PJM 2020 FINANCIAL REPORT

PJM 2020 FINANCIAL REPORT

MANAGEMENT'S DISCUSSION AND ANALYSIS

FORWARD-LOOKING STATEMENTS

In addition to the historical information presented throughout this report, there are forward-looking statements that reflect management's expectations for the future. Sometimes the words "estimate," "plan," "expect," "believe" or similar expressions will be used to identify such forward-looking statements. These forward-looking statements are based on current expectations. These statements are not guarantees of future performance and are subject to certain risks and uncertainties.

Many factors could cause actual results to differ materially from these statements. These factors include, but are not limited to, the results of regulatory proceedings, the conditions of the capital markets, interest rates, actuarial assumptions, availability of credit, liquidity and general economic conditions, including those resulting from the COVID-19 pandemic; changes in accounting principles and practices; acts of terrorists; the actions of adjacent control areas and other regional transmission organizations (RTOs); and other operational conditions that could arise on the power system. For a description of these and other factors that may cause actual results to differ, reference is made hereby to PJM Interconnection, L.L.C.'s (PJM or the Company) Consolidated Financial Statements, Notes thereto and other documents filed by the Company from time to time with the Federal Energy Regulatory Commission (FERC).

These forward-looking statements represent PJM's estimates and assumptions only as of the date of this report, and PJM assumes no responsibility to update these forward-looking statements.

Nature of Operations

The Company currently coordinates a pooled generating capacity of more than 185,378 megawatts (MW) and operates wholesale electricity markets with approximately 1,038 members. PJM enables the delivery of electric power to more than 65 million people in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

PJM manages a sophisticated regional planning process for generation and transmission expansion to ensure continued reliability of the electric system. Using information technology, PJM provides real-time information to market participants to support their daily transactions and business decision-making. In addition to ensuring the reliable supply of electricity, PJM administers internet-based bid markets in which participants buy and sell day-ahead and spot-market energy, Financial Transmission Rights (FTRs), synchronized reserves and regulation services.

PJM Settlement, Inc. (PJM Settlement) is a wholly owned subsidiary of PJM, organized as a Pennsylvania nonprofit corporation, and is a FERC-regulated entity. PJM Settlement was formed to handle all of the credit, billing and settlement functions for PJM's members' transactions in the PJM markets and for transmission service. PJM Settlement acts as a counterparty to members' pool transactions in the PJM markets. For the pool transactions in the PJM markets, flash title passes through PJM Settlement immediately prior to passing to the ultimate buyer and seller of the product. This arrangement reinforces PJM's authority to continue to net a member's offsetting financial positions in PJM markets for credit and billing purposes, provides clarity in PJM Settlement's legal standing to pursue collection from a bankrupt member, and complies with FERC's recommendation on credit policy requirements for competitive wholesale electricity markets.

PJM Connext, L.L.C. (PJM Connext) is a wholly owned subsidiary of PJM and is not a FERC-regulated entity. PJM Connext was formed to provide service and technology solutions to existing and emerging energy markets, system operators, RTOs and other entities.

PJM Technologies, Inc. (PJM Tech) is a wholly owned subsidiary of PJM Connext and is not a FERC-regulated entity. PJM Tech provides international consulting services including training, program planning and implementation advice regarding development of wholesale electric market design and market rules.

PJM Environmental Information Services, Inc. (PJM EIS) is a wholly owned subsidiary of PJM Connext formed to provide environmental and emissions attributes reporting and tracking services to its subscribers in support of renewable portfolio standards and other disclosure requirements that may be implemented by governmental agencies. PJM EIS is not a FERC-regulated entity.

Tariff Cost Recovery

PJM recovers its administrative costs through a stated-rate mechanism under the Company's Open Access Transmission Tariff (Tariff). PJM's most recent stated-rate filing was approved by FERC on December 22, 2016, with an effective date of January 1, 2017.

The stated-rate Tariff provided a composite stated rate of 36 cents per megawatt hours (MWh) effective for 2018. Beginning in 2019, the composite stated rate increased, and will continue to increase, by 2.5 percent on the first day of each of the next four calendar years. The composite stated rate will be 41 cents per MWh effective January 1, 2024, and will remain at that level until PJM submits a superseding rate-change filing.

SIGNIFICANT ACCOUNTING POLICIES

Preparation of the financial statements and related disclosures in compliance with generally accepted accounting principles in the United States requires the application of appropriate technical accounting rules and guidance, as well as the use of estimates. PJM's application of those principles involves judgments regarding many factors, which, in and of themselves, could materially affect the financial statements and disclosures. A future change in the assumptions or judgments applied in determining the following matters, among others, could have a material impact on future financial results: revenue recognition; net presentation of member activity; accounting for deferred recovery of pension and postretirement costs; accounting for deferred regulatory liability; benefit plan accounting; fixed asset capitalization; income tax accounting; and study and interconnection activity.

Net Presentation of Member Activity

The Company has determined that although PJM has flash title to pooled transactions through the wholly owned subsidiary, PJM Settlement, all activity for which PJM Settlement is the central counterparty should be recorded on a net basis. The Company's determination is based on these facts: (1) the member company, not PJM Settlement, is the primary obligor in each transaction; (2) PJM Settlement earns a fixed amount per transaction; and (3) the member company has the credit risk, not PJM Settlement. As such, the Company presents member activity for which PJM Settlement is the central counterparty, including accounts receivable, accounts payable, FTRs, revenue and expense, on a net basis in its consolidated financial statements.

Deferred Recovery of Pension and Postretirement Costs

The Company recognizes the funding status of the projected benefit obligation (PBO) of its defined benefit pension plan and other postretirement employee benefit plan as liabilities in the Consolidated Statements of Financial Position. The PBO represents the actuarial present value of benefits attributable to employee service rendered to date, including the effects of estimated future salary increases. At December 31, 2020, in addition to recording the underfunded PBO as a liability, PJM recorded a regulatory asset to reflect the anticipated future recovery of the amounts expected to be funded in the future through the Company's rate structure. This regulatory asset, which will be amortized each quarter as the net periodic benefit cost of the underfunded liability as recognized, was $91.2 million and $32.9 million at December 31, 2020 and 2019, respectively.

Deferred Regulatory Liability

The stated-rate Tariff provides for the accumulation of a financial reserve. PJM is permitted to maintain a reserve as a deferred regulatory liability in an amount up to 6 percent of its annual stated-rate revenues, except that in every third year, the financial reserve must be reduced to 2 percent of annual stated-rate revenues. The amount accumulated under the financial reserve provisions is classified as a non-current liability in the Company's Consolidated Statements of Financial Position. On a quarterly basis, PJM refunds the deferred regulatory liability balance in excess of the permitted financial reserve for the previous quarter. The quarterly refund rate is established after the financial close of each quarter, and refunds are distributed to the members on a prospective basis in the following quarter. During calendar years 2020, 2019 and 2018, PJM made refunds of $41.4 million, $30.7 million and $13.3 million, respectively.

Any under- or over-refund amounts will be reflected in the deferred regulatory liability activity in the following quarter.

On December 16, 2020, FERC approved PJM's filed proposal requesting revisions to the Tariff to modify how PJM allocates the amount in PJM's deferred regulatory liability account that exceeds 6 percent of PJM's annual stated-rate revenues at the end of the calendar quarter. Effective November 1, 2020, PJM has eliminated the previous refund allocation percentages and will allocate refund amounts among administrative service categories that had cumulative revenues in excess of cumulative expenses during a defined reference period.

For PJM Settlement, the deferred regulatory liability is defined in its rate schedule in the Tariff and is equal to revenues collected in excess of accrual-basis expenses. This balance is refunded quarterly. The quarterly refund rate is established after the financial close of each quarter, and refunds are distributed to the members on a prospective basis in the following quarter. The PJM Settlement rate schedule does not include a financial reserve element.

PJM recognizes deferred regulatory income in the revenue section of the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss) for the amount by which service fee revenues pursuant to the rate schedules differ from applicable expenses in the reporting period. The amount by which cumulative revenues under the rate schedules exceed cumulative expenses and refunds is reported as a deferred regulatory liability in the Consolidated Statements of Financial Position. In circumstances in which revenues are less than expenses, PJM reduces the deferred regulatory liability with an offset to deferred regulatory income.

At December 31, 2020 and 2019, the deferred regulatory liability was $17.7 million and $20.0 million, respectively. At December 31, 2019, the current portion of the deferred regulatory liability was $14.0 million, which was refunded to members by PJM and PJM Settlement during the first quarter of 2020. The non-current portion of the deferred regulatory liability of $17.7 million and $6.0 million represents the amount of PJM's reserve at December 31, 2020 and 2019, respectively. The December 31, 2019, deferred regulatory liability reserve balance reflected the reduction to 2 percent of annual stated-rate revenues as required every third year under PJM's stated-rate Tariff.

Benefit Plan Accounting

PJM accrues the costs of providing future employee benefits in accordance with the guidance of Employers' Accounting for Pensions and Postretirement Benefits Other than Pensions. Under this guidance, assumptions are made regarding the valuation of benefit obligations and performance of plan assets. Delayed recognition of differences between actual results and those assumed is a guiding principle of these standards. This approach allows for a relatively even recognition of the effects of changes in benefit obligations and plan performance over the working lives of the employees who benefit under the plans.

In addition to recognizing the underfunded or overfunded PBO of a defined benefit pension plan as an asset or a liability in the Consolidated Statements of Financial Position, PJM recognizes annual changes in gains or losses, prior service costs or other credits that have otherwise not been recognized as a part of the liability for pension benefits in the Consolidated Statements of Financial Position. A corresponding regulatory asset, called deferred pension and postretirement costs, has been recognized in the Consolidated Statements of Financial Position.

PJM's selection of the discount rate, health care cost trend rate and expected rate of return on pension assets is based on its review of available current, historical and projected rates, as applicable.

In selecting the discount rate assumption for the PJM retirement plan at December 31, 2020, the Company used a method that matches projected payouts from the plan with a yield curve that was produced from a universe containing over 500 U.S.-issued, Aa-rated corporate bonds, all of which were noncallable (or callable with make-whole provisions), and excluding the 10 percent of the bonds with the highest yields and the 10 percent with the lowest yields. The discount rate was then developed as a level equivalent rate that would produce the same present value as would result using spot rates to discount the projected pension benefit payments. Based on this analysis, at December 31, 2020, the discount rate for the PJM pension plan, PJM Supplemental Executive Retirement Plan (SERP) and PJM postretirement plan decreased to 2.76 percent, 2.69 percent and 2.70 percent, respectively.

The results during 2020 for the PJM pension plan and PJM postretirement health care plan were derived using discount rates of 3.65 percent and 3.55 percent, respectively. Pension expense for the SERP for the period January 1, 2020 through June 30, 2020, was calculated using a discount rate of 3.55 percent, from July 1, 2020 through December 30, 2020, using a discount rate of 3.00 percent and on December 31, 2020, using a discount rate of 2.69 percent.

In selecting an expected return on plan assets, PJM considers past performance and economic forecasts for the types of investments held by the plans. The assumption for the expected rate of return on assets was 6.40 percent during 2020 and 5.50 percent at December 31, 2020. The decrease in 2020 was driven by a change in the target asset allocation for the PJM pension plan and other postretirement plan assets. The assumption for the expected rate for which compensation will increase remained at 4.50 percent during 2020 and at December 31, 2020. In selecting health care cost trend rates, PJM considers past performance and forecasts of health care costs. The rate selected at December 31, 2020, for pre-65 plan participants was 5.65 percent, declining to 4.46 percent over the next 18 years. The rate selected at December 31, 2020, for post-65 plan participants was 6.02 percent, declining to 4.45 percent over the next 20 years.

During 2020, PJM expensed net periodic pension and other postretirement benefit costs of $9.1 million.

Fixed Asset Capitalization

PJM's fixed assets principally comprise software and capitalized software development costs, leasehold improvements, computer hardware and buildings. The costs incurred to acquire and develop computer software for internal use, including financing costs, are capitalized. However, costs incurred prior to the determination of feasibility of developed software and costs incurred following the in-service date of developed software are expensed. Fixed assets are depreciated or amortized using the straight-line method over the useful lives of the assets as follows:

Software and capitalized software development costs	3 to 10 years
Computer hardware	3 to 5 years
Vehicles	5 years
Furniture and fixtures	10 years
Leasehold improvements	10 to 15 years
Buildings	25 years

Income Tax Accounting

PJM has elected to be taxed as a corporation for both federal and state income tax purposes. PJM and its subsidiaries file a consolidated federal income tax return. The consolidated financial statements include prepaid income taxes, accrued income taxes and deferred income taxes. Prepaid income taxes relate to federal and state overpayments on deposit with taxing authorities. These overpayments will be applied to future federal and state income tax liabilities. Deferred income taxes represent the temporary differences between the Company's financial statement basis and tax basis in existing assets and liabilities measured using presently enacted tax rates. A valuation allowance has been provided against certain deferred tax assets for which management has concluded it is more likely than not the Company will be unable to recognize the income tax benefit associated with those future tax deductions.

Study and Interconnection Activity

Under the Tariff, PJM's transmission provider role is to direct the operation and coordinate the maintenance of the transmission system and indicate, based on studies conducted by PJM, necessary enhancements or modifications to the transmission system. The modifications that are performed on the transmission system, such as network upgrades and generation additions, are conducted principally by third-party vendors at the request of transmission customers. In its system planning capacity as a transmission service provider, PJM provides billing and collection services in the interconnection service agreement process. Billings and collections by PJM for work it performs on behalf of the counterparties to the specific interconnection agreements are reported on a net basis in the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss).

RESULTS OF OPERATIONS FOR 2020, 2019 AND 2018

REVENUES

PJM's service fees decreased $0.7 million, less than 1 percent, to $319.7 million from 2019 to 2020. Service fees reflect lower transmission volumes year over year, offset by a 2.5 percent increase in the composite stated rate on January 1, 2020, and increased bidding activity under the various PJM auctions. Transmission volumes for 2020 were 800 terawatt-hours (TWh) as compared to 823 TWh for 2019.

PJM's service fees increased $10.5 million, or 3 percent, to $320.4 million from 2018 to 2019. The variance in service fees is principally due to a 2.5 percent increase in the composite stated rate on January 1, 2019, and increased bidding activity under the various PJM auctions. Transmission volumes for 2019 were 823 TWh as compared to 836 TWh for 2018.

Deferred regulatory income represents the change in PJM's deferred regulatory liability for the period, resulting from PJM's stated-rate Tariff service fees in excess of, or lower than, expenses. For the year ended December 31, 2020, PJM recorded $39.0 million in deferred regulatory income, an increase of $12.5 million from 2019. For the year ended December 31, 2019, PJM recorded $26.5 million in deferred regulatory income, a decrease of $1.1 million from 2018. For both years ended December 31, 2020 and 2019, deferred regulatory income was a reduction to Operating Revenues.

Net income is derived from PJM's non-FERC regulated subsidiaries. Net income was $2.1 million, $1.8 million and $1.1 million for each of the years ended December 31, 2020, 2019 and 2018, respectively.

EXPENSES

Total expenses, excluding FERC fees, study and interconnection services, interest expense and income taxes, decreased $12.8 million to $284.1 million in 2020 as compared to an increase of $8.2 million in 2019. The decrease in expenses in 2020 resulted primarily from decreased compensation due to lower headcount year over year and 2019 incremental costs associated with employee retirements that were one time in nature; decreased outside services attributable to lower building maintenance expense year over year; and decreased other expenses reflecting decreased travel, meeting and training resulting from COVID-19 pandemic restrictions.

Total expenses, excluding FERC fees, study and interconnection services, interest expense and income taxes, increased $8.2 million to $297.1 million in 2019 as compared to an increase of $3.2 million in 2018. The increase in expenses in 2019 resulted primarily from an increase in compensation expenses due to incremental costs associated with employee retirements that were one time in nature. Expenses also increased due to higher outside services, including increased Board of Managers and consulting expenses that were one time in nature. The increase period over period was offset by a decrease in depreciation and amortization, primarily due to a lower fixed asset balance period over period and a reduction in other expenses including travel, meals and training.

For each of the years ended December 31, 2020, 2019 and 2018, outside services included amounts paid to PJM's independent auditor, PricewaterhouseCoopers LLP, totaling $1.0 million, which were predominantly for audits of the PJM Consolidated Financial Statements and examination of certain internal controls related to PJM's market settlements and associated information technology systems and processes.

Key information systems, system enhancements and capital investments completed by PJM in 2020 include:

- *Market System Enhancements:* Enhancing capacity markets, demand response, market coordination and Real-Time Markets
- *Operations and Planning System Enhancements:* Enhancing operations and planning applications, including the energy management system, dispatch interactive map application, forecasting applications, dispatcher tools and interconnection database and planning applications
- *Technology Infrastructure and Visualization:* Upgrading firewalls, servers, storage, network and telecommunications
- *Facilities Infrastructure:* Replacing uninterruptible power supply system batteries and computer room cooling system
- *Information Technology:* Expanding the data tool for providing PJM members with markets and operations information
- *Access Management:* Automating, modifying and enhancing PJM's applications used to monitor and grant user access to systems and facilities to ensure PJM meets compliance requirements and to gain operating efficiencies
- *Credit and Risk Monitoring:* Enhancements to credit monitoring and risk simulation tools

BILLINGS FOR SERVICES

PJM had approximately 1,038 members at December 31, 2020, as compared with approximately 1,047 members at December 31, 2019. The billings presented below are administered on behalf of the members; however, the associated receivables and payables are presented net in PJM's Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss). The only billings included in PJM's consolidated financial statements are PJM Scheduling, System Control and Dispatch, PJM Settlement and FERC annual charge recovery. For 2020, 2019 and 2018, settlements processed by PJM under the Tariff, Operating Agreement and Reliability Assurance Agreement, which is a non-GAAP measure, were as follows:

($ in millions)	2020 Amount Billed	2019 Amount Billed	2018 Amount Billed
Energy markets	$ 14,837	$ 18,825	$ 27,645
Capacity	7,466	8,989	10,634
Network transmission service	5,496	5,528	4,745
Transmission enhancement	1,605	1,449	1,494
FTR auction revenues	1,126	1,281	1,000
Transmission congestion	1,106	1,047	1,714
Transmission losses (point-to-point)	574	751	1,034
PJM scheduling, system control and dispatch (operating expense reimbursement, net of stated-rate refunds)	361	290	297
Reactive supply	353	311	319
Point-to-point transmission service	149	77	61
Operating reserves	90	79	153
Regulation Market	77	91	146
RTO scheduling, system control and dispatch (transmission owners' control center expenses)	69	68	74
Black Start Service	65	65	65
FERC annual charge recovery	63	63	64
Distribution facilities	63	63	51
Synchronized Reserve Market	33	44	65
Member default allocation assessments	20	74	70
ReliabilityFirst Corporation (RFC)	17	16	15
Day-Ahead Scheduling Reserve Market	13	18	37
Miscellaneous	13	12	12
Monitoring Analytics, LLC	12	10	10
North American Electric Reliability Corporation (NERC)	11	11	10
PJM Settlement	9	9	7
Midcontinent Independent System Operator Transmission Expansion Planning (MTEP) cost recovery	7	7	8
Inadvertent interchange	3	2	5
Expansion cost recovery and RTO startup cost recovery	1	2	2
Organization of PJM States, Inc. (OPSI) fees	1	1	1
Generation deactivation	–	17	41
Load response program	–	2	3
Reactive services	–	1	13
Consumer Advocates of PJM States, Inc. (CAPS) fees	–	–	–
Total	**$ 33,640**	**$ 39,203**	**$ 49,795**

LIQUIDITY AND CAPITAL RESOURCES

The stated-rate Tariff provided a composite stated rate of 36 cents per MWh effective for 2017. In each year, 2018, 2019 and 2020, the composite stated rate increased by 2.5 percent. At December 31, 2020, the accumulated financial reserve was $17.7 million. PJM is projected to refund approximately $20 million to members during 2021, which would result in a projected accumulated financial reserve balance of approximately $18 million at December 31, 2021.

In the event PJM's actual expenses are projected to exceed its revenues and financial reserve, PJM is empowered to and would need to file a rate case with FERC.

PJM maintains with PNC Bank (PNC) a FERC-approved revolving line of credit agreement with a capacity amount of $150 million. The revolving line of credit agreement expires on January 31, 2022, and is unsecured and available to fund short-term cash obligations. At December 31, 2020, there were no outstanding borrowings under the revolving credit agreement.

On April 23, 2020, PJM entered into a $50 million, 364-day revolving line of credit agreement with PNC. The revolving line of credit is unsecured and available to manage near-term uncertainties stemming from the COVID-19 pandemic. At December 31, 2020, there were no outstanding borrowings under the revolving credit agreement. On February 12, 2021, PJM terminated the 364-day revolving line of credit agreement with PNC.

In conjunction with termination of the 364-day revolving line of credit agreement with PNC, PJM is evaluating the Company's future liquidity needs. PJM has $200 million authorized from FERC for revolving line of credit facilities.

On June 28, 2018, FERC approved PJM's application to refinance the Company's existing bank loan with a new term loan at Bank of America (BoA). On July 20, 2018, PJM entered into a $20.2 million loan agreement with BoA. The BoA term loan has a seven-year term and is unsecured. At December 31, 2020, the outstanding borrowings under the term loan were $13.7 million. PJM is expected to make $2.9 million of principal payments during 2021.

Under the loan covenants for each facility, PJM is required to provide unaudited financial statements 45 days after each quarter and audited financial statements 120 days after year-end. PJM is in compliance with these covenants.

At December 31, 2020, PJM and PJM Settlement were assigned an Aa2 issuer rating by Moody's Investors Service.

For study and interconnection work performed, PJM obtains liquid collateral from the transmission customer for the estimated costs of the transmission system modifications. PJM's study and interconnection receivables comprise billings to transmission customers for services performed under these interconnection service agreements. PJM's study and interconnection payables represent amounts due to the transmission owners for services performed under these interconnection service agreements. PJM held deposits related to study and interconnection activity totaling $214.6 million and $159.3 million at December 31, 2020 and 2019, respectively.

PJM Settlement requires deposits from various parties in connection with services to be performed or as collateral for market activity. PJM Settlement held credit deposits of $1,586.7 million and $1,438.6 million at December 31, 2020 and 2019, respectively. These deposits are maintained in separate cash accounts that are not legally restricted. At December 31, 2020, PJM Settlement also held approximately $2.0 billion in letters of credit as collateral for market activity.

For 2021, PJM's Board of Managers has approved a capital budget of $40 million. These capital expenditures will be used for application replacements, system reliability applications, new products and services for PJM's membership, risk management and interregional coordination. Actual expenditures may differ from these amounts as PJM continues to assess its capital needs.

RISKS AND UNCERTAINTIES

PJM does not provide forecasts of future financial performance. While PJM management is optimistic about the Company's long-term prospects, the following issues and uncertainties, among others, should be considered in evaluating its outlook.

CONTINGENCIES AND RECENT REGULATORY ACTIONS

Third-Party Relationships

PJM engages third parties as suppliers in arrangements to provide services in areas other than core competencies to ensure the service and support of members and timely product development. Although PJM seeks to establish strong working relationships with parties that share PJM's industry goals and have adequate resources to fulfill their responsibilities, these relationships lead to a number of risks. These suppliers may suffer financial or operational difficulties that may affect their performance, which could lead to delays in product development or timely completion of projects. Also, major companies from which PJM purchases components or services may be competitors in other areas, which could affect pricing, new product development or future performance. Finally, difficulties in coordinating activities may lead to gaps in delivery and performance of PJM services.

Credit Risks

PJM bills and collects its operating expenses monthly from its members. Payment of all operating expense bills is due from PJM's members three business days after the month-end bill is issued, generally within the first two weeks of each month. During 2020, approximately 60 percent of PJM's operating expenses were billed to approximately 20 of its members. PJM had approximately 1,038 members at year-end 2020. In the event of a default of any PJM members, PJM has the right to bill the remaining PJM members a ratable portion of the operating expenses previously billed to the defaulting member.

In accordance with PJM's credit policy, PJM obtains collateral from certain members in order to secure their credit positions. The collateral can be in the form of a cash deposit or letter of credit. Corporate guaranties are also accepted from creditworthy affiliates to fulfill certain credit requirements.

PJM implemented significant FTR credit policy enhancements during 2018 and 2019, including FERC-approved adoption of mark-to-auction provisions in April 2019. Mark-to-auction provides a valuation of the cleared FTR portfolio based on the most recent auction prices and also takes into consideration the value of Auction Revenue Right entitlements allocated to firm transmission service customers. The value of FTRs as of December 31, 2020, under a mark-to-auction model was $249.4 million.

Other Items

Credit Matter

On June 21, 2018, GreenHat Energy, LLC (GreenHat) defaulted on its obligations related to its FTR portfolio, which included positions applicable to the then current planning year as well as the 2019/2020 and 2020/2021 planning years. In January 2019, FERC denied PJM's waiver requesting to only offer the August 2018 defaulted FTRs for liquidation in the FTR auction conducted in July 2018. In June 2019, FERC issued an order on clarification and set the matter for paper hearing and settlement judge procedures.

The parties submitted a settlement with FERC on October 9, 2019, that resolves all issues in this proceeding and avoids the resettlement of the stopped liquidation auction. FERC accepted the settlement by order dated December 30, 2019. The settlement provides for payment of $17.5 million that was allocated to members as part of the default allocation. The aggregate payment default of GreenHat, net of collateral held, was billed to the non-defaulting members in accordance with the default allocation assessment formula in the Operating Agreement. Those default allocation billings and payments will continue through the end of the current planning year, which ends on May 31, 2021.

Old Dominion Electric Cooperative v. PJM 2014 Polar Vortex Complaint

On February 22, 2019, Old Dominion Electric Cooperative (ODEC) filed an amended complaint (Amended Complaint) against PJM in Circuit Court for Henrico County, Virginia, alleging that PJM directed ODEC to purchase natural gas during the 2014 Polar Vortex event in which temperatures fell to unprecedented levels and that ODEC should be made whole for its gas costs incurred, with an outstanding amount of approximately $15 million. ODEC had previously attempted and failed to recover the same exact costs through a waiver petition filed before FERC in June 2014. On April 3, 2019, PJM filed a notice to remove the Amended Complaint to the United States District Court for the Eastern District of Virginia, because ODEC's civil action arises under federal law, namely, the Federal Power Act, the PJM Tariff, the PJM Operating Agreement and related federal doctrines.

On March 31, 2020, the District Court issued an opinion and order granting PJM's Motion to Dismiss with prejudice. The District Court found that ODEC's claims for compensation fall entirely within the PJM Tariff and therefore are exclusively governed by federal law and barred by the filed-rate doctrine. On April 23, 2020, ODEC filed a Notice of Appeal to the United States Court of Appeals for the Fourth Circuit (Circuit Court) of the District Court's Order on Motion to Dismiss. The parties have filed briefs with the Circuit Court and oral arguments are set for May 2021.

Radford's Run Complaint

On November 15, 2018, FERC issued an order (November 15 Order) granting in part a complaint filed by Radford's Run Wind Farm, LLC (Radford) against PJM on June 26, 2018 (Complaint), alleging that Radford is entitled to 279 MW of Incremental Capacity Transfer Rights (ICTRs) because Radford funded a network upgrade that improved a transmission constraint. In the November 15 Order, FERC granted the Complaint in part because FERC found that "PJM did not comply with its Tariff," which provides that PJM must determine in the System Impact Study whether a customer is entitled to any ICTRs resulting from its customer-funded upgrade. FERC established paper hearing procedures for PJM to assess whether Radford's upgrades would have made Radford eligible for ICTRs.

On April 16, 2020, FERC issued its order on the paper hearing (April 16 Order), finding that the PJM Tariff required PJM to use the information available at the time PJM completed the System Impact Study for Radford's interconnection request (i.e., December 2015) when it evaluated the Radford upgrade for ICTRs. The April 16 Order required PJM to award any ICTRs that would have been assigned to Radford based on data as of December 2015, and required PJM to make a compliance filing within 60 days (i.e., by June 15, 2020) detailing its determination on ICTRs for the Radford upgrade using the information available to PJM at the time it completed the System Impact Study. For the 2019/2020 Delivery Year, for which payments had already been made, the April 16 Order required PJM to resettle payments for ICTRs resulting from the 2016 Base Residual Auction and to rebill affected entities for that period. As a result of that directive, PJM had to rebill ICTR holders in the ComEd Zone nearly $10 million in payments. On June 15, 2020, PJM submitted its compliance filing to FERC together with a refund report showing the resettlement.

On May 18, 2020, PJM (joined by ComEd) filed a request for rehearing on the 2019/2020 Delivery Year rebilling directive in the April 16 Order. As a result, on December 2, 2020, FERC issued an order (December 2 Order) that granted rehearing and set aside the resettlement of ICTRs for the 2019/2020 Delivery Year; however, FERC directed PJM on compliance to explain and support its position on the 2019/2020 resettlement, including why a 2015 System Impact Study would not have been enough to make Radford "obligated to fund" ICTRs for purposes of the 2016 Base Residual Auction because of the Tariff requirement that to receive ICTRs, Radford must have been obligated to fund the network upgrade prior to the 2016 Base Residual Auction. On January 4, 2021, PJM filed its compliance filing, and the matter is pending FERC action.

PJM 2020 FINANCIAL REPORT

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The management of PJM Interconnection, L.L.C. is responsible for the preparation and objectivity of the following consolidated financial statements and for their integrity. These financial statements have been prepared to conform to accounting principles generally accepted in the United States of America and, where required, include amounts that represent management's best judgments and estimates. PJM's management is responsible for the preparation of other information in this annual report and for its accuracy and consistency with the financial statements.

PJM has established a system of internal accounting and financial controls and procedures designed to provide reasonable assurance as to the integrity and reliability of financial reporting. Management continually reviews the effectiveness and efficiency of this system and takes actions when opportunities for improvement are identified.

This system includes a separate Internal Audit Department, which monitors internal controls and reports directly to the Risk and Audit Committee of the Board of Managers. Management views the purpose of internal auditing to be an independent examination and assessment of PJM's activities related to compliance with policy, procedures and the law, as well as safeguarding of assets. The Risk and Audit Committee meets with management, internal auditors and the independent auditors on a regular basis to review financial information, internal controls and the internal audit process.

PJM's independent auditors, PricewaterhouseCoopers LLP, are engaged to conduct an independent audit of PJM's consolidated financial statements in accordance with generally accepted auditing standards promulgated by the American Institute of Certified Public Accountants.

Manu Asthana
President and Chief Executive Officer

Lisa M. Drauschak
Vice President, Chief Financial Officer and Treasurer

REPORT OF INDEPENDENT AUDITORS

To Management and the Board of Managers of PJM Interconnection, L.L.C.:

We have audited the accompanying consolidated financial statements of PJM Interconnection, L.L.C. and its subsidiaries, which comprise the consolidated statements of financial position as of December 31, 2020 and 2019, and the related consolidated statements of income, comprehensive income and paid-in capital, retained earnings and accumulated other comprehensive income (loss) and of cash flows for each of the three years in the period ended December 31, 2020.

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements 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, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of PJM Interconnection, L.L.C. and its subsidiaries as of December 31, 2020 and 2019, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2020, in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
March 4, 2021

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

($ in thousands)	2020	2019
Assets		
Current assets:		
Deposits on hand	$ 1,801,300	$ 1,597,884
Operating cash	103,081	51,629
Receivables	25,229	57,190
Study and interconnection receivables	14,752	17,334
Prepaid income taxes	35	16
Prepaid expenses and other	13,120	10,864
Deferred FERC fees	2,700	–
Note receivable	2,697	1,617
	1,962,914	1,736,534
Non-current assets:		
Fixed assets, net of accumulated depreciation and amortization of $748,058 and $712,616	87,281	98,790
Land	1,420	1,420
Projects in development	53,376	38,351
Deferred recovery of pension and postretirement costs	91,238	32,996
Deferred income taxes, net of valuation allowance	34,478	29,293
Prepaid expenses and other	3,477	2,735
Note receivable	3,548	1,521
Other	26,117	25,504
	300,935	230,610
Total assets	$ 2,263,849	$ 1,967,144
Liabilities, paid-in capital, retained earnings and accumulated other comprehensive income (loss)		
Current liabilities:		
Accounts payable and accrued expenses	$ 36,759	$ 37,748
Due to members	151,315	102,498
Study and interconnection payables	15,505	17,902
Accrued payroll and benefits	37,599	38,455
Accrued income taxes	1,336	1,361
Current portion of long-term debt	2,886	2,886
Current portion of capital lease	1,860	1,781
Deferred regulatory liability	–	14,016
Deferred FERC fees	–	1,268
Deferred revenue	3,423	3,508
Postretirement health care benefits liability	1,548	1,439
Other employee benefits	288	3,044
Deposits	1,801,300	1,597,884
	2,053,819	1,823,790
Non-current liabilities:		
Long-term debt	10,821	13,707
Long-term capital lease	11,425	13,285
Deferred regulatory liability	17,742	6,032
Interest rate swap	896	648
Pension benefits liability	63,709	20,036
Postretirement health care benefits liability	62,700	50,175
Other employee benefits	29,736	28,637
	197,029	132,520
Total liabilities	2,250,848	1,956,310
Commitments and contingencies (Note 12)		
Paid-in capital	722	722
Retained earnings	12,205	10,129
Accumulated other comprehensive income (loss)	74	(17)
Total paid-in capital, retained earnings and accumulated other comprehensive income (loss)	13,001	10,834
Total liabilities, paid-in capital, retained earnings and accumulated other comprehensive income (loss)	$ 2,263,849	$ 1,967,144

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF INCOME, COMPREHENSIVE INCOME AND PAID-IN CAPITAL, RETAINED EARNINGS AND ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

($ in thousands)	2020	2019	2018
Income			
Operating revenue:			
Service fees	$ 319,718	$ 320,410	$ 309,864
Deferred regulatory income	(39,049)	(26,510)	(27,563)
FERC fees reimbursement	65,309	62,395	63,972
Study and interconnection fees	5,585	4,323	3,998
Membership fees	3,516	3,602	3,688
Other	3,741	4,523	5,288
Total operating revenue	358,820	368,743	359,247
Operating expenses:			
Compensation	145,378	150,043	137,167
FERC fees	65,309	62,395	63,972
Outside services	55,560	59,932	54,993
Depreciation and amortization	35,459	37,192	45,730
Software licenses and fees	20,049	19,466	19,222
Other expenses	11,182	10,243	13,357
Pension benefits – service cost	8,853	9,924	11,321
Computer maintenance and office supplies	7,699	8,233	6,978
Study and interconnection services	5,585	4,323	3,998
Lease expenses	2,096	1,959	1,916
Postretirement health care benefits – service cost	1,795	1,493	1,694
Total operating expenses	358,965	365,203	360,348
Operating (loss) income	(145)	3,540	(1,101)
Other income:			
Interest income	5,879	33,123	16,552
Interest expense	6,456	34,329	16,699
Pension and postretirement health care benefits (benefit) – other components of net benefit cost	(3,899)	(1,468)	(3,530)
Total other income	3,322	262	3,383
Income before income taxes	3,177	3,802	2,282
Income tax expense	1,101	1,959	1,193
Net income	$ 2,076	$ 1,843	$ 1,089
Other comprehensive income (loss): Unrealized gain (loss) on securities, net	91	(978)	290
Comprehensive income, net	$ 2,167	$ 865	$ 1,379
Paid-in capital, retained earnings and accumulated other comprehensive income (loss)			
Beginning balance	$ 10,834	$ 9,969	$ 8,590
Net income	2,076	1,843	1,089
Other comprehensive income (loss)	91	(978)	290
Ending balance	$ 13,001	$ 10,834	$ 9,969

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

($ in thousands)	2020	2019	2018
Cash flows from operating activities:			
Net income	$ 2,076	$ 1,843	$ 1,089
Adjustments:			
Depreciation and amortization expense	35,459	37,192	45,730
Deferred income taxes, net of valuation allowance	(5,185)	(2,862)	(3,785)
Deferred recovery of pension and postretirement costs	(58,242)	(2,904)	8,525
Deferred regulatory liability	39,049	26,497	27,579
Employee benefit expense greater than (less than) funding	54,650	15,257	(51,710)
Net fair value changes related to interest rate swap	248	323	(215)
Changes in assets and liabilities:			
Decrease (increase) in receivables	31,961	(17,496)	54,121
Decrease (increase) in study and interconnection receivables	2,582	(7,877)	(2,392)
(Increase) decrease in prepaid expenses and other	(5,301)	(9,711)	1,090
(Increase) decrease in deferred FERC fee asset	(2,700)	–	2,229
(Increase) decrease in prepaid income taxes	(19)	2,465	15,487
(Decrease) increase in accounts payable and accrued expenses	(68)	3,198	3,271
(Decrease) increase in accrued income taxes	(25)	1,361	–
(Decrease) increase in study and interconnection payables	(2,397)	8,655	2,113
(Decrease) increase in accrued payroll and benefits	(856)	10,072	(2,123)
(Decrease) increase in deferred FERC fee liability	(1,268)	1,268	–
(Decrease) increase in deferred revenue	(85)	65	56
Refunds to members	(41,355)	(30,685)	(13,252)
Net cash provided by operating activities	48,524	36,661	87,813
Cash flows from investing activities:			
Cost of projects in development	(39,896)	(41,147)	(41,013)
Note receivable	(3,107)	(802)	847
Net cash (used in) investing activities	(43,003)	(41,949)	(40,166)
Cash flows from financing activities:			
Borrowings under line of credit	967,715	498,557	452,855
Repayments under line of credit	(967,715)	(498,557)	(452,855)
Borrowings of long-term debt	–	–	20,200
Repayments of long-term debt	(2,886)	(2,886)	(21,467)
(Decrease) increase in due to members	48,817	(302,482)	7,584
Increase (decrease) in deposits	203,416	97,090	42,050
Net cash provided by (used in) financing activities	249,347	(208,278)	48,367
Net increase (decrease) in cash and cash equivalents	254,868	(213,566)	96,014
Cash and cash equivalents balance (including customer deposits), beginning of year	1,649,513	1,863,079	1,767,065
Cash and cash equivalents balance (including customer deposits), end of year	$ 1,904,381	$ 1,649,513	$ 1,863,079
Cash paid during the year for:			
Interest	$ 609	$ 787	$ 790
Income taxes	6,838	784	3,635
Noncash activity:			
Projects in development additions included in ending accounts payable and accrued expenses	$ 921	$ 588	$ 1,494

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2020

($ in tables in thousands, unless otherwise noted)

1. COMPANY OVERVIEW

Background

PJM Interconnection, L.L.C. (PJM or the Company) is a regional transmission organization (RTO) responsible for the operation of wholesale electric markets and for centrally dispatching electric systems in the PJM region. PJM's services and the markets PJM operates are subject to regulation by the Federal Energy Regulatory Commission (FERC).

PJM is a limited liability, non-stock company incorporated in the state of Delaware. PJM's Board of Managers is constituted as an independent body, and PJM operates independently from its members.

Nature of Operations

The Company currently coordinates a pooled generating capacity of more than 185,378 megawatts (MW) and operates wholesale electricity markets with approximately 1,038 members. PJM enables the delivery of electric power to more than 65 million people in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

PJM manages a sophisticated regional planning process for generation and transmission expansion to ensure continued reliability of the electric system. Using information technology, PJM provides real-time information to market participants to support their daily transactions and business decision-making. In addition to ensuring the reliable supply of electricity, PJM administers internet-based bid markets in which participants buy and sell day-ahead and spot-market energy, Financial Transmission Rights (FTRs), synchronized reserves and regulation services.

PJM Settlement, Inc. (PJM Settlement) is a wholly owned subsidiary of PJM, organized as a Pennsylvania nonprofit corporation, and is a FERC-regulated entity. PJM Settlement was formed to handle all of the credit, billing and settlement functions for PJM's members' transactions in the PJM markets and for transmission service. PJM Settlement acts as a counterparty to members' pool transactions in the PJM markets. For the pool transactions in the PJM markets, flash title passes through PJM Settlement immediately prior to passing to the ultimate buyer and seller of the product. This arrangement reinforces PJM's authority to continue to net a member's offsetting financial positions in PJM markets for credit and billing purposes, provides clarity in PJM Settlement's legal standing to pursue collection from a bankrupt member, and complies with FERC's recommendation on credit policy requirements for competitive wholesale electricity markets.

PJM Connext, L.L.C (PJM Connext) is a wholly owned subsidiary of PJM and is not a FERC-regulated entity. PJM Connext was formed to provide service and technology solutions to existing and emerging energy markets, system operators, RTOs and other entities.

PJM Technologies, Inc. (PJM Tech) is a wholly owned subsidiary of PJM Connext and is not a FERC-regulated entity. PJM Tech provides international consulting services including training, program planning and implementation advice regarding development of wholesale electric market design and market rules.

PJM Environmental Information Services, Inc. (PJM EIS) is a wholly owned subsidiary of PJM Connext formed to provide environmental and emissions attributes reporting and tracking services to its subscribers in support of renewable portfolio standards and other disclosure requirements that may be implemented by governmental agencies. PJM EIS is not a FERC-regulated entity.

Tariff Cost Recovery

PJM recovers its administrative costs through a stated-rate mechanism under the Company's Open Access Transmission Tariff (Tariff). PJM's most recent stated-rate filing was approved by FERC on December 22, 2016, with an effective date of January 1, 2017.

The stated-rate Tariff provided a composite stated rate of 36 cents per megawatt hours (MWh) effective for 2018. Beginning in 2019, the composite stated rate increased, and will continue to increase, by 2.5 percent on the first day of each of the next four calendar years. The composite stated rate will be 41 cents per MWh effective January 1, 2024, and will remain at that level until PJM submits a superseding rate-change filing.

PJM Settlement recovers its administrative costs under a separate schedule under the Tariff.

Summary of Service Fees

	2020	2019	2018
PJM stated-rate revenues	$ 311,105	$ 311,588	$ 303,344
PJM Settlement revenues	8,613	8,822	6,520
Total service fees	**$ 319,718**	**$ 320,410**	**$ 309,864**

COVID-19 Pandemic

The spread of the coronavirus (COVID-19) in the United States and globally has led to economic disruption. PJM is taking steps to mitigate the potential risks arising from the spread of the virus; however, it is reasonably possible that future PJM results could be negatively affected by the impacts of the COVID-19 pandemic. The extent to which the COVID-19 pandemic may impact results will depend on future developments, which have uncertain scope and duration. PJM cannot predict if there will be a material effect to PJM's financial position, results of operations or cash flows.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND SELECTED FINANCIAL INFORMATION

Accounting Standards Not Yet Adopted

Leases

In February 2016, the Financial Accounting Standards Board (FASB) issued new guidance related to lease accounting. The key objective of the new standard is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). For income statement purposes, a dual model has been retained, with leases to be designated as operating leases or finance leases. Expenses will be recognized on a straight-line basis for operating leases and a front-loaded basis for finance leases. The new standard is effective for periods beginning after December 15, 2021, with early adoption permitted. The new standard can be adopted using a modified retrospective transition and provides for certain practical expedients. The Company is currently evaluating the effect of the new standard on the Company's Consolidated Statements of Financial Position; Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss); and Consolidated Statements of Cash Flows.

Rate Reference Reform

In March 2020, the FASB issued guidance addressing the potential accounting burden expected when global capital markets move away from the London Interbank Offered Rate (LIBOR) as a benchmark interest rate. The guidance provides optional expedients and exceptions for contract modifications and hedging relationships that reference LIBOR or another reference rate expected to be discontinued. The new standard is effective from issuance through December 31, 2022. The Company is currently evaluating the effect of the new standard on the Company's Consolidated Statements of Financial Position; Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss); and Consolidated Statements of Cash Flows.

Accounting for Costs Incurred in a Cloud Computing Service Arrangement

In August 2018, the FASB issued guidance addressing accounting for implementation costs incurred in a cloud computing arrangement that is a service contract. The guidance aligns the accounting for costs incurred to implement a cloud computing arrangement that is a service arrangement with existing guidance on capitalizing costs associated with developing or obtaining internal-use software. The new standard is effective for annual periods beginning after December 15, 2020. The Company is currently evaluating the effect of the new standard on the Company's Consolidated Statements of Financial Position; Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss); and Consolidated Statements of Cash Flows.

Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared on an accrual basis in accordance with generally accepted accounting principles in the United States of America (GAAP) and include the accounts of PJM Interconnection, L.L.C. and its wholly owned subsidiaries (PJM or the Company). All intercompany transactions and balances have been eliminated.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying disclosures. The following accounting policies are particularly important to PJM's financial position or results of operations, and some require estimates or other judgments of matters of uncertainty. Changes in the estimates or other judgments included within these accounting policies could result in a significant change to the financial statements. These estimates are based on management's best knowledge of current events and actions the Company may undertake in the future.

Net Presentation of Member Activity

The Company has determined that although PJM has flash title to pooled transactions through its wholly owned subsidiary PJM Settlement, all activity for which PJM Settlement is the central counterparty should be recorded on a net basis. The Company's determination is based on these facts: (1) the member company, not PJM Settlement, is the primary obligor in each transaction; (2) PJM Settlement earns a fixed amount per transaction; and (3) the member company has the credit risk, not PJM Settlement. As such, the Company presents member activity for which PJM Settlement is the central counterparty, including accounts receivable, accounts payable, FTRs, revenue and expense, on a net basis in its consolidated financial statements.

Lease Transactions

The Company accounts for lease transactions as either capital leases or operating leases, depending on the terms of the underlying lease agreements.

Assets leased under a capital lease are recorded at cost, which is the net present value of the future lease payments. Such assets are included in fixed assets in the Company's Consolidated Statements of Financial Position and depreciated using the straight-line method over the shorter of the lease term or estimated useful lives. The aggregate lease payments are recorded as a capital lease obligation, net of interest charges as determined by the excess of lease payments over the cost of the leased asset. This implicit interest cost is charged to expense over the lease term using the effective interest rate method.

The lease payments under an operating lease are recognized as current expenses on an accrual basis over the term of the lease agreement.

Study and Interconnection Activity

Under the Tariff, PJM's transmission provider role is to direct the operation and coordinate the maintenance of the transmission system and indicate, based on studies conducted by PJM, necessary enhancements or modifications to the transmission system. The modifications that are performed on the transmission system, such as network upgrades and generation additions, are conducted principally by third-party vendors at the request of transmission customers. In its system planning capacity as a transmission service provider, PJM provides billing and collection services in the interconnection service agreement process. Billings and collections by PJM for work it performs on behalf of the counterparties to the specific interconnection agreements are reported on a net basis in the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss).

Cash Equivalents

Highly liquid investments with maturities of three months or less when purchased are considered cash equivalents.

Concentration of Credit Risk

Financial instruments that subject PJM to credit risk consist primarily of accounts receivable relating to monthly service fee billings. As provided in PJM's Operating Agreement, members are required either to maintain approved credit ratings or to post specified financial security to obtain credit within the PJM markets. During 2020, approximately 60 percent of PJM's operating expenses were billed to approximately 20 of its members. PJM had approximately 1,038 members at year-end 2020.

Under the terms of the PJM Operating Agreement, any payment defaults may be billed to and collected from PJM's other member companies.

Fixed Asset Capitalization

PJM's fixed assets principally comprise software and capitalized software development costs, leasehold improvements, computer hardware and buildings. The costs incurred to acquire and develop computer software for internal use, including financing costs, are capitalized. However, costs incurred prior to the determination of feasibility of developed software and costs incurred following the in-service date of developed software are expensed. Fixed assets are depreciated or amortized using the straight-line method over the useful lives of the assets as follows:

Software and capitalized software development costs	3 to 10 years
Computer hardware	3 to 5 years
Vehicles	5 years
Furniture and fixtures	10 years
Building and leasehold improvements	10 to 15 years
Buildings	25 years

Deferred Recovery of Pension and Postretirement Costs

The Company recognizes the funding status of the projected benefit obligation (PBO) of its defined benefit pension plan and other postretirement employee benefit plan as liabilities in the Consolidated Statements of Financial Position. The PBO represents the actuarial present value of benefits attributable to employee service rendered to date, including the effects of estimated future salary increases. At December 31, 2020, in addition to recording the underfunded PBO as a liability, PJM recorded a regulatory asset to reflect the anticipated future recovery of the amounts expected to be funded in the future through the Company's rate structure. This regulatory asset, which will be amortized each quarter as the net periodic benefit cost of the underfunded liability as recognized, was $91.2 million and $32.9 million at December 31, 2020 and 2019, respectively.

Deferred FERC Fees and Deferred FERC Fee Asset/Liability

FERC charges an annual assessment to all public utilities based on kilowatt-hours of interstate transmission service provided. PJM recovers from its members the annual charges from FERC. At December 31, 2020, PJM had a $2.7 million deferred FERC fee asset. This asset represents the difference between amounts collected from PJM members and amounts ultimately assessed by FERC during the year and is a factor considered in determining the FERC fee charges billed to PJM members during the subsequent year. At December 31, 2019, PJM had a $1.3 million deferred FERC fee liability that resulted from over-collections during 2019 and was netted into amounts billed to PJM's members during 2020.

Deferred Regulatory Liability

The stated-rate Tariff provides for the accumulation of a financial reserve. PJM is permitted to maintain a reserve as a deferred regulatory liability in an amount up to 6 percent of its annual stated-rate revenues, except that in every third year, the financial reserve must be reduced to 2 percent of annual stated-rate revenues. The amount accumulated under the financial reserve provisions is classified as a non-current liability in the Company's Consolidated Statements of Financial Position. On a quarterly basis, PJM refunds the deferred regulatory liability balance in excess of the permitted financial reserve for the previous quarter. The quarterly refund rate is established after the financial close of each quarter, and refunds are distributed to the members on a prospective basis in the following quarter. During calendar years 2020, 2019 and 2018, PJM made refunds of $41.4 million, $30.7 million and $13.3 million, respectively.

Any under- or over-refund amounts will be reflected in the deferred regulatory liability activity in the following quarter.

On December 16, 2020, FERC approved PJM's filed proposal requesting revisions to the Tariff to modify how PJM allocates the amount in PJM's deferred regulatory liability account that exceeds 6 percent of PJM's annual stated-rate revenues at the end of the calendar quarter. Effective November 1, 2020, PJM has eliminated the previous refund allocation percentages and will allocate refund amounts among administrative service categories that had cumulative revenues in excess of cumulative expense during a defined reference period.

For PJM Settlement, the deferred regulatory liability is defined in its rate schedule in the Tariff and is equal to revenues collected in excess of accrual-basis expenses. This balance is refunded quarterly. The quarterly refund rate is established after the financial close of each quarter, and refunds are distributed to the members on a prospective basis in the following quarter. The PJM Settlement rate schedule does not include a financial reserve element.

PJM recognizes deferred regulatory income in the revenue section of the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss) for the amount by which service fee revenues pursuant to the rate schedules differ from applicable expenses in the reporting period. The amount by which cumulative revenues under the rate schedules exceed cumulative expenses and refunds is reported as a deferred regulatory liability in the Consolidated Statements of Financial Position. In circumstances in which revenues are less than expenses, PJM reduces the deferred regulatory liability with an offset to deferred regulatory income.

At December 31, 2020 and 2019, the deferred regulatory liability was $17.7 million and $20.0 million, respectively. At December 31, 2019, the current portion of the deferred regulatory liability was $14.0 million, which was refunded to members by PJM and PJM Settlement during the first quarter of 2020. The non-current portion of the deferred regulatory liability of $17.7 million and $6.0 million represents the amount of PJM's reserve at December 31, 2020 and 2019, respectively. The December 31, 2019, deferred regulatory liability reserve balance reflected the reduction to 2 percent of annual stated-rate revenues as required every third year under PJM's stated-rate Tariff.

Deferred Revenue

PJM membership fees, which are billed and collected in advance of the year for which they apply, are amortized ratably over the related annual membership period.

Deposits

At December 31, 2020, the deposits balance comprised $214.6 million received for study and interconnection fees and $1,586.7 million for customer credit. At the end of 2019, PJM held deposits of $159.3 million for study and interconnection fees and $1,438.6 million for customer credit. These deposits are maintained in separate cash accounts that are not legally restricted.

Income Tax Accounting

PJM has elected to be taxed as a corporation for both federal and state income tax purposes. PJM and its subsidiaries file a consolidated federal income tax return. The consolidated financial statements include prepaid income taxes, accrued income taxes and deferred income taxes. Prepaid income taxes relate to federal and state overpayments on deposit with taxing authorities. These overpayments will be applied to future federal and state income tax liabilities. Deferred income taxes represent the temporary differences between the Company's financial statement basis and tax basis in existing assets and liabilities measured using presently enacted tax rates. A valuation allowance has been provided against certain deferred tax assets for which management has concluded it is more likely than not the Company will be unable to recognize the income tax benefit associated with those future tax deductions.

Fair Values of Financial Instruments

The carrying amounts reported in the Consolidated Statements of Financial Position for current financial assets and liabilities generally approximate their fair values.

Benefit Plan Accounting

PJM accrues the costs of providing future employee benefits based on assumptions made regarding the valuation of benefit obligations and performance of plan assets. Delayed recognition of differences between actual results and those assumed allows for a relatively even recognition of the effects of changes in benefit obligations and plan performance over the working lives of the employees who benefit under the plans.

In addition to recognizing the underfunded or overfunded PBO of a defined benefit pension plan as an asset or liability in the Consolidated Statements of Financial Position, PJM recognizes annual changes in gains or losses, prior service costs or other credits that have otherwise not been recognized as a part of the liability for pension benefits in the Consolidated Statements of Financial Position. A corresponding regulatory asset, called deferred recovery of pension and postretirement costs, has been recognized as a non-current asset in the Consolidated Statements of Financial Position.

PJM's selection of the discount rate, health care cost-trend rate and expected rate of return on assets is based on its review of available current, historical and projected rates, as applicable.

Derivatives

PJM has one interest rate swap that qualifies as a derivative instrument. The Company accounts for this derivative as either an asset or liability at fair value in the Consolidated Statements of Financial Position with changes in fair value recorded through earnings. Refer to Note 7 for additional details related to PJM's interest rate swap.

An FTR is a financial instrument that enables PJM market participants to reduce their congestion-related price risk when delivering or selling energy on the grid. PJM Settlement is neither the buyer nor the seller of FTRs, but as FTR auctions clear, PJM Settlement is temporarily the counterparty to both the FTR buyer and FTR seller. Refer to Note 8 for additional details related to FTR derivative disclosures.

Revenue Recognition

PJM recognizes as revenue amounts both billed and unbilled under PJM and PJM Settlement's Tariff rate schedules.

Revenues recorded as study and interconnection fees arise from billing and collection services in the interconnection service agreement process performed by PJM. These revenues are presented on a gross basis in the Company's Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss), and are offset directly by the corresponding interconnection expenses.

PJM Connext, PJM Tech and PJM EIS recognize as revenues amounts both billed and unbilled.

Subsequent Events

PJM has performed an evaluation of subsequent events through March 4, 2021, which is the date the consolidated financial statements were issued.

3. REVENUE AND ACCOUNTS RECEIVABLE

Disaggregated Revenues

The Company has included in the table below disaggregation of PJM service fee revenues by subsidiary schedule as defined in Schedule 9 of the Company's Tariff.

	2020	2019
PJM stated-rate revenues		
Control area administration service	$ 176,473	$ 177,090
Market support service	83,273	83,931
FTR administration service	33,567	33,177
Capacity resource and obligation management service	15,048	14,778
Regulation and frequency response	2,744	2,612
	311,105	311,588
PJM Settlement service fees	8,613	8,822
Total service fees	**$ 319,718**	**$ 320,410**

For the years ended December 31, 2020 and 2019, PJM Connext recorded consolidated revenue of $3.7 million and $4.5 million, respectively, which is included in other operating revenue in the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss).

Contract Balances

PJM membership fees, which are billed and collected in advance of the year for which they apply, are recognized as revenue ratably over the related annual membership period. Under the revenue guidance, membership fees – recorded as deferred revenue – are considered contract liabilities. The December 31, 2020 and 2019 balances of deferred revenue resulting from contracts with customers was $3.4 million and $3.5 million, respectively. During 2020 and 2019, PJM recognized $3.5 million and $3.6 million, respectively, of revenue for PJM membership fees.

There were no material contract assets as of December 31, 2020.

PJM's accounts receivables at December 31, 2020, consisted of the following:

	2020	2019
Billed:		
PJM Connext	$ 780	$ 695
	780	695
Unbilled:		
PJM service fees, net of refunds to members	22,020	24,460
PJM recovery of pass-through charges	14,817	10,541
Default allocation assessment	329	4,935
Marginal line loss billing adjustment	–	16,559
FERC orders requiring reallocation and refunds	(12,717)	–
	24,449	56,495
Total accounts receivable	**$ 25,229**	**$ 57,190**

PJM's member companies are billed on a monthly basis for recovery of PJM and PJM Settlement's administrative costs under the Tariff.

All study and interconnection receivables were billed at December 31, 2020.

4. FIXED ASSETS

A summary of fixed assets by classification as of December 31, 2020 and 2019, follows:

	2020	2019
Buildings	$ 18,812	$ 18,812
Leasehold improvements	68,369	68,048
Capitalized lease	25,889	25,889
Software development	570,422	553,667
Computer hardware	145,799	139,021
Furniture and fixtures	5,866	5,787
Vehicles	182	182
Subtotal	835,339	811,406
Accumulated depreciation and amortization	(748,058)	(712,616)
Total fixed assets, net of accumulated depreciation and amortization	**$ 87,281**	**$ 98,790**

Amortization of software development costs for the years ended December 31, 2020, 2019 and 2018, were $22.1 million, $24.9 million and $31.5 million, respectively.

Amortization of capitalized lease costs was $1.7 million for each of the years ended December 31, 2020, 2019 and 2018.

Total interest costs incurred for the years ended December 31, 2020, 2019 and 2018, were $7.1 million, $35.0 million and $17.4 million, respectively. For the years ended December 31, 2020, 2019 and 2018, interest capitalized for assets under development was $0.6 million, $0.7 million and $0.7 million, respectively.

5. NOTE RECEIVABLE

On March 21, 2008, FERC approved a settlement to restructure the relationship between PJM and PJM's former Market Monitoring Unit. As part of the settlement, the Market Monitoring Unit and its functions transitioned from being an internal PJM department to an external firm, Monitoring Analytics, LLC (MA). MA operates independently of PJM management and the Board of Managers. In order to facilitate the externalization of this function and as part of the settlement agreement approved by FERC, PJM entered into a revolving loan agreement with MA during March 2008. The original revolving loan agreement was extended in November 2019 to March 31, 2026.

The purpose of the PJM revolving loan to MA is to fund capital needs associated with MA's technology systems and working capital needs related to MA's responsibilities per Attachment M of the Tariff to monitor the markets administered by PJM. The revolving loan has a capacity of $11.0 million and is secured by MA's accounts receivable and future collections of accounts receivable. At December 31, 2020 and 2019, the interest rate on the revolving loan agreement between PJM and MA was 3.25 percent and 4.75 percent, respectively. The interest rate on all loan advances is equal to the PNC Bank Base Rate. The PNC Bank Base Rate is the highest of (A) the Prime Rate, (B) the sum of the Federal Funds Rate plus 50 basis points (0.50 percent), or (C) the sum of LIBOR plus 100 basis points (1.0 percent).

At December 31, 2020 and 2019, the outstanding balance due from MA recorded by PJM as a note receivable was $6.2 million and $3.1 million, respectively. At December 31, 2020 and 2019, the current portion of the note receivable was $2.7 million and $1.6 million, respectively. The current balance at December 31, 2020, represents the amount to be repaid during 2021. The non-current portion of the note receivable was $3.5 million at December 31, 2020, and $1.5 million at December 31, 2019.

6. SHORT-TERM DEBT

PNC Bank (PNC) Revolving Line of Credit

PJM maintains with PNC a FERC-approved revolving line of credit agreement with a capacity amount of $150 million. PJM received approval from FERC on January 13, 2020, to continue to borrow under this facility through January 31, 2022. On January 24, 2020, the extension in term to the facility was executed with PNC. The revolving line of credit is unsecured and available to fund short-term cash obligations.

Under the loan covenants for the revolving line of credit agreement, PJM is required to meet certain financial and non-financial covenants. PJM was in compliance with these covenants as of December 31, 2020.

At both December 31, 2020 and 2019, there were no amounts outstanding under the revolving line of credit agreement. The interest rate on borrowings under this facility is based on the 30-day LIBOR rate plus a spread of 62.5 basis points (0.625 percent). At December 31, 2020, the interest rate was 0.768 percent.

The line of credit facility has a commitment fee of 6.00 basis points (0.06 percent) on the unused balance. This fee is calculated daily and paid quarterly.

364-Day Revolving Line of Credit

On April 23, 2020, PJM entered into a $50 million, 364-day revolving line of credit agreement with PNC. The revolving line of credit is unsecured and available to manage near-term uncertainties stemming from the COVID-19 pandemic. On May 14, 2020, PJM received approval from FERC providing authorization for a total revolving line of credit with PNC of $200 million, consisting of the existing $150 million revolving line of credit and the new short-term revolving line of credit for $50 million.

At December 31, 2020, there was no amount outstanding under the revolving credit agreement. The interest rate on borrowings under this revolving credit agreement is based on the 30-day LIBOR. At December 31, 2020, the interest rate was 1.643 percent.

The facility also has a commitment fee of 25.00 basis points (0.25 percent) on the unused balance. This fee is calculated daily and paid quarterly.

On February 12, 2021, PJM terminated the 364-day revolving line of credit agreement with PNC.

7. LONG-TERM DEBT AND DERIVATIVE FINANCIAL INSTRUMENT – INTEREST RATE SWAP

Bank of America (BoA) Loan Agreement

On June 28, 2018, FERC approved PJM's request to refinance the Company's existing bank loan through a new term loan from BoA. On July 20, 2018, PJM entered into a $20.2 million loan agreement with BoA. The BoA term loan has a seven-year term and is unsecured.

As of December 31, 2020 and 2019, the outstanding borrowings under the term loan were $13.7 million and $16.6 million, respectively. As defined in the loan agreement, the term loan bears interest at a rate per annum equal to the LIBOR rate plus a spread of 65 basis points (0.65 percent). As of December 31, 2020, the interest rate was 0.805 percent.

Under the loan agreement, PJM is required to meet certain financial and non-financial covenants. PJM was in compliance with these covenants as of December 31, 2020.

Repayments of principal under the BoA Bank Loan Agreement are scheduled as follows:

Year ended December 31,		
2021	$	2,886
2022		2,886
2023		2,886
2024		2,886
2025		2,163
Total	**$**	**13,707**

Derivative Financial Instrument – Interest Rate Swap

To manage interest rate risk associated with the $20.2 million loan agreement with BoA, the Company entered into an interest rate swap agreement with BoA effective August 1, 2018. The interest rate swap agreement effectively fixes the interest payments of the Company's floating rate debt instrument at a rate of 3.62 percent. The term of the interest rate swap matches the term of the loan.

While PJM has entered into an economic hedge of its interest rate, the Company has elected not to designate this instrument as a cash flow or fair value hedge for accounting purposes. Accordingly, the interest rate swap is carried at fair value in the Consolidated Statements of Financial Position with changes in fair value recorded through earnings. At December 31, 2020 and 2019, the fair value of the swap was a liability of $0.9 million and $0.6 million, respectively.

For the years ended December 31, 2020, 2019 and 2018, in conjunction with changes in the fair value of the interest rate swap, PJM recognized a $0.3 million derivative mark-to-market loss, a $0.3 million derivative mark-to-market loss and a $0.2 million derivative mark-to-market gain, respectively, as interest expense in the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss).

The Company does not hold or issue financial instruments for speculative or trading purposes for its own account.

8. DERIVATIVE FINANCIAL INSTRUMENT – FTRs

PJM Settlement is the central counterparty to members' pool transactions. Accordingly, PJM Settlement has flash title pass through it when markets settle and as charges/credits are assessed on pool transactions.

An FTR is a financial instrument that enables market participants to reduce their congestion-related price risk when delivering or selling energy on the grid. It provides an economic hedging mechanism against congestion charges that can be transacted by members separately from transmission service. Ultimately, PJM Settlement is neither the buyer nor seller of FTRs, but, as FTR auctions clear, PJM Settlement is temporarily the counterparty to both the FTR Buyer and the FTR Seller. For reporting purposes, these positions net to zero in the Consolidated Statements of Financial Position and the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss), and do not represent a credit risk to PJM. However, because FTRs have ongoing open positions at period end, the Company is disclosing the fair value of these instruments, even though they do not present a direct credit risk to PJM.

The gross fair value of both the FTR assets and FTR liabilities as of December 31, 2020, was $178 million. A total of 294 members are FTR holders related to a total of 4.6 million MWh. As of December 31, 2020, PJM held $2.0 billion in collateral related to these FTR transactions. The collateral is based on the calculated net value of the positions held in each member's FTR portfolio. The collateral can be in the form of cash or a letter of credit.

Roll-forward of FTR activity for the years ended December 31, 2020 and 2019, consisted of the following:

($ in millions)		
Balance at January 1, 2020	$	327
Auction additions		456
Settlement and change in fair value		(605)
Balance at December 31, 2020	$	178
Balance at January 1, 2019	$	343
Auction additions		510
Settlement and change in fair value		(526)
Balance at December 31, 2019	$	327

9. FAIR VALUE DISCLOSURES

Fair value is the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date (exit price). In determining fair values, PJM utilizes market data or assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. The authoritative guidance pertaining to fair value establishes a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). The three levels of the fair value hierarchy defined by this guidance are as follows:

Level 1 – Quoted prices are available in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 – Pricing inputs are other-than-quoted prices in active markets included in Level 1 that are directly or indirectly observable as of the reporting date. Level 2 includes those financial instruments that are valued using broker quotes in liquid markets and other observable pricing data. Level 2 also includes those financial instruments that are valued using internally developed methodologies that have been corroborated by observable market data through correlation or by other means. Significant assumptions are observable in the marketplace throughout the full term of the instrument and can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace.

Level 3 – Pricing inputs include significant inputs that are generally less observable than those from objective sources.

PJM utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. PJM is able to classify fair value balances based on the observability of the inputs. In accordance with the authoritative guidance, financial assets and liabilities are classified in their entirety based on the lowest level of observability for an input that is significant to the fair value measurement. PJM's assessment of the significance of a particular input to the fair value measurement requires the exercise of judgment and may affect the valuation of fair value assets and liabilities and their placement within the fair value hierarchy levels.

The following table presents PJM's cash and cash equivalents as well as financial assets and liabilities that were accounted for at fair value on a recurring basis as of December 31, 2020 and 2019, by level within the fair value hierarchy.

($ in millions)	Dec. 31, 2020				Dec. 31, 2019
	Level 1	Level 2	Level 3	Carrying Value	Carrying Value
Cash and cash equivalents	$ 1,904	$ –	$ –	$ 1,904	$ 1,650
Deposit liabilities	1,801	–	–	1,801	1,598
Derivative liabilities	1	–	–	1	1

The fair value of FTR assets and liabilities for which PJM Settlement is the counterparty for an instant are determined on a recurring basis based on Level 3 inputs within the fair value hierarchy. The valuation model used is based on a three-year weighted average of historical location marginal prices by month by node. The model also calculates separate historic values for on-peak, off-peak and 24-hour FTRs. For reporting purposes, these positions net to zero in the Consolidated Statements of Financial Position and the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss), and are not presented in the table above.

10. INCOME TAXES

Income tax expense shown on the Consolidated Statements of Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss) consisted of the following:

	2020	2019	2018
Federal income taxes			
Current	$ 5,002	$ 3,381	$ 4,193
Deferred	(4,003)	(2,124)	(3,430)
Change in valuation allowance	–	42	10
	999	1,299	773
State income taxes			
Current	1,197	849	1,538
Deferred	(1,086)	(189)	(1,118)
Change in valuation allowance	(9)	–	–
	102	660	420
Income tax expense	**$ 1,101**	**$ 1,959**	**$ 1,193**

The effects of temporary differences giving rise to deferred income tax assets at December 31, 2020 and 2019 consisted of the following:

	2020	2019
Deferred tax liabilities		
Deferred pension and postretirement costs	$ (26,379)	$ (15,619)
	(26,379)	(15,619)
Deferred tax assets		
Postretirement health care	18,576	15,573
Accrued expenses	19,703	10,321
Pension	13,933	13,356
Net operating loss carryforwards	5,748	6,346
Deferred regulatory liability	5,397	1,802
Fixed assets	989	994
	64,346	48,392
Net deferred income tax assets	37,967	32,773
Valuation allowance	(3,489)	(3,480)
Deferred income tax assets, net	**$ 34,478**	**$ 29,293**

The income tax rate on PJM's operating activities differed from the federal statutory rate as follows:

	2020	2019	2018
Income tax expense at the federal statutory rate	$ 667	$ 798	$ 479
Income resulting from:			
Changes in valuation allowance	(5)	42	10
Meals and entertainment	210	431	255
State income taxes, net of federal tax benefit	270	510	330
Other	(41)	178	119
Income tax expense	**$ 1,101**	**$ 1,959**	**$ 1,193**

PJM has net operating loss carryforwards of $71.3 million for Pennsylvania state tax purposes that begin expiring in 2030. PJM has concluded that it is more likely than not, due to enacted statutory restrictions, that certain Pennsylvania net operating loss carryforwards will expire, and therefore, the Company recorded a $1.7 million valuation allowance against these deferred tax assets and a $1.8 million valuation allowance against certain other deferred tax assets with an indefinite future reversal period.

PJM and its subsidiaries file a U.S. consolidated federal income tax return and consolidated or separate company tax returns in various states, including of the Commonwealth of Pennsylvania. The tax years subsequent to 2015 remain open to examination by the United States Internal Revenue Service, and generally, the tax years subsequent to 2016 remain open to examination by various state taxing authorities. There are no ongoing audits at this time.

11. BENEFIT PLANS

Pension Plan

PJM sponsors a defined benefit Pension Plan (the Plan) that covers all regular full-time employees and part-time employees hired prior to January 1, 2014. Benefits under the Plan are based on years of service and the employee's compensation. PJM's funding of the Plan is determined according to the funding requirements set forth by the Employee Retirement Income Security Act of 1974 (ERISA). Plan assets are invested primarily in stocks and bonds and are monitored by PJM's Benefits Administration Committee. This plan was closed to new participants beginning January 1, 2014. Employees hired on or after January 1, 2014, are given a supplemental benefit in their 401(k) Savings Plan (the Savings Plan) based on their age and years of service.

Supplemental Executive Retirement Plan (SERP)

PJM sponsors a SERP to provide certain members of executive management with benefits in excess of normal pension benefits. PJM invested $4.2 million in equity securities in prior years with the intention to use the proceeds to offset future obligations under the SERP. There were no contributions made during the years ended December 31, 2020 and 2019. The investment is included in other non-current assets in the Consolidated Statements of Financial Position at its market value of $0.5 million and $1.1 million as of December 31, 2020 and 2019, respectively.

During 2020, PJM recognized a settlement charge of $1.0 million within SERP pension for an expense related to the payment of lump-sum benefits on January 1, 2020 and July 1, 2020.

In conjunction with the establishment of a defined contribution SERP on January 1, 2021, benefit accruals in the existing defined benefit SERP were frozen as of December 31, 2020. PJM recognized a curtailment charge of $0.2 million at December 31, 2020, related to the freeze of benefit accruals.

Deferred Compensation Plan

PJM sponsors a deferred compensation plan to provide an opportunity to certain members of executive management and the PJM Board of Managers to defer a portion of compensation. At December 31, 2020 and 2019, the value of this employee liability amounted to $25.6 million and $24.3 million, respectively. This amount is included in other employee benefits in the Consolidated Statements of Financial Position.

Postretirement Benefits

The Other Postretirement Employee Benefit Plan (OPEB Plan) provides certain health care and other benefits to retired employees and their spouses and dependents. The amount of the pre-65 benefit is dependent upon the employee's years of service at retirement. The amount of post-65 benefit at retirement is dependent upon the employee's age and years of service as of January 1, 2016. The post-65 OPEB Plan was closed to new hires as of January 1, 2010.

The schedules that follow show the changes in the benefit obligations, plan assets and funded status of the respective plans as of December 31, 2020 and 2019, and components of net periodic pension and postretirement health care costs of these plans for the years ended December 31, 2020, 2019 and 2018.

	Pension Benefits				Other Postretirement Benefits	
	Qualified		SERP			
	2020	2019	2020	2019	2020	2019
CHANGE IN BENEFIT OBLIGATION						
Net benefit obligation at beginning of year	$ 276,847	$ 227,612	$ 7,394	$ 7,293	$ 65,826	$ 56,127
Service cost	10,813	9,577	369	347	1,795	1,493
Interest cost	9,895	9,728	172	317	2,358	2,379
Plan settlements	–	–	(3,199)	–	–	–
Plan curtailments	–	–	(2,001)	–	–	–
Plan amendments	–	–	–	227	–	–
Plan participants' contributions	–	–	–	–	54	74
Actuarial loss (gain)	67,851	37,684	1,775	(123)	11,937	7,113
Gross benefits paid	(11,167)	(7,754)	(73)	(667)	(1,506)	(1,360)
Net obligation at end of year	**$ 354,239**	**$ 276,847**	**$ 4,437**	**$ 7,394**	**$ 80,464**	**$ 65,826**

PJM uses a measurement date of December 31 for all of its pension and postretirement benefit plans.

	Pension Benefits				Other Postretirement Benefits	
	Qualified		SERP			
	2020	2019	2020	2019	2020	2019
CHANGE IN PLAN ASSETS						
Fair value of plan assets at beginning of year	$ 256,811	$ 212,197	$ –	$ –	$ 14,212	$ 11,341
Actual return on plan assets	34,886	52,368	–	–	2,003	2,871
Employer contributions	10,000	–	3,273	667	1,452	1,286
Plan settlements	–	–	(3,199)	–	–	–
Plan participants' contributions	–	–	–	–	55	74
Gross benefits paid	(11,167)	(7,754)	(74)	(667)	(1,506)	(1,360)
Adjustment	–	–	–	–	–	–
Fair value of plan assets at end of year	290,530	256,811	–	–	16,216	14,212
Funded status at end of year	(63,709)	(20,036)	(4,437)	(7,394)	(64,248)	(51,614)
Unrecognized net actuarial loss	–	–	–	–	–	–
Unrecognized prior service cost	–	–	–	–	–	–
Unrecognized net transition obligation	–	–	–	–	–	–
Net amount recognized at end of year and amounts recognized in the Statements of Financial Position	**$ (63,709)**	**$ (20,036)**	**$ (4,437)**	**$ (7,394)**	**$ (64,248)**	**$ (51,614)**

	Pension Benefits				Other Postretirement Benefits	
	Qualified		SERP			
	2020	2019	2020	2019	2020	2019
AMOUNTS RECOGNIZED IN DEFERRED PENSION AND POSTRETIREMENT COSTS:						
Net actuarial loss (gain)	$ 93,540	$ 45,836	$ 844	$ 2,296	$ 1,615	$ (9,311)
Prior service cost (gain)	–	3	–	220	(4,761)	(6,048)
Total	**$ 93,540**	**$ 45,839**	**$ 844**	**$ 2,516**	**$ (3,146)**	**$ (15,359)**

	Pension Benefits				Other Postretirement Benefits	
	Qualified		SERP			
	2020	2019	2020	2019	2020	2019
AMOUNTS RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION CONSIST OF:						
Current liability	$ –	$ –	$ 288	$ 3,044	$ 1,548	$ 1,439
Noncurrent liability	63,709	20,036	4,149	4,350	62,700	50,175
Net amount recognized at end of year	**$ 63,709**	**$ 20,036**	**$ 4,437**	**$ 7,394**	**$ 64,248**	**$ 51,614**

At the end of 2020 and 2019, the PBO, the accumulated benefit obligation and the fair value of plan assets for all of PJM's pension and postretirement benefit plans are as follows:

	Pension Benefits				Other Postretirement Benefits	
	Qualified		SERP			
	2020	2019	2020	2019	2020	2019
End of year						
Projected benefit obligation	$ 354,239	$ 276,847	$ 4,437	$ 7,394	$ 80,464	$ 65,826
Accumulated benefit obligation	274,347	215,280	4,437	5,905	–	–
Fair value of plan assets	290,530	256,811	–	–	16,216	14,213

Expected Cash Flows

Information about expected cash flows for the pension and postretirement benefit plans follows:

	Qualified Benefits	SERP Benefits	Other Postretirement Benefits
Employer contributions			
Expected employer contributions for 2021 to plan trusts	$ –	$ –	$ 1,548
Expected employer contributions in form of direct benefit payments for 2021	–	288	1,548
Expected benefit payments			
2021	8,341	288	1,548
2022	10,149	309	1,726
2023	11,181	286	1,913
2024	11,936	326	2,122
2025	13,655	460	2,389
2026–2031	87,482	1,677	15,789

The table above reflects the benefits expected to be paid from the plan or from PJM's assets for PJM's share of the benefit cost. The participants' share of the cost, which is funded by participant contributions to the plan, is not included in this table. Expected contributions to plan trusts reflect expected amounts to be contributed by PJM to the fund.

	Pension Benefits						Other Postretirement Benefits		
	Qualified			SERP					
	2020	2019	2018	2020	2019	2018	2020	2019	2018
COMPONENT OF NET PERIODIC BENEFIT COST									
Service cost	$ 10,812	$ 9,577	$ 10,957	$ 370	$ 347	$ 364	$ 1,795	$ 1,493	$ 1,694
Interest cost	9,895	9,728	9,014	172	317	272	2,358	2,379	2,279
Expected return on assets	(16,167)	(13,333)	(14,880)	–	–	–	(910)	(726)	(667)
Prior service cost (gain)	3	(18)	(18)	29	7	7	(1,287)	(1,287)	(1,287)
Actuarial loss (gain)	1,428	2,458	2,205	171	271	348	(83)	(627)	(83)
Curtailment charge	–	–	–	191	–	–	–	–	–
Settlement charge	–	–	–	1,064	–	–	–	–	–
Total net periodic benefit cost	**$ 5,971**	**$ 8,412**	**$ 7,278**	**$ 1,997**	**$ 942**	**$ 991**	**$ 1,873**	**$ 1,232**	**$ 1,936**

Discount rates of 2.76 percent, 2.69 percent and 2.70 percent were used to calculate year-end 2020 pension, SERP and other postretirement benefit obligations, respectively.

For each of the years ended December 31, 2020, 2019 and 2018, $0.8 million, $0.6 million and $0.7 million of total pension and postretirement benefits expense were included in capitalized project costs, respectively.

The estimated net loss and prior service costs for PJM's pension plans that will be amortized from deferred recovery of pension and postretirement costs into net periodic benefit cost in 2021 is $2.8 million. The estimated net gain and prior service credits for PJM's postretirement plan that will be amortized from deferred recovery of pension and postretirement costs into net periodic benefit cost in 2021 is $1.4 million.

The following schedule shows the assumptions used to calculate the pension and postretirement benefit expense for the years ended December 31, 2020, 2019 and 2018.

	Pension Benefits			Other Postretirement Benefits		
	2020	2019	2018	2020	2019	2018
Discount rate	3.65%	(a)	3.70%	3.55%	4.30%	3.70%
Expected return on plan assets	6.40%	6.40%	6.60%	N/A	N/A	N/A
Rate of comparison increase	4.50%	4.50%	4.50%	6.40%	4.50%	4.50%
Medical care cost trend rate						
Current (Pre-65)				5.65%	5.92%	6.17%
Current (Post-65)				6.02%	6.48%	6.93%
Ultimate (Pre-65)				4.46%	4.46%	4.46%
Ultimate (Post-65)				4.45%	4.45%	4.45%
Years to ultimate				18	19	20

(a) – Pension expense for the SERP for the period January 1, 2020 through June 30, 2020, was calculated using a discount rate of 3.55 percent, from July 1, 2020 through December 30, 2020, using a discount rate of 3.00 percent and on December 31, 2020, using a discount rate of 2.69 percent.

The expected return on plan assets assumption has been determined based on PJM's investment objectives and is supported by analysis of simulated investment return using capital market assumptions published in Mercer Investment Consulting's Capital Markets Outlook for the plan's target asset mix, net of an adjustment for expense to be paid from the plan assets.

The asset allocation for the PJM pension plan and other postretirement benefits plan at the end of 2020 and 2019, and the target allocation for 2020 and 2019, by asset category follows. The fair value of plan assets for the PJM pension plan and other postretirement benefit plans was $306.7 million and $271.0 million at the end of 2020 and 2019, respectively.

Asset Category	Target Allocation	2020	Target Allocation	2019
Equity securities	35%–45%	49%	50%–60%	55%
Debt securities	55%–65%	50%	40%–50%	44%
Other	0%–2%	1%	0%–2%	1%
Total	100%	100%	100%	100%

The assets of the PJM pension plan and other postretirement benefit plan are invested to provide a source of retirement income for participants and beneficiaries of the plan. The financial objectives of the plans have been established in conjunction with the comprehensive review of the current and projected financial requirements of the plans. The financial objectives are to maximize assets in order to consistently and materially exceed the accumulated benefit obligation under the plans and to reduce contributions over time.

The assets of the PJM pension plan and other postretirement benefit plan are invested in accordance with all relevant legislation and regulation, in a manner consistent with fiduciary standards of ERISA and other applicable law. Specifically, the investment program includes such safeguards and diversity to which a prudent investor would adhere, and all transactions undertaken on behalf of the plans are in the sole interest of plan participants and their beneficiaries.

Fair Value Measurements

The following table presents PJM's pension and other postretirement benefit plan assets measured at fair value and their respective levels within the fair value hierarchy as of December 31, 2020 and 2019:

As of December 31, 2020 (a)	**Level 1**	**Level 2**	**Level 3**	**Carrying Value**
Plan assets:				
Cash and cash equivalents	$ 1,920	$ –	$ –	$ 1,920
Commingled funds	–	149,704	–	149,704 (b)
Mutual funds	–	155,122	–	155,122 (c)
Total plan assets	**$ 1,920**	**$ 304,826**	**$ –**	**$ 306,746**

As of December 31, 2019 (a)	**Level 1**	**Level 2**	**Level 3**	**Carrying Value**
Plan assets:				
Cash and cash equivalents	$ 441	$ –	$ –	$ 441
Commingled funds	–	130,821	–	130,821 (b)
Mutual funds	–	139,763	–	139,763 (c)
Total plan assets	**$ 441**	**$ 270,584**	**$ –**	**$ 271,025**

(a) See Note 9 for a description of levels within the fair value hierarchy.
(b) The benefit plans own commingled funds that invest in equity and fixed-income securities.
(c) This category predominantly represents diverse issues of domestic investment-grade fixed-income securities.

Valuation Techniques Used to Determine Fair Value

Cash equivalents – Investments with maturities of three months or less when purchased, including certain short-term fixed-income securities, are considered cash equivalents and are included in the recurring fair value measurements hierarchy as Level 1.

Commingled funds – Commingled funds are maintained by investment companies that hold certain investments in accordance with a stated set of fund objectives, which are consistent with PJM's overall investment strategy. The values of the majority of commingled funds are not publicly quoted and must trade through a broker. For equity and fixed-income commingled funds traded through a broker, the fund administrator values the fund using the net asset value per fund share, derived from quoted prices in active markets of the underlying securities. These funds are valued at Net Asset Value (NAV) and have been categorized as Level 2.

Mutual funds – Mutual funds are pooled instruments that hold certain investments in accordance with a stated set of fund objectives, which are consistent with PJM's overall investment strategy. These funds consist of fixed income, developing markets and indexed securities. Fidelity Investments, the fund manager, monitors prices supplied by pricing services and may use a supplemental price source or change the primary price source of a given security if the portfolio managers challenge an assigned price and Fidelity determines that another price source is considered to be preferable. These funds are valued at NAV and have been categorized as Level 2.

Savings Plan

PJM also sponsors the 401(k) Plan (Savings Plan) for all eligible employees of the Company. The Savings Plan permits employees to contribute up to 75 percent of their gross compensation on a pretax basis, subject to limitations as described in the savings plan. PJM makes matching contributions equal to 100 percent of the employee's first 5 percent of gross salary contributed. PJM contributions to the Savings Plan were approximately $5.7 million, $5.3 million and $4.8 million for the years ended December 31, 2020, 2019 and 2018, respectively. This expense is included in compensation in the Consolidated Statements of Income, Comprehensive Income and Paid-in Capital, Retained Earnings and Accumulated Other Comprehensive Income (Loss).

12. COMMITMENTS AND CONTINGENCIES

Leases

PJM leases office space under operating leases with various vendors. These leases are non-cancelable and expire during the period from 2021 to 2027.

Future minimum rentals under non-cancelable lease agreements are as follows:

Year ended December 31,	Operating	Capital
2021	$ 1,193	$ 1,861
2022	1,148	1,941
2023	788	2,022
2024	788	2,103
2025	788	2,185
Remaining	1,379	3,173
Total	**$ 6,084**	**$ 13,285**

Other Items

Credit Matter

On June 21, 2018, GreenHat Energy, LLC (GreenHat) defaulted on its obligations related to its FTR portfolio, which includes positions applicable to the then current planning year as well as the 2019/2020 and 2020/2021 planning years. In January 2019, FERC denied PJM's waiver requesting to only offer the August 2018 defaulted FTRs for liquidation in the FTR auction conducted in July 2018. In June 2019, FERC issued an order on clarification and set the matter for paper hearing and settlement judge procedures.

The parties submitted a settlement with FERC on October 9, 2019, that resolves all issues in this proceeding and avoids the resettlement of the stopped liquidation auction. FERC accepted the settlement by order dated December 30, 2019. The settlement provides for payment of $17.5 million that was allocated to members as part of the default allocation. The aggregate payment default of GreenHat, net of collateral held, was billed to the non-defaulting members in accordance with the default allocation assessment formula in the Operating Agreement. Those default allocation billings and payments will continue through the end of the current planning year, which ends on May 31, 2021.

Old Dominion Electric Cooperative v. PJM 2014 Polar Vortex Complaint

On February 22, 2019, Old Dominion Electric Cooperative (ODEC) filed an amended complaint (Amended Complaint) against PJM in Circuit Court for Henrico County, Virginia, alleging that PJM directed ODEC to purchase natural gas during the 2014 Polar Vortex event in which temperatures fell to unprecedented levels and that ODEC should be made whole for its gas costs incurred, with an outstanding amount of approximately $15 million. ODEC had previously attempted and failed to recover the same exact costs through a waiver petition filed before FERC in June 2014. On April 3, 2019, PJM filed a notice to remove the Amended Complaint to the United States District Court for the Eastern District of Virginia, because ODEC's civil action arises under federal law, namely, the Federal Power Act, the PJM Tariff, the PJM Operating Agreement and related federal doctrines.

On March 31, 2020, the District Court issued an opinion and order granting PJM's Motion to Dismiss with prejudice. The District Court found that ODEC's claims for compensation fall entirely within the PJM Tariff and therefore are exclusively governed by federal law and barred by the filed-rate doctrine. On April 23, 2020, ODEC filed a Notice of Appeal to the United States Court of Appeals for the Fourth Circuit (Circuit Court) of the District Court's Order on Motion to Dismiss. The parties have filed briefs with the Circuit Court and oral arguments are set for May 2021.

Radford's Run Complaint

On November 15, 2018, FERC issued an order (November 15 Order) granting in part a complaint filed by Radford's Run Wind Farm, LLC (Radford) against PJM on June 26, 2018 (Complaint), alleging that Radford is entitled to 279 MW of Incremental Capacity Transfer Rights (ICTRs) because Radford funded a network upgrade that improved a transmission constraint. In the November 15 Order, FERC granted the Complaint in part because FERC found that "PJM did not comply with its Tariff," which provides that PJM must determine in the System Impact Study whether a customer is entitled to any ICTRs resulting from its customer-funded upgrade. FERC established paper hearing procedures for PJM to assess whether Radford's upgrades would have made Radford eligible for ICTRs.

On April 16, 2020, FERC issued its order on the paper hearing (April 16 Order), finding that the PJM Tariff required PJM to use the information available at the time PJM completed the System Impact Study for Radford's interconnection request (i.e., December 2015) when it evaluated the Radford upgrade for ICTRs. The April 16 Order required PJM to award any ICTRs that would have been assigned to Radford based on data as of December 2015, and required PJM to make a compliance filing within 60 days (i.e., by June 15, 2020) detailing its determination on ICTRs for the Radford upgrade using the information available to PJM at the time it completed the System Impact Study. For the 2019/2020 Delivery Year, for which payments had already been made, the April 16 Order required PJM to resettle payments for ICTRs resulting from the 2016 Base Residual Auction and to rebill affected entities for that period. As a result of that directive, PJM had to rebill ICTR holders in the ComEd Zone nearly $10 million in payments. On June 15, 2020, PJM submitted its compliance filing to FERC together with a refund report showing the resettlement.

On May 18, 2020, PJM (joined by ComEd) filed a request for rehearing on the 2019/2020 Delivery Year rebilling directive in the April 16 Order. As a result, on December 2, 2020, FERC issued an order (December 2 Order) that granted rehearing and set aside the resettlement of ICTRs for the 2019/2020 Delivery Year; however, FERC directed PJM on compliance to explain and support its position on the 2019/2020 resettlement, including why a 2015 System Impact Study would not have been enough to make Radford "obligated to fund" ICTRs for purposes of the 2016 Base Residual Auction because of the Tariff requirement that to receive ICTRs, Radford must have been obligated to fund the network upgrade prior to the 2016 Base Residual Auction. On January 4, 2021, PJM filed its compliance filing, and the matter is pending FERC action.

13. RELATED-PARTY TRANSACTIONS

PJM occupies two buildings that are owned by a subset of PJM's members. One of the buildings was purchased in 1992 at a cost of $2.9 million. This building was subsequently renovated at a cost of $2.9 million. A second building occupied by PJM and used as one of PJM's control centers was purchased in July 1995 at a cost of $4.8 million. Through December 31, 2000, the facilities' owners elected not to charge PJM rent for the use of these facilities. Effective January 1, 2001, PJM commenced paying a nominal rent of two dollars per year for the use of these facilities. PJM is responsible for facility maintenance, property taxes, insurance and other related costs associated with these two buildings. Estimated annual market rent for these two buildings is approximately $1.6 million.