CONTINUING DISCLOSURE ANNUAL REPORT
OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
FOR THE
FISCAL YEAR ENDED DECEMBER 31, 2021

INDEX TO DOCUMENTS

1. Continuing Disclosure Annual Report of the California Independent System Operator Corporation for the Fiscal Year Ended December 31, 2021.
2. Certificate of the California Independent System Operator Corporation.

CONTINUING DISCLOSURE ANNUAL REPORT
OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
FOR THE
FISCAL YEAR ENDED DECEMBER 31, 2021

CONTINUING DISCLOSURE ANNUAL REPORT
OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
FOR THE
FISCAL YEAR ENDED DECEMBER 31, 2021

TABLE OF CONTENTS

I. Introduction

Pursuant to the following Continuing Disclosure Agreements (the “Disclosure Agreements”), the California Independent System Operator Corporation (the “CAISO”) hereby provides its continuing disclosure annual report for the fiscal year ended December 31, 2021 (the “Annual Report”):

- Continuing Disclosure Agreement dated January 1, 2021

Bond Issues

This Annual Report is being provided in connection with the following bond issues (the “Bonds”):

- $174,445,000 California Statewide Communities Development Authority Taxable Revenue Bonds (California Independent System Operator Corporation Project) Series 2021.

Each maturity of the 2021 Bonds is identified by the corresponding CUSIP Number set forth below:

2021 BONDS*

Maturity Date (February 1)	Series 2021
2023	13080SZ16
2024	13080SZK3
2025	13080SZL1
2026	13080SZM9
2027	13080SZN7
2028	13080SZP2
2029	13080SZQ0
2030	13080SZR8
2031	13080SZS6
2032	13080SZT4
2033	13080SZU1
2034	13080SZV9
2035	13080SZW7
2036	13080SZX5
2039	13080SZY3

** The 2013 Bonds will no longer be outstanding as of delivery of the Series 2021 Bonds.*

Note: The CUSIP Numbers above are provided for the convenience of bond holders. The CAISO is not responsible for the accuracy or completeness of such numbers.

Annual Report

This Annual Report contains certain financial and operating information of the CAISO including the audited financial statements of the CAISO for the fiscal year ended December 31, 2021.

Other Matters

This Annual Report is provided solely pursuant to the Disclosure Agreements. The filing of this Annual Report does not constitute or imply any representation (i) that all of the information provided is material to investors, (ii) regarding any other financial, operating or other information about the CAISO or the Bonds, or (iii) that no changes, circumstances or events have occurred since the end of the fiscal year to which this Annual Report relates (other than as contained in this Annual Report), or any other date specified with respect to any of the information contained in this Annual Report, or that no other information exists, which may have a bearing on the security for the Bonds, or an investor's decision to buy, sell, or hold the Bonds. The information contained in this Annual Report has been obtained from sources which are believed to be reliable. No statement in this Annual Report should be construed as a prediction or representation about future financial performance of the CAISO.

Dated: May 16, 2022

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

II. Audited Financial Statements of the CAISO for the Fiscal Year Ended December 31, 2021

The audited Financial Statements of the CAISO for the fiscal year ended December 31, 2021 are attached hereto as Appendix A.

III. CAISO Charges – Coverage of Market Collections

The ISO has authority to recover its costs through the assessment of various charges, collectively known as the Grid Management Charge ("GMC"). The ISO also receives revenues through EIM administrative fees, reliability coordinator charges, contractual payments or other direct reimbursements.

In addition to the GMC, the ISO also settles transactions for the wholesale markets that it operates. The ISO issues market settlement charges (the "Market Settlement Charges") to buyers of capacity, energy, transmission and other related services and products, and issues equal credits to the suppliers. On a weekly basis, net debtors remit payment for net Market Settlement charges into an ISO bank account, from which the ISO makes payments to the net creditors. Except for the GMC, and subject to certain exceptions described herein, the foregoing payments are "market-related receipts" (the "Market-Related Receipts") and are remitted by the ISO to the appropriate market participants.

Priority Claim Against Market-Related Receipts. In the event of a payment default by a market debtor, the ISO does not bear the risk of loss; rather other market participants bear the shortfall on a pro-rata basis. As a result, energy market transactions do not directly affect the ISO's financial results. Moreover, in the event of a payment default by a party billed for the GMC, the Tariff grants the ISO a priority claim against any Market-Related Receipts. If such a default occurs, the ISO is entitled to collect the GMC from Market-Related Receipts, and the resulting shortfall would be borne by market participants.

Total market settlement collections ("Market Settlement Collections") from market participants (including Market-Related Receipts and GMC) have far exceeded the GMC collections, as illustrated in the table below. GMC collections include only revenues resulting from assessment of the GMC. Other revenues that may accrue through contractual agreements and direct reimbursements are not included in the figures. The annual coverage ratios below are indicative based on financially cleared trades that are settled weekly.

Coverage of GMC by total Market Settlement Collections

$ in millions	2021	2020	2019	2018	2017
GMC Collections *	$197	$203	$203	$207	$200
Market-Related Receipts	$6,076	$4,859	$4,532	$4,905	$3,556
Total Market Settlement Collections (MSC)	$6,273	$5,062	$4,735	$5,112	$3,756
Coverage (MSC / GMC)	31.8	24.9	23.4	24.7	18.8

**GMC Collections represent the GMC rates and fees calculated as part of the net revenue requirement (planned expenses and debt service costs) less other revenue and operating cost reserve adjustments.*
GMC Collections includes WEIM Administrative fees.

IV. Risk Factors – ISO Charges and GMC

Most of the Company's receivables are due from entities in the energy industry, including utilities, generation owners and other electricity market participants. For the year's ended December 31, 2021, 2020, and 2019, approximately 34%, 37% and 38% of modified revenues, respectively were from two market participants. The percentage of modified revenues includes all operating revenues except for incidental pass through fees paid by various parties.

Fiscal Years	2021	2020	2019
2 largest Market Participants	34%	37%	38%
10 largest Market Participants	59%	61%	61%
25 largest Market Participants	74%	79%	77%

V. Financial Information – Condensed Statements of Net Position

The condensed balance sheets of the CAISO for the fiscal year ended December 31, 2021 and 2020 can be found in the audited financial statements of the CAISO for the fiscal year ended December 31, 2021 set forth as Appendix A hereto.

VI. Financial Information – Debt Obligations

A summary of the CAISO's outstanding long-term obligations can be found in Note 6 to the audited financial statements of the CAISO for the fiscal year ended December 31, 2021 set forth as Appendix A hereto.

VII. Financial Information – Retirement Benefits and Other Post Employment Benefits

A summary of the CAISO's annual required contribution and actuarial accrued liability for post employment benefits can be found in Note 9 to the audited financial statements of the CAISO for the fiscal year ended December 31, 2021 set forth as Appendix A hereto.

APPENDIX A

Audited Financial Statements of the CAISO for the Fiscal Year Ended December 31, 2021

California Independent System Operator Corporation

Financial Statements
December 31, 2021 and 2020

Page(s)

Report of Independent Auditors

To the Board of Governors and Management of the California Independent System Operator Corporation:

Opinion

We have audited the accompanying financial statements of the California Independent System Operator Corporation (the "Company"), which comprise the statements of net position as of December 31, 2021 and 2020, and the related statements of revenues, expenses and changes in net position and of cash flows for the years then ended, including the related notes, which collectively comprise the Company's basic financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the California Independent System Operator Corporation as of December 31, 2021 and 2020, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS, will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 12 be presented to supplement the basic financial statements. Such information is the responsibility of management, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

PricewaterhouseCoopers LLP

April 15, 2022

The following discussion and analysis of the California Independent System Operator Corporation (the "Company") provides an overview of the Company's financial activities for the years ended December 31, 2021 and 2020. This discussion and analysis should be read in conjunction with the Company's financial statements and accompanying notes, which follow this section.

Background

The Company, a nonprofit public benefit corporation, is responsible for ensuring the reliable and efficient use of the transmission grid in most of California and a part of Nevada. The Company operates this grid, which is one of the largest and most modern power grids in the world, as a balancing authority within the Western Electricity Coordinating Council. The Company conducts comprehensive planning for the future development of this grid.

In addition, the Company administers a competitive energy market that matches supply with demand, procures operating reserves and allocates space on transmission lines for delivering electricity efficiently, all of which ultimately benefits consumers. This market provides open and nondiscriminatory access to the transmission grid for more than 200 market participants. The Company also administers the Western Energy Imbalance Market ("WEIM"), the name of which was formally changed from EIM to WEIM effective 2022 as part of the Company's regionalization effort. This extension of the Company's real-time energy market facilitates transactions with and among several balancing authority areas in the western interconnection that are not a part of the grid the Company operates.

The Company's markets and its grid operations are regulated by the Federal Energy Regulatory Commission, and comply with standards set by the North American Electric Reliability Corporation and the Western Electricity Coordinating Council. A five-member Board of Governors (the "Board") appointed by the Governor of California and confirmed by the California State Senate governs the Company.

Financial Reporting

The Company's accounting records are maintained in accordance with generally accepted accounting principles for proprietary funds as prescribed by the Governmental Accounting Standards Board ("GASB") and where not in conflict with GASB pronouncements, accounting principles prescribed by the Financial Accounting Standards Board ("FASB").

Cash held by the Company on behalf of market participants is recorded in a restricted asset account with a corresponding liability due to market participants in the Statements of Net Position. Except for the retention of restricted assets noted above, the financial statements reflect a net reporting of market activities wherein the financial statements do not include the revenues and expenses, cash flows, or assets and liabilities associated with the market transactions the Company facilitates.

Revenue

The Company charges a Grid Management Charge ("GMC") to market participants to recover the Company's operating costs, capital expenditures, debt service costs, and to provide for an operating reserve. The GMC is comprised of the following three service categories: market services, system operations, and congestion revenue rights services.

The Company receives other revenues outside of its GMC including, but not limited to: fees paid for participation in the Western Energy Imbalance Market, Reliability Coordinator services, generator interconnection studies, and for operation of the California-Oregon Intertie path.

After accounting for other revenues, the Company establishes its annual net revenue requirement, which is allocated to the three GMC service categories based on percentages established in the tariff. Category costs are then divided by forecasted volumes to establish the annual rates.

Liquidity

The Company's tariff allows for GMC rates to be adjusted during the year to ensure collection of the revenue requirement. During a year, if forecasted revenues from any of the three GMC service categories is materially different, as defined in the tariff, from budgeted revenues, the Company may adjust the rate for the affected category to realign the forecast revenue with the budgeted revenue.

Per the tariff, the revenue requirement includes an operating reserve, which is 15% of the current year's operating and maintenance budget, and a debt service reserve, which is 25% of the debt service to be paid during the year. The Company's operating and debt service reserves were fully funded in 2021 and 2020. Furthermore, the Company maintains capital reserves in its unrestricted funds, which consist of funds collected through the revenue requirement for future capital expenditures.

The Market and Reliability Coordinator Service

The Company's wholesale energy market is the vehicle for providing open-access transmission service to users of the transmission grid. It includes a day-ahead market for all twenty-four hours of the next operating day, and a real-time market that schedules resources in 15-minute intervals and dispatches them in 5-minute intervals. The day-ahead market clears supply and demand offers for short-term energy purchases and sales. The real-time market clears supply offers and the Company's forecast of demand. Together, these enable the economic scheduling and dispatch of generating resources to maintain continuous balance of supply and demand and management of congestion on the grid. The market also procures reserve capacity or ancillary services to maintain reliable operation under unexpected changes in grid conditions. In addition, the Company performs a settlement and clearing function by charging and collecting payments from users of these services and paying providers of such services.

The Company continues to develop market enhancements to increase reliability, efficiency and the accuracy of market results. The market prices energy at the points it enters and leaves the grid, which increases transparency by sending signals for competitive investments in transmission and generation. The market operates on an advanced and flexible platform helping to integrate renewable resources as well as demand response. These enhancements increase the functionality and flexibility of the market system to meet the on-going needs of market participants.

The Company also operates the Western Energy Imbalance Market. This extension of the Company's real-time energy market facilitates transactions with and among several balancing authority areas in the western interconnection that are not a part of the grid the Company operates. The WEIM provides reliability, efficiency and renewable integration benefits to the West while also providing economic benefits to participants. The broader footprint for the real-time market provides more opportunities to integrate cleaner sources of energy, such as wind and solar, that may be produced in one area but needed in another. In addition to the Company, fourteen other balancing authorities are participating in the WEIM as of the end of 2021 and several others have committed to participate in the future.

The Company is the Reliability Coordinator for entities within its footprint and for most of the balancing authorities and transmission operators in the West. As the Reliability Coordinator (a business unit known externally as "RC West"), the Company has the highest level of authority and responsibility for the reliable operation of the power grid, and has a wide-area view of the bulk electricity system. It is required to comply with federal and regional grid standards, and can authorize measures to prevent or mitigate system emergencies in day-ahead or real-time operations. The Company is currently the Reliability Coordinator of record for forty-two balancing authorities and transmission operators in the West.

Financial Highlights

Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position The financial statements provide both short-term and long-term information about the Company's financial status. The *Statements of Net Position* include all of the Company's assets and liabilities, using the accrual method of accounting, and identify any assets, which are restricted as a result of bond covenants or external commitments. These Statements also provide information about the nature and amount of resources and obligations at specific points in time.

The *Statements of Revenues, Expenses and Changes in Net Position* report all of the Company's revenues and expenses during the year.

The Statements of *Cash Flows* report the cash provided and used during the year by operating activities, as well as other cash sources such as investment income and debt financing, and other cash used such as payments for bond principal and capital additions.

Condensed Statements of Net Position (in millions)

	2021	2020	2019
Assets and deferred outflows			
Current assets	$ 680.5	$ 559.4	$ 470.6
Fixed assets, net	151.0	165.7	170.9
Other noncurrent assets	248.8	220.0	200.1
Deferred outflows	14.0	6.4	7.1
Total assets and deferred outflows	$ 1,094.3	$ 951.5	$ 848.7
Liabilities and net position			
Current liabilities	$ 682.0	$ 553.0	$ 473.3
Long-term debt, net of current portion	165.4	164.0	170.0
Other noncurrent liabilities	4.1	8.9	10.7
Deferred inflows	10.4	9.6	8.2
Net position	232.4	216.0	186.5
Total liabilities, deferred inflows and net position	$ 1,094.3	$ 951.5	$ 848.7

Assets

Current Assets (in millions)

	2021	2020	2019
Cash and cash equivalents	$ 599.0	$ 471.0	$ 366.4
Short-term investments	51.9	68.1	72.5
Accounts receivable and other assets	29.6	20.3	31.7
Total current assets	$ 680.5	$ 559.4	$ 470.6

2021 Compared to 2020
As of December 31, 2021, current assets increased by $121.6 million during the year. This net increase is largely due to increases in collateral funds, generator interconnection project study deposits and other market accounts held for market participants. Additionally, accounts receivable is higher as a result of the timing of the settlement of market invoices at year end.

2020 Compared to 2019
As of December 31, 2020, current assets increased by $88.8 million during the year. This net increase is largely due to increases in collateral funds and other market accounts held for market participants, and to higher accounts receivable as a result of higher generator interconnection project studies activity.

Fixed Assets, Net (in millions)

	2021	2020	2019
Net assets in service	$ 145.5	$ 155.5	$ 163.9
Work-in-progress	5.5	10.2	6.9
Total fixed assets, net	$ 151.0	$ 165.7	$ 170.8

2021 Compared to 2020
Total fixed assets, net of accumulated depreciation, decreased in 2021 by $14.7 million compared to 2020. The decrease is primarily due to lower net assets in service of $10.0 million, as a result of the current year depreciation expense of $ 30.6 million, partially offset by new net assets placed-in-service of $20.6 million. Work in-progress decreased by $4.7 million compared to 2020 due to the completion of projects during the year.

2020 Compared to 2019
Total fixed assets, net of accumulated depreciation, decreased in 2020 by $5.1 million compared to 2019. The decrease is primarily due to lower net assets in service of $8.4 million, as a result of the current year depreciation expense of $26.2 million, partially offset by new net assets placed-in-service of $17.8 million. Work in-progress increased by $3.3 million compared to 2019 due to an increase in new projects during the year.

Other Noncurrent Assets (in millions)

	2021	2020	2019
Long-term investments	$ 242.3	$ 212.1	$ 193.2
Other assets	6.5	7.9	7.0
Total other noncurrent assets	$ 248.8	$ 220.0	$ 200.2

2021 Compared to 2020
Other noncurrent assets increased by $28.8 million in 2021. This change is largely attributable to increased long-term investments amounting to $30.2 million during the year due to higher corporate reserves and continued investing in fixed income mutual funds, which are considered to be long-term assets. Other assets decreased by $1.4 million primarily as a result of lower executive benefit plans trust account balances, partially offset by higher prepaid balances.

2020 Compared to 2019
Other noncurrent assets increased by $19.8 million in 2020. This change is largely attributable to increased long-term investments amounting to $18.9 million during the year due to higher corporate reserves and continued investing in fixed income mutual funds that are considered to be long-term assets. In addition, other assets increased by $0.9 million as a result of higher prepayments and higher executive benefit plans trust account balances.

Deferred Outflows (in millions)

	2021	2020	2019
Unamortized loss on refunding of bonds	$ 14.0	$ 6.4	$ 7.1
Total deferred outflows	$ 14.0	$ 6.4	$ 7.1

2021 Compared to 2020
The increase in the deferred outflows balance of $7.6 million is due to the net loss associated with the issuance of the 2021 Series bonds and the retirement of the 2013 Series bonds, offset by the current year amortization of the unamortized loss on refunding of bonds.

2020 Compared to 2019
The decrease in the deferred outflows balance of $0.7 million is due to the current year amortization of the unamortized loss on refunding of bonds.

Liabilities
Current Liabilities (in millions)

	2021	2020	2019
Accounts payable and accrued expenses	$ 12.0	$ 11.8	$ 13.9
Accrued salaries and compensated absences	43.0	43.4	37.9
Current portion of long-term debt	9.1	5.4	5.2
Due to market participants	617.9	492.4	414.8
Generator noncompliance fines refund obligation	-	-	1.4
Total current liabilities	$ 682.0	$ 553.0	$ 473.2

2021 Compared to 2020
Current liabilities as of December 31, 2021 increased by $ 129.0 million during the year. This increase is primarily due to higher amounts due to market participants of $125.5 million, as a result of increases in the balances of collateral accounts of $37.2 million, interconnection study deposits of $92.5 million, and market funds of $5.5 million. These were partially offset by a decrease in nonrefundable deposits pending distribution of $7.5 million and pass-thru fees due to others of $2.2 million. Collateral funds were higher due to increased number of participants and increased market activity. Interconnection study deposits are higher due to more projects that are currently in queue to be completed. Market funds were higher due to the timing of the market clearing at the end of the year. Additionally, there were increases in the year-end balance for accounts payable and accrued expenses of $0.2 million but decreases in accrued salaries and compensated absences of $0.4 million.

2020 Compared to 2019

Current liabilities at December 31, 2021 increased by $79.8 million during the year. This increase is primarily due to higher amounts due to market participants of $77.6 million, as a result of increases in the balances of collateral accounts of $89.5 million, interconnection study deposits of $16.5 million, and pass-thru fees of $0.9 million. These were partially offset by a decrease in market funds of $29.2 million and in nonrefundable deposits pending distribution of $0.1 million. Collateral funds were higher due to increased number of participants and increased market activity. Interconnection study deposits are higher due to more projects that currently are in queue to be completed. Market funds were lower due to the timing of the market clearing at the end of the year. Additionally, there were increases in the year-end balance for accrued salaries and compensated absences of $5.5 million, but decreases in accounts payable and accrued expenses of $2.1 million.

Long-Term Debt (in millions)

Summarized activity of long-term debt for the year ended December 31, 2021, is as follows:

	Beginning of Year	Issuances (Payments/ Amortization)	End of Year
CIEDB Revenue Bonds, Series 2013	$ 163.4	$ (163.4)	$ -
Unamortized net premium, Series 2013 Bonds	6.1	(6.1)	-
CSCDA Taxable Refunding Revenue Bonds, Series 2021 bonds		174.4	174.4
Total long-term debt	169.5	4.9	174.4
Less: Current portion	5.4	3.6	9.0
Total long-term debt, net of current portion	$ 164.1	$ 1.3	$ 165.4

Summarized activity of long-term debt for the year ended December 31, 2020, is as follows:

	Beginning of Year	Issuances (Payments/ Amortization)	End of Year
CIEDB Revenue Bonds, Series 2013	$ 168.5	$ (5.1)	$ 163.4
Unamortized net premium Series 2013 bonds	6.6	(.5)	6.1
Total long-term debt	175.1	(5.6)	169.5
Less: Current portion	5.1	0.3	5.4
Total long-term debt, net of current portion	$ 170.0	$ (5.9)	$ 164.1

As of December 31, 2021, the Company had an underlying rating of A+ from S&P, A1 by Moody's and A+ by Fitch.

In January 2021, the CIEDB Revenue Bonds, Series 2013 was refunded and defeased by the issuance of the California Statewide Communities Development Authority ("CSCDA") 2021 Series bonds, as explained in Note 6.

2021 Compared to 2020
At December 31, 2021, the Company had $174.4 million of outstanding bonds issued through the California Statewide Communities Development Authority ("CSCDA"). The increase in long-term debt is primarily attributable to the new refunding debt, partially offset by the defeasance of the Series 2013 bonds in 2021.

2020 Compared to 2019
At December 31, 2020, the Company had $163.4 million of outstanding bonds issued through the California Infrastructure and Economic Development Bank ("CIEDB"). The decrease in long-term debt is primarily attributable to scheduled debt payments on the Series 2013 bonds in the amount of $5.1 million in 2020.

Other Noncurrent Liabilities (in millions)

	2021	2020	2019
Employee retirement plan obligations	$ 4.1	$ 8.9	$ 10.7
Total other noncurrent liabilities	$ 4.1	$ 8.9	$ 10.7

2021 Compared to 2020
Other noncurrent liabilities at December 31, 2021 were lower by $4.8 million. The decrease is primarily due to the reduction in liability associated the post-retirement liability of $3.1 million due to changes in actuarial assumptions and to a decrease in executive benefit plans of $1.7 million, due to withdrawals by some participants.

2020 Compared to 2019
Other noncurrent liabilities at December 31, 2020 were lower by $1.8 million. The decrease is primarily due to the reduction in liability associated the post-retirement liability of $2.4 million due to changes in actuarial assumptions, partially offset by the increase in executive benefit plans of $0.6 million.

Net Position (in millions)

	2021	2020	2019
Net investment in capital assets	$ 25.9	$ 17.0	$ 16.8
Unrestricted	206.5	199.0	169.7
Total net position	$ 232.4	$ 216.0	$ 186.5

2021 Compared to 2020
Net investment in capital assets at December 31, 2021 slightly increased by $8.8 million during the year. This increase is primarily attributable to increased commitment of funds for capital projects, partially offset by normal depreciation during the year. The unrestricted component of the net position at December 31, 2021 increased by $7.5 million during the year primarily as a result of net cash flows from operations.

2020 Compared to 2019

Net investment in capital assets at December 31, 2020 slightly increased by $0.2 million during the year. This increase is primarily attributable to increased commitment of funds for capital projects, partially offset by normal depreciation during the year. The unrestricted component of the net position at December 31, 2020 increased by $29.3 million during the year primarily as a result of net cash flows from operations.

Changes in Net Position

Condensed Statements of Revenues, Expenses and Changes in Net Position (in millions)

	2021	2020	2019
Operating revenues	$ 244.3	$ 240.5	$ 222.7
Operating expenses	223.1	216.1	205.6
Operating income	21.1	24.4	17.1
Other income (expenses), net	(4.7)	5.2	3.0
Change in net position	$ 16.4	$ 29.6	$ 20.1

Operating Revenues

2021 Compared to 2020

Total operating revenues increased during the year by $3.8 million. This is primarily due to increases in other revenues of $9.4 million primarily due to the new nodal pricing model fees of $8.4 million, forecasting fees of $0.7 million and WEIM administration charges of $0.5 million, partially offset by slight decreases in other revenue categories of $0.2 million. The increase in other revenues was offset by a decrease in GMC revenues of $5.6 million due to a lower revenue requirement.

2020 Compared to 2019

Total operating revenues increased during the year by $17.8 million. This is primarily due to increases in other revenues of $18.7 million primarily due to the increases in reliability coordinator services of $14.2 million, WEIM revenues of $1.6 million and generator interconnection study revenues of $1.6 million, WEIM administration charges of $0.9 million, partially offset by a decrease in GMC revenues of $1.3 million due to a lower revenue requirement.

Operating Expenses and Percentages (in millions)

	2021	2020	2019
Salaries and related benefits	$ 139.1	$ 138.0	$ 128.7
Communication and technology costs	20.0	20.7	19.6
Legal and consulting costs	21.5	20.1	18.4
Leases, facilities and other administrative costs	12.0	11.1	12.3
Depreciation and amortization	30.6	26.2	26.6
Total operating expenses	$ 223.1	$ 216.1	$ 205.6
Salaries and related benefits	62 %	64 %	63 %
Communication and technology costs	9	10	9
Legal and consulting costs	10	9	9
Leases, facilities and other administrative costs	5	5	6
Depreciation and amortization	14	12	13
Total operating expenses (%)	100 %	100 %	100 %

2021 Compared to 2020

Operating expenses were $7.0 million higher for the year ended December 31, 2021, compared to the year ended December 31, 2020. The increase is primarily due to higher depreciation of $4.4 million, higher legal and consulting costs of $1.4 million, higher salaries and related benefits of $1.1 million, and higher leases, facilities and other administrative costs of $0.9 million. Depreciation is higher in 2021 due to a higher deprecation base due resulting from completion of projects in 2021. Legal and consulting costs are higher due to an increase in contract staff to fill in job vacancies. Salaries and wages are higher due to cost of living and merit increases. Leases, facilities and other administrative costs are higher due to hardware and facility costs incurred to prepare for the physical return of employees to the office. These increases are offset by lower communication and technology costs of $0.7 million due to primarily cost reductions in the cost of software maintenance contracts.

2020 Compared to 2019

Operating expenses were $10.5 million higher for the year ended December 31, 2020, compared to the year ended December 31, 2019. The increase is primarily due to higher salaries and related benefits of $9.3 million, as a result of a higher number of employees and cost of living increases. Additionally, legal and consulting costs is higher by $1.7 million due to costs related to the COVID-19 and communication and technology costs is higher by $1.1 million due to increased contract staff costs. These increases were offset by lower leases, facilities and other administrative costs of $1.2 million due primarily to reduced transportation and travel costs and the decrease in depreciation of $0.4 million. Depreciation was lower in 2020 due to a lower deprecation base due to the full depreciation of certain assets.

Other Income (Expense), Net (in millions)

	2021	2020	2019
Interest income	$ 1.6	$ 12.0	$ 11.0
Bond issuance costs	(1.3)	-	-
Generator fines settlement	-	1.4	-
Interest expense	(4.9)	(8.2)	(8.0)
Total other income (expense), net	$ (4.7)	$ 5.2	$ 3.0

2021 Compared to 2020

Total other income decreased by $9.9 million for the year ended December 31, 2021 compared to the year ended December 31, 2020. This decrease is attributable to $10.4 million of lower interest income due to unrealized losses on the market value of investments as a result of rising interest rates. Additionally, the Company recorded $1.3 million in debt expenses resulting from the issuance of the 2021 Series bonds. The one-time recognition in 2020 of a gain related to the de-recognition of the generator fines liability, further contributed to the comparative decrease in other income. The decrease is partially offset by lower interest expense of $3.3 million, due to the refunding of the higher cost 2013 Series bonds with the 2021 Series bonds.

2020 Compared to 2019

Total other income increased by $2.2 million for the year ended December 31, 2020 compared to the year ended December 31, 2019. This increase is attributable to $1.0 million of higher interest income and to the recognition of a gain of $1.4 million, as a result of the de-recognition of the liability associated with the generator fines, as explained in Note 5. The increases are partially offset by a slightly higher interest expense of $0.2 million. The increase in interest income is primarily due to higher unrealized gains of $1.4 million on the market value of investments and to higher miscellaneous income of $0.2 million, partially offset by lower capitalized interest of $0.6 million in 2020. The slight increase in interest expense is primarily due to the net effect of an interest adjustment in 2019.

California Independent System Operator Corporation
Statements of Net Position
December 31, 2021 and 2020

	2021	2020
	(in thousands)	
Assets and deferred outflows		
Current assets		
Cash and cash equivalents, including restricted amounts	$ 598,970	$ 471,005
Accounts receivable	23,057	13,997
Short-term investments, including restricted amounts	51,874	68,132
Other current assets	6,618	6,286
Total current assets	680,519	559,420
Noncurrent assets		
Long-term investments, including restricted amounts	242,296	212,148
Fixed assets, net	150,950	165,669
Other assets	6,482	7,892
Total noncurrent assets	399,728	385,709
Total assets	1,080,247	945,129
Deferred outflows		
Unamortized loss on refunding of bonds	14,017	6,453
Total deferred outflows	14,017	6,453
Total assets and deferred outflows	$ 1,094,264	$ 951,582
Liabilities, deferred inflows and net position		
Current liabilities		
Accounts payable and accrued expenses	$ 11,684	$ 11,754
Accrued salaries and compensated absences	43,273	43,448
Current portion of long-term debt	9,050	5,395
Due to market participants	617,937	492,419
Total current liabilities	681,944	553,016
Noncurrent liabilities		
Long-term debt, net of current portion	165,395	164,054
Employee retirement plan obligations	4,112	8,876
Total noncurrent liabilities	169,507	172,930
Total liabilities	851,451	725,946
Deferred inflows		
Unamortized other post employment benefit costs	10,389	9,596
Total deferred inflows	10,389	9,596
Commitments and contingencies (See Notes 10-12)		
Net position		
Net investment in capital assets	25,930	17,077
Unrestricted	206,494	198,963
Total net position	232,424	216,040
Total liabilities, deferred inflows and net position	$ 1,094,264	$ 951,582

California Independent System Operator Corporation
Statements of Revenues, Expenses and Changes in Net Position
Years Ended December 31, 2021 and 2020

	2021	2020
	(in thousands)	
Operating revenues		
GMC revenue	$ 186,154	$ 191,751
Other revenues	58,103	48,726
Total operating revenues	244,257	240,477
Operating expenses		
Salaries and related benefits	139,060	137,955
Equipment leases and facility costs	2,095	2,266
Communications, technology and temporary staffing contracts	19,978	20,730
Legal and consulting services	21,510	20,084
Training, travel and professional dues	1,280	1,109
Insurance, administrative and other expenses	8,655	7,726
Depreciation and amortization	30,568	26,226
Total operating expenses	223,146	216,096
Operating income from operations	21,111	24,381
Other income (expense)		
Interest income	1,562	11,965
Bond issuance costs	(1,359)	-
Generator fines settlement (Note 5)	-	1,418
Interest expense	(4,930)	(8,184)
Total other income (expense), net	(4,727)	5,199
Change in net position	16,384	29,580
Net position		
Beginning of year	216,040	186,460
End of year	$ 232,424	$ 216,040

California Independent System Operator Corporation
Statements of Cash Flows
Years Ended December 31, 2021 and 2020

	2021	2020
	(in thousands)	
Cash flows from operating activities		
Receipts from scheduling coordinators for GMC	$ 179,600	$ 199,174
Other receipts	55,597	52,942
Payments to employees and to others for related benefits	(143,121)	(133,569)
Payments to vendors others	(50,619)	(54,948)
Receipts from market participants	674,139	524,243
Payments to market participants	(548,621)	(446,609)
Net cash provided by operating activities	166,975	141,233
Cash flows from capital and related financing activities		
Proceeds from refunding of bonds	174,445	-
Repayment of bonds	(182,505)	(5,165)
Payment for bond issuance costs	(1,359)	
Purchases and development of fixed assets	(15,722)	(22,104)
Interest on debt	(1,561)	(8,242)
Net cash used in capital financing activities	(26,702)	(35,511)
Cash flows from investing activities		
Purchases of investments	(288,324)	(93,230)
Sales and maturities of investments	274,434	78,689
Interest received	1,582	13,429
Net cash used in investing activities	(12,308)	(1,112)
Net increase in cash and cash equivalents, restricted and unrestricted	127,965	104,610
Cash and cash equivalents, restricted and unrestricted		
Beginning of year	471,005	366,395
End of year	$ 598,970	$ 471,005

California Independent System Operator Corporation
Statements of Cash Flows
Years Ended December 31, 2021 and 2020

	2021	2020
	(in thousands)	
Supplemental information		
Cash paid for interest for bonds	$ 1,561	$ 8,242
Reconciliation of income from operations to net cash provided by (used in) operating activities		
Operating income from operations	$ 21,111	$ 24,381
Adjustments to reconcile income from operations to net cash provided by operating activities		
Depreciation and amortization	30,568	26,226
Changes in operating assets, deferred outflows and liabilities		
Accounts receivable and other assets	(8,013)	10,155
Deferred inflows/outflows	793	1,349
Accounts payable and other accrued expenses	(3,002)	1,488
Due to market participants	125,518	77,634
Net cash provided by (used in) operating activities	$ 166,975	$ 141,233
Supplemental disclosure of noncash financing and investing activities		
Amortization of bond premium	$ 48	$ 578
Amortization of loss on refunding	(1,476)	(615)
Change in purchases and development of fixed assets included in accounts payable and accrued expenses	(115)	1,344

1. Organization and Operations

The Company, a nonprofit public benefit corporation, is responsible for ensuring the reliable and efficient use of the transmission grid in most of California and a part of Nevada. The Company operates this grid, which is one of the largest and most modern power grids in the world, as a balancing authority within the Western Electricity Coordinating Council. The Company conducts comprehensive planning for the future development of this grid.

The Company is regulated by the Federal Energy Regulatory Commission and complies with standards set by the North American Electric Reliability Corporation and the Western Electricity Coordinating Council. A five-member Board of Governors (the "Board") appointed by the Governor of California and confirmed by the California State Senate governs the Company.

The Company's wholesale energy market is the vehicle for providing open-access transmission service to users of the transmission grid. It includes a day-ahead market for all twenty-four hours of the next operating day, and a real-time market that schedules resources in 15-minute intervals and dispatches them in 5-minute intervals. The day-ahead market clears supply and demand offers for short-term energy purchases and sales. The real-time market clears supply offers and the Company's forecast of demand. Together, these enable the economic scheduling and dispatch of generating resources to maintain continuous balance of supply and demand and management of congestion on the grid. The market also procures reserve capacity or ancillary services to maintain reliable operation under unexpected changes in grid conditions.

The Company continues to develop enhancements to increase reliability, efficiency and the accuracy of market results. The market prices energy at the points it enters and leaves the grid, which increases transparency by sending signals for competitive investments in transmission and generation. The market operates on an advanced flexible platform that helps to integrate renewable resources as well as demand response. These on-going enhancements increase the functionality and flexibility of the market system to meet the needs of market participants.

The Company also operates the Western Energy Imbalance Market (the "WEIM"). This extension of the Company's real-time energy market facilitates transactions with and among several balancing authority areas in the western interconnection that are not a part of the grid the Company operates. The WEIM provides reliability, efficiency and renewable integration benefits to the West while also providing economic benefits to participants. The broader footprint for the real-time market provides more opportunities to integrate cleaner sources of energy, such as wind and solar, that may be produced in one area but needed in another. In addition to the Company, fourteen other balancing authorities are participating as of the end of 2021 and several others have committed to participate in the future.

The Company is the Reliability Coordinator for entities within its footprint and for most of the balancing authorities and transmission operators in the West. As the Reliability Coordinator (a business unit known externally as "RC West"), the ISO has the highest level of authority and responsibility for the reliable operation of the power grid, and has a wide-area view of the bulk electricity system. It is required to comply with federal and regional grid standards, and can authorize measures to prevent or mitigate system emergencies in day-ahead or real-time operations. The ISO is currently the Reliability Coordinator of record for forty-two balancing authorities and transmission operators in the West.

In addition, the Company also performs a settlement and clearing function by charging and collecting payments from users of these services and paying providers of such services. Cash held by the Company on behalf of market participants is recorded in a restricted asset account with a corresponding liability due to market participants in the statements of net position. Except for the retention of restricted assets noted above, the Company's financial statements reflect a net reporting of market activities wherein the financial statements do not include the revenues and expenses, cash flows, or assets and liabilities associated with the market transactions it facilitates. GMC revenues have a priority claim against any market-related receipts. Any market defaults are allocated to market participants.

COVID-19 Outbreak
The State of California and local government, in collaboration with the Federal government, continue sustained efforts to minimize the spread and mitigate the effects of COVID-19. The situation continues to evolve.

In response to this crisis, the Company has taken proactive measures to protect the health and safety of its staff, and safeguard the critical infrastructure of the power grid and energy market. The impacts of the various COVID-19 restrictions and protocols on electricity demand did not materially affect the financial results for the period, because the Company has the ability to respond to variances in electricity demand by raising or lower its grid management charge to ensure full cost recovery. The full extent to which the COVID-19 affects the Company and results of operations going forward will depend on future developments, which are highly uncertain and cannot be predicted at this time.

2. Summary of Significant Accounting Policies

Method of Accounting
The accompanying financial statements have been prepared on an accrual basis of accounting in accordance with accounting principles for proprietary funds as prescribed by the Government Accounting Standards Board ("GASB"), and where not in conflict with GASB pronouncements, accounting principles prescribed by the Financial Accounting Standards Board ("FASB"). The Company uses the economic resources measurement focus and the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

Net Presentation of Market Activity
The Company is a central counterparty to the market transactions that it financially settles, with certain limited exceptions. The Company is a buyer to every seller and a seller to every buyer, but market participants are responsible for supplying electricity and other services to their customers. The Company's market participants are the primary obligors with respect to those obligations. In the event of a market default, the defaulted amount is allocated among market participants, in accordance with the tariff. Market participants continue to bear the credit risk associated with any financial defaults by other market participants. Accordingly, the Company's financial statements continue to reflect a net reporting of market activities and exclude the revenues and expenses, cash flows and assets and liabilities associated with the market transactions the Company facilitates.

Use of Estimates
The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could materially differ from those estimates.

Cash and Cash Equivalents
Cash and cash equivalents, restricted and unrestricted, include cash in bank accounts, money market funds and other highly liquid investments with original maturities of three months or less. Cash and cash equivalents are unrestricted unless specifically restricted by bond indentures or the tariff.

Accounts Receivable and Revenue Recognition
The GMC is based on rates filed with the Federal Energy Regulatory Commission and is designed to recover the Company's operating costs, capital expenditures, debt service costs, and to provide for an operating reserve. The GMC billings are recognized as revenue. The initial billings are based in part on estimated meter data submitted by market participants and therefore may be subject to adjustment over time to reflect the difference between actual meter data and initial estimates.

The GMC is comprised of the following three service categories: market services, system operations and congestion revenue rights services.

The operating reserve is calculated separately for each GMC service category and accumulates until the reserve becomes fully funded (at 15% of budgeted annual operating costs for each rate service category). At December 31, 2021, the operating reserve for each service category was fully funded. In accordance with the tariff, any surplus operating reserve balance is applied as a reduction in revenue requirements in the following year. The tariff allows GMC rates to be adjusted not more than once per quarter. The rate for a service category is adjusted if the difference in actual versus projected volumes used to set the rate is equal or greater than 2%, or if the difference in actual versus estimated annual revenues for the service category is equal or greater than $1.0 million. There were no rate adjustments in 2021. In June 2020 and August 2020, respectively, the rates for the system operations and market services were adjusted.

In addition, the Company bills the participants of the WEIM an administrative charge based on gross imbalance WEIM volumes and at a rate that is calculated annually to recover the ongoing costs of operating the WEIM. The WEIM administrative charge is included in other revenues of the Company.

The Company also bills the balancing authorities and transmission owners that use the services of RC West based on net energy loads and at a rate that is developed annually to recover the ongoing costs of the service. Participants with no load are charged a predetermined fixed amount. The Reliability Coordinator charge is included in other revenues of the Company.

Generator Interconnection Studies
The Company is responsible for conducting generator interconnection studies at the request of project sponsors who are developing generating plants that would become connected to the transmission grid operated by the Company. The project sponsors are required to make a deposit

before any studies are performed. Sponsors may withdraw their projects from the studies at any time.

In accordance with the tariff, the Company charges the project sponsors the actual costs of the studies. Related study costs include both internal costs and external costs and are recorded, when incurred, as operating expenses. As costs are incurred, the Company recognizes revenue for the same amount, which is recorded as a component of other revenues. The Company applies the deposits against the related receivable as costs are incurred. Certain deposits related to projects abandoned by the project sponsors are retained by the Company and distributed in accordance with the tariff. These distributions do not result in revenues or expenses recognized by the Company.

Investments
Investments, unrestricted or restricted, include instruments with original maturities of greater than three months, or instruments that have no stated maturity and the holding period is intended to be long-term in nature. These investments primarily consist of U.S. government securities, U.S. agency securities, corporate debt securities, and equity and fixed income mutual funds. Income on investments and the gain or loss on the fair value of investments is recorded as a component of interest income.

Fixed Assets
Fixed assets are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of assets. Most of the Company's investment in fixed assets consists of the headquarters building and the backup facility, both of which are being depreciated over twenty to thirty years, and information systems, which are being depreciated over three to seven years. The cost of improvements to or replacement of fixed assets is capitalized. When assets are retired or otherwise disposed of, the cost and related depreciation are removed from the accounts and any resulting gain or loss is reflected in the Company's Statement of Changes in Revenues, Expenses and Changes in Net Position for the period. Repair and maintenance costs are expensed when incurred. The Company capitalizes direct costs of salaries and certain indirect costs to develop or obtain software for internal use. Costs related to software development during the preliminary stage of a project and training and maintenance costs are expensed as incurred. Costs related to abandoned projects are expensed when the decision to abandon is made.

Other Assets
Other assets include certain employee retirement plan trust accounts.

Compensated Absences
The Company accrues vacation leave when the employee becomes eligible for the benefit.

The Company does not record sick leave or other leave as a liability since there are no cash payments for sick leave or other leave made when employees terminate or retire. At December 31, 2021 and 2020, the total accrued liability for vacation was $12.6 million, at the end of each year, respectively.

Income Taxes
The Company is exempt from federal income tax under Section 501(c)(3) of the U.S. Internal Revenue Service (IRS) Code and is exempt from California State franchise income taxes.

Net Position
The Company classifies its net position into three components:

- **Net investment in capital assets** - This component consists of capital assets, net of accumulated depreciation reduced by the outstanding debt balances, net of unamortized debt expenses.

- **Restricted** - This component consists of net assets with constraints placed on their use. Constraints include those imposed by debt covenants (excluding amounts considered in net capital, above) and by the Company's tariff and agreements with external parties.

- **Unrestricted** - This component consists of net assets that do not meet the definition of "invested in capital, net of related debt" or "restricted".

The Company had no restricted component of the net position at December 31, 2021 or 2020.

Concentration of Credit Risk
Financial instruments that subject the Company to credit risk consist primarily of accounts receivable relating to GMC billings due from market participants and cash and cash equivalents and investments.

Most of the Company's receivables are due from entities in the energy industry, including utilities, generation owners and other electricity market participants. For the years ended December 31, 2021 and 2020, approximately 34% and 37% of modified revenues, respectively, were from two market participants. Modified revenues include all operating revenues except for incidental pass-thru fees paid by various parties.

GMC revenues have a priority claim against any market-related receipts, which means that even if a market participant defaults on an invoice containing a GMC charge, the Company receives the full GMC so long as sufficient funds were received on other market invoices to fund the GMC due to the Company.

The Company's concentration of credit risk related to cash and cash equivalents, and investments is described in Note 3.

New GASB Guidance
In June 2017, GASB issued GASB Statement No. 87 *Leases*. The guidance establishes a single model for lease accounting based on the principle that leases are financings of the right to use an asset. Under the new guidance, there is no longer an operating versus capital classification. Lessees will recognize a lease liability and an intangible right-to-use asset and lessors will recognize a lease receivable and a deferred inflow of resources. The statement is effective for fiscal years beginning after June 15, 2021. Since supply contracts and power purchase agreements are not within the scope of this guidance, there is no requirement for the Company to change its current practice of expensing this type of lease cost.

In June 2020, GASB issued GASB Statement No. 97 Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans, which clarified certain guidance components of previously issued statements relating to the reporting of fiduciary activities. The new statement amended GASB Statements No. 14 and No. 84, and superseded GASB Statement No. 32. The statement is effective for fiscal years beginning after June 15, 2021.

The Company evaluated the impact of the two related statements and concluded that implementation of these statements did not have a material impact to the Company's financial statements.

3. Cash and Cash Equivalents and Investments

Investment Policy

The Company maintains an investment policy approved by its Board of Governors, which provides investment guidelines of the majority of the Company's unrestricted funds. The policy guidelines address permissible investment types, credit risk, concentration of credit risk, interest rate risk, custodial credit risk and other investment portfolio parameters.

Restricted funds, such as bond proceeds and amounts due to market participants, are invested according to the Company's bond indentures and tariff, respectively, both of which are more restrictive than the investment policy. A portion of the Company's unrestricted funds, $3.4 million as of December 31, 2021, has been designated by the Company as assets related to the liabilities associated with the Company's Retiree Medical Plan. These assets are governed by a separate investment policy approved by the Board of Governors, which is aligned with the Company's long-term pension obligations to fund postretirement health benefits.

Credit Risk

To mitigate the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment, the Company limits purchases of investments to those rated at the time of purchase by two of the following nationally recognized statistical rating organizations: Standard & Poor's, Moody's, and Fitch. The investment must have at least two ratings that meet a minimum rating of at least A-1 (or equivalent) for short-term obligations such as commercial paper and at least A- (or equivalent) for longer term obligations like corporate medium-term notes. In the event of split ratings, the lowest rating is considered the overall credit rating. This policy includes exceptions that allow the Company to invest in certificates of deposit issued by lower rated banks up to the FDIC insured limit and to hold investments that have been downgraded below the policy rating minimums if approved to do so by the Company's internal investment committee.

Money Market Fund rules require the use of a floating net asset (NAV) for institutional prime money market funds and provide boards with the ability to impose liquidity fees, as well as implement redemption gates, for all nongovernmental money market funds during periods of stress in the financial markets. Under normal circumstances, a floating NAV money market fund investment would continue to meet the definition of a cash equivalent. However, in the event credit or liquidity issues arise causing a meaningful decrease of the money market investments below $1.0000 per share the classification of such investments as cash equivalents may not be appropriate. There were no credit or liquidity issues that resulted in meaningful decreases in the Company's money market investments in 2021. Therefore, amounts invested in money market funds remain classified as cash equivalents.

Concentration of Credit Risk

This is the risk of loss associated with the percentage of an entity's investment in a single issuer. The Company's investment policy limits investments in any single issuer to no more than 5% of the portfolio, with exceptions relating to obligations issued by or fully guaranteed as to principal and interest by the United States, federal agencies or United States government sponsored enterprises, pooled investments such as money market funds, and investments procured in connection with Company bond offerings. As of December 31, 2021, other than the security exceptions described above, the Company had no investments in any one issuer representing more than 5% of total cash and cash equivalents and investments.

Custodial Credit Risk

Custodial credit risk is the risk that, in the event of the failure of a depository financial institution or counterparty, the Company will not be able to recover the value of its deposits, investments or collateral securities that are in the possession of an outside party.

The Company may maintain balances in bank accounts exceeding the FDIC insured level of $250,000. In the event of a bank default, the Company's deposits may not be returned. The Company had unrestricted noninterest-bearing bank deposits in amounts of $0.0 million and $0.4 million at December 31, 2021 and 2020, respectively. Additionally, the Company had restricted noninterest-bearing bank deposits in amounts of $0.0 million and $3.1 million at December 31, 2021 and 2020, respectively. All other investments purchased by the Company, by policy, are held in custodial accounts by third-party custodians and are registered in the Company's name, thereby minimizing any custodial credit risk.

Interest Rate Risk

Changes in interest rates may adversely affect the fair value of the Company's investments and its cash flows. A sharp rise in market interest rates could have a material adverse impact on the fair value of our fixed income investment portfolio. Conversely, declines in interest rates, could have a material adverse impact on interest income for our investment portfolio. The Company's investment policy attempts to mitigate this risk by limiting the maximum maturity of any direct investment to five years with the exception of bond proceeds and the assets associated with the Retiree Medical Plan liabilities. The fixed income mutual funds that the Company invests in also have similar duration targets.

Summary of Balances

At December 31, 2021, the Company's cash, cash equivalents and investments consist of the following (in thousands):

		Remaining Maturities (in Years)			
Description	**Credit Rating***	**Less than 1**	**1 - 5**	**More than 5**	**Total**
Cash and cash equivalents - unrestricted					
Money Market Funds	AAAm	$ 20,072			$ 20,072
		20,072	-	-	20,072
Cash and cash equivalents - restricted					
Money Market Funds	AAAm	578,898			578,898
		578,898	-	-	578,898
Total cash and cash equivalents		598,970	-	-	598,970
Short term investments - unrestricted					
Mutual Funds	Unrated	15,344			15,344
Certificate of Deposits	FDIC Insured	342			342
Government-sponsored Enterprises	AA+	2,000			2,000
U.S Treasury	AA+	4,319			4,319
Corporate Notes	AA+	1,006			1,006
Corporate Notes	A+	1,523			1,523
Corporate Notes	A	1,005			1,005
Corporate Notes	A-	1,706			1,706
		27,245	-	-	27,245
Short term investments - restricted					
Certificate of Deposits	FDIC Insured	24,629			24,629
		24,629	-	-	24,629
Total short-term investments		51,874	-	-	51,874
Long-term investments - unrestricted					
Affinity Insurance Ltd.	Unrated			37	37
Mutual Funds	Unrated		225,212		225,212
U.S. Treasury	AA+		4,631		4,631
		-	229,843	37	229,880
Long-term investments - restricted					
Certificate of Deposits	FDIC Insured		12,416		12,416
Total long-term investments		-	242,259	37	242,296
Total cash, cash equivalents and investments		$ 650,844	$ 242,259	$ 37	$ 893,140

*Represents S&P rating.

At December 31, 2020, the Company's cash, cash equivalents and investments consist of the following (in thousands):

		Remaining Maturities (in Years)			
Description	**Credit Rating***	**Less than 1**	**1 - 5**	**More than 5**	**Total**
Cash and cash equivalents - unrestricted					
Deposits		$ 220	$ -	$ -	$ 220
Money Market Funds	AAAm	23,109			23,109
		23,329	-	-	23,329
Cash and cash equivalents - restricted					
Deposits		762			762
Money Market Funds	AAAm	446,914			446,914
		447,676	-	-	447,676
Total cash and cash equivalents		471,005	-	-	471,005
Short term investments - unrestricted					
Mutual Funds	Unrated	15,338			15,338
Certificate of Deposits	FDIC Insured	3,267			3,267
Government-sponsored Enterprises	AA+	5,024			5,024
U.S Treasury	AA+	12,108			12,108
Corporate Notes	AA-	2,024			2,024
Corporate Notes	A+	1,010			1,010
Corporate Notes	A	1,012			1,012
Corporate Notes	A-	900			900
Corporate Notes	BBB+	1,509			1,509
Corporate Notes	BBB	1,155			1,155
		43,347	-	-	43,347
Short term investments - restricted					
Certificate of Deposits	FDIC Insured	24,785			24,785
		24,785	-	-	24,785
Total short-term investments		68,132	-	-	68,132
Long-term investments - unrestricted					
Affinity Insurance Ltd.	Unrated			37	37
Certificate of Deposits	FDIC Insured		343		343
Mutual Funds	Unrated		173,373		173,373
U.S. Treasury	AA+		9,225		9,225
Government-sponsored enterprises	AA+		2,038		2,038
Corporate Notes	AAA		-		-
Corporate Notes	AA+		1,026		1,026
Corporate Notes	AA-		-		-
Corporate Notes	A+		1,571		1,571
Corporate Notes	A		4,827		4,827
Corporate Notes	A-		-		-
Corporate Notes	BBB+		-		-
		-	192,403	37	192,440
Long-term investments - restricted					
Certificate of Deposits	FDIC Insured		19,708		19,708
Total long-term investments		-	212,111	37	212,148
Total cash, cash equivalents and investments		$ 539,137	$ 212,111	$ 37	$ 751,285

*Represents S&P rating.

The Company's cash, cash equivalents and investments at December 31 consist of unrestricted and restricted funds as follows (in thousands):

	2021	**2020**
Unrestricted funds, operating account	$ 277,197	$ 259,116
Restricted funds, debt service	40	-
Restricted funds, market participants	615,903	492,169
Total cash, cash equivalents and investments	$ 893,140	$ 751,285

Cash, cash equivalents and investments restricted for market participants consist of the following at December 31 (in thousands):

	2021	2020
Security deposits	$ 339,663	$ 302,501
Market funds pending settlement	77,327	71,763
Pass-through fees due to others	11,774	13,969
Generator interconnection study deposits	185,650	94,964
Non-refundable deposits pending distribution	1,489	8,972
Total amounts restricted for market participants	$ 615,903	$ 492,169

Cash, cash equivalents and investments restricted for market participants consist of amounts held by the Company to be remitted to market participants or others on their behalf. Security deposits are amounts received from market participants who are required to post collateral for their transactions in the Company's markets. Market funds pending settlement consist of amounts collected during the settlement and clearing function that will pass-through to market participants in subsequent periods. Pass-through fees due to others consist of amounts collected from market participants that will be paid to market participants for transactions such as summer reliability, startup costs and emission costs. Generator interconnection study deposits are amounts collected for future studies. Nonrefundable deposits consist of interconnection amounts, which are nonrefundable to project sponsors in accordance with tariff requirements.

4. Fixed Assets

Changes in the Company's fixed assets for the year ended December 31, 2021, are as follows (in thousands):

	2020	Additions and Transfers In	Disposals and Transfers Out	2021
Nondepreciable fixed assets				
Land	$ 10,561	$ -	$ -	$ 10,561
Work-in-progress	10,237	15,849	(20,603)	5,483
	20,798	15,849	(20,603)	16,044
Depreciable fixed assets				
Regional transmission operator software	455,095	18,953	-	474,048
Regional transmission operator hardware	21,501	688	(55)	22,134
Communication equipment	10,670	632	-	11,302
ISO Facilities (HQ and Lincoln)	162,251	-	-	162,251
Furniture, fixtures and other	19,559	330	-	19,889
	669,076	20,603	(55)	689,624
Less: Accumulated depreciation	(524,205)	(30,568)	55	(554,718)
	144,871	(9,965)	-	134,906
Total fixed assets, net	$ 165,669	$ 5,884	$ (20,603)	$ 150,950

Changes in the Company's fixed assets for the year ended December 31, 2020, are as follows (in thousands):

	2019	Additions and Transfers In	Disposals and Transfers Out	2020
Nondepreciable fixed assets				
Land	$ 10,561	$ -	$ -	$ 10,561
Work-in-progress	6,902	21,038	(17,703)	10,237
	17,463	21,038	(17,703)	20,798
Depreciable fixed assets				
Regional transmission operator software	443,831	11,526	(262)	455,095
Regional transmission operator hardware	22,030	3,670	(4,199)	21,501
Communication equipment	11,814	182	(1,326)	10,670
ISO Facilities (HQ and Lincoln)	161,573	678	-	162,251
Furniture, fixtures and other	17,947	1,646	(34)	19,559
	657,195	17,702	(5,821)	669,076
Less: Accumulated depreciation	(503,800)	(26,226)	5,821	(524,205)
	153,395	(8,524)	-	144,871
Total fixed assets, net	$ 170,858	$ 12,514	$ (17,703)	$ 165,669

5. Generator Noncompliance Fines

In 2000 and 2001, the Company billed fines to generators that failed to comply with dispatch instructions. These fines were assessed at a rate that generally corresponded to the prices paid for energy in the Company's market during the interval when the generator failed to comply. Because the energy prices were subject to adjustment by the Federal Energy Regulatory Commission in the Refund Case described in Note 12, the Company expected that the amount of the fines to be retained by the company would be reduced, with the surplus to be refunded with interest to market participants. Each year thereafter, the Company adjusted its estimated refund liability based on updated information related to interest and other factors.

In 2020, after parties in the Refund Proceeding filed a settlement of all parties' assets and liabilities with FERC, the Company concluded that there was no remaining liability and recognized $1.4 million that previously had been reserved to pay refunds as Other Income.

In May 2021, FERC issued an order accepting this settlement, and the final payments were distributed.

6. Long-term Debt and Related Agreements

Long-term debt consists of the following at December 31 (in thousands):

	2021	2020
CSCDA Taxable Refunding Revenue Bonds, Series 2021		
Fixed interest rates of 0.25% - 2.68% with maturities through 2039	$ 174,445	$ -
CIEDB Revenue Bonds, Series 2013		
Fixed interest rates of 2.00% - 5.25% with maturities through 2039	-	163,380
Unamortized net premium		
Series 2013 bonds	-	6,069
Total long-term debt	174,445	169,449
Less: Current portion	(9,050)	(5,395)
Total long-term debt, net of current portion	$ 165,395	$ 164,054

Summarized activity of long-term debt for the year ended December 31, 2021, is as follows (in thousands):

	Beginning of Year	Issuances (Payments)	End of Year
CIEDB Revenue Bonds, Series 2013	$ 163,380	$ (163,380)	$ -
CSCDA Taxable Refunding Revenue Bonds, Series 2021	$ -	$ 174,445	$ 174,445
Total long-term debt	$ 163,380	$ 11,065	$ 174,445

Summarized activity of long-term debt for the year ended December 31, 2020, is as follows (in thousands):

	Beginning of Year	Payments	End of Year
CIEDB Revenue Bonds, Series 2013	$ 168,545	$ (5,165)	$ 163,380
Total long-term debt	$ 168,545	$ (5,165)	$ 163,380

Scheduled future debt service payments for these bonds as of December 31, 2021, are as follows (in thousands):

	Principal	Interest	Total
2022	$ 9,050	$ 3,078	$ 12,128
2023	8,735	3,013	11,748
2024	8,770	2,983	11,753
2025	8,815	2,938	11,753
2026 - 2039	139,075	25,425	164,500
Total debt service payments	$ 174,445	$ 37,437	$ 211,882

In January 2021, the Company issued $174.5 million of fixed rate taxable refunding revenue bonds (“2021 bonds”) through the California Statewide Communities Development Authority (CSCDA) at par, to advance refund $163.4 million of outstanding 2013 bonds. The net proceeds of $173.0 million (after payment of $1.4 million in underwriting fees and other issuance costs) together with other funds of the Company were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the 2013 bonds. As a result, in 2021, the 2013 bonds are considered to have been defeased and were removed from the Statements of Net Position in 2021.

The debt defeasance transaction extinguished the outstanding debt related to the 2013 bonds. The recording of this transaction within the financial statements resulted in a net loss of $15.0 million in 2021 because the acquisition price of the bonds, together with the other funds used in the transaction, was greater than the net carrying value of the 2013 debt. This loss is recognized as an unamortized loss on refunding that will be expensed equitably over the term of the new debt and is presented as a deferred outflow of resources.

Although the advance refunding resulted in the recognition of an accounting loss, the Company reduced its debt service payments by just under $1.8 million annually over the next 18 years and obtained an economic gain (difference between the present value of the old and new debt service payments) of $26.0 million.

7. Supplemental Disclosure of Derivative Financial Instruments – Congestion Revenue Rights (“CRRs”)

As described in Note 2, the Company is the central counterparty to market participant transactions, which include CRRs. CRRs are financial instruments that enable market participants to reduce their congestion-related price risk when delivering or selling energy on the grid. A CRR provides an economic hedging mechanism against congestion charges that can be transacted by market participants separately from transmission service. These instruments are considered derivative financial instruments for accounting purposes, which would require presentation at fair value if they were recognized as assets and liabilities of the Company.

Consistent with its role in facilitating other market transactions, the Company facilitates the allocation, auctioning and ultimate settlement of CRRs in its market, but does not have economic risks and rewards associated with these financial instruments. Any market defaults are allocated to market participants. As such, they are not recognized as assets and liabilities in the Company’s Statements of Net Position. However, unlike other market transactions administered by the Company, CRRs can be outstanding for extended periods.

In May 2021, long term CRRs that were granted to owners of certain transmission line equipment, were end dated. The transmission line was upgraded and all the equipment owned by the CRR holders were removed from service. The approximate value of the end-dated CRRs were approximately $631.1 million related to a total of 91,779 megawatts.

At December 31, 2021, the average life of the Company's CRRs was 3.04 years and there were a total of 107 CRR holders, compared to 7.55 years and 101 CRR holders at December 31, 2020. The estimated net fair value of both the CRR assets and liabilities as of December 31, 2021 was $536.8 million related to a total of 584,249 megawatts, which vary in length from one month to several years. This is compared to $1.1 billion related to a total of 649,918 megawatts at December 31, 2020. The value of each megawatt of CRR is a function of numerous factors including the length of period the CRR covers.

While these amounts are not presented in the Statements of Net Position, their estimated net fair value is disclosed for informational purposes given their longer term nature. Their fair value was determined based on several factors including actual auction prices transacted in the most recent annual and monthly auction processes, the Company's models that calculate the estimated value of all transmission constraints, net present value discounting and other factors. In addition to the high level of uncertainty associated with these inputs to the valuation calculation model, changes to actual or anticipated flows and constraints on the transmission system managed by the Company or in the value of electricity flowing on the transmission system create volatility that can significantly affect CRR values. Changes in generation, load, weather, and transmission outages are other factors that can have immediate and significant impact on CRR values.

The following is a summary of CRR megawatts, by type, outstanding at December 31, 2021:

Type (in Megawatts)	
Monthly (January 2022)	97,421
Annual (February - December 2022)	265,730
Long Term (January 2022 - December 2031)	221,098
Total CRRs (Megawatts)	584,249

The following is a summary of CRR megawatts, by type, outstanding at December 31, 2020:

Type (in Megawatts)	
Monthly (January 2021)	31,631
Annual (February - December 2021)	357,634
Long Term (January 2021 - December 2030)	260,653
Total CRRs (Megawatts)	649,918

8. Fair Value of Financial Instruments

Accounting guidance for fair value measurement requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard establishes a three-tier fair value hierarchy based on the level of independent, objective evidence surrounding the inputs used to measure fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is as follows:

Level 1 Applies to assets or liabilities for which there are quoted prices in active markets that are accessible at the measurement date for identical unrestricted assets or liabilities.

Level 2 Applies to assets or liabilities for which there are inputs other than quoted prices that are observable for the asset or liability such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs and significant value drivers are observable or can be derived principally from, or corroborated by, observable market data.

Level 3 Applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. Financial assets and liabilities are classified in their entirety based on the level of input that is considered most significant to the fair value measurement.

The Company's assets measured at fair value on a recurring basis at December 31, 2021, were as follows (in thousands):

	Total	Level 1	Level 2	Level 3
Cash equivalents:				
Money market funds	$ 598,970	$ 598,970	$ -	$ -
Short-term investments:	-			
Publicly traded mutual funds	15,344	15,344		
U.S. Treasury securities	4,319	4,319		
U.S. government agency securities	2,000	2,000		
Negotiable certificates of deposit	24,970		24,970	
Corporate debt securities	5,241		5,241	
Long-term investments:	-			
U.S. Treasury securities	4,631	4,631		
Negotiable certificates of deposit	12,416		12,416	
Publicly traded mutual funds	225,212	225,212		
Captive insurance investment	37			37
Total cash, cash equivalents and investments	$ 893,140	$ 850,476	$ 42,627	$ 37

The Company's assets measured at fair value on a recurring basis at December 31, 2020, were as follows (in thousands):

	Total	Level 1	Level 2	Level 3
Cash:	$ 982	$ -	$ -	$ -
Cash equivalents:				
Money market funds	470,023	470,023		
Short-term investments:				
Publicly traded mutual funds	15,338	15,338		
U.S. Treasury securities	12,108	12,108		
U.S. government agency securities	5,023	5,023		
Negotiable certificates of deposit	28,052		28,052	
Corporate debt securities	7,610		7,610	
Long-term investments:				
U.S. Treasury securities	9,226	9,226		
U.S. government agency securities	2,038	2,038		
Negotiable certificates of deposit	20,051		20,051	
Corporate debt securities	7,424		7,424	
Publicly traded mutual funds	173,373	173,373		
Captive insurance investment	37			37
Total cash, cash equivalents and investments	$ 751,285	$ 687,129	$ 63,137	$ 37

Level 1 money market funds and publicly traded mutual funds are determined by using quoted prices in active markets. Level 2 fixed income securities are priced using quoted market prices for similar instruments or nonbinding market prices that are corroborated by observable market data. Level 3 assets are nonnegotiable instruments that require the use of unobservable inputs in determining fair value.

The fair value of the employee retirement plan trust accounts at December 31, 2021 and 2020 was $4.0 million and $5.6 million, respectively. These accounts are invested in cash equivalents and publicly traded mutual funds and are classified as Level 1 assets.

The fair value of the Company's long-term debt as of December 31, 2021 and 2020 was $173.5 million and $176.8 million, respectively. The fair value of fixed rate long-term debt, which includes the short-term portion, is based on current market quotes that are classified as a Level 2 on the fair value hierarchy at both December 31, 2021 and 2020.

The carrying values reported in the balance sheet for current assets and liabilities, excluding amounts discussed above, approximate fair value.

Additionally, the Company had $21.2 million and $19.3 million at December 31, 2021 and 2020, respectively, in trust related to the post-employment medical benefit plan (Note 9). At December 31, 2021 and 2020, these trust assets consist primarily of mutual funds and are classified as Level 1 within the fair value hierarchy.

9. Employee Benefit Plans

The Company maintains a number of employee benefit plans. A description of the Plans and key provisions is included below. Obligations included in the Company's Statements of Net Position related to these plans consist of the following at December 31 (in thousands):

	2021	2020
Post-employment medical benefit plan	$ 137	$ 3,233
Executive pension restoration plan	2,112	3,694
Executive savings plan	1,862	1,949
Total employee retirement plan obligations	$ 4,111	$ 8,876

Post-Employment Medical Benefit Plan

Plan Description

The Company sponsors the California ISO Retirees Medical Plan, a single employer defined benefit plan, to provide post-employment health care benefits to all eligible employees who retire from the Company and meet certain eligibility requirements. The Plan is closed to new hires and rehires effective January 1, 2019.

Eligibility for retirement is age 55 with at least 10 years of continuous service, whose combined age and years of continuous service equals or exceeds 70. For employees born after January 1, 1969, pre-65 spousal coverage ends on the participants' 75th birth date. A Post-65 spouse who is removed from pre-65 coverage may obtain coverage once they reach age 65.

Depending on years of service, the Company pays between 60% and 70% of the premiums on the coverage elections made by the beneficiaries not to exceed $8,000 per year for individual retiree coverage and $16,000 per year for retiree plus spouse and/or dependent. Plan benefits are available to eligible retirees and to their spouses, domestic partners and eligible dependents, as provided for under the terms of the Plan. Current plan coverage extends for the lifetime of the participants and their beneficiaries, except for dependents, which generally terminates at age 25.

The Plan provides a monthly amount per post-65 retiree and eligible post-65 dependents towards the cost of enrolling in any of the Medicare supplemental programs, and at the Company's discretion, may increase the allowance annually. Supplemental program costs in excess of the provided monthly amount are the responsibility of the retirees and or dependents.

There are 434 active employees hired before January 1, 2019, of whom, 123 are fully eligible to retire and there are 100 retirees who are eligible to receive benefits pursuant to the Plan as of December 31, 2021.

Funding and Investment Policy

The Company has established a trust for the purposes of funding the Plan. The trust was established as a tax-exempt voluntary employees' beneficiary association. All assets of the trust are to be used for the exclusive benefit of the participants and beneficiaries of the Plan. Although the Company has fiscal accountability for these assets and holds them in a fiduciary capacity, the assets are not considered assets of the Company and are therefore not included in the Statements of Net Position of the Company. As of December 31, 2021, and 2020, the trust assets were $21.2 million and $19.3 million, respectively. The Plan issues audited trust financial statements annually, which are available upon request.

The Company's current funding policy is to annually contribute an amount such that the total amount in the trust approximates the actuarially determined liability attributable to retirees and their spouses and to active participants who are fully eligible to retire. Based on this current funding policy, the trust was fully funded at December 31, 2021. The Company does not provide funding into the trust related to future obligations associated with employees who have not become eligible to retire, although, as part of its rate structure, the Company collects annual amounts associated with future other post-employment benefit ("OPEB") obligations for all employees. As a result, assets equivalent to the actuarially determined liability attributable to employees not yet eligible to retire are segregated in a separate custody account. The amounts are adjusted annually to match the current actuarially determined liability. These segregated assets are reported in the Company's Statements of Net Position.

The assets of both the trust and the Company's segregated funds are invested in accordance with the Board approved California ISO Retirees Medical Plan Investment Policy. In general, the assets are invested in a mix of equity and fixed income mutual funds.

The Company also currently funds disbursements for the employer portion of the premiums on the coverage elections made by the pre-65 beneficiaries, their respective spouses and, if any, dependents, and the monthly contributions to the post-65 retirees and their post-65 dependents from the segregated funds.

Net OPEB Liability ("NOL")
The Company's annual OPEB liabilities as of December 31, 2021 and 2020, respectively, was determined by an actuarial valuation as of those dates.

Actuarial Methods and Assumptions
The total OPEB liability in the December 31, 2021 and 2020 actuarial valuations were determined using actuarial assumptions, applied to all respective periods included in the measurement. The following significant actuarial methods and assumptions were used in the calculation.

	2021	**2020**
Discount Rate	5.50%	5.40%
Expected Long-term Rate of Return on Plan Assets	5.50%	5.40%
Rate of Compensation Increase	3.00%	3.00%
Current Health Care Cost Trend Rate	6.25%	6.50%
Ultimate Health Care Cost Trend Rate	5.00%	5.00%
Year of Ultimate Trend Rate	2027	2027

The mortality rates were based on the Pri-2012 mortality tables (Base mortality table year "2012", Table type "Total", Health type "Healthy", Table weighing "Headcount"), with Scale MP-2021 for mortality improvements to reflect the most recent mortality experience published by the Society of Actuaries. Separate rates, based on the "Employee" table, were developed for annuitants and nonannuitants. Same rates also were developed for retirees, contingent annuitants, and contingent survivors.

The expected long term return on assets assumption reflects the Company's estimate of future experience for the trust asset returns reflecting the Plan's current asset allocation and any expected changes during the current plan year, current market conditions and the Company's expectations for future market conditions. The long-term rate of return was determined using a building-block method in which best estimate ranges of expected investment rates of return over the next 20 years are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the current asset allocation percentage. The current asset allocation and best estimates of the rates of return for each major asset class are summarized in the following table.

Asset Class	Asset Allocation	Long-Term Expected Rate of Return
International stocks	28.0 %	7.25 %
BarCap aggregate funds	25.0	2.77
Large-cap stocks	19.0	7.25
10-year TIPS	10.0	2.20
Cash equivalents	10.0	2.14
Small cap stocks	4.0	6.86
Mid-cap stocks	4.0	7.25
Total	100 %	

The expected long-term return on assets is also used as the discount rate for all periods of projected benefit payments to determine the total OPEB liability since the Company's contributions to the Plan are made at rates equal to the actuarially determined contribution rates. Additionally, the Plan's fiduciary net position is projected to be available to make all projected OPEB payments for all current and future retirees.

The actuarial assumptions employed in the development of the OPEB liability and other financial reporting have been selected in accordance with the Actuarial Standards of Practice, which required that each significant assumption is appropriate for the purpose of the measurement; takes into account historical and current economic data that is relevant as of the measurement date; reflects expected future experience and has no significant bias (i.e., it is not significantly optimistic or pessimistic).

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

The Company's annual OPEB expenses at December 31, 2021 and 2020 are as follows (in thousands):

	2021	2020
OPEB Expense		
Service cost	$ 748	$ 811
Interest cost	1,217	1,314
Differences between expected and actual experience	(349)	(389)
Changes in assumptions	(1,186)	(866)
Expected return on assets	(1,042)	(971)
Differences between expected and actual return on assets	(643)	(480)
Annual OPEB expense	$ (1,255)	$ (581)

For the year ended December 31, 2021, the Company reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (in thousands):

	Outflows	Inflows
Differences between expected and actual experience	$ 770	$ (2,760)
Changes in assumptions	496	(7,144)
Net difference between projected and actual earnings on OPEB investments	N/A	(1,751)

Amounts reported as of December 31, 2021 as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

	Amount
During fiscal year ending 12/31/2022	$ (1,986)
During fiscal year ending 12/31/2023	(2,251)
During fiscal year ending 12/31/2024	(2,050)
During fiscal year ending 12/31/2025	(1,968)
During fiscal year ending after 12/31/2026 and thereafter	(1,545)
During fiscal year ending after 12/31/2027 and thereafter	(589)

The following table presents the sensitivity of the net OPEB liability to changes in the discount rate and health care cost trend rates if it was separately calculated using a 1% lower or 1% higher than the current discount rate or health cate cost trend rate.

	2021	2020	2019
Change in NOL with 1.0% increase in discount rate	$ (2,080)	$ (2,483)	$ (2,481)
Change in NOL with 1.0% decrease in discount rate	2,473	3,000	2,999
Change in NOL with 1.0% increase in health care trend rates	217	245	336
Change in NOL with 1.0% decrease in health care trend rates	(212)	(239)	(318)

Required Supplementary Information (Unaudited)

Schedule of Changes in the Net OPEB Liability and Related Ratios

The schedule below presents the Company's total OPEB liability, the Plan fiduciary position, net OPEB liability and related ratios (dollars in thousands):

	2021	2020	2019
Total OPEB liability ("TOL")			
Service cost	$ 748	$ 811	$ 1,101
Interest cost	1,217	1,314	1,580
Differences between expected and actual experience	313	(1,883)	(438)
Changes in assumptions	(2,468)	89	(4,657)
Benefit payments	(1,050)	(539)	(606)
Net change in TOL	(1,240)	(208)	(3,020)
TOL - beginning	22,309	22,517	25,537
TOL - ending	21,069	22,309	22,517
Plan fiduciary net position ("PFNP")			
Employer contributions	986	461	4,987
Net investment income	1,857	2,262	2,230
Benefit payment	(1,050)	(539)	(606)
Active subsidy	64	78	56
Net change in PFNP	1,857	2,262	6,667
PFNP - beginning	19,302	17,040	10,373
PFNP - ending	21,159	19,302	17,040
Net OPEB liability	$ (90)	$ 3,007	$ 5,477
PFNP as a percentage of TOL	100.42 %	86.52 %	75.67 %
Covered-employee payroll	$ 64,368	$ 69,598	$ 71,588
NOL as a percentage of covered-employee payroll	(0.14)%	4.32 %	7.65 %

Schedule of Employer Contributions to the OPEB Plan

The schedule below reflects the Company's contributions relative to the actuarially determined contributions for the Plan (dollars in thousands):

	2021	2020	2019	2018
Actuarially determined contribution	$ -	$ -	$ -	$ -
Contribution in relation to the actuarially determined contribution	986	461	550	841
Contribution deficiency (excess)	$ (986)	$ (461)	$ (550)	$ (841)
Covered-employee payroll	$ 64,368	$ 69,598	$ 71,588	$ 72,478
Contribution as a percentage of covered-employee payroll	1.5 %	0.7 %	0.8 %	1.2 %

Notes to Schedule

Valuation date:
Actuarially determined contribution rates are calculated as of December 31

Methods and assumptions used to determine contribution rates:

Actuarial cost method:	Entry age normal
Amortization period	Average future service for all participants as of 1/1/2021, where inactive participants are assumed to have zero average future service
Asset valuation method	Investments in the trust fund are valued on the basis of their fair market value
Inflation	2.5%
Salary increases	3.0%, average, including inflation
Termination and retirement age	The termination and retirement rates have been updated to reflect current experience

Executive Pension Restoration Plan

The Company sponsors the Executive Pension Restoration Plan, a nonqualified defined contribution plan, which allows certain officers of the Company to make contributions and receive Company contributions in excess of the 401(k) contribution limits set forth by IRS regulations as described in the retirement savings benefits plan below.

The contributions and earnings thereon are held in a trust and the balances as of December 31, 2021 and 2020, were $2.2 million and $3.8 million, respectively, and are included in Other Assets with a corresponding liability in Employee Retirement Plan Obligations. In connection with this plan, the Company recognized expenses for contributions of $310,763 and $191,589 in 2021 and 2020, respectively.

Executive Savings Plan

The Company sponsors the Executive Savings Plan, a nonqualified defined contribution plan under section 457(b) of the IRS Code. The Company contributes a percentage of each officer's annual base compensation to the Plan. Officers may elect to make voluntary contributions, subject to statutory limitations. The contributions and earnings thereon are held in a trust and the balance as of December 31, 2021 and 2020 was $1.8 million and $1.9 million, respectively, and are included in Other Assets, with a corresponding liability in Employee Retirement Plan Obligations. In connection with this plan, the Company recognized expenses of $180,940 and $152,903 in 2021 and 2020, respectively.

Retirement Savings Benefits Plan

The Company sponsors a defined contribution retirement plan, the California ISO Retirement Savings Benefits Plan (the "Retirement Plan") that is subject to the provisions of the Employee Retirement Income Security Act of 1974 and covers substantially all employees. The Company administers the Retirement Plan with the assistance of a third party. The assets of the Plan are held separately from Company assets and are not combined with the assets in the Statements of Net Position.

Employees may elect to contribute up to fifty percent of their eligible compensation to the Retirement Plan, subject to statutory limitations. The Company matches contributions up to six percent of an employees' eligible compensation and an additional contribution equal to five percent of eligible compensation for employees with less than five years of service, or seven percent for employees who have at least five years but not more than ten years of service. An additional contribution of one percent of eligible compensation is also made by the Company for each five-year increment of service after an employees' ten-year anniversary.

Employee contributions to the Retirement Plan for 2021 and 2020 were $9.7 million and $9.5 million, respectively. The Company contributions to the Retirement Plan for 2021 and 2020 were $10.7 million and $10.4 million, respectively.

10. Insurance Programs and Claims

The Company is exposed to various risks of loss related to torts; theft, damage to, and destruction of assets; errors and omissions; nonperformance of duty; injuries to employees; and natural disasters. The Company maintains various commercial and mutual insurance plans that provide coverage for most claims in excess of specific dollar thresholds. Primary insurance policies have coverage limits set based on the Company's assessment of reasonable exposure within that risk category, with consideration of insurance types and coverage limits for comparable entities. Additionally, the Company maintains excess liability coverage that provides umbrella coverage for certain exposures. Losses incurred below insurance deductibles are expensed as incurred. In the last three years, the Company did not incur any claims in excess of the coverage described above.

The Company is a participant in a group captive insurance company for workers compensation insurance coverage. The Company's annual net insurance costs for such coverage vary based on claims incurred at the Company, and to a lesser extent, claims activity of other members of the captive insurance company. The Company's annual insurance expense is limited through reinsurance and risk sharing arrangements of the captive to an additional percentage of the initial base premium paid.

11. Lease Commitments

The Company has long-term operating leases that expire at various times through 2030.

The following are the future minimum payments under these agreements as of December 31, 2021 (in thousands):

2022	$	203
2023		208
2024		212
2025		217
2026 - 2030		1,160
Total lease commitments	$	2,000

12. Contingencies

The Federal Energy Regulatory Commission Refund Case
In 2000 and 2001, the California energy markets, including those managed by the Company, experienced high prices, shortages of energy and reserves, rolling blackouts and liquidity problems for many market participants. Some market participants, including the California Power Exchange (Cal PX), filed for bankruptcy. Purchasers of energy during that period sought refunds at the Federal Energy Regulatory Commission.

In 2020, after parties in the Refund Proceeding filed a settlement of all parties' assets and liabilities with FERC, the Company concluded that there was no remaining liability (see Note 5). In 2021, FERC issued an order accepting this settlement and the final payments were distributed. Accordingly, effective 2021 there are no contingencies related to the FERC Refund Case.

Market Billing Disputes in Good Faith Negotiations
As part of the tariff and applicable contracts, the Company has dispute resolution processes for market participants to register disagreements regarding information reflected in the settlement statements or billing amounts for market activity.

Market disputes are addressed in the normal course of operations, some of which result in adjustments to previously issued settlement statements. When adjustments are made, the adjustment amounts are reallocated to market participants, with no net cost or credit being realized by the Company. With respect to pending market disputes at December 31, 2021, including those that have escalated to good faith negotiations, management believes that any settlements or market awards would be resettled against the market with no liability to the Company.

Indemnifications
The Company's bylaws require its annual financial statements to include disclosures about certain payments made by the Company related to indemnification of officers and Board members. There were no such payments in 2021 or 2020.

Other Matters
The Company, during the ordinary course of its operations, has been involved in various lawsuits and claims. In addition, the Company is subject to compliance with mandatory reliability standards promulgated by the North American Electric Reliability Corporation and approved by the Federal

Energy Regulatory Commission, which if violated could result in penalties assessed to the Company.

There are currently some pending claims against the Company as well as matters related to alleged violations of the mandatory reliability standards. Management is of the opinion that none of these matters will have a material adverse impact on the financial position or results of the operations of the Company.

13. Subsequent Events

The Company evaluates events or transactions that occur after December 31, 2021, but before financial statements are issued for potential recognition or disclosure in the financial statements. The Company has evaluated all subsequent events through April 15, 2022, the date the financial statements were issued.