk Management Policy that establishes a risk management program, identifies specific risk management functions and procedures to manage energy commodity risks, and establishes clear risk management standards to guide Energy procurement decisions.

NOW, THEREFORE, the Board of Directors of the Valley Clean Energy Alliance hereby adopts a Wholesale Energy Risk Management Policy (Exhibit A).

ADOPTED, this _____ day of _____, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Chair

Secretary

Approved as to form:

Interim VCEA Counsel

EXHIBIT A - VCEA Wholesale Energy Risk Management Policy

EXHIBIT A

VCEA Wholesale Energy Risk Management Policy