Investment Policy

Version # ~~5.2~~6.0

Effective ~~May 6, 2014~~July 17, 2015

REVISION HISTORY

VERSION NO.	DATE	SUGGESTED REVIEW DATE	REVISED BY	DESCRIPTION
1.0	8/26/1999	--		Policy Adopted
2.0	6/14/2005	--	Approved by ISO Board of Governors~~CFO~~	Amendments related to bond proceeds, clarifications, authorized investments and other policy and administrative changes
3.0	12/17/2008	--	Approved by ISO Board of Governors~~CFO~~	General revisions, enhancements to controls and safeguards, and changes to authorized and prohibited investments
4.0	3/26/2010	--	Approved by ISO Board of Governors~~CFO~~	General revisions, inclusion of the VEBA Retiree Medical Plan Trust, and modifications related to authorized investments for the VEBA Trust.
5.0	9/13/2012	9/13/2013	Approved by ISO Board of Governors	Transition to corporate template, separation of commercial paper from corporate obligations, removal of VEBA Retiree Medical Plan Trust, and other modifications comply with new ISO standard policy format
5.1	7/2/2013	7/2/2014	CFO	Annual review. Moved appendix contents into the body of the policy; other non-substantive changes.
5.2	5/6/2014	5/6/2015	CFO	Annual review. Very minor updates to formatting.
VERSION NO.	**DATE REVIEW STARTED**	**EFFECTIVE DATE**	**REVISED BY**	**DESCRIPTION**
6.0	2/5/2015		Approved by ISO Board of Governors~~CFO~~	Updated revision history table to match new standard. Combined certain sections to eliminate redundancy and improve readability. Consolidated permissible security types, limits and restrictions into a single table in Section 17.2. Clarified the language in Section 17.1 regarding the minimum number of credit ratings required to invest in a security.

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1.0 INTRODUCTION

The investment policy provides written guidelines, approved by the ISO Board of Governors, for the investment management of monetary assets of the California Independent System Operator Corporation.

2.0 DELEGATION OF AUTHORITY

Consistent with the *Delegation of Authority to Approve Commitments of the Corporation by the President and Chief Executive Officer of the ISO*, initial investments with a particular broker/dealer or financial institution shall be authorized by the Chief Executive Officer (CEO). Thereafter, purchases and redemptions of authorized investments through the approved entity may be made by the Chief Financial Officer (CFO) and his or her designees, provided only that they are consistent with this investment policy

3.0 SCOPE

This policy applies to the investment activities of the unrestricted funds of the ISO. Unrestricted funds are defined as funds available for general corporate use for operations and other reserves. These funds typically consist of the following types:

- operating revenues;
- funds related to longer-term corporate obligations, with the exception of the liabilities associated with the Retiree Medical Plan;
- Operating Cost Reserve, which is defined in the ISO Tariff with a targeted funding level of not less than 15 percent of the Operations and Maintenance budget; and~~,~~
- capital reserves, which consist of the cash funded capital component of the revenue requirement.

This policy does not apply to the investment activities of the funds outlined below.

- Bond proceeds - bond proceeds being held are invested according to the bond indenture of the related bond issuance and are more restrictive than guidelines in this policy.

- Funds held by the ISO on behalf of the ISO Market or specific market participants - restricted funds of these nature are typically held in bank accounts or in money market mutual funds, as required in the ISO Tariff with the following potential exceptions:

    - With respect to funds held by the ISO from a single entity (such as a collateral account), if that entity requests or authorizes in writing an alternative investment, the ISO may agree to such an investment at its discretion and with the approval of the ISO CFO or CEO.
    - With respect to market-related funds that potentially relate to more than one market participant, if the ISO determines that the funds are likely to be held for

an extended time period, the ISO may invest such funds in a U.S. Treasury or government agency security of an appropriate maturity with the approval of the ISO CFO or CEO.

- Retirement Savings Benefits Plan (401(k)) and funds held on behalf of the liabilities associated with the Retiree Medical Plan; these funds are governed by separate investment policies.

4.0 ROLES AND RESPONSIBILITIES

4.1 ISO Board of Governors

The ISO Board of Governors is responsible for reviewing and approving this policy not less than once every three years. Any substantive modifications or amendments to this policy must also be approved by the ISO Board of Governors.

4.2 Chief Financial Officer

The Chief Financial Officer owns and is accountable for the ISO's investment policy and is responsible for:

- reviewing the sufficiency of this policy annually and submitting substantive modifications and amendments to the Board of Governors for approval;
- maintaining a system of internal controls, as outlined in Section 7;
- ensuring that all investment transactions and holdings remain in compliance with this policy and any bond indenture terms; and
- submitting reports to the Board of Governors and the Corporate Management Committee (CMC), as outlined in Section 8.

4.3 Controller

The Controller is responsible for ensuring the preparation, posting, and reconciliation of accounting entries associated with investment transactions.

~~4.4 Accountability and Ownership~~

~~The CFO is responsible to review the sufficiency of this policy annually and submit substantive modifications and amendments to the Board of Governors for approval.~~

4.~~5~~4 Corporate Management Committee

The ~~Corporate Management Committee (~~CMC~~)~~ consists of the President & Chief Executive Officer, Vice President, General Counsel & Chief Compliance Officer, and the Chief Financial Officer & Treasurer. Among other responsibilities, the CMC serves as an internal investment management committee.

~~4.6 Audit Committee of the Board of Governors~~

~~**The Audit Committee is a sub-committee of the Board of Governors and oversees most of the financial processes of the ISO.**~~

5.0 OBJECTIVES

The ISO's investment decisions are guided by three primary objectives:

~~5.1~~ Safety of Principal

Safety of principal is the foremost objective of the investment policy and practices. It is the responsibility of the CFO and any external investment manager to ensure that all investments are made in accordance with existing laws, this policy, established departmental procedures, and any other restrictive agreements such as ISO bond agreements.

~~5.2~~ Liquidity

Adequate cash to meet all payment requirements will be maintained. This objective will typically be made by matching the maturity dates of investments with planned disbursements and by maintaining adequate levels of liquid securities to meet unforeseen disbursement requirements.

~~5.3~~ Earnings

The CFO and ~~his or her~~ designee will seek to maximize returns on the ISO's financial assets within the parameters of this policy, after the objectives of safety of principal and liquidity have been met.

6.0 PRUDENT INVESTOR

Investments will be made with the same standard of care under the circumstances then prevailing, that reasonable persons acting in a like capacity and familiarity would use in the conduct of investing the funds to safeguard principal and maintain liquidity.

7.0 INTERNAL CONTROLS

The CFO will maintain a system of internal investment controls that shall be subject to review by the external financial auditor in connection with the annual financial statement audit. The CFO will be responsible to ensure the appropriate segregation of duties. Personnel involved in initiating and executing investment transactions are prohibited from the responsibilities of confirming and settling transactions, controlling various clearing accounts, preparing or posting the accounting entries, approving the entries, and reconciling the transactions. These procedures and segregation of duties may be reviewed and verified periodically by the Internal Audit department.

The CFO or ~~his or her~~ designee will ensure compliance with this policy before executing the purchase of an investment by conducting an assessment of the following:

- the investment transaction is with a financial institution approved by the CEO (Refer to Section 2.0);
- the investment will be held by the primary custodian (Refer to Section 11.0);
- the investment is an allowable investment type and the allocation does not exceed portfolio limits by investment type or issuer (Refer to Section ~~13.0~~ 17.2);
- portfolio risk factors and mitigating safeguards (Refer to Section 14.0);
- ~~permissibility of an authorized investment (Refer to Section 17.0)~~the investment carries at least two credit ratings from either Moody's, S&P or Fitch and meets the minimum credit rating standards (Refer to Section 17.0);
- if applicable, the investment can be defined as senior debt, not subordinated (Refer to Section 17.1);
- the investment does not have any of the characteristics of a prohibited investment or is included on ~~exclusion from~~ the ISO's ~~list of prohibited~~ Prohibited ~~investments~~ Investments List (Refer to Section 21.0); and
- counterparty credit risk as demonstrated by credit ratings and other available sources of information including but not limited to security price trends.

8.0 REPORTING

The CFO will submit the following reports annually to the ISO Board of Governors:

- a list of investments, that includes the investment type, issuer, credit ratings, maturity date, face value and cost on all securities. The market value and source of the market value information will also be provided;
- attestation that the portfolio is in compliance with the policy, or manner in which the portfolio is not in compliance; and
- portfolio performance information and any relevant benchmarks.

The CFO will submit a list of investments (first item above) quarterly to the CMC to review portfolio holdings and identify investments for special consideration. For example, if an investment has been downgraded by a credit rating agency to a level beneath the minimum levels required in this policy, the ~~committee~~ CMC must assess the appropriate action to take based on the CFO's recommendation.

9.0 EXTERNAL INVESTMENT MANAGERS

The CFO shall have the responsibility for selecting, monitoring and dismissing any external investment management firms engaged to manage ISO assets. The CFO is responsible for ensuring that any such investment managers fulfill their mandates within their contractual obligations, including investment guidelines that will be incorporated in each investment management contract, responsibilities of the investment manager, characteristics of the manager's style of investing, performance expectations, compensation, organizational requirements, reporting and other administrative requirements. The CFO is responsible for reporting quarterly on the status of each retained investment management firm at the CMC meetings and annually with the ISO Board of Governors.

10.0 COMPETITIVE BIDDING

Where appropriate, the CFO or ~~his or her~~ designee may obtain competitive bids or offers for a particular security.

11.0 CUSTODY AND SAFEKEEPING

Individual securities purchased by the ISO will be held in a custodial account by a third-party custodian selected by the ISO. The custodian shall annually provide a copy of its most recent report on internal controls ~~—~~(Service Organization Control Reports), ~~—~~prepared in accordance with the Statement on Standards for Attestation Engagements (SSAE) No. 16.

All trades of marketable securities will be executed (cleared and settled) on a delivery vs. payment (DVP) basis to ensure that securities are deposited with the ISO custodian prior to the release of funds.

Exceptions: Certain authorized investments in this policy have their distinct third-party custodian and therefore are not able to be held at the ISO's primary custodian. Examples could include money market funds, fixed income mutual funds, tri-party repurchase agreements, and certain bank obligations, such as non-negotiable certificates of deposit. Any investments that fall in this category will be approved prior to their purchase by the CFO. The Controller will ensure all assets are reconciled and recorded on the financial statements.

12.0 PORTFOLIO MIX

The ISO will maintain a portfolio of authorized investments, as defined in this policy, with diversified maturities, issuers and security types in order to avoid risks inherent in over-investing in any one sector. Portfolio holdings are limited as specified in the Authorized Investments section of this document. Within the parameters defined in this policy, the CFO may establish and revise further guidelines or objectives for the portfolio mix.

13.0 DIVERSIFICATION

Portfolio diversification ~~will be~~is a tool for managing risk while maintaining liquidity. Issuer and portfolio diversification limits are established by security type in Section 17.2. ~~The CFO has discretion to exceed the diversification limits shown below by not more than 5 percent as a result of liquidation or adverse market conditions that require reducing exposures to certain sectors in order to protect principal.~~

~~Maximum % of Total Portfolio Permissible by Investment Type~~

~~Investment Type~~	~~Maximum % of Portfolio~~
~~US Government Obligations~~	~~100%~~
~~Federal Agency and Government Sponsored Enterprises Securities (maximum 20% per issuer)~~	~~75%~~
~~Sovereigns and Supranationals (maximum 5% per issuer)~~	~~20%~~
~~Corporate Debt Obligations (maximum 5% per issuer)~~	~~30%~~
~~Commercial Paper (maximum 5% per issuer)~~	~~40%~~
~~Bank Deposit Obligations~~	~~100%~~
~~Tri-Party Repurchase Agreements (10% per institution)~~	~~25%~~
~~Fixed Income Mutual Funds~~	~~25%~~
~~Money Market Mutual Funds~~	~~100%~~
~~Municipal & State Obligations (maximum 5% per issuer)~~	~~50%~~

14.0 PORTFOLIO RISK MANAGEMENT

It is the responsibility of the CFO to anticipate and develop appropriate safeguards to address various types of investment-related risks. For example, the table below identifies common risk factors encountered in portfolio management and examples of tools or processes used to mitigate those risks.

Portfolio Risk Factors	Mitigating Safeguards
Credit Risk	• credit rating agencies • Moody's ~~KMV~~ Analytics expected default frequencies • minimum rating levels upon purchase • credit analysis • government regulations
Market Exposure	• diversification of maturities, security type, industry segments, collateral types and issuers
Regional/Industry Exposure	• consideration of regional and industry trends
Sovereign Risk	• analysis of international and political trends • diversified foreign investments
Counterparty Risk	• ~~approved and licensed FINRA broker-dealers~~use of custodian services • appropriate documentation

15.0 THIRD PARTY PORTFOLIO REVIEW

Periodic third party reviews of the portfolio will be conducted by an independent investment advisor not less than annually, and more frequently as conditions warrant in the judgment of the CFO and CMC. The review will assess the overall investment strategy, security types, sector limits, issuer concentrations, credit quality, investment structures duration and recommend modifications to the investment program, if necessary. The review will identify any watch list items. The investment advisor will make recommendations and may provide the outlook for economic conditions and trends in fixed income markets, and recommend sectors to avoid or decrease exposure. The investment advisor will recommend changes to the portfolio when appropriate to minimize potential risk.

16.0 EXCEPTIONS

Exceptions to the portfolio percentage limits ~~within the Diversification section of this policy~~in the Permissible Securities Table (refer to Section 17.2) that may become necessary because of special business circumstances (*i.e.,* market conditions or portfolio liquidation) may not be more than five (5) percent of the percentage limits specified in this policy. Amounts exceeding those limits must be approved prior to execution of the transaction by the CEO and ISO Board of Governors chair.

Other exceptions which might be warranted by special business circumstances shall require the written consent of the ISO Board of Governors chair.

The portfolio percentage limitations for investments outlined in the ~~Diversification and Authorized Investments sections of this document~~ Permissible Securities Table (refer to Section 17.2) are as of the date of the purchase of the investment. Variations in the applicable percentages caused by items such as portfolio size fluctuations and market value movements shall be acceptable. The CFO will monitor current percentages and seek to rebalance the portfolio in a prudent way.

~~Any intended exceptions to this policy must be approved in advance (*i.e.*, prior to execution of the transaction) by:~~

~~1) the CEO; and~~
~~2) either the Audit Committee chair or Board chair~~

In the event that any unintended exceptions to this policy do occur, it will be reported to the CFO, who will notify the CMC. Actions to eliminate any unauthorized exception to this policy will be cured in a time frame agreed to by the CFO, CMC and ISO Board of Governors chair, as appropriate. ~~If an investment rating for a security is reduced below the minimums set by this policy, the CFO will notify the CMC and an action plan will be agreed upon.~~

17.0 AUTHORIZED INVESTMENTS

17.1 General Provisions

Credit Quality

All eligible securities must ~~carry at least~~be rated by two ~~credit quality ratings from~~ of the three major credit rating agencies - Moody's Investors Service (Moody's), Standard & Poor's (S&P) or Fitch Ratings (Fitch) to be eligible for purchase. Securities must have at least two ratings that meet the minimum standards outlined in the Permissible Securities table in Section 17.2. In the case ~~of split ratings~~where only two of the three ratings are available, the lower of the two ratings will be considered the overall credit rating. Issuer ratings may be used in cases where securities have not been assigned a specific rating. Investments where, after acquisition by the ISO, the credit rating falls below the minimum criteria specified in this policy shall be presented to the CMC for assessment of appropriate actions that includes deciding to continue to hold the security or disposing of the security (potentially at a loss). The ISO may obtain expert advice to assess and determine a prudent course of action. A decline in a credit rating of a security below the minimums specified in this policy after acquisition by the ISO is not an exception that requires consent of the ISO Board of Governors chair, as provided for in the Exceptions section of this policy.

Senior Securities

All eligible securities must be senior notes or senior classes of the capital structure of the issuer or senior tranche or class of the collateralized issue. Notes, tranches or classes, preferred shares and equities that are all junior to senior notes of all eligible issuers, are prohibited.

Floating Rate Securities

The ISO may invest in a prudent amount of securities whose coupon rate may vary during the holding period. The floating rate securities must have coupon rates linked to a well-recognized money market index such as the 3-month Treasury Bill, LIBOR, prime rate, 11th District Cost of Funds (COFI), commercial paper, or federal funds.

Maximum Stated Maturity

Unless otherwise noted within each of the investment categories below, the maximum stated maturity is five (5) years from the settlement date of the purchase by the ISO.

Note: An authorized investment excludes any investment that is identified below as a "prohibited investment" or "prohibited security."

~~Credit Enhancements for Municipal Obligations~~

~~Approved credit enhancements for securities include:~~

- ~~bank letter of credit (LOC), irrevocable and unconditional, rated A-1 by S&P or P-1 by Moody's~~
- ~~insurance by any monoline insurer rated a minimum of A3 by Moody's or A- by S&P or equivalent~~

~~Credit enhanced securities must have an underlying issuer credit quality of A3 by Moody's or A- by S&P.~~

~~Pre-Refunded Municipals~~

~~Municipal obligations may be purchased if they are collateralized or have been funded to maturity by U.S. Treasury or government agency securities held in a trust arrangement to cover all principal and interest payments.~~

17.2 Permissible Security Types

The following table provides a list of the types of securities that are permissible under the ISO's Investment Policy and includes issuer and portfolio investment limits as well as restrictions by security type.

Security Type	Description	Maximum % Per Issuer	Maximum % of Portfolio	Restrictions
US Government Obligations	U.S. Treasury and other government obligations that carry the full faith and credit guarantee of the United States for the payment of principal and interest.	N/A	100%	Government National Mortgage Association (GNMA) obligations are a direct government obligation but are defined as mortgage-backed securities (MBS) under this policy and accordingly not permissible for direct purchase by the ISO (though permissible as collateral for other agreements).
Federal Agency and Government Sponsored Enterprises Securities	Senior obligations, participations or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government sponsored enterprises.	20%	75%	Eligible securities must be debentures and cannot be asset backed securities (ABS) or MBS. Securities must have a minimum long term debt rating of AA- or equivalent.
Sovereigns and Supranationals	Debt instruments issued by foreign governments and supranationals. Supranationals are multi-government sponsored institutions that provide development financing, advisory services and other financial services to their member countries.	5%	20%	All securities must be U.S. dollar denominated. Securities must have a minimum long term debt rating of ~~AA-~~ A- or equivalent.

Security Type	Description	Maximum % Per Issuer	Maximum % of Portfolio	Restrictions
Corporate Debt Obligations	Debt obligations issued by corporations and depository institutions, such as medium-term notes, and bonds.	5% whether issued directly or by an affiliate of any parent company.	30%	Commercial paper holdings should be considered when calculating the maximum percentage in any issuer name. Securities must have a minimum long-term debt rating of A- or equivalent.
Commercial Paper	Commercial paper and other short-term, unsecured promissory notes issued by domestic and foreign corporations.	5% whether issued directly or by an affiliate of any parent company.	40%	Other corporate debt obligations should be considered when calculating the maximum percentage in any issuer name. Asset-backed commercial paper (ABCP) is not permissible as an ISO investment but is a permissible holding for pooled investments such as money market funds and fixed income mutual funds. Securities must have a minimum short-term rating of A-1 or equivalent.
Bank Deposit Obligations	Deposit obligations of commercial banks such as: negotiable certificates of deposit (CDs), time deposits (non-negotiable CDs), and deposit accounts (checking, savings, *etc.*).	5% for certificates of deposits and time deposits No limit for deposit accounts	100%	Certificates of deposits and time deposits must either: 1) be at banks with a minimum long-term debt rating of A- or equivalent; 2) fully insured by the Federal Deposit Insurance Corporation; 3) secured at all times by collateral security consisting of U.S. government obligations or federal agencies; or 4) guaranteed by a non-U.S. government (minimum ~~AA-~~ A- rated or equivalent) for principal and interest.

Security Type	Description	Maximum % Per Issuer	Maximum % of Portfolio	Restrictions
Tri-Party Repurchase Agreements	Repurchase agreements (repos) with financial institutions.	10%	25%	Counterparty must have a minimum long-term debt rating of A- or equivalent. The counterparty must be a primary dealer of the Federal Reserve Bank of New York. All transactions must be fully collateralized by U. S. Treasury and government agency obligations, or other investments eligible within this policy. Collateral must be market-priced greater than the invested amount at the time of purchase (minimum of 102 percent) and valued at least monthly. Collateral must be delivered and under custody at a third party custodian different from the financial institution entering into the repo transaction. Transactions are limited to maturities up to one year unless the agreements are in connection with ISO bond proceeds, in which case the agreement shall not exceed the maturity of the relevant ISO bonds.

Security Type	Description	Maximum % Per Issuer	Maximum % of Portfolio	Restrictions
Fixed Income Mutual Funds	Institutional fixed income ultra-short to intermediate-term bond funds whose net asset value (NAV) may fluctuate.	5% of funds total assets	25%	Investments in fixed income mutual funds or commingled funds shall be reviewed and approved by the CMC on a case-by-case basis.
Money Market Mutual Funds	Money market fund shares of an open-end investment company registered under the Investment Company Act of 1940, as amended.	5% of each money fund's total assets.	100%	Investments must comply with Security and Exchange Commission regulations under 2a-7, maintain a constant NAV, offer daily liquidity, and have an average weighted maturity that does not exceed 90 days. Funds rated by any of the three major credit rating agencies or approved by the National Association of Insurance Commissioners (NAIC) as a permitted investment are preferred over unrated funds. Funds must have minimum fund assets of $5 billion. Enhanced cash, LIBOR Plus funds that are not SEC 2a-7 compliant, which underlying securities may include ABS, collateralized mortgage obligation (CMO), MBS, futures, and which NAV may fluctuate are not permissible as money market funds.

Security Type	Description	Maximum % Per Issuer	Maximum % of Portfolio	Restrictions
Municipal & State Obligations	Obligations of state, provincial and local governments and public authorities within the United States.	5%	50%	Securities must have a short-term rating of SP-1 or equivalent or a long-term debt rating of A- or equivalent. Approved credit enhancements for municipal obligations include: • an irrevocable and unconditional bank letter of credit (LOC) from a bank with a minimum short-term rating of A-1 or equivalent; • insurance by any monoline insurer rated a minimum of A- or equivalent. Credit enhanced securities must have an underlying issuer credit quality of A- or equivalent. Pre-Refunded Municipals Municipal obligations may be purchased if they are collateralized or have been funded to maturity by U.S. Treasury or government agency securities held in a trust arrangement to cover all principal and interest payments.

~~17.2 U. S. Government Obligations~~

~~Up to 100 percent of the portfolio may be invested in U.S. Treasury and other government obligations that carry the full faith and credit guarantee of the United States for the payment of principal and interest.~~

~~Government National Mortgage Association (GNMA) obligations are a direct government obligation but are defined as mortgage-backed securities (MBS) under this policy and accordingly not permissible for direct purchase by the ISO (though permissible as collateral for other agreements).~~

~~17.3 Federal Agency or United States Government Sponsored Enterprises~~

~~Up to 75 percent of the portfolio may be invested in senior obligations, participations or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government sponsored enterprises. No more than 20 percent of the portfolio may be invested in the obligations of any one agency.~~

~~Eligible securities must be debentures and cannot be asset backed securities (ABS) or MBS. Securities must be rated at least Aa3 by Moody's or AA- by S&P, or equivalent.~~

~~17.4 Sovereigns and Supranationals~~

~~Up to 20 percent of the portfolio may be invested in debt instruments issued by foreign governments and supranationals. Supranationals are multi-government sponsored institutions that provide development financing, advisory services and other financial services to their member countries. Securities must have a minimum long term debt rating of Aa3 by Moody's or AA- by S&P. All securities must be U.S. dollar denominated. No more than 5 percent of the portfolio may be invested in any one institution.~~

~~17.5 Corporate Debt Obligations~~

~~Up to 30 percent of the portfolio may be invested in debt obligations issued by corporations and depository institutions, such as medium-term notes, and bonds. Securities must have a long-term debt rating of at least A3 by Moody's or A- by S&P, or equivalent. No more than 5 percent of the portfolio may be invested in securities issued directly, or by an affiliate of any parent company. Commercial paper holdings should be considered when calculating the maximum percentage in any issuer name.~~

~~17.6 Commercial Paper~~

~~Up to 40 percent of the portfolio may be invested in commercial paper and other short-term, unsecured promissory notes issued by domestic and foreign corporations with a short-term rating of at least A-1 (S&P), or P-1 (Moody's), or equivalent. No more than 5 percent of the portfolio may be invested in commercial paper issued directly, or by an affiliate of any one parent company. Other corporate debt obligations should be considered when calculating the~~

~~maximum percentage in any issuer name. Asset-backed commercial paper (ABCP) is not permissible as an ISO investment but is a permissible holding for pooled investments such as money market funds and fixed income mutual funds.~~

~~17.7 Bank Obligations~~

~~Up to 100 percent of the portfolio may be invested in deposit obligations of commercial banks such as: negotiable certificates of deposit (CDs), time deposits (non-negotiable CDs), and deposit accounts (checking, savings, etc.). For certificates of deposits and time deposits, no more than 5 percent of the portfolio may be invested in the deposits of any one bank and must either: 1) be at banks with a minimum long-term credit rating of A- by Moody's or A3 by S&P or equivalent; 2) fully insured by the Federal Deposit Insurance Corporation; 3) secured at all times by collateral security consisting of U.S. government obligations or federal agencies; or 4) guaranteed by a non-U.S. government (AA rated or better) for principal and interest. There is no limit to the percentage of the portfolio that may be held at any one bank in deposit accounts.~~

~~17.8 Tri-Party Repurchase Agreements~~

~~Up to 25 percent of the portfolio may be invested in repurchase agreements (repos) with financial institutions rated at least A3 by Moody's, A- by S&P, or equivalent and the counterparty must be a primary dealer of the Federal Reserve Bank of New York. All transactions must be fully collateralized by U. S. Treasury and government agency obligations, or other investments eligible within this policy. Collateral must be market-priced greater than the invested amount at the time of purchase (minimum of 102 percent) and valued at least monthly. Collateral must be delivered and under custody at a third party custodian different from the financial institution entering into the repo transaction.~~

~~Transactions are limited to maturities up to one year unless the agreements are in connection with ISO bond proceeds, in which case the agreement shall not exceed the maturity of the relevant ISO bonds. No more than 10 percent of the portfolio can be invested in the repos of any one counterparty.~~

~~17.9 Fixed Income Mutual Fund~~

~~Up to 25 percent of the portfolio may be invested in institutional fixed income ultra-short to intermediate-term bond funds whose net asset value (NAV) may fluctuate. Funds are permissible if the underlying securities in the fund are permissible within this policy. Funds investing in futures, options, derivatives, credit default swaps or securities prohibited by this policy are not eligible. Government or federal agency funds investing in mortgage-backed securities are not permissible.~~
~~The fund must have a verifiable performance history of 5 years, minimum credit quality of investments of Baa3/BBB- by Moody's or S&P investments, and average portfolio quality Aa2/AA Moody's or S&P.~~

~~The ISO investments are limited to not more than 5 percent of each fund's total assets. Mutual funds investing in equities, preferred stocks or convertible bond securities are prohibited.~~

~~Maximum average duration of a fixed income fund is two years given the potential for fluctuation of fund share price with changes in interest rates.~~

~~17.10 Money Market Mutual Funds~~

~~Up to 100 percent of the portfolio may be invested in money market fund shares of an open-end investment company registered under the Investment Company Act of 1940, as amended. The investments must comply with Security and Exchange Commission regulations under 2a-7, maintain a constant NAV, offer daily liquidity, and have an average weighted maturity that does not exceed 90 days. Funds rated by S&P or Moody's or approved by the National Association of Insurance Commissioners (NAIC) as a permitted investment are preferred over unrated funds. Funds must have minimum fund assets of $5 billion. U.S. Treasury or government funds are limited to no more than 25 percent of the fund assets in tri-party repurchase agreements. ISO investments are limited to 5 percent of each money fund's total assets. Enhanced cash, LIBOR Plus funds that are not SEC 2a-7 compliant, which underlying securities may include ABS, collateralized mortgage obligation (CMO), MBS, futures, and which NAV may fluctuate are not permissible as money market funds.~~

~~17.11 Municipal and State Obligations or Tax-Exempt Obligations~~

~~Up to 50 percent of the portfolio may be invested in municipal market securities. Municipal securities are obligations of state, provincial and local governments and public authorities within the United States. Securities must have a rating of SP-1 (S&P) or MIG-1 (Moody's) or equivalent for short-term securities or A- (S&P) or A3 (Moody's) or equivalent rating for long-term securities. The ISO may not hold more than 5 percent of the outstanding debt of any single issuer.~~

~~Municipal obligations include, but are not limited to:~~

- ~~short term notes~~
- ~~bond anticipation notes (BANS)~~
- ~~tax anticipation notes (TANS)~~
- ~~revenue anticipation notes (RANS)~~
- ~~general obligations (GOs)~~
- ~~revenue bonds~~
- ~~project notes~~
- ~~put bonds~~
- ~~variable rate demand notes (VRDNs)~~

~~**Credit Enhancements for Municipal Obligations**~~

~~Approved credit enhancements for securities include:~~

- ~~bank letter of credit (LOC), irrevocable and unconditional, rated A-1 by S&P or P-1 by Moody's~~
- ~~insurance by any monoline insurer rated a minimum of A3 by Moody's or A- by S&P or equivalent~~

~~Credit enhanced securities must have an underlying issuer credit quality of A3 by Moody's or A- by S&P.~~

~~**Pre-Refunded Municipals**~~

~~Municipal obligations may be purchased if they are collateralized or have been funded to maturity by U.S. Treasury or government agency securities held in a trust arrangement to cover all principal and interest payments.~~

18.0 MATURITY SCHEDULING

Investment maturities may be coordinated to meet projected cash flow needs, taking into account large routine disbursements as well as considering sizable receipts of funds.

19.0 EFFECTIVE MATURITIES

Individual security effective maturities should not exceed five (5) years at any time. In addition, an effective maturity by definition shall include puts, announced calls or other structural features that will allow the ISO to redeem the investments at a quantifiable price consistent with liquidity, safety and preservation of capital. Unannounced call dates and coupon reset dates are not effective maturities.

20.0 SALE OF SECURITIES PRIOR TO MATURITY

Securities may be sold prior to maturity to meet ISO cash needs, to realize profits or to shift into alternative investments. Losses on the sale of securities are acceptable under certain circumstances. For example, when the reinvested proceeds from the sale will provide income with greater present value than that of the instrument sold; when credit deterioration or decreasing market value is a concern; or when funds are needed to meet ISO cash requirements. In all cases, the CFO or designee will act in accordance with the prudent investor clause of this policy (see Section 6.0). Any losses on the sale of securities will be reported to the CMC at the next available meeting and recorded appropriately in the financial statements.

21.0 PROHIBITED INVESTMENTS

The following are prohibited securities:

- securities that the ISO is prohibited from holding under FERC orders, regulations, or policy regarding ISO investments
- securities that the ISO would be prohibited from holding under 18 C.F.R. section 35.34 (j)(1)(i)
- floating rate securities with embedded options, interest rate caps, floors, collars, inverse interest rate relationships, leverage floaters, or indices not directly correlated with money market interest rate movements
- interest rate swap agreements on the ISO portfolio investments are not permissible; however, interest rate swap agreements on ISO debt approved by the ISO ~~Governing~~ Board of Governors are permissible for ISO debt structure management only
- stripped securities such as IO (interest-only), PO (principal-only)
- subordinated issues, residuals, super POs, tiered indexed bonds, and two-tiered indexed bonds
- collateralized trusts that have embedded leverage, CBO (collateralized bond obligations), CDO (collateralized debt obligations), CLO (collateralized loan obligations)
- the direct purchase of Asset Backed Securities (ABS), Government National Mortgage Association (GNMA) and agency-backed Mortgage Backed Securities (MBS)
- short sales, margin purchases, futures, options, and foreign currency purchases are not permitted for the investment portfolio
- securities with deferred interest payments, extendible maturities at issuer's option
- structured investment vehicles (SIVs) or off balance sheet funding instruments
- auction rate securities.

22.0 COMMUNICATIONS AND TRAINING

A current version of this policy will be available on the internal ISO website. Any substantive revisions to this policy will be approved by the ISO Board of Governors and communicated as necessary.

22.1 Training

Training will be provided to necessary personnel, as determined by the CFO.

23.0 COMPLIANCE

The CFO will ensure that all investment transactions and holdings remain in compliance with this policy and any bond indenture terms.

23.1 Disciplinary Guidelines

In accordance with the ISO Disciplinary Guidelines, discipline for a violation of this policy is the responsibility of management in coordination with human resources, which should seek legal advice from the office of the general counsel.

24.0 RESOURCES

- Disciplinary Guidelines
- Prohibited Investment List
- Delegation of Authority to Approve Commitments of the Corporation

25.0 CONTACTS

For questions regarding subject matter covered in this policy, please contact Ryan Seghesio, CFO and Treasurer at (916) 351-4422 or rseghesio@caiso.com.

26.0 APPROVAL

This policy~~, version 5.2,~~ has been reviewed and approved by~~ the following managers~~:

Responsible Manager:

Ryan Seghesio	~~Signature on file~~	~~5/6/2014~~
Name	Signature	Date

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Review Checklist

Policy Coordinator Name: Megan Thompson

The policy coordinator reviews the content to ensure that the policy is consistent with other referenced and related policy documents. Also assists with use of the template and formatting.

Review 1	Review 2	Review 3
Date: 1/15/15	Date:	Date:
☐ No changes	☐ No changes	☐ No changes
☒ Few, minor changes	☐ Few, minor changes	☐ Few, minor changes
☐ Major changes	☐ Major changes	☐ Major changes

Subject Matter Expert 1 Name: Kevin King

The SME must review the policy to ensure that the policy is thorough and accurate, as well as aligned with best practices, current rules and regulations and the current business environment.

Review 1	Review 2	Review 3
Date: 3/5/2015	Date:	Date: 6/24/2015
☐ No changes	☐ No changes	☐ No changes
☐ Few, minor changes	☐ Few, minor changes	☒~~☐~~ Few, minor changes
☒ Major changes	☐ Major changes	☐ Major changes

Responsible Manager Name: Ryan Seghesio

Considered to be the owner of the policy. The manager is responsible for reviewing the policy to ensure that it is thorough and accurate, as well as aligned with best practices, current rules and regulations and the current business environment.

Review 1	Review 2	Review 3
Date: 3/5/2015	Date:	Date: 6/24/2015
☐ No changes	☐ No changes	☐ No changes
☐ Few, minor changes	☐ Few, minor changes	☒~~☐~~ Few, minor changes
☒ Major changes	☐ Major changes	☐ Major changes

Legal Name: N/A

The appropriate attorney liaison from the legal department shall review and provide advice for the creation or update of any policy.

Review 1	Review 2	Review 3
Date:	Date:	Date:
☐ No changes	☐ No changes	☐ No changes
☐ Few, minor changes	☐ Few, minor changes	☐ Few, minor changes
☐ Major changes	☐ Major changes	☐ Major changes

Corporate Compliance Name: N/A

Responsible for reviewing new policies to determine whether ongoing policy monitoring is appropriate.		
Review 1 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes	Review 2 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes	Review 3 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes

Human Resources Name: N/A

Responsible for reviewing for consistency with ISO human resources and employment practices. Also responsible for working with the writer to determine the appropriate method for training affected personnel.		
Review 1 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes	Review 2 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes	Review 3 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes

Communications Name: N/A

Responsible for reviewing the policy for consistency with the ISO Writing and Style guide and working with the writer to develop an appropriate method for communicating the policy to all affected personnel.		
Review 1 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes	Review 2 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes	Review 3 Date: ☐ No changes ☐ Few, minor changes ☐ Major changes

