

We are committed to enhancing our customers' quality of life by meeting their expectations for reliability and value in an environmentally responsible way—every day.

SAFE, RELIABLE AND COMPETITIVELY PRICED SERVICE; CUSTOMER SATISFACTION; GROWTH; QUALITY; VALUING EMPLOYEES; CORPORATE CITIZENSHIP; SUPERIOR RETURN.

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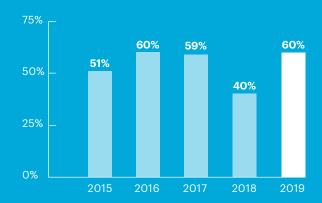


Financial Performance

DIVIDENDS PER SHARE

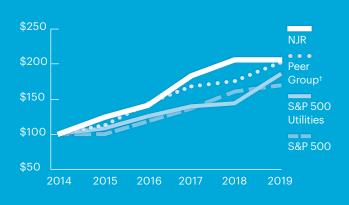
PAYOUT RATIO (On a net financial earnings (NFE) basis)





PERFORMANCE GRAPH

VALUE OF \$10,000 INVESTED (9/30/14)





*The performance graph shows a comparison of the fiveyear cumulative return, including reinvestment of dividends, assuming \$100 invested on September 30, 2014, New Jersey Resources Corporation (NJR) stock, the Peer Group, the S&P 500 Utilities Index and the S&P 500 Index.

The 11 companies in the Peer Group noted above include: Atmos Energy Corporation; Avista Corporation; Black Hills Corporation; National Fuel Gas Company; NiSource Inc.; Northwest Natural Gas Company; ONE Gas, Inc.; South Jersey Industries, Inc.; Southwest Gas Corporation; Spire Inc. and Vectren Corporation (VVC). VVC is no longer a publicly-traded entity.

[‡]Net Financial Earnings (NFE) is a financial measure not calculated in accordance with Generally Accepted Accounting Principles (GAAP) of the United States as it excludes all unrealized and certain realized gains and losses associated with derivative instruments and net applicable tax adjustments. For further discussion and reconciliation to GAAP of this non-GAAP financial measure, see our fiscal 2019

§ Assumes Dividends Reinvested

*** Utility Gross Margin is a non-GAAP financial measure, which is defined as natural gas revenues less natural gas costs, sales and other taxes and regulatory rider expenses, and may not be comparable to the definition of gross margin used by others in the natural gas distribution business and other of this non-GAAP financial measure, please see our fiscal 2019 Form 10-K.

**Rating determined by Shopper Approved. See njrhomeservices. com/reviews for more information.

Information Regarding Forward-Looking Statements — Inis report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. NJR cautions readers that the assumptions forming the basis for forward-looking statements include many factors that are beyond NJR's ability to control or estimate precisely, such as estimates of future market conditions and the behavior of other market participants. Words such as "anticipates," "estimates," "expects," "projects," "may," "will," "intends," "plans," "believes," "should" and similar expressions may identify forward-looking statements and such forward-looking statements are made based upon management's current expectations, assumptions and beliefs as of this date concerning future developments and their potential effect upon NJR. There can be no assurance that future developments will be in accordance with management's expectations, assumptions and beliefs or that the effect of future developments on NJR will be those anticipated by management.

Forward-looking statements in this report include, but are not limited to, certain statements regarding NJR's NFE guidance for fiscal 2020, forecasted contribution of business segments to fiscal 2020 NFE, future NJNG customer and utility gross margin growth, future NJR capital expenditures, investment programs and infrastructure investments, NJR Clean Energy Ventures' ITC-eligible projects and demand for residential solar, earnings growth, the impact of NJNG's new base rates, any future base rate cases as well as the ability to close Adelphia Gateway, successfully integrate the Leaf River acquisit nand construct

Additional information and factors that could cause actual results to differ materially from NJR's expectations are contained in NJR's filings with the U.S. Securities and Exchange Commission (SEC), including NJR's Annual Reports on Form 10-K and subsequent Quarterly Reports on Form 10-Q, recent Current Reports on Form 8-K, and other SEC filings, which are available at the SEC's web site, http://www.sec.gov. Information included in this report is representative as of today only and while NJR periodically reassesses material trends and uncertainties affecting NJR's results of operations and financial condition in connection with its preparation of management's discussion and analysis of results of operations and financial condition contained in its Quarterly and Annual Reports filed with the SEC, NJR does not, by including this statement, assume any obligation to review or revise any particular forward-looking statement referenced herein in light of future events.

^{††}As measured by leaks per mile

FISCAL 2019 WAS ANOTHER SOLID YEAR FOR NEW JERSEY RESOURCES (NJR):

\$175

million

of net financial earnings (NFE)[‡] in fiscal 2019, or \$1.96 per share, compared with \$240.5 million, or \$2.74 per share, last fiscal year.

\$169.5 6.8

million

of consolidated net income, compared with \$233.4 million in fiscal 2018.

percent dividend increase

to an annual rate of \$1.25 per share: 26th increase over the past 24 years.

in customer satisfaction

with residential natural gas service in the East among large utilities, according to J.D. Power for the fifth consecutive year.

Sixth

vear in a row

named a Most Trusted Brand, and fifth straight year named an Environmental Champion, by Cogent Syndicated Utility Trusted Brand and Customer Engagement™ report from Escalent.

hours of volunteer service

contributed by the NJR team: assisted more than 2,500 nonprofit and community organizations.

NEW JERSEY NATURAL GAS (NJNG)

\$78.1

million

of NFE generated by NJNG this year, compared with \$84 million last year.

new utility customers added

an annual customer growth rate of 1.8 percent; NJNG now serves 548,000 homeowners and businesses in New Jersey.

NJNG CONTINUED

17 miles

of the 30-mile Southern Reliability Link (SRL) installed; all permits and approvals received to complete the project.

72 miles

of unprotected bare steel main replaced as a part of NJNG's regulated infrastructure programs.

\$169_{million}

invested in The SAVEGREEN Project® since 2009 has helped 57,000 customers save energy and provided an economic impact of \$417 million.

One million people

and the Joint Base McGuire-Dix-Lakehurst—New Jersey's second largest employer—will benefit from the enhanced resiliency provided by the SRL.

900 metric tons

of methane emissions reduced by distribution system improvements since 2015.

\$.07_{per share}

earned by shareowners through NJNG's basic gas supply incentive programs; these programs saved customers \$42 million and generated \$8 million in utility gross margin.**

NJR CLEAN ENERGY VENTURES (CEV)

\$77.5

million

of NFE earned by CEV compared with \$75.8 million in fiscal 2018.

Seven

commercial solar projects

placed into service and more than 800 residential solar lease customers added in New Jersey in fiscal 2019. **290**

megawatts (MW)

of commercial and residential solar capacity installed—enough to power 27,000 homes and reduce greenhouse gas emissions by 208,460 tons annually.

NJR MIDSTREAM (MIDSTREAM)

million

of NFE contributed by Midstream, compared with \$24.4 million last fiscal year.

million dekatherm

salt cavern natural gas storage facility acquired in the country's fastest growing market for natural gas.

million dekatherms

of working natural gas capacity in the Gulf Coast and Marcellus Shale regions.

NJR ENERGY SERVICES (NJRES)

of NFE at NJR's unregulated wholesale energy services business in fiscal 2019, compared with \$60.4 million in fiscal 2018; despite difficult market conditions, NJRES leveraged its market expertise and contributed to earnings.

NJR HOME SERVICES (NJRHS)

million

of NFE earned at the company's retail and appliance service business compared to a NFE loss of \$0.4 million last fiscal year.

service jobs completed

and 1,500 HVAC systems, 2,500 water heaters and 130 solar systems installed.

online customer rating***

and named the Asbury Park Press Readers' Choice for Best of the Best for heating and air conditioning in Monmouth County.

Letter from the Chairman



TO OUR SHAREOWNERS,

This is my 25th and last letter to shareowners. Having the opportunity to be a part of our exceptional team of talented women and men for more than three decades has been one of the great privileges of my life. Our employees are the true leaders of our company. They meet our customers' expectations for safety, reliability and value; support our neighborhoods and communities; deliver consistent results for shareowners; and drive our performance.

Since 1995, New Jersey Resources has grown into a diversified energy company with over 1,100 employees across five core businesses — New Jersey Natural Gas, NJR Clean Energy Ventures, NJR Midstream, NJR Energy Services and NJR Home Services. We are

committed to meeting the needs of a wide range of stakeholders, including customers, employees, regulators and policymakers, community organizations and our shareowners. Ensuring safety and reliability is, and will always be, our top priority. We support public policy and environmental stewardship, and strengthen the communities we serve. And our results reward the confidence our shareowners have placed in us. This focus has allowed us to develop a sustainable strategy that has created substantial value.

When we look at our performance, the numbers speak for themselves. We now serve over half a million customers through a diverse pipeline network of more than 7,500 miles of transmission

EVERYTHING WE DO IS DRIVEN BY OUR COMMITMENT TO MEETING THE NEEDS OF A DIVERSE GROUP OF STAKEHOLDERS.

and distribution main. Through our consistent infrastructure investment, our system is the safest and most environmentally sound in the state, as measured by leaks per mile.

Over the past 25 fiscal years, we delivered consistent financial performance. In fact, if you invested \$10,000 in NJR in 1995, including reinvested dividends, today it would be worth nearly \$222,000, which represents an average annual return of about 13.5 percent. These results reflect our commitment to creating value for shareowners.

For the fifth consecutive year, we ranked highest in customer satisfaction according to the J.D. Power 2019 Residential Customer Satisfaction Study. This is the 14th J.D. Power Award we've won since they

began measuring utility customer satisfaction in 2002 — more than any other utility in the state. Also for the sixth year in a row, we were named a Most Trusted Brand and for the fifth straight year we were named an Environmental Champion by Cogent Syndicated. It is the work our team has done, and continues to do every day, that makes these recognitions possible.

One of the things I am most proud of is the positive impact we've had in our communities. This year, our employees, retirees and their families contributed over 5,400 hours of volunteer service, and helped 2,500 organizations throughout our service territory. We completed our 229th affordable home since 1996 as a part of our homeownership program, which helps



deserving families throughout Monmouth,
Ocean and Morris counties become first-time
homeowners. And over the past three decades,
we provided more than 350 middle school
students from Asbury Park and Lakewood with
a glimpse of what their future may hold through
our Project Venture mentoring program.

This is how we make a difference. This is how we offer hope. For us, this is what leadership is all about

There are no followers in our company, only leaders. Our employees are the ones who respond to our customers' needs and solve problems, day or night. That is why we have been able to accomplish so much, and why we remain positioned for future strong performance.

I want to thank all our employees, past and present, for always giving their best. I am especially proud of the constructive relationship we developed with the International Brotherhood of Electrical Workers (IBEW) Local 1820. Every day, they deliver results and I am grateful for all they do.

I would like to acknowledge the New Jersey
Board of Public Utilities and the Division of Rate
Counsel, who are an important part of what we do.
Our focus on system resiliency, energy efficiency
and clean energy reflects our shared commitment
to promote safe, reliable, resilient service
and advance New Jersey's environmental and
energy strategy.

I also would like to express my personal appreciation to the members of our Board of Directors for their guidance and support over the years. Their willingness to share their expertise and diverse perspectives has made us a better company.

This past year, we were saddened by the passing of Roger E. Birk, retired chair and CEO of Merrill Lynch & Company, who served on our board from 1986 through 1995. Roger provided valuable insight during a critical time for our company. We are fortunate to have had him on our board and benefited from his strong leadership. For me, he was a mentor who had a profound impact on my career.

As my tenure comes to a close, I firmly believe the women and men of NJR will continue to lead; make a difference in the lives of others; and deliver for our stakeholders. With our employees as leaders, and Steve Westhoven and our management team at the helm, we are in good hands. I look forward to seeing our company grow and prosper well into the future, and will always be grateful for the confidence you have placed in me and in NJR over the past 25 years.

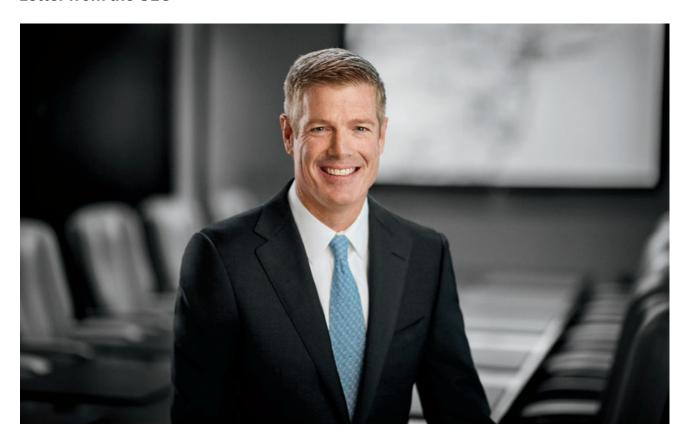
Laurence M. Downes.

Sincerely,

Laurence M. Downes Chairman



Letter from the CEO



TO OUR SHAREOWNERS,

Our employees are leaders. They execute our strategy, meet our customers' energy needs and ensure the safety and reliability of our systems. And they deliver value to you—our shareowners.

As the new CEO, and a member of the New Jersey Resources team for the past 30 years, I believe the leadership and entrepreneurial spirit of our employees will drive our ability to seize opportunities in continually evolving energy markets.

With our talented team and core strengths—a strong financial profile, disciplined capital allocation, commitment to service and environmental sustainability and an increasingly diverse portfolio of energy infrastructure investments—we have a solid foundation for growth.

And we have proven we can leverage our expertise to identify new investment opportunities that support our strategic outlook.

For example, capitalizing on the long-standing asset management expertise of our team at NJR Energy Services, in fiscal 2019, NJR Midstream announced the acquisition of Leaf River Energy Center and now operates the Mississippi-based natural gas storage facility. With Leaf River, Midstream is well positioned to be a leading Gulf Coast service provider in one of the most significant energy demand centers in the United States.

We continue to build upon NJR's expertise, talent and assets to deliver on our strategic goals. Those priorities for 2020 include:

DELIVERING QUALITY AND VALUE TO OUR CUSTOMERS, EMPLOYEES, COMMUNITIES AND YOU, OUR SHAREOWNERS.

- → Investing in utility infrastructure projects to support our growing customer base and ensure safe and reliable service with a commitment to environmental sustainability;
- Developing renewable energy projects and solar investments that support our clean energy business and public policy goals;
- Expanding our midstream portfolio with high-quality assets to provide consistent revenue with long-term capacity commitments;
- ▶ Leveraging our strong brand and customer service to expand our retail products and services in the residential and commercial marketplaces;
- Increasing the customer base for NJRES and building on our relationships and

- reputation for reliable service to advance new opportunities;
- Focusing on organic growth within our existing businesses.

By aligning our strengths, we can deliver reliable energy to our customers and results for our shareowners. As you can see in our Fiscal 2019 Performance Highlights, we achieved a 6.8 percent dividend increase — our 26th increase over the past 24 years — and net financial earnings of \$1.96 per share, which was within our guidance range of \$1.95 to \$2.05 per share.

Providing reliable and safe energy, delivered in an environmentally responsible way, is a constant priority for our company.



THE IMPACT OF OUR WORK EXTENDS INTO THE NEIGHBORHOODS WE SERVE.

In fiscal 2019, New Jersey Natural Gas became the first company in New Jersey to join Our Nation's Energy Future Coalition (ONE Future), and took a lead role in reducing methane emissions. We were also the first utility in the country to purchase a portion of our natural gas supply through the TrustWell™ Responsible Gas Program, which evaluates and attests responsibly sourced natural gas for customers. And we are an active participant in the U.S. Environmental Protection Agency's voluntary Methane Challenge Program.

We invested over \$20 million in the The SAVEGREEN Project, NJNG's energy-efficiency program, to help residential and commercial customers reduce energy usage and save money. Since its launch in 2009, we have invested a total of \$169 million, helped more than 57,000 customers and driven an estimated \$417 million in economic development in New Jersey.

NJNG replaced 72 miles of unprotected steel main and associated services this year as part of our Safety Acceleration and Facility Enhancement (SAFE) program. We expect to complete the

remaining replacement work by 2021, making NJNG the first local distribution company in New Jersey to eliminate all unprotected bare steel main from our system. NJNG was also the first utility in New Jersey to replace its cast iron main, making ours one of the most environmentally sound natural gas delivery systems in the state.

This year, NJNG received the final permits needed to complete construction of our Southern Reliability Link project. We developed the SRL to enhance resiliency and reliability with minimal impact on the environment. When complete, it will strengthen our delivery system and benefit more than one million people, including the Joint Base McGuire-Dix-Lakehurst — New Jersey's second largest employer.

Over 95 percent of new construction projects built in our service territory choose natural gas, and the strong price advantage and environmental benefits it offers over other fuels supports a healthy conversion market. This year, NJNG added 9,700 new customers—our largest increase since 2006—and now serves nearly

548,000 homes and businesses in New Jersey. We will continue to position our company to meet customer demand and maintain the safest distribution system in the state."

NJR remains a leader in renewable energy development in New Jersey. This year, NJR Clean Energy Ventures placed in service seven commercial solar projects and added over 800 Sunlight Advantage® residential solar lease customers. Our total installed capacity is now 290 megawatts, enough to power 27,000 homes annually.

NJR maintains strong and collaborative relationships with our regulators and policymakers. We are actively engaged in contributing to New Jersey's Energy Master Plan and the development of a new solar market structure to support a clean energy future. We are committed to helping the state achieve its energy goals in a manner that reduces costs and generates value for investors.

Our achievements in fiscal 2019 and our outlook for the years ahead reflect the power of our diverse portfolio of businesses and talent of our employees. I would like to thank our entire team, including the members of IBEW Local 1820. Their efforts help drive our success.

I appreciate the trust our board of directors has placed in me to be president and CEO. I look forward to the opportunity to work with them and reward their confidence by continuing to deliver performance for our shareowners, customers and the communities we serve. I'm also pleased to welcome NJR's two newest directors: Gregory E. Aliff and James H. DeGraffenreidt Jr. Their industry and regulatory expertise will be an asset to our board.

On behalf of our entire organization, I would like to thank Larry Downes for his leadership of NJR. Our shareowners, customers and employees are



fortunate to have had him as CEO over the past quarter century. This January, Larry and another longtime member of our board, Terry Strange, will be retiring. As the chair of our Audit Committee, Terry's insights and knowledge have been invaluable. We are a stronger company because of their contributions

I look forward to seeing you at our Annual Shareowners Meeting, which will be held at 9:30 a.m. on January 22, 2020, at Eagle Oaks Golf and Country Club in Farmingdale, New Jersey.

I have never been more excited about the future of our company. Thank you for your investment in NJR and your confidence in us. As always, we will work hard and give our very best to reward your trust.

Sincerely,

Steve Westhoven
President and CFO



Corporate Profile

New Jersey Resources (NYSE: NJR) is a Fortune 1000 company that, through its subsidiaries, provides safe and reliable natural gas and clean energy services, including transportation, distribution, storage, asset management and home services. NJR is composed of five primary businesses:

New Jersey Natural Gas, NJR's principal subsidiary, operates and maintains over 7,500 miles of natural gas transportation and distribution infrastructure to serve over half a million customers in New Jersey's Monmouth, Ocean, Morris, Middlesex and Burlington counties.

NJR Clean Energy Ventures invests in, owns and operates solar projects with a total capacity of nearly 300 megawatts, providing residential and commercial customers with low-carbon solutions.

NJR Energy Services manages a diversified portfolio of natural gas transportation and storage assets and provides physical natural gas services and customized energy solutions to its customers across North America.

NJR Midstream serves customers from local distributors and producers to electric generators and wholesale marketers through its ownership of Leaf River Energy Center and 50 percent equity ownership in the Steckman Ridge natural gas storage facility, as well as its 20 percent equity interest in the PennEast Pipeline Project.

NJR Home Services provides service contracts, as well as heating, central air conditioning, water heaters, standby generators, solar and other indoor and outdoor comfort products, to residential homes throughout New Jersey.

NJR and its more than 1,100 employees are committed to helping customers save energy and money by promoting conservation and encouraging efficiency through Conserve to Preserve® and initiatives such as The SAVEGREEN Project® and The Sunlight Advantage®.

For more information about NJR, visit njresources.com, follow us on Twitter @NJNaturalGas, "like" us on facebook.com/NewJerseyNaturalGas and download our free NJR investor relations app for iPad, iPhone and Android.

Directors and Officers

NEW JERSEY RESOURCES Directors



Laurence M. Downes, 62 (B) Chairman of the Board New Jersey Resources (1995)



Gregory E. Aliff, 66 (A) Partner (retired) Deloitte & Touche LLP (2019)



Donald L. Correll, 69 (A,B,C) Chief Executive Officer and Co-founder Water Capital Partners LLC (2008)



James H. DeGraffenreidt Jr., 66 Chief Executive Officer (retired) WGL Holdings, Inc. (2019)



Robert B. Evans, 71 (A,B)President and Chief Executive Officer (retired) Duke Energy Americas



M. William Howard Jr., 73 (B,C) Pastor (retired) Bethany Baptist Church (2005)



Jane M. Kenny, 68 (B,C,D) Co-owner and Managing Partner The Whitman Strategy Group, LLC (2006)



Thomas C. O'Connor, 63 (A) Chairman, President and Chief Executive Officer (retired) DCP Midstream, LLC (2017)



J. Terry Strange, 75 (A,B)Vice Chairman and Managing Partner U.S. Audit Practice (retired) KPMG LLP (2003)



Sharon C. Taylor, 65 (B,C,D) Senior Vice President Human Resources (retired) Prudential Financial



David A. Trice, 71 (C,D)President and Chief Executive Officer (retired) Newfield Exploration Company (2004)



Stephen D. Westhoven, 51 President and Chief Executive Officer New Jersey Resources



George R. Zoffinger, 71 (A,D) President and Chief Executive Officer Constellation Capital Corporation (1996)

Date represents year Director joined NJR Board.

- (A) Member of Audit Committee
- (B) Member of Executive Committee
- (C) Member of Leadership Development and Compensation Committee
- (D) Member of Nominating/Corporate Governance Committee

NEW JERSEY RESOURCES AND SUBSIDIARIES Officers



Stephen D. Westhoven, 51 (1,2,3,4,5,7) President and Chief Executive Officer



Date represents year of affiliation with an NJR company.

(1) New Jersey Resources

(2) New Jersey Natural Gas

(7) NJR Service Corporation

(3) NJR Clean Energy Ventures (4) NJR Energy Services (5) NJR Midstream (6) NJR Home Services

Affiliations:

Glenn C. Lockwood, 58 (1) Executive Vice President (1988)



Roberto Bel. 47 (1.2.3.4.5.7) Vice President - Treasury and Investor Relations (2019)



Laura Conover, 51 (1) Chief Communications Officer (2016)



Amy Cradic, 48 (1) Vice President - Government Affairs and Policy (2018)



Keith S. Hartman, 58 (6) President - NJR Home Services (2015)



David Johnson, 51 (4) Vice President - NJR Energy Services (2002)



Mark G. Kahrer, 57 (2) Vice President - Regulatory Affairs (2017)



James W. Kent, 50 (1) Corporate Risk Officer (2013)



Craig A. Lynch, 58 (2) Senior Vice President - Energy Delivery (1984)



Thomas J. Massaro Jr., 53 (2) Senior Vice President -Marketing, Customer Service and Energy Efficiency



Patrick J. Migliaccio, 45 (1,3,4,5,6,7) Senior Vice President and Chief Financial Officer (2009)



Amanda E. Mullan, 53 (1,7) Senior Vice President and Chief Human Resources Officer (2015)



Richard Reich, 45 (1,2,3,4,5,7) Corporate Secretary and Assistant General Counsel (2006)



Ginger P. Richman, 55 (4) Vice President - NJR Energy Services (2003)



Jacqueline K. Shea, 55 (1,7) Vice President and Chief Information Officer (2016)



Timothy F. Shea, 54 (4)Vice President - NJR Energy Services (1998)



Mark F. Valori, 56 (3) Vice President - NJR Clean Energy Ventures (2010)



Nancy A. Washington, 55 (1,2,3,4,5,7) Senior Vice President and General Counsel (2017)

Presenting Our 2019 Form 10-K

Our 2019 Form 10-K includes financial statements for NJR. It also includes detailed information about each of our subsidiaries and the competitive environments of our businesses, properties we own and other matters.

All publicly held companies in the United States are required to file a Form 10-K report with the U.S. Securities and Exchange Commission (SEC) every year. Our Form 10-K is required by the rules and regulations of the SEC to contain certain company information in addition to the financial information included in our previous annual reports to shareowners. We are supplying our 2019 Form 10-K (without exhibits) consistent with our commitment to provide transparency and full disclosure to our shareowners.

The 2019 Form 10-K is amended, supplemented and updated by any amendment we may file, and by all of the quarterly reports on Form 10-Q and current reports on Form 8-K we file or furnish with the SEC during the year. We urge you to read all such reports. Copies may be obtained as described under "Request for Documents" on the inside back cover of this Annual Report.

Form 10-K Overview

This Annual Report is not a part of, and should not be considered to be included in, our 2019 Form 10-K. Use the following listing, which includes highlights of the 2019 Form 10-K, to help you find information easily. A comprehensive Table of Contents with the page number for each item can be found on page "i" of the 2019 Form 10-K.

PART I: A description of NJR businesses includes:

- Detailed descriptions of NJR subsidiaries
- Regulatory outlook for NJNG
- Risk factors related to our business
- Description of properties owned and operated by NJR
- Legal proceedings
- Information about our executive officers

PART II: Management's Discussion of Results and Financial Statements Items 5 and 6 include:

- Quarterly dividend and stock price information
- Selected financial data for NJR
- Operational statistics for NJNG

Items 7 and 7a include:

- Management's Discussion and Analysis of Financial Condition and Results of Operations
- Quantitative and qualitative disclosures about market risk

Items 8 and 9 include:

- Management's reports on internal control over financial reporting and disclosure controls and procedures
- Report of independent registered public accounting firm
- Financial statements and footnotes for NJR
- Supplementary financial information (unaudited)

PART III: Information about board members, executive officers and auditors includes:

 Information about members of the board of directors, executive compensation and accounting fees is incorporated by reference to NJR's proxy statement

PART IV: Exhibits and signatures include:

- Index of exhibits
- Signatures of members of the board of directors and certain officers



UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from

0

Commission file number 001-08359

NEW JERSEY RESOURCES CORPORATION

(Exact name of registrant as specified in its charter)

New Jersey

(State or other jurisdiction of incorporation or organization)

22-2376465

(I.R.S. Employer Identification Number)

(732) 938-1000

1415 Wyckoff Road, Wall, New Jersey 07719

(Address of principal executive offices)

2019, as reported on the New York Stock Exchange.

(Registrant's telephone number, including area code)

□ Yes

Securities registered pursuant to Section 12 (b) of the Act:

Titl	le of each class	Trading sy	mbol(s)	Name of each exchang	ge on which regis	tered)
Common Sto	ock - \$2.50 Par Value	NJI	R	New York Stock Exchange		
	Securiti	es registered pursuant) of the Act:		
ndicate by check mark if the	e registrant is a well-known seas	soned issuer, as define	ed in Rule 405 of	the Securities Act.	Yes □ No)
ndicate by check mark if the	e registrant is not required to file	e reports pursuant to S	Section 13 or Sec	tion 15(d) of the Act.	Yes 🗷 No)
ndicate by check mark whet	iner the registrant (1) has illed a	ii reports required to t	be filed by Section	on 15 of 15 (u) of the securit	ies Enemange i iet	or 1754 during
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The number of shares outstanding of \$2.50 par value common stock as of November 19, 2019 was 90,164,811.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

DOCUMENTS INCORPORATED BY REFERENCE

The aggregate market value of the registrant's common stock held by non-affiliates was \$4,363,911,091 based on the closing price of \$49.79 per share on March 29,

Portions of the registrant's definitive Proxy Statement for the Annual Meeting of Shareowners (Proxy Statement) to be held on January 22, 2020, are incorporated by reference into Part I and Part III of this report.

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GLOSSARY OF KEY TERMS

Adelphia	Adelphia Gateway, LLC
AFUDC	Allowance for Funds Used During Construction
ARO	Asset Retirement Obligations
ASC ASU	Accounting Standards Codification Accounting Standards Update
Bcf	Billion Cubic Feet
BGSS	Basic Gas Supply Service
BPU	New Jersey Board of Public Utilities
Bridge Facility	The \$350 million term loan credit agreement expiring in October 2020
CIP	Conservation Incentive Program
CME	Chicago Mercantile Exchange
CR&R	Commercial Realty & Resources Corp.
Degree-day	The measure of the variation in the weather based on the extent to which the average daily temperature falls below 65 degrees Fahrenheit
Dominion	Dominion Energy, Inc.
DM	Dominion Energy Midstream Partners, L.P., a master limited partnership
DM Common Units	Common units representing limited partnership interests in DM
DRP	NJR Direct Stock Purchase and Dividend Reinvestment Plan
Dths	Dekatherms
EDA	New Jersey Economic Development Authority
EDA Bonds	Collectively, Series 2011A, Series 2011B and Series 2011C Bonds issued to NJNG by the EDA
EDECA	Electric Discount and Energy Competition Act
EE	Energy Efficiency
Energy Services	Energy Services segment
FASB	Financial Accounting Standards Board
FCM	Futures Commission Merchant
FERC	Federal Energy Regulatory Commission
Financial Margin	A non-GAAP financial measure, which represents revenues earned from the sale of natural
Timunciai iviaigiii	gas less costs of natural gas sold including any transportation and storage costs, and excludes any accounting impact from the change in the fair value of certain derivative instruments
Fitch	Fitch Ratings Company
FMB	First Mortgage Bonds
GAAP	Generally Accepted Accounting Principles of the United States
GWRA	Global Warming Response Act of 2007
HCCTR	Health Care Cost Trend Rate
Home Services and Other	Home Services and Other Operations
ICE	Intercontinental Exchange
IEC	Interstate Energy Company, LLC
IIP	Infrastructure Investment Program
IRS	Internal Revenue Service
ISDA	The International Swaps and Derivatives Association
ITC	Investment Tax Credit
Leaf River	Leaf River Energy Center LLC
LIBOR	London Inter-Bank Offered Rate
LNG	
	Liquefied Natural Gas
Loan Agreement	Loan Agreement between the EDA and NJNG
MGP	Manufactured Gas Plant
Midstream	Midstream segment
MLP	Master Limited Partnership
MMBtu	Million British Thermal Units
Moody's	Moody's Investors Service, Inc.
Mortgage Indenture	The Amended and Restated Indenture of Mortgage, Deed of Trust and Security Agreement between NJNG and U.S. Bank National Association dated as of September 1, 2014
MW	Megawatts
MWh	Megawatt Hour
NAESB	The North American Energy Standards Board
NAV	Net Asset Value

GLOSSARY OF KEY TERMS (cont.)

GLOSSART OF RET TEL	• •
NFE	Net Financial Earnings
NJ RISE	New Jersey Reinvestment in System Enhancement
NJCEP	New Jersey's Clean Energy Program
NJDEP	New Jersey Department of Environmental Protection
NJNG	New Jersey Natural Gas Company or Natural Gas Distribution segment
NJNG Credit Facility	The \$250 million unsecured committed credit facility expiring in December 2023
NJR Credit Facility	The \$425 million unsecured committed credit facility expiring in December 2023
NJR or The Company	New Jersey Resources Corporation
NJRCEV	NJR Clean Energy Ventures Corporation or Clean Energy Ventures Segment
NJRES	NJR Energy Services Company
NJRHS	NJR Home Services Company
NJRRS	NJR Retail Services Company
Non-GAAP	Not in accordance with Generally Accepted Accounting Principles of the United States
NPNS	Normal Purchase/Normal Sale
NYMEX	New York Mercantile Exchange
O&M	Operations and Maintenance
OPEB	Other Postemployment Benefit Plans
PBO	Projected Benefit Obligation
PennEast	PennEast Pipeline Company, LLC
PEP	Pension Equalization Plan
PIM	Pipeline Integrity Management
PPA	Power Purchase Agreement
Prudential Facility	NJR's unsecured, uncommitted private placement shelf note agreement with Prudential Investment Management, Inc.
PTC	Production Tax Credit
RAC	Remediation Adjustment Clause
REC	Renewable Energy Certificate
S&P	Standard & Poor's Financial Services, LLC
SAFE I	Safety Acceleration and Facility Enhancement Program, Phase I
SAFE II	Safety Acceleration and Facility Enhancement Program, Phase II
Sarbanes-Oxley	Sarbanes-Oxley Act of 2002
SAVEGREEN	The SAVEGREEN Project®
Savings Plan	Employees' Retirement Savings Plan
SBC	Societal Benefits Charge
SEC	Securities and Exchange Commission
SREC	Solar Renewable Energy Certificate
	C.
SRL Steelman Ridge	Southern Reliability Link Collectively, Steelman Bidge CB, LLC and Steelman Bidge, LB
Steckman Ridge	Collectively, Steckman Ridge GP, LLC and Steckman Ridge, LP
Superstorm Sandy	Post-Tropical Cyclone Sandy
Talen	Talen Energy Marketing, LLC or Talen Generation, LLC
TETCO	Texas Eastern Transmission
The Exchange Act	The Securities Exchange Act of 1934, as amended
The Tax Act	An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018, previously known as The Tax Cuts and Jobs Act of 2017
Trustee	U.S. Bank National Association
TSR	Total Shareholder Return
U.S.	The United States of America
Union	International Brotherhood of Electrical Workers Local 1820
USF	Universal Service Fund

INFORMATION CONCERNING FORWARD-LOOKING STATEMENTS

Certain statements contained in this report, including, without limitation, statements as to management expectations, assumptions and beliefs presented in *Part I, Item 1. Business* and *Item 3. Legal Proceedings*, and in *Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations* and *Item 7A. Quantitative and Qualitative Disclosures About Market Risk*, and in the notes to the financial statements, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. Forward-looking statements can also be identified by the use of forward-looking terminology such as "anticipate," "estimate," "may," "could," "might," "intend," "expect," "believe," "will," "plan" or "should" or comparable terminology and are made based upon management's current expectations, assumptions and beliefs as of this date concerning future developments and their potential effect on us. There can be no assurance that future developments will be in accordance with management's expectations, assumptions or beliefs, or that the effect of future developments on us will be those anticipated by management.

We caution readers that the expectations, assumptions and beliefs that form the basis for forward-looking statements regarding customer growth, customer usage, qualifications for ITCs and SRECs, future rate case proceedings, financial condition, results of operations, cash flows, capital requirements, future capital expenditures, market risk, effective tax rate and other matters for fiscal 2020 and thereafter include many factors that are beyond our ability to control or estimate precisely, such as estimates of future market conditions, the behavior of other market participants and changes in the debt and equity capital markets. The factors that could cause actual results to differ materially from our expectations, assumptions and beliefs include, but are not limited to, those discussed in *Part I, Item 1A. Risk Factors*, as well as the following:

- our ability to obtain governmental and regulatory approvals, land-use rights, electric grid connection (in the case of clean energy projects) and/or
 financing for the construction, development and operation of our unregulated energy investments, pipeline transportation systems and NJNG and
 Midstream infrastructure projects, including NJ RISE, SRL, Leaf River, PennEast and Adelphia, in a timely manner;
- risks associated with our investments in clean energy projects, including the availability of regulatory incentives and federal tax credits, the availability
 of viable projects, our eligibility for ITCs, the future market for SRECs and electricity prices, and operational risks related to projects in service;
- risks associated with acquisitions and the related integration of acquired assets with our current operations, including the acquisition of Leaf River and our planned Adelphia acquisition;
- · our ability to comply with current and future regulatory requirements;
- volatility of natural gas and other commodity prices and their impact on NJNG customer usage, NJNG's BGSS incentive programs, our Energy Services segment operations and our risk management efforts;
- the performance of our subsidiaries;
- access to adequate supplies of natural gas and dependence on third-party storage and transportation facilities for natural gas supply;
- the level and rate at which NJNG's costs and expenses are incurred and the extent to which they are approved for recovery from customers through the regulatory process, including through future base rate case filings;
- the impact of a disallowance of recovery of environmental-related expenditures and other regulatory changes;
- the regulatory and pricing policies of federal and state regulatory agencies;
- operating risks incidental to handling, storing, transporting and providing customers with natural gas;
- · demographic changes in our service territory and their effect on our customer growth;
- timing of qualifying for ITCs due to delays or failures to complete planned solar projects and the resulting impact on our effective tax rate and earnings;
- changes in rating agency requirements and/or credit ratings and their effect on availability and cost of capital to the Company;
- the impact of volatility in the equity and credit markets on our access to capital;
- · our ability to comply with debt covenants;
- the results of legal or administrative proceedings with respect to claims, rates, environmental issues, gas cost prudence reviews and other matters;
- · risks related to cyberattacks or failure of information technology systems;
- the impact to the asset values and resulting higher costs and funding obligations of our pension and postemployment benefit plans as a result of
 potential downturns in the financial markets, lower discount rates, revised actuarial assumptions or impacts associated with the Patient Protection
 and the Affordable Care Act;
- commercial and wholesale credit risks, including the availability of creditworthy customers and counterparties, and liquidity in the wholesale energy trading market:
- accounting effects and other risks associated with hedging activities and use of derivatives contracts;
- · our ability to optimize our physical assets;
- weather and economic conditions;
- the costs of compliance with present and future environmental laws, including potential climate change-related legislation;
- environmental-related and other uncertainties related to litigation or administrative proceedings;
- changes to tax laws and regulations;
- any potential need to record a valuation allowance for our deferred tax assets;
- · the impact of natural disasters, terrorist activities and other extreme events on our operations and customers;
- risks related to our employee workforce and succession planning;
- risks associated with the management of our joint ventures and partnership; and
- risks associated with keeping pace with technological change.

While we periodically reassess material trends and uncertainties affecting our results of operations and financial condition in connection with the preparation of management's discussion and analysis of results of operations and financial condition contained in our Quarterly and Annual Reports on Form 10-Q and Form 10-K, respectively, we do not, by including this statement, assume any obligation to review or revise any particular forward-looking statement referenced herein in light of future events.

ITEM 1. BUSINESS

ORGANIZATIONAL STRUCTURE

New Jersey Resources Corporation is a New Jersey corporation formed in 1981 pursuant to a corporate reorganization. We are an energy services holding company whose principal business is the distribution of natural gas through a regulated utility, providing other retail and wholesale energy services to customers and investing in clean energy projects and midstream assets. We are an exempt holding company under section 1263 of the Energy Policy Act of 2005.

Our primary subsidiaries include:

New Jersey Natural Gas Company provides regulated retail natural gas service to approximately 547,600 residential and commercial customers in central and northern New Jersey and participates in the off-system sales and capacity release markets. NJNG, a local natural gas distribution company, is regulated by the BPU and comprises the Company's Natural Gas Distribution segment and is referred to herein as NJNG or Natural Gas Distribution.

NJR Clean Energy Ventures Corporation includes the results of operations and assets related to the Company's unregulated capital investments in clean energy projects, including commercial and residential solar projects. NJRCEV comprises the Company's Clean Energy Ventures segment and is referred to herein as Clean Energy Ventures.

NJR Energy Services Company maintains and transacts around a portfolio of physical assets consisting of natural gas storage and transportation contracts in the U.S. and Canada. NJRES also provides unregulated wholesale energy management services to other energy companies and natural gas producers. NJRES comprises our Energy Services segment and is referred to herein as Energy Services.

NJR Midstream Holdings Corporation, which comprises the Midstream segment, invests in energy-related ventures through its subsidiaries. Investments include NJR Steckman Ridge Storage Company, which holds our 50 percent combined ownership interest in Steckman Ridge, located in Pennsylvania and NJR Pipeline Company, which includes our 100 percent equity ownership in Adelphia Gateway, LLC and our 20 percent ownership interest in PennEast. See *Note 7. Investments in Equity Investees* for more information. NJR Pipeline Company also includes Leaf River Energy LLC, which was acquired on October 11, 2019. See *Note 18. Subsequent Events* for more information.

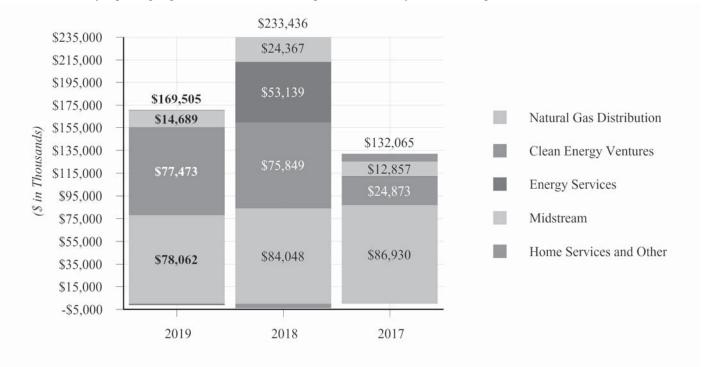
NJR Home Services Company provides heating, ventilation and cooling service, sales and installation of appliances to approximately 108,000 service contract customers, as well as solar installation projects, and is the primary contributor to Home Services and Other operations.

REPORTING SEGMENTS

We operate within four reporting segments: Natural Gas Distribution, Clean Energy Ventures, Energy Services and Midstream.

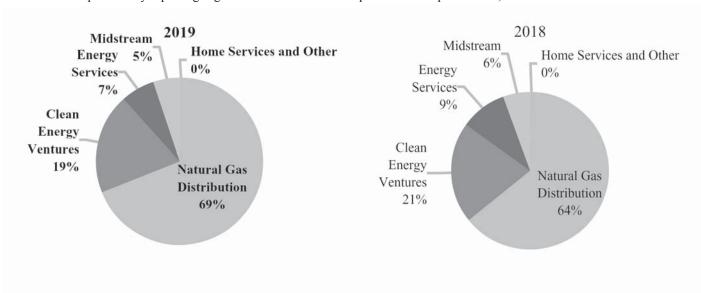
The Natural Gas Distribution segment consists of regulated natural gas services, off-system sales, capacity and storage management operations. The Energy Services segment consists of unregulated wholesale and retail energy operations, as well as energy management services. The Clean Energy Ventures segment consists of capital investments in clean energy projects. The Midstream segment consists of investments in the midstream natural gas market, such as natural gas storage and transportation facilities.

Net income by reporting segment and other business operations for the years ended September 30, are as follows:



Energy Services incurred a net loss of \$1.3 million and net income of \$476,000 in fiscal 2019 and 2017, respectively, which is not shown clearly in the above graph.

Assets composition by reporting segment and other business operations at September 30, are as follows:



Assets at Home Services and Other are immaterial, which is not shown clearly in the above charts.

ITEM 1. BUSINESS (Continued)

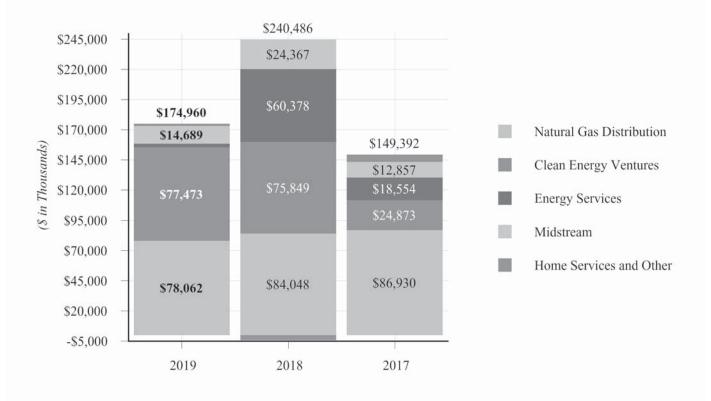
Management uses NFE, a non-GAAP financial measure, when evaluating our operating results. NFE is a measure of the earnings based on eliminating timing differences surrounding the recognition of certain gains or losses to effectively match the earnings effects of the economic hedges with the physical sale of gas and, therefore, eliminates the impact of volatility to GAAP earnings associated with the derivative instruments. Energy Services economically hedges its natural gas inventory with financial derivative instruments and calculates the related tax effect based on the statutory rate.

Non-GAAP financial measures are not in accordance with, or an alternative to, GAAP, and should be considered in addition to, and not as a substitute for, the comparable GAAP measure. The following is a reconciliation of consolidated net income, the most directly comparable GAAP measure, to NFE:

(Thousands)	2019	2018	2017
Net income	\$ 169,505 \$	233,436	\$ 132,065
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	2,881	26,770	(11,241)
Tax effect	(711)	(4,512)	4,062
Effects of economic hedging related to natural gas inventory	4,309	(22,570)	38,470
Tax effect	(1,024)	7,362	(13,964)
NFE (1)	\$ 174,960 \$	240,486	\$ 149,392
Basic earnings per share	\$ 1.90 \$	2.66	\$ 1.53
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	0.03	0.31	(0.13)
Tax effect	(0.01)	(0.05)	0.05
Effects of economic hedging related to natural gas inventory	0.05	(0.26)	0.45
Tax effect	(0.01)	0.08	(0.17)
Basic NFE per share	\$ 1.96 \$	2.74	\$ 1.73

⁽¹⁾ NFE during fiscal 2018 was \$59.6 million, or \$0.68 per share, higher due to the revaluation of deferred taxes resulting from the reduction in the federal corporate tax rate related to the Tax Act.

NFE by reporting segment and other business operations for the years ended September 30, are as follows:



NFE at Energy Services was \$2.9 million in fiscal 2019, which is not shown clearly in the above graph.

ITEM 1. BUSINESS (Continued)

Natural Gas Distribution

General

Our Natural Gas Distribution segment consists of regulated utility operations that provide natural gas service to approximately 547,600 customers. NJNG's service territory includes New Jersey's Monmouth and Ocean counties and parts of Burlington, Morris and Middlesex counties. It encompasses 1,516 square miles, covering 105 municipalities with an estimated population of 1.5 million people. It is primarily suburban, highlighted by approximately 100 miles of New Jersey coastline. It is in close proximity to New York City, Philadelphia and the metropolitan areas of northern New Jersey and is accessible through a network of major roadways and mass transportation.

NJNG's business is subject to various risks, such as those associated with adverse economic conditions, which can negatively impact customer growth, operating and financing costs; fluctuations in commodity prices, which can impact customer usage; customer conservation efforts, certain regulatory actions and environmental remediation. It is often difficult to predict the impact of trends associated with these risks. NJNG employs strategies to manage the challenges it faces, including pursuing customer conversions from other fuel sources and monitoring new construction markets through contact with developers, utilizing incentive programs through BPU-approved mechanisms to reduce gas costs, pursuing rate and other regulatory strategies designed to stabilize and decouple gross margin, and working actively with consultants and the NJDEP to manage expectations related to its obligations associated with its former MGP sites.

Operating Revenues/Throughput

For the fiscal years ended September 30, operating revenues and throughput by customer class for our Natural Gas Distribution segment are as follows:

	2019		2018			2017			
(\$ in thousands)	O R	perating evenue ⁽²⁾	Bcf		Operating Revenue	Bcf		Operating Revenue	Bcf
Residential	\$	450,515	46.0	\$	441,486	45.5	\$	395,315	40.7
Commercial and other		104,372	9.7		95,351	8.9		98,777	8.7
Firm transportation		57,513	13.7		65,256	15.5		73,206	14.4
Total residential and commercial		612,400	69.4		602,093	69.9		567,298	63.8
Interruptible		6,637	39.0		7,522	46.2		7,970	55.0
Total system		619,037	108.4		609,615	116.1		575,268	118.8
BGSS incentive programs (1)		91,756	37.8		122,250	42.8		120,369	49.5
Total	\$	710,793	146.2	\$	731,865	158.9	\$	695,637	168.3

⁽¹⁾ Does not include 86, 107.4 and 128.9 Bcf for the capacity release program and related amounts of \$4.1 million, \$5.7 million and \$6.5 million, which are recorded as a reduction of gas purchases on the Consolidated Statements of Operations for the fiscal years ended September 30, 2019, 2018 and 2017, respectively.

NJNG added 9,711 and 9,596 new customers and added natural gas heat and other services to another 218 and 613 existing customers in fiscal 2019 and 2018, respectively. NJNG expects its new customer annual growth rate to continue to be approximately 1.8 percent with projected additions in the range of approximately 28,000 to 30,000 new customers over the next three years. This anticipated customer growth represents approximately \$5.5 million in new annual utility gross margin, a non-GAAP financial measure, as calculated under NJNG's current CIP tariff. For a definition of utility gross margin see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Natural Gas Distribution Segment.*

In fiscal 2019, no single customer represented more than 10 percent of consolidated operating revenues.

Seasonality of Gas Revenues

Therm sales are significantly affected by weather conditions, with customer demand being greatest during the winter months when natural gas is used for heating purposes. The relative measurement of the impact of weather is in degree-days. Degree-day data is used to estimate amounts of energy required to maintain comfortable indoor temperature levels based on each day's average temperature. A degree-day is the measure of the variation in the weather based on the extent to which the average daily temperature falls below 65 degrees Fahrenheit. Each degree of temperature below 65 degrees Fahrenheit is counted as one heating degree-day. Normal heating degree-days are based on a 20-year average, calculated based on three reference areas representative of NJNG's service territory.

⁽²⁾ Operating revenue presents sales tax, net during fiscal 2019, due to the adoption of ASC 606, Revenue from Contracts with Customers. During fiscal 2018 and 2017, operating revenue only included sales tax on operating revenues excluding tax-exempt sales.

ITEM 1. BUSINESS (Continued)

The CIP, a mechanism authorized by the BPU, stabilizes NJNG's utility gross margin, regardless of variations in weather. In addition, the CIP decouples the link between utility gross margin and customer usage, allowing NJNG to promote energy conservation measures. Recovery of utility gross margin is subject to additional conditions, including an earnings test, a revenue test and an evaluation of BGSS-related savings achieved over a 12-month period. In May 2014, the BPU approved the continuation of the CIP program.

Concurrent with its annual BGSS filing, NJNG files for an annual review of its CIP, during which time it can request rate changes, as appropriate. For additional information regarding the CIP, including rate actions and impact to margin, see *Note 4*. *Regulation* in the accompanying Consolidated Financial Statements and *Item 7*. *Management's Discussion and Analysis of Financial Condition and Results of Operations - Natural Gas Distribution Segment*.

Gas Supply

Firm Natural Gas Supplies

In fiscal 2019, NJNG purchased natural gas from approximately 78 suppliers under contracts ranging from one day to one year and purchased over 10 percent of its natural gas from one supplier. NJNG believes the loss of this supplier would not have a material adverse impact on its results of operations, financial position or cash flows, as an adequate number of alternative suppliers exist. NJNG believes that its supply strategy should adequately meet its expected firm load for the upcoming winter season.

Firm Transportation and Storage Capacity

NJNG maintains agreements for firm transportation and storage capacity with several interstate pipeline companies to take delivery of firm natural gas supplies, which ensures the ability to reliably service its customers. NJNG receives natural gas at 10 citygate stations located in Middlesex, Morris and Passaic counties in New Jersey.

The pipeline companies that provide firm transportation service to NJNG's citygate stations, the maximum daily deliverability of that capacity and the contract expiration dates are as follows:

Pipeline	Dths ⁽¹⁾	Expiration
Texas Eastern Transmission, L.P.	300,738	Various dates between 2020 and 2023
Transcontinental Gas Pipe Line Corp.	202,531	Various dates between 2020 and 2032
Columbia Gas Transmission Corp.	50,000	Various dates between 2024 and 2030
Tennessee Gas Pipeline Co.	25,166	Various dates between 2023 and 2024
Algonquin Gas Transmission	12,000	2021
Total	590,435	

⁽¹⁾ Numbers are shown net of any capacity release contracted amounts.

Dominion Energy Transmission, Inc. provides NJNG firm contract transportation service and supplies the pipelines included in the table above.

In addition, NJNG has storage contracts that provide an additional 102,941 Dths of maximum daily deliverability to NJNG's citygate stations from storage fields in its Northeast market area. The storage suppliers, the maximum daily deliverability of that storage capacity and the contract expiration dates are as follows:

Pipeline	Dths	Expiration
Texas Eastern Transmission, L.P.	94,557	2021
Transcontinental Gas Pipe Line Corp.	8,384	2028
Total	102,941	

NJNG also has upstream storage contracts. The maximum daily deliverability and contract expiration dates are as follows:

Company	Dths	Expiration
Dominion Transmission Corporation	251,829	Various dates between 2022 and 2024
Steckman Ridge, L.P.	38,000	2020
Stagecoach Pipeline & Storage Company LLC	25,337	2023
Total	315,166	

NJNG utilizes its transportation contracts to transport natural gas to NJNG's citygates from the Dominion Transmission Corporation, Steckman Ridge and Stagecoach Pipeline & Storage Company LLC storage fields. NJNG has sufficient firm transportation, storage and supply capacity to fully meet its firm sales contract obligations.

ITEM 1. BUSINESS (Continued)

Citygate Supplies from Energy Services

NJNG has several citygate supply agreements with Energy Services. NJNG and Energy Services have an agreement where NJNG releases 10,000 Dths/day of TETCO capacity, 2,200 Dths/day of Dominion Energy Transmission, Inc. capacity, 10,728 Dths/day of Tennessee Gas Pipeline capacity and 1.6 million Dths of Stagecoach Pipeline & Storage Company LLC storage capacity to Energy Services for the period of April 1, 2019 to March 31, 2020. NJNG can call upon a supply of up to 20,000 Dths/day delivered to NJNG's TETCO citygate. Energy Services manages the storage inventory and NJNG can call on that storage supply as needed at NJNG's Tennessee citygate or storage point.

NJNG also has agreements where it releases 160,000 Dths/day of its TETCO capacity to Energy Services for the period of April 1, 2018 to October 31, 2021. Under these agreements, NJNG can call upon a supply of up to 160,000 Dths/day delivered to its TETCO citygate as needed. See *Note 16. Related Party Transactions* in the accompanying Consolidated Financial Statements for additional information regarding these transactions.

Peaking Supply

To manage its winter peak day demand, NJNG maintains two LNG facilities with a combined deliverability of approximately 170,000 Dths/day, which represents approximately 18 percent of its estimated peak day sendout. NJNG's liquefaction facility allows NJNG to convert natural gas into LNG to fill NJNG's existing LNG storage tanks. See *Item 2. Properties - Natural Gas Distribution* for additional information regarding the LNG storage facilities.

Basic Gas Supply Service

BGSS is a BPU-approved clause designed to allow for the recovery of natural gas commodity costs on an annual basis. The clause requires all New Jersey natural gas utilities to make an annual filing by each June 1 for review of BGSS rates and to request a potential rate change effective the following October 1. The BGSS also allows each natural gas utility to provisionally increase residential and small commercial customer BGSS rates on December 1 and February 1 for up to a five percent increase to the average residential heat customer's bill on a self-implementing basis with proper notice. Such increases are subject to subsequent BPU review and final approval.

In addition to making periodic rate adjustments to reflect changes in commodity prices, NJNG is also permitted to refund or credit back a portion of the commodity costs to customers when the natural gas commodity costs decrease in comparison to amounts projected or to amounts previously collected from customers. Decreases in the BGSS rate and BGSS refunds can be implemented with five days' notice to the BPU. Rate changes, as well as other regulatory actions related to BGSS, are discussed further in *Note* 4. *Regulation* in the accompanying Consolidated Financial Statements.

Wholesale natural gas prices are, by their nature, volatile. NJNG mitigates the impact of volatile price changes on customers through the use of financial derivative instruments, which are part of its storage incentive program and its BGSS clause.

Future Natural Gas Supplies

NJNG expects to meet the natural gas requirements for existing and projected firm customers. If NJNG's long-term natural gas requirements change, NJNG expects to renegotiate and restructure its contract portfolio to better match the changing needs of its customers and changing natural gas supply landscape.

Regulation and Rates

State

NJNG is subject to the jurisdiction of the BPU with respect to a wide range of matters such as base rates and regulatory rider rates, the issuance of securities, the safety and adequacy of service, the manner of keeping its accounts and records, the sufficiency of natural gas supply, pipeline safety, environmental issues, compliance with affiliate standards and the sale or encumbrance of its properties. See *Note 4. Regulation* in the accompanying Consolidated Financial Statements for additional information regarding NJNG's rate proceedings.

Federal

FERC regulates rates charged by interstate pipeline companies for the transportation and storage of natural gas. This affects NJNG's agreements with several interstate pipeline companies for the purchase of such services. Costs associated with these services are currently recoverable through the BGSS.

ITEM 1. BUSINESS (Continued)

Competition

Although its franchises are nonexclusive, NJNG is not currently subject to competition from other natural gas distribution utilities with regard to the transportation of natural gas in its service territory. Due to significant distances between NJNG's current large industrial customers and the nearest interstate natural gas pipelines, as well as the availability of its transportation tariff, NJNG currently does not believe it has significant exposure to the risk that its distribution system will be bypassed. Competition does exist from suppliers of oil, electricity and propane. At the present time, however, natural gas is used in over 95 percent of new construction due to its efficiency, reliability and price advantage. Natural gas prices are a function of market supply and demand. Although NJNG believes natural gas will remain competitive with alternate fuels, no assurance can be given in this regard.

The BPU, within the framework of the EDECA, fully opened NJNG's residential markets to competition, including third-party suppliers, and restructured rates to segregate its BGSS and delivery (i.e., transportation) prices. New Jersey's natural gas utilities must provide BGSS in the absence of a third-party supplier. On September 30, 2019, NJNG had 22,870 residential and 9,237 commercial and industrial customers utilizing the transportation service.

Clean Energy Ventures

Our Clean Energy Ventures segment invests in, owns and operates clean energy projects, including commercial and residential solar installations located in New Jersey.

As of September 30, 2019, Clean Energy Ventures has constructed a total of 291.4 MW of solar capacity in New Jersey that has qualified for ITCs, including a combination of residential and commercial net-metered and grid-connected solar systems. As part of its solar investment program, Clean Energy Ventures operates a residential lease program, The Sunlight Advantage®, which provides qualifying homeowners with the opportunity to have a solar system installed at their home with no installation or maintenance expenses. Clean Energy Ventures owns, operates and maintains the system over the life of the lease in exchange for monthly lease payments. The program is operated by Clean Energy Ventures using qualified contracting partners in addition to strategic suppliers for material standardization and sourcing. The residential solar lease and PPA market is highly competitive, with a large number of companies operating in New Jersey. Clean Energy Ventures competes on price, quality and brand reputation, leveraging its partner network and customer referrals.

Clean Energy Ventures' commercial solar projects are sourced through various channels and include both net-metered and grid-connected systems. Net-metered projects involve the sale of energy to a host and grid-connected systems into the wholesale energy markets. Project construction is competitively sourced through third parties. New Jersey has the sixth largest solar market in the U.S., according to the Solar Energy Industries Association®, with a large number of firms competing in all facets of the market including development, financing and construction.

Our solar systems are registered and certified with the BPU's Office of Clean Energy and qualified to produce SRECs. One SREC is created for every MWh of electricity produced by a solar generator. Clean Energy Ventures sells the SRECs it generates to a variety of counterparties, including electric load-serving entities that serve electric customers in New Jersey and are required to comply with the solar carve-out of the Renewable Portfolio Standard, a regulation that requires the increased production of energy from renewable energy sources. Solar projects are also currently eligible for federal ITCs in the year that they are placed into service.

Clean Energy Ventures is subject to various risks including those associated with adverse federal and state legislation and regulatory policies, construction delays that can impact the timing or eligibility of tax incentives, technological changes and the future market of SRECs. See *Item 1A. Risk Factors* for additional information regarding these risks.

Energy Services

Our Energy Services segment consists of unregulated wholesale and retail natural gas operations and provides producer and asset management services to a diverse customer base across North America. Energy Services has acquired contractual rights to natural gas storage and transportation assets it utilizes to implement its strategic and opportunistic market strategies. The rights to these assets were acquired in anticipation of delivering natural gas, performing asset management services for customers or identifying strategic opportunities that exist in or between the market areas that it serves. These opportunities are driven by price differentials between market locations and/or time periods. Energy Services' activities are conducted in the market areas in which it has strong expertise, including the U.S. and Canada. Energy Services differentiates itself in the marketplace based on price, reliability and quality of service. Its competitors include wholesale marketing and trading companies, utilities, natural gas producers and financial institutions. Energy Services' portfolio of customers includes regulated natural gas distribution companies, industrial companies, electric generators, natural gas/liquids processors, retail aggregators, wholesale marketers and natural gas producers.

ITEM 1. BUSINESS (Continued)

While focusing on maintaining a low-risk operating and counterparty credit profile, Energy Services' activities specifically consist of the following elements:

- Providing natural gas portfolio management services to nonaffiliated and our affiliated natural gas utility, electric
 generation facilities and natural gas producers;
- Managing strategies for new and existing natural gas storage and transportation assets to capture value from changes in price due to location or timing differences as a means to generate financial margin (as defined below);
- Managing transactional logistics to minimize the cost of natural gas delivery to customers while maintaining security of
 supply. Transactions utilize the most optimal and advantageous natural gas supply transportation routing available within
 its contractual asset portfolio and various market areas; and
- Managing economic hedging programs that are designed to mitigate the impact of changes in market prices on financial margin generated on its natural gas storage and transportation commitments.

In fiscal 2019, Energy Services purchased over 10 percent of its natural gas from one supplier. Energy Services believes the loss of this supplier would not have a material adverse impact on its results of operations, financial position or cash flows, as an adequate number of alternative suppliers exist.

Transportation and Storage Transactions

Energy Services focuses on creating value from the use of its physical assets, which are typically amassed through contractual rights to natural gas storage and transportation capacity. These assets become more valuable when favorable price changes occur that impact the value between or within market areas and across time periods. On a forward basis, Energy Services may hedge these price differentials through the use of financial instruments. In addition, Energy Services may seek to optimize these assets on a daily basis, as market conditions warrant, by evaluating natural gas supply and transportation availability within its portfolio. This enables Energy Services to capture geographic pricing differences across various regions, as delivered natural gas prices may change favorably as a result of market conditions. Energy Services may, for example, initiate positions when intrinsic financial margin is present, and then enhance that financial margin as prices change across regions or time periods.

Energy Services also engages in park-and-loan transactions with storage and pipeline operators, where Energy Services will either borrow (receive a loan of) natural gas with an obligation to repay the storage or pipeline operator at a later date or "park" natural gas with an obligation to withdraw at a later date. In these cases, Energy Services evaluates the economics of the transaction to determine if it can capture pricing differentials in the marketplace and generate financial margin. Energy Services evaluates deal attributes such as fixed fees, calendar spread value from deal inception until volumes are scheduled to be returned and/or repaid, as well as the time value of money. If this evaluation demonstrates that financial margin exists, Energy Services may enter into the transaction and hedge with natural gas futures contracts, thereby locking in financial margin.

Energy Services maintains inventory balances to satisfy existing or anticipated sales of natural gas to its counterparties and/ or to create additional value, as described above. During fiscal 2019 and 2018, Energy Services managed and sold 584.9 Bcf and 662.4 Bcf of natural gas, respectively. In addition, as of September 30, 2019 and 2018, Energy Services had 25.6 Bcf or \$52.4 million of gas in storage and 34.1 Bcf or \$90.2 million of gas in storage, respectively.

Weather/Seasonality

Energy Services activities are typically seasonal in nature as a result of changes in the supply and demand for natural gas. Demand for natural gas is generally higher during the winter months when there may also be supply constraints; however, during periods of milder temperatures, demand can decrease. In addition, demand for natural gas can also be high during periods of extreme heat in the summer months, resulting from the need for additional natural gas supply for gas-fired electric generation facilities. Accordingly, Energy Services can be subject to variations in earnings and working capital throughout the year as a result of changes in weather.

ITEM 1. BUSINESS (Continued)

Volatility

Energy Services' activities are also subject to price volatility or supply/demand dynamics within its North American wholesale markets, including in the Northeastern, Appalachian, Mid-Continent and Southeast regions. Changes in natural gas supply can affect capacity values and Energy Services' financial margin, which, as described below, is generated from the optimization of transportation and storage assets. With its focus on risk management, Energy Services continues to diversify its revenue stream by identifying new growth opportunities in producer and asset management services. Energy Services monitors changing market dynamics and strategically adjusts its portfolio of storage and transportation assets, which currently includes an average of approximately 43 Bcf of firm storage and 1.3 Bcf/day of firm transportation capacity.

Financial Margin

To economically hedge the commodity price risk associated with its existing and anticipated commitments for the purchase and sale of natural gas, Energy Services enters into a variety of derivative instruments including, but not limited to, futures contracts, physical forward contracts, financial swaps and options. These derivative instruments are accounted for at fair value with changes in fair value recognized in earnings as they occur. Energy Services views "financial margin" as a key internal financial metric. Energy Services' financial margin, which is a non-GAAP financial measure, represents revenues earned from the sale of natural gas less costs of natural gas sold including any storage and transportation costs, and excluding any accounting impact from changes in the fair value of certain derivative instruments. For additional information regarding financial margin, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Energy Services Segment.*

Risk Management

In conducting its business, Energy Services mitigates risk by following formal risk management guidelines, including transaction limits, segregation of duties and formal contract and credit review approval processes. Energy Services continuously monitors and seeks to reduce the risk associated with its counterparty credit exposures. Our Risk Management Committee oversees compliance with these established guidelines.

Midstream

Our Midstream segment includes investments in FERC-regulated interstate natural gas transportation and storage assets and is comprised of the following subsidiaries:

- NJR Steckman Ridge Storage Company, which holds our 50 percent equity investment in Steckman Ridge. Steckman Ridge is a Delaware limited partnership, jointly owned and controlled by our subsidiaries and subsidiaries of Enbridge Inc., which built, owns and operates a natural gas storage facility with up to 12 Bcf of working gas capacity in Bedford County, Pennsylvania. The facility has direct access to the TETCO and Dominion Transmission pipelines and has access to the Northeast and Mid-Atlantic markets; and
- NJR Pipeline Company, which includes our 20 percent equity investment in PennEast and 100 percent equity investment in the planned Adelphia Gateway Pipeline project. PennEast is expected to construct a 120-mile, FERC-regulated interstate natural gas pipeline system that will extend from northern Pennsylvania to western New Jersey. Adelphia was established in anticipation of acquiring the membership interests in IEC, which operates an existing 84-mile pipeline in southeastern Pennsylvania, and related assets and rights of way. On October 11, 2019, NJR Pipeline Company acquired Leaf River Energy Center LLC, which owns and operates a 32.2 million Dth salt dome natural gas facility, located in southeastern Mississippi. See *Note 18. Subsequent Events* for more information.

ITEM 1. BUSINESS (Continued)

OTHER BUSINESS OPERATIONS

Home Services and Other

Home Services and Other operations consist primarily of the following unregulated affiliates:

- NJRHS, which provides heating, ventilation and cooling service, sales and installation of appliances to approximately 108,000 service contract customers, as well as installation of solar equipment;
- NJR Plumbing Services, Inc., which provides plumbing repair and installation services;
- New Jersey Resources Corporation, an energy services holding company;
- CR&R, which holds commercial real estate; and
- NJR Service Corporation, which provides shared administrative and financial services to the Company and all of its subsidiaries.

ENVIRONMENT

We, along with our subsidiaries, are subject to legislation and regulation by federal, state and local authorities with respect to environmental matters. We believe that we are, in all material respects, in compliance with all applicable environmental laws and regulations.

NJNG is responsible for the environmental remediation of identified former MGP sites, which contain contaminated residues from former gas manufacturing operations that ceased at these sites by the mid-1950s and, in some cases, had been discontinued many years earlier. NJNG periodically, and at least annually, performs an environmental review of the former MGP sites, including a review of potential estimated liabilities related to the investigation and remedial action on these sites. Based on this review, NJNG has estimated that the total future expenditures to remediate and monitor the former MGP sites for which it is responsible will range from approximately \$115.9 million to \$186.2 million.

NJNG's estimate of these liabilities is based upon known and measurable facts, existing technology and enacted laws and regulations in place when the review was completed in fiscal 2019. Where it is probable that costs will be incurred, and the information is sufficient to establish a range of possible liability, NJNG accrues the most likely amount in the range. If no point within the range is more likely than the other, it is NJNG's policy to accrue the lower end of the range. As of September 30, 2019, NJNG recorded an MGP remediation liability and a corresponding regulatory asset of \$131.1 million on the Consolidated Balance Sheets, based on the most likely amount; however, actual costs may differ from these estimates.

EMPLOYEE RELATIONS

As of September 30, 2019, the Company and our subsidiaries employed 1,108 employees compared with 1,068 employees as of September 30, 2018. Of the total number of employees, NJNG had 460 and 446 and NJRHS had 101 and 97 Union or Represented employees as of September 30, 2019 and 2018, respectively. NJNG and NJRHS have collective bargaining agreements with the Union, which is affiliated with the American Federation of Labor and Congress of Industrial Organizations, that expire on December 7, 2021 and April 2, 2023, respectively. The labor agreements cover wage increases and other benefits, including the defined benefit pension (which was closed to all employees hired on or after January 1, 2012, with the exception of certain rehires who are eligible to resume active participation), the postemployment benefit plan (which was closed to all employees hired on or after January 1, 2012) and the enhanced 401(k) retirement savings plan. We consider our relationship with employees, including those covered by collective bargaining agreements, to be in good standing.

AVAILABLE INFORMATION AND CORPORATE GOVERNANCE DOCUMENTS

The following reports and any amendments to those reports are available free of charge on our website at http://investor.njresources.com/corporate-governance/sec-filings as soon as reasonably possible after filing or furnishing them with the SEC:

- Annual reports on Form 10-K;
- Quarterly reports on Form 10-Q; and
- Current reports on Form 8-K.

ITEM 1. BUSINESS (Continued)

The following documents are available free of charge on our website (http://investor.njresources.com/corporate-governance):

- Bylaws, as amended;
- Corporate Governance Guidelines;
- Wholesale Trading Code of Conduct;
- NJR Code of Conduct;
- Charters of the following Board of Directors Committees: Audit, Leadership Development and Compensation and Nominating/Corporate Governance;
- Audit Complaint Procedure;
- Communicating with Non-Management Directors Procedure; and
- Statement of Policy with Respect to Related Person Transactions.

In Part III of this Form 10-K, we incorporate certain information by reference from our Proxy Statement for our 2020 Annual Meeting of Shareowners. We expect to file that Proxy Statement with the SEC on or about December 12, 2019. We will make it available on our website as soon as reasonably possible following that filing date. Please refer to the Proxy Statement when it is available.

A printed copy of each document is available free of charge to any shareowner who requests it by contacting the Corporate Secretary at New Jersey Resources Corporation, 1415 Wyckoff Road, Wall, New Jersey 07719.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The Company's Executive Officers and their age, position and business experience during the past five years are below.

Name	Age	Officer since	Business experience during last five years
Laurence M. Downes	62	1986	Chairman of the Board (September 1996 - present) Chief Executive Officer (July 1995 - September 2019) President (July 1995 - September 2018)
Stephen D. Westhoven	51	2004	Chief Executive Officer (October 2019 - present) President and Chief Operating Officer (October 2018 - present) Executive Vice President and Chief Operating Officer (November 2017 - September 2018) Senior Vice President and Chief Operating Officer, NJRES and NJRCEV (October 2016 - October 2017) Senior Vice President, NJRES (May 2010 - September 2016)
Patrick J. Migliaccio	45	2013	Senior Vice President and Chief Financial Officer (January 2016 - present) Vice President, Finance and Accounting (November 2014 - December 2015) Treasurer (August 2013 - May 2015)
Glenn C. Lockwood	58	1990	Executive Vice President (January 2011 - present) Chief Financial Officer (September 1995 - December 2015)
Amanda E. Mullan	53	2015	Senior Vice President and Chief Human Resources Officer (January 2017 - present) Vice President and Chief Human Resources Officer (April 2015 - December 2016) Senior Vice President of HR, N. America, Willis Group Holdings, a risk management and insurance intermediary (April 2012 - April 2015)
Jacqueline K. Shea	55	2016	Vice President and Chief Information Officer (June 2016 - present) Chief Information Officer, Godiva Chocolatier, a manufacturer of premium fine chocolates and related products (March 2011 - May 2016)
Nancy A. Washington	55	2017	Senior Vice President and General Counsel (March 2017 - present) Senior Vice President and Chief Litigation Counsel, CIT Group Inc., a Livingston, NJ-based financial services firm (September 2010 - March 2017)

ITEM 1A. RISK FACTORS

When considering any investment in our securities, investors should consider the following risk factors, as well as the information contained under the caption "Information Concerning Forward-Looking Statements," in analyzing our present and future business performance. While this list is not exhaustive, management also places no priority or likelihood based on their descriptions or order of presentation. Unless indicated otherwise or the content requires otherwise, references below to "we," "us," and "our" should be read to refer to the Company and its subsidiaries.

ITEM 1A. RISK FACTORS (Continued)

We may be unable to obtain governmental approvals, property rights and/or financing for the construction, development and operation of our proposed energy investments and projects in a timely manner or at all.

Construction, development and operation of energy investments, such as Leaf River and other natural gas storage facilities, NJNG infrastructure improvements, such as SRL and NJ RISE, pipeline transportation systems, such as PennEast, and the planned Adelphia acquisition and solar energy projects are subject to federal and state regulatory oversight and require certain property rights, such as easements and rights-of-way from public and private property owners, as well as regulatory approvals, including environmental and other permits and licenses for such facilities and systems. We or our joint venture partnerships may be unable to obtain, in a cost-efficient or timely manner, all such needed property rights, permits and licenses to successfully construct and develop our energy facilities and systems. Successful financing of our energy investments requires participation by willing financial institutions and lenders, as well as acquisition of capital at favorable interest rates. If we do not obtain the necessary regulatory approvals, property rights and financing, our equity method investments could be impaired. Such impairment could have a materially adverse effect on our financial condition, results of operations and cash flows.

Our investments in solar energy projects are subject to substantial risks and uncertainties.

Our investments in commercial and residential solar energy projects are dependent, in part, upon current state regulatory incentives and federal tax credits in order for the projects to be economically viable. Our return on investment for these solar projects is based substantially on our eligibility for ITCs and the future market value of SRECs that are traded in a competitive marketplace in the State of New Jersey. These projects face the risk that the current state regulatory programs and tax laws may expire or be adversely modified. Specifically, the legislature in New Jersey ordered the BPU to close the current SREC market to new projects and transition to a new incentive program to support long-term solar growth. If the BPU does not execute on the legislative requirements to effect this transition in an orderly manner, protect investor value and support long term industry growth, this could result in an oversupply of SRECs and a corresponding decrease in SREC prices. A sustained decrease in the value of SRECs could negatively impact the return on our investments and could impair our portfolio of solar assets.

In addition, there are risks associated with our ability to develop and manage such projects profitably, including logistical risks and potential delays related to construction, permitting, regulatory approvals (including any approvals by the BPU required pursuant to solar energy legislation in the State of New Jersey) and electric grid interconnection, as well as the operational risk that the projects in service will not perform according to expectations due to equipment failure, suboptimal weather conditions or other economic factors beyond our control. All of the aforementioned risks could reduce the availability of viable solar energy projects for development. Furthermore, at the development or acquisition stage, our ability to predict actual performance results may be hindered or inaccurate and the projects may not perform as predicted.

Uncertainties associated with our planned Adelphia acquisition could adversely affect our business, results of operations, financial condition and cash flows.

In October 2017, we announced our planned Adelphia acquisition, involving the future operation of a natural gas transmission pipeline extending approximately 90 miles through eastern Pennsylvania. As part of the acquisition we expect to convert the remaining sections of the southern mainline of the pipeline to transport natural gas. The completion of the acquisition is subject to various closing conditions, including, but not limited to, receipt of necessary permits and regulatory actions, such as those from the FERC and the Pennsylvania Public Utility Commission. There can be no assurance that we will receive the necessary approvals for the transaction or receive them within the expected timeframe. The announcement and pendency of our planned Adelphia acquisition, as well as any delays in the expected timeframe, could cause disruption and create uncertainties, which could have an adverse effect on our business, results of operations, financial condition and cash flows, regardless of whether the acquisition is completed.

Any acquisitions that we may undertake involve risks and uncertainties. We may not realize the anticipated synergies, cost savings and growth opportunities as a results of these transactions.

The integration of acquisitions, such as Leaf River and our planned Adelphia acquisition, require significant time and resources. Investments of resources are required to support any acquisition, which could result in significant ongoing operating expenses, and we may experience challenges when combining separate business cultures, information technology systems and employees, and those challenges may divert senior management's time and attention. If we fail to successfully integrate assets and liabilities through the entities which we acquire, we may not fully realize all of the growth opportunities, benefits expected from the transaction, cost savings and other synergies and, as a result, the fair value of assets acquired could be impaired. We assess long-lived assets, including intangible assets associated with acquisitions, for impairment whenever events or circumstances indicate that an asset's carrying amount may not be recoverable. To the extent the value of long-lived assets become impaired, the impairment charges could have a material impact on our financial condition and results of operations.

ITEM 1A. RISK FACTORS (Continued)

The benefits that we expect to achieve from acquisitions will depend, in part, on our ability to realize anticipated growth opportunities and other synergies with our existing businesses. The success of these transactions will depend on our ability to integrate these transactions within our existing businesses in a timely and seamless manner. We may experience challenges when combining separate business cultures, information technology systems and employees. Even if we are able to complete the integration successfully, we may not fully realize all the growth opportunities, cost savings and other synergies that we expect.

We are subject to governmental regulation. Compliance with current and future regulatory requirements and procurement of necessary approvals, permits and certificates may result in substantial costs to us.

We are subject to substantial regulation from federal, state and local authorities. We are required to comply with numerous laws and regulations and to obtain numerous authorizations, permits, approvals and certificates from governmental agencies. These agencies regulate various aspects of our business, including customer rates, services, construction and natural gas pipeline operations.

The FERC has regulatory authority over some of our operations, including sales of natural gas in the wholesale and retail markets and the purchase and sale of interstate pipeline and storage capacity, including Steckman Ridge and Leaf River. FERC will also have regulatory authority over the operations of Adelphia and PennEast. Any Congressional legislation or agency regulation that would alter these or other similar statutory and regulatory structures in a way to significantly raise costs that could not be recovered in rates from customers, that would reduce the availability of supply or capacity or that would reduce our competitiveness could negatively impact our earnings. In addition, changes in and compliance with laws such as the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011 could increase federal regulatory oversight and administrative costs that may not be recovered in rates from customers, which could have an adverse effect on our earnings.

We cannot predict the impact of any future revisions or changes in interpretations of existing regulations or the adoption of new laws and applicable regulations. Changes in regulations or the imposition of additional regulations could influence our operating environment and may result in substantial costs to us.

Major changes in the supply and price of natural gas may affect financial results.

While NJRES and NJNG expect to meet customers' demand for natural gas for the foreseeable future, factors affecting suppliers and other third parties, including the inability to develop additional interstate pipeline infrastructure, lack of supply sources, increased competition, further deregulation, transportation costs, possible climate change legislation, energy efficiency mandates or changes in consumer behaviors, transportation availability and drilling for new natural gas resources, may impact the supply and price of natural gas. In addition, any significant disruption in the availability of supplies of natural gas could result in increased supply costs, higher prices for customers and potential supply disruptions to customers.

NJRES and NJNG actively hedge against the fluctuation in the price of natural gas by entering into forward and financial contracts with third parties. Should these third parties fail to perform and regulators not allow the pass-through of expended funds to customers, it may result in a loss that could have a material impact on our financial condition, results of operations and cash flows.

NJR is a holding company and depends on its operating subsidiaries to meet its financial obligations.

NJR is a holding company with no significant assets other than possible cash investments and the stock of its operating subsidiaries. We rely exclusively on dividends from our subsidiaries, on intercompany loans from our unregulated subsidiaries, and on the repayments of principal and interest from intercompany loans and reimbursement of expenses from our subsidiaries for our cash flows. Our ability to pay dividends on our common stock and to pay principal and interest on our outstanding debt depends on the payment of dividends to us by our subsidiaries or the repayment of loans to us by our subsidiaries. The extent to which our subsidiaries are unable to pay dividends or repay funds to us may adversely affect our ability to pay dividends to holders of our common stock and principal and interest to holders of our debt.

NJNG and Energy Services rely on storage, transportation assets and suppliers, which they do not own or control, to deliver natural gas.

NJNG and Energy Services depend on natural gas pipelines and other storage and transportation facilities owned and operated by third parties to deliver natural gas to wholesale and retail markets and to provide retail energy services to customers. Their ability to provide natural gas for their present and projected sales will depend upon their suppliers' ability to obtain and deliver

ITEM 1A. RISK FACTORS (Continued)

additional supplies of natural gas, as well as NJNG's ability to acquire supplies directly from new sources. Factors beyond the control of NJNG, its suppliers and the independent suppliers that have obligations to provide natural gas to certain NJNG customers may affect NJNG's ability to deliver such supplies. These factors include other parties' control over the drilling of new wells and the facilities to transport natural gas to NJNG's citygate stations, development of additional interstate pipeline infrastructure, availability of supply sources, competition for the acquisition of natural gas, priority allocations, impact of severe weather disruptions to natural gas supplies and the regulatory and pricing policies of federal and state regulatory agencies, as well as the availability of Canadian reserves for export to the United States. Energy deregulation legislation may increase competition among natural gas utilities and impact the quantities of natural gas requirements needed for sales service. Energy Services also relies on a firm supply source to meet its energy management obligations to its customers. If supply, transportation or storage is disrupted, including for reasons of *force majeure*, the ability of NJNG and Energy Services to sell and deliver their products and services may be hindered. As a result, they may be responsible for damages incurred by their customers, such as the additional cost of acquiring alternative supply at then-current market rates. Particularly for Energy Services, these conditions could have a material impact on our financial condition, results of operations and cash flows.

Significant regulatory assets recorded by NJNG could be disallowed for recovery from customers in the future.

NJNG records regulatory assets on its financial statements to reflect the ratemaking and regulatory decision-making authority of the BPU as allowed by GAAP. The creation of a regulatory asset allows for the deferral of costs, which, absent a mechanism to recover such costs from customers in rates approved by the BPU, would be charged to expense on its income statement in the period incurred. Primary regulatory assets that are subject to BPU approval include the recovery of BGSS and USF costs, remediation costs associated with NJNG's MGP sites, CIP, NJCEP, economic stimulus plans, certain deferred income taxes and pension and other postemployment benefit plans. If there were to be a change in regulatory positions surrounding the collection of these deferred costs, there could be a material impact on NJNG's existing tariff or a future base rate case, as well as our financial condition, results of operations and cash flows.

Risks related to the regulation of NJNG could affect the rates it is able to charge, its costs and its profitability.

NJNG is subject to regulation by federal, state and local authorities. These authorities regulate many aspects of NJNG's distribution and transmission operations, including construction and maintenance of facilities, operations, safety, tariff rates that NJNG can charge customers, rates of return, the authorized cost of capital, recovery of pipeline replacement, environmental remediation costs and relationships with its affiliates. NJNG's ability to obtain rate increases, including base rate increases, extend its BGSS incentive and CIP programs and maintain its currently authorized rates of return may be impacted by events, including regulatory or legislative actions. There can be no assurance that NJNG will be able to obtain rate increases and continue its BGSS incentive, CIP, RAC and SAVEGREEN programs or continue to earn its currently authorized rates of return.

Our regulated operations are subject to certain operating risks incidental to handling, storing, transporting and providing customers with natural gas.

Our regulated operations are subject to all operating hazards and risks incidental to handling, storing, transporting and providing customers with natural gas, including our natural gas vehicle refueling stations and LNG facilities. These risks include catastrophic failure of the interstate pipeline system, explosions, pollution, release of toxic substances, fires, storms, safety issues and other adverse weather conditions and hazards, each of which could result in damage to or destruction of facilities or damage to persons and property. We could suffer substantial losses should any of these events occur. Moreover, as a result, NJNG has been, and likely will be, a defendant in legal proceedings and litigation arising in the ordinary course of business. Although NJNG maintains insurance coverage, insurance may not be sufficient to cover all material expenses related to these risks.

Changes in customer growth may affect earnings and cash flows.

NJNG's ability to increase its utility firm gross margin is dependent upon the new construction housing market, as well as the conversion of customers to natural gas from other fuel sources. During periods of extended economic downturns, prolonged weakness in housing markets or slowdowns in the conversion market, there could be an adverse impact on NJNG's utility firm gross margin, earnings and cash flows. Furthermore, while our estimates regarding customer growth are based in part upon information from third parties, the estimates have not been verified by an independent source and are subject to the aforementioned risks and uncertainties, which could cause actual results to materially deviate from the estimates.

ITEM 1A. RISK FACTORS (Continued)

A change in our effective tax rate as a result of a failure to qualify for ITCs or being delayed in qualifying for ITCs due to delays or failures to complete planned solar energy projects within the safe harbor period may have a material impact on our earnings.

GAAP requires that we apply an effective tax rate to interim periods that is consistent with our estimated annual effective tax rate. As a result, we project quarterly the annual effective tax rate and then adjust the tax expense recorded in that quarter to reflect the projected annual effective tax rate. The amount of the quarterly adjustment is based on information and assumptions, which are subject to change and may have a material impact on our quarterly and annual NFE. Factors we consider in estimating the probability of projects being completed during the fiscal year include, but are not limited to, Board of Directors approval, construction logistics, permitting, interconnection completion and execution of various contracts, including PPAs. If we fail to qualify for ITCs or are delayed in qualifying for some ITCs during the fiscal year due to delays or failures to complete planned solar energy projects as scheduled, our quarterly and annual net income and NFE may be materially impacted. This could have a material adverse impact on our financial condition, results of operations and cash flows.

Credit rating downgrades could increase financing costs, limit access to the financial markets and negatively affect NJR and its subsidiaries.

Rating agencies Moody's and Fitch currently rate NJNG's debt as investment grade. If such ratings are downgraded below investment grade, borrowing costs could increase, as will the costs of maintaining certain contractual relationships and obtaining future financing. Even if ratings are downgraded without falling below investment grade, NJR and NJNG could face increased borrowing costs under their current and future credit facilities. Our ability to borrow and costs of borrowing have a direct impact on our subsidiaries' ability to execute their operating strategies, particularly in the case of NJNG, which relies heavily upon capital expenditures financed by its credit facility.

If we suffer a reduction in our credit and borrowing capacity or in our ability to issue parental guarantees, the business prospects of Energy Services, Clean Energy Ventures and Midstream, which rely on our creditworthiness, would be adversely affected. Energy Services could possibly be required to comply with various margin or other credit enhancement obligations under its trading and marketing contracts, and it may be unable to continue to trade or be able to do so only on less favorable terms with certain counterparties. Clean Energy Ventures could be required to seek alternative financing for its projects, and may be unable to obtain such financing or able to do so only on less favorable terms. In addition, we may not be able to finance our capital obligations to PennEast and Adelphia.

Additionally, lower credit ratings could adversely affect relationships with NJNG's state regulators, who may be unwilling to allow NJNG to pass along increased costs to its natural gas customers.

If we are unable to access the financial markets or there are adverse conditions in the equity or credit markets, it could affect management's ability to execute our business plans.

We rely on access to both short-term and long-term credit markets as significant sources of liquidity for capital requirements not satisfied by our cash flow from operations. Any deterioration in our financial condition could hamper our ability to access the equity or credit markets or otherwise obtain debt financing on terms favorable to us or at all. In addition, because certain state regulatory approvals may be necessary for NJNG to incur debt, NJNG may be unable to access credit markets on a timely basis. External events could also increase the cost of borrowing or adversely affect our ability to access the financial markets. Such external events could include the following:

- economic weakness and/or political instability in the United States or in the regions where we operate;
- political conditions, such as a shutdown of the U.S. federal government;
- financial difficulties of unrelated energy companies;
- · capital market conditions generally;
- volatility in the equity markets;
- market prices for natural gas;
- the overall health of the natural gas utility industry; and
- fluctuations in interest rates, particularly with respect to NJNG's variable rate debt instruments.

ITEM 1A. RISK FACTORS (Continued)

Our ability to secure short-term financing is subject to conditions in the credit markets. A prolonged constriction of credit availability could affect management's ability to execute our business plan. An inability to access capital may limit our ability to pursue improvements or acquisitions that we may otherwise rely on for both current operations and future growth.

Energy Services and NJNG execute derivative transactions with financial institutions as a part of their economic hedging strategy and could incur losses associated with the inability of a financial counterparty to meet or perform under its obligations as a result of adverse conditions in the credit markets or their ability to access capital or post collateral.

Failure by NJR and/or NJNG to comply with debt covenants may impact our financial condition.

Our long-term debt obligations contain financial covenants related to debt-to-capital ratios and, in the case of NJNG, an interest coverage ratio. These debt obligations also contain provisions that put limitations on our ability to finance future operations or capital needs or to expand or pursue certain business activities. For example, certain of these agreements contain provisions that, among other things, put limitations on our ability to make loans or investments, make material changes to the nature of our businesses, merge, consolidate or engage in asset sales, grant liens or make negative pledges. Furthermore, the debt obligations and our sale-leaseback agreements contain covenants and other provisions requiring us to provide timely delivery of accurate financial statements prepared in accordance with GAAP. The failure to comply with any of these covenants could result in an event of default, which, if not cured or waived, could result in the acceleration of outstanding debt obligations and/or the inability to borrow under existing revolving credit facilities and term loans. We have relied, and continue to rely, upon short-term bank borrowings or commercial paper supported by our revolving credit facilities to finance the execution of a portion of our operating strategies. NJNG is dependent on these capital sources to purchase its natural gas supply and maintain its properties. The acceleration of our outstanding debt obligations and our inability to borrow under the existing revolving credit facilities would cause a material adverse change in NJR's and NJNG's financial condition.

We are involved in legal or administrative proceedings before various courts and governmental bodies that could adversely affect our results of operations, cash flows and financial condition.

In the ordinary conduct of business, we are involved in legal or administrative proceedings before various courts and governmental bodies with respect to general claims, rates, permitting, taxes, environmental issues, gas cost prudence reviews and other matters. Adverse decisions regarding these matters, to the extent they require us to make payments in excess of amounts provided for in our financial statements or are not covered by insurance or indemnity rights, could adversely affect our results of operations, cash flows and financial condition.

Cyberattacks or failure of information technology systems could adversely affect our business operations, financial condition and results of operations.

We continue to place ever-greater reliance on technological tools that support our business operations and corporate functions, including tools that help us manage our natural gas distribution and energy trading operations and infrastructure. The failure of, or security breaches related to, these technologies could materially adversely affect our business operations, our financial position, results of operations and cash flows.

We rely on information technology to manage our natural gas distribution and storage, energy trading and other corporate operations, maintain customer, employee, Company and vendor data, prepare our financial statements and perform other critical business processes. This technology may fail due to cyberattack, physical disruption, design and implementation defects or human error. Disruption or failure of business operations and information technology systems could harm our facilities or otherwise adversely impact our ability to safely deliver natural gas to our customers, serve our customers effectively or manage our assets. Additionally, an attack on, or failure of, information technology systems could result in the unauthorized release of customer, employee or other confidential or sensitive data. Any of the foregoing events could adversely affect our business reputation, diminish customer confidence, disrupt operations, subject us to financial liability or increased regulation, increase our costs and expose us to material legal claims and liability.

There is no guarantee that redundancies built into our networks and technology, or the procedures we have implemented to protect against cyberattack and other unauthorized access to secured data, are adequate to safeguard against all failures of technology or security breaches.

ITEM 1A. RISK FACTORS (Continued)

Adverse economic conditions, including inflation, increased natural gas costs, foreclosures and business failures, could adversely impact NJNG's customer collections and increase our level of indebtedness.

Inflation may cause increases in certain operating and capital costs. We continually review the adequacy of NJNG's base tariff rates in relation to the increasing cost of providing service and the inherent regulatory lag in adjusting those rates. The ability to control operating expenses is an important factor that will influence future results.

Rapid increases in the price of purchased gas may cause NJNG to experience a significant increase in short-term debt because it must pay suppliers for gas when it is purchased, which can be significantly in advance of when these costs may be recovered through the collection of monthly bills for gas delivered to customers. Increases in purchased gas costs also slow collection efforts as customers are more likely to delay the payment of their gas bills, leading to higher-than-normal accounts receivable.

The cost of providing pension and postemployment health care benefits to eligible former employees is subject to changes in pension fund values, interest rates and changing demographics and may have a material adverse effect on our financial results.

We have two defined benefit pension plans and two OPEB plans for the benefit of eligible full-time employees and qualified retirees, which were closed to all employees hired on or after January 1, 2012. The cost of providing these benefits to eligible current and former employees is subject to changes in the market value of the pension and OPEB fund assets, changing discount rates and changing actuarial assumptions based upon demographics, including longer life expectancy of beneficiaries, an expected increase in the number of eligible former employees over the next five years, impacts from healthcare legislation and increases in health care costs.

Significant declines in equity markets and/or reductions in bond yields can have a material adverse effect on the funded status of our pension and OPEB plans. In these circumstances, we may be required to recognize increased pension and OPEB expenses and/or be required to make additional cash contributions into the plans.

The funded status of these plans, and the related cost reflected in our financial statements, are affected by various factors that are subject to an inherent degree of uncertainty. Under the Pension Protection Act of 2006, losses of asset values may necessitate increased funding of the plans in the future to meet minimum federal government requirements. A significant decrease in the asset values of these plans can result in funding obligations earlier than we had originally planned, which would have a negative impact on cash flows from operations, decrease our borrowing capacity and increase our interest expense.

We are exposed to market risk and may incur losses in our wholesale business.

Our storage and transportation portfolios consist of contracts to transport and store natural gas. The value of our storage and transportation portfolio could be negatively impacted if the value of these contracts changes in a direction or manner that we do not anticipate. In addition, upon expiration of these storage and transportation contracts, to the extent that they are renewed or replaced at less favorable terms, our results of operations and cash flows could be adversely affected.

Our economic hedging activities that are designed to protect against commodity and financial market risks, including the use of derivative contracts in the normal course of our business, may cause fluctuations in reported financial results and financial losses that negatively impact results of operations and our stock price.

We use derivatives, including futures, forwards, options, swaps and foreign exchange contracts, to manage commodity, financial market and foreign currency risks. The timing of the recognition of gains or losses associated with our economic hedges in accordance with GAAP does not always coincide with the gains or losses on the items being hedged. The difference in accounting can result in volatility in reported results, even though the expected profit margin is essentially unchanged from the dates the transactions were consummated.

In addition, we could recognize financial losses on these contracts as a result of volatility in the market values of the underlying commodities or if a counterparty fails to perform under a contract. In the absence of actively quoted market prices and pricing information from external sources, the valuation of these financial instruments can involve management's judgment or use of estimates. As a result, changes in the underlying assumptions or use of alternative valuation methods could adversely affect the value of the reported fair value of these contracts.

ITEM 1A. RISK FACTORS (Continued)

Energy Services' earnings and cash flows are dependent upon optimization of its physical assets.

Energy Services' earnings and cash flows are based, in part, on its ability to optimize its portfolio of contractually-based natural gas storage and pipeline assets. The optimization strategy involves utilizing its physical assets to take advantage of differences in natural gas prices between geographic locations and/or time periods. Any change among various pricing points could affect these differentials. In addition, significant increases in the supply of natural gas in Energy Services' market areas, including as a result of increased production along the Marcellus Shale, can reduce Energy Services' ability to take advantage of pricing fluctuations in the future. Changes in pricing dynamics and supply could have an adverse impact on Energy Services' optimization activities, earnings and cash flows. Energy Services incurs fixed demand fees to acquire its contractual rights to storage and transportation assets. Should commodity prices at various locations or time periods change in such a way that Energy Services is not able to recoup these costs from its customers, the cash flows and earnings at Energy Services, and ultimately the Company, could be adversely impacted.

Changes in weather conditions may affect earnings and cash flows.

Weather conditions and other natural phenomena can have an adverse impact on our earnings and cash flows. Severe weather conditions can impact suppliers and the pipelines that deliver gas to NJNG's distribution system. Extended mild weather, during either the winter period or summer period, can have a significant impact on demand for and the cost of natural gas. While we believe the CIP mitigates the impact of weather variations on NJNG's margin, severe weather conditions may have an impact on the ability of suppliers and pipelines to deliver the natural gas to NJNG, which can negatively affect our earnings. The CIP does not mitigate the impact of severe weather conditions on our cash flows.

Future results at Energy Services are subject to volatility in the natural gas market due to weather. Variations in weather may affect earnings and working capital needs throughout the year. During periods of milder temperatures, demand and volatility in the natural gas market may decrease, which can negatively impact Energy Services' earnings and cash flows.

Our costs of compliance with present and future environmental laws are significant and could adversely affect our cash flows and profitability.

Our operations are subject to extensive federal, state and local environmental statutes, rules and regulations relating to air quality, water quality, waste management, natural resources and site remediation. Compliance with these laws and regulations may require us to expend significant financial resources to, among other things, conduct site remediation and perform environmental monitoring. If we fail to comply with applicable environmental laws and regulations, even if we are unable to do so due to factors beyond our control, we may be subject to civil liabilities or criminal penalties and may be required to incur significant expenditures to come into compliance. Additionally, any alleged violations of environmental laws and regulations may require us to expend significant resources in our defense against alleged violations.

Furthermore, the U.S. Congress has for some time been considering various forms of climate change legislation. In addition, in July 2019, the State of New Jersey amended the GWRA, which targets 80 percent reduction in greenhouse gas emissions economy-wide by 2050. The amendments to the GWRA require NJDEP to publish a report detailing measures to accomplish the goals of the GWRA, and within 18 months of the report, mandates that NJDEP promulgate regulations to achieve environmental targets. The policies in the state's Energy Master Plan, currently in draft form, could be used to inform future regulations.

There is a possibility that the final form of such legislation at the federal level and regulations at the state level could impact our costs and put upward pressure on natural gas prices. Higher cost levels could impact the competitive position of natural gas and negatively affect our growth opportunities, cash flows and earnings.

Changes in tax laws or regulations may negatively affect our results of operations, net income, financial condition and cash flows.

We are subject to taxation by various taxing authorities at the federal, state and local levels. Any future change in tax laws or interpretation of such laws could adversely affect our results of operations, net income, financial condition and cash flows. In addition, we cannot predict how our federal and state regulators will apply such tax change in our future rates.

A valuation allowance may be required for our deferred tax assets.

During fiscal 2018, as a result of the Tax Act's decrease to the federal statutory corporate tax rate, we revalued our deferred tax assets and liabilities at the enactment date to reflect the rates expected to be in effect when the deferred tax assets and liabilities are realized or settled. These adjustments are based on assumptions we made with respect to our book versus tax differences and the timing of when those differences will reverse. Our deferred tax assets are comprised primarily of investment tax credits and

ITEM 1A. RISK FACTORS (Continued)

state net operating losses. Any further revaluation of our deferred tax assets that may be required in the future could have a material adverse impact on our financial condition and results of operations.

We may be adversely impacted by natural disasters, pandemic illness, terrorist activities and other extreme events to which we may be unable to promptly respond.

Local or national natural disasters, pandemic illness, terrorist activities, catastrophic failure of the interstate pipeline system and other extreme events are a threat to our assets and operations. Companies in our industry that are located in our service territory may face a heightened risk due to exposure to acts of terrorism that could target or impact our natural gas distribution, transmission and storage facilities and disrupt our operations and ability to meet customer requirements. In addition, the threat of terrorist activities could lead to increased economic instability and volatility in the price of natural gas that could affect our operations. Natural disasters or actual or threatened terrorist activities may also disrupt capital markets and our ability to raise capital, or may impact our suppliers or our customers directly. A local disaster or pandemic illness could result in part of our workforce being unable to operate or maintain our infrastructure or perform other tasks necessary to conduct our business. In addition, these risks could result in loss of human life, significant damage to property, environmental damage, impairment of our operations and substantial loss to the Company. Our regulators may not allow us to recover from our customers part or all of the increased cost related to the foregoing events, which could negatively affect our financial condition, results of operations and cash flows.

A slow or inadequate response to events that could cause business interruption may have an adverse impact on operations and earnings. We may be unable to obtain sufficient insurance to cover all risks associated with local and national disasters, pandemic illness, terrorist activities, catastrophic failure of the interstate pipeline system and other events, which could increase the risk that an event adversely affects our financial condition, results of operations and cash flows.

Failure to attract and retain an appropriately qualified employee workforce could adversely affect operations.

Our ability to implement our business strategy and serve our customers is dependent upon our continuing ability to attract and retain talented professionals and a technically skilled workforce, and being able to transfer the knowledge and expertise of our workforce to new employees as our aging employees retire. Failure to hire and adequately train replacement employees, including the transfer of significant internal historical knowledge and expertise to the new employees, or the future availability and cost of contract labor could adversely affect the ability to manage and operate our business. Furthermore, NJNG and NJRHS have collective bargaining agreements with the Union that expire on December 7, 2021 and April 2, 2023, respectively. Disputes with the Union over terms and conditions of the agreement could result in instability in our labor relationship and work stoppages that could impair the timely delivery of gas and other services from our utility and Home Services business, which could strain relationships with customers and state regulators and cause a loss of revenues that could adversely affect our results of operations. Our collective bargaining agreements may also increase the cost of employing our natural gas distribution segment and Home Services workforce, affect our ability to continue offering market-based salaries and employee benefits, limit our flexibility in dealing with our workforce and limit our ability to change work rules and practices and implement other efficiency-related improvements to successfully compete in today's challenging marketplace.

Our success as a company depends upon our ability to attract, effectively transition, motivate and retain key employees and identify and develop talent to succeed senior management. We depend on senior executive officers and other key personnel to develop, implement and execute on our overall business strategy. The inability to recruit and retain or effectively transition key personnel or the unexpected loss of key personnel may adversely affect our operations.

Investing through partnerships or joint ventures decreases our ability to manage risk.

We have utilized joint ventures through partnerships for certain midstream investments, including Steckman Ridge and PennEast. Although we currently have no specific plans to do so, we may acquire interests in other joint ventures or partnerships in the future. In these joint ventures or partnerships, we may not have the right or power to direct the management and policies of the joint ventures or partnerships, and other participants or investors may take action contrary to our instructions or requests and against our policies and objectives. In addition, the other participants may become bankrupt or have economic or other business interests or goals that are inconsistent with those of NJR and our subsidiaries. Our financial condition, results of operations or cash flows could be harmed if a joint venture participant acts contrary to our interests.

ITEM 1A. RISK FACTORS (Continued)

Our certificate of incorporation and bylaws may delay or prevent a transaction that shareowners would view as favorable.

Our certificate of incorporation and Bylaws, as amended, as well as New Jersey law, contain provisions that could delay, defer or prevent an unsolicited change in control of NJR, which may negatively affect the market price of our common stock or the ability of stockholders to participate in a transaction in which they might otherwise receive a premium for their shares over the then-current market price. These provisions may also prevent changes in management. In addition, our Board is authorized to issue preferred stock without stockholder approval on such terms as our Board may determine. Our common stockholders will be subject to, and may be negatively affected by, the rights of any preferred stock that may be issued in the future. In addition, we are subject to the New Jersey Shareholders' Protection Act, which could delay or prevent a change of control of NJR.

Failure to keep pace with technological change may limit customer growth and have an adverse effect on our operations.

Advances in technology and changes in laws or regulations are reducing the cost of alternative methods of producing energy. In addition, customers are increasingly expecting enhanced communications regarding their electric and natural gas services, which, in some cases, may involve additional investments in technology. New technologies may require us to make significant expenditures to remain competitive and may result in the obsolescence of certain of our operating assets.

Our future success will depend, in part, on our ability to anticipate and successfully adapt to technological changes and to offer services that meet customer demand. Failure to adapt to advances in technology and manage the related costs could make us less competitive and negatively impact our financial condition, results of operations and cash flows.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None

ITEM 2. PROPERTIES

Natural Gas Distribution Segment

As of September 30, 2019, NJNG owns approximately 7,317 miles of distribution main, 7,634 miles of service main, 221 miles of transmission main and 564,463 meters. Mains are primarily located under public roads. Where mains are located under private property, NJNG has obtained easements from the owners of record.

Additionally, NJNG owns and operates two LNG storage plants in Stafford Township, Ocean County; and Howell Township, Monmouth County. The two LNG plants have an aggregate estimated maximum capacity of approximately 170,000 Dths per day and 1 Bcf of total capacity. These facilities are used for peaking natural gas supply and for emergencies. NJNG's Liquefaction facility is also located on the Howell Township property and allows NJNG to convert natural gas into LNG to fill NJNG's existing LNG storage tanks.

NJNG owns four service centers located in Rockaway Township, Morris County; Atlantic Highlands and Wall Township, Monmouth County; and Lakewood, Ocean County. These service centers house storerooms, garages, gas distribution and administrative offices. NJNG leases its headquarters and customer service facilities in Wall Township, Monmouth County; a customer service office in Asbury Park, Monmouth County; and a service center in Manahawkin, Ocean County. These customer service offices support customer contact, marketing, economic development and other functions.

Substantially all of NJNG's properties, not expressly excepted or duly released, are subject to the lien of the Mortgage Indenture as security for NJNG's mortgage bonds, which totaled \$892.8 million as of September 30, 2019. In addition, under the terms of the Mortgage Indenture, NJNG could have issued up to \$1 billion of additional first mortgage bonds as of September 30, 2019.

Clean Energy Ventures Segment

As of September 30, 2019, Clean Energy Ventures has various solar contracts, including lease agreements and easements, allowing the installation, operation and maintenance of solar equipment and access to the various properties, including commercial and residential rooftops throughout the State of New Jersey. In addition to the lease agreements and easements, Clean Energy Ventures owns solar panels with a total of 291.4 MW of capacity and 79.5 acres of land in Vineland, New Jersey.

Clean Energy Ventures leases office space in Wall Township, New Jersey.

Energy Services Segment

As of September 30, 2019, Energy Services leases office space in Wall Township, New Jersey; Houston, Texas; Charlotte, North Carolina; and Allentown, Pennsylvania.

ITEM 2. PROPERTIES (Continued)

Midstream Segment

As of September 30, 2019, Adelphia owns 4 acres of land in Delaware County, Pennsylvania and 20 acres in Bucks County, Pennsylvania and leases office space in Wall Township, New Jersey.

All Other Business Operations

As of September 30, 2019, CR&R's real estate portfolio consisted of 35 acres of undeveloped land in Atlantic County, New Jersey. NJRHS leases service centers in Dover, New Jersey and Wall Township, New Jersey. NJR Service Corporation leases office space in Red Bank, New Jersey.

Capital Expenditure Program

See *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations* for a discussion of anticipated fiscal 2020 and 2021 capital expenditures, as applicable to our reporting segments and business operations.

ITEM 3. LEGAL PROCEEDINGS

Manufactured Gas Plant Remediation

NJNG is responsible for the remedial cleanup of certain former MGP sites, dating back to gas operations in the late 1800s and early 1900s, which contain contaminated residues from former gas manufacturing operations. NJNG is currently involved in administrative proceedings with the NJDEP and participating in various studies and investigations by outside consultants to determine the nature and extent of any such contaminated residues and to develop appropriate programs of remedial action, where warranted, under NJDEP regulations.

NJNG periodically, and at least annually, performs an environmental review of former MGP sites, located in Atlantic Highlands, Berkeley, Long Branch, Manchester, Toms River and Freehold, New Jersey, including a review of potential liability for investigation and remedial action. NJNG estimated at the time of the most recent review that total future expenditures at the former MGP sites for which it is responsible, including potential liabilities for natural resource damages that might be brought by the NJDEP for alleged injury to groundwater or other natural resources concerning these sites. At the MGP site in Freehold, New Jersey, as we have not yet completed the remedial investigation of the site, the total amount of potential costs of all remedial actions cannot be reasonably estimated at this time.

As of September 30, 2019, the estimated total future expenditures will range from approximately \$115.9 million to \$186.2 million. NJNG's estimate of these liabilities is based upon known facts, existing technology and enacted laws and regulations in place when the review was completed. Where it is probable that costs will be incurred, and the information is sufficient to establish a range of possible liability, NJNG accrues the most likely amount in the range. If no point within the range is more likely than the other, it is NJNG's policy to accrue the lower end of the range. Accordingly, NJNG recorded an MGP remediation liability and a corresponding regulatory asset of \$131.1 million on the Consolidated Balance Sheets, based on the most likely amount.

On September 27, 2019, NJNG filed its annual SBC application requesting to recover remediation expenses including an increase in the RAC of approximately \$1.4 million annually, to be effective April 1, 2020. The actual costs to be incurred by NJNG are dependent upon several factors, including final determination of remedial action, changing technologies and governmental regulations, the ultimate ability of other responsible parties to pay and insurance recoveries, if any.

In June 2019, NJNG initiated a preliminary assessment of a site in Aberdeen, New Jersey to determine prior ownership and if there were former MGP operations active at the location. The costs associated with preliminary assessment activities are considered immaterial for fiscal 2019 and are included as a component of NJNG's annual SBC application to recover remediation expenses. NJNG will continue to gather information to further refine and enhance its estimate of potential costs for this site as it becomes available.

NJNG recovers its remediation expenditures, including carrying costs, over rolling seven-year periods pursuant to a RAC approved by the BPU. On March 29, 2019, the BPU approved NJNG's annual SBC filing requesting an increase in the RAC, which increased the annual recovery from \$7.1 million to \$8.5 million, effective April 1, 2019. As of September 30, 2019, \$38.4 million of previously incurred remediation costs, net of recoveries from customers and insurance proceeds, are included in regulatory assets on the Consolidated Balance Sheets. NJNG will continue to seek recovery of MGP-related costs through the RAC. If any future regulatory position indicates that the recovery of such costs is not probable, the related non-recoverable costs would be charged to income in the period of such determination.

ITEM 3. LEGAL PROCEEDINGS (Continued)

General

The Company is involved, and from time to time in the future may be involved, in a number of pending and threatened judicial, regulatory and arbitration proceedings relating to matters that arise in the ordinary course of business. In view of the inherent difficulty of predicting the outcome of litigation matters, particularly when such matters are in their early stages or where the claimants seek indeterminate damages, the Company cannot state with confidence what the eventual outcome of the pending litigation will be, what the timing of the ultimate resolution of these matters will be, or what the eventual loss, fines or penalties related to each pending matter will be, if any.

In accordance with applicable accounting guidance, NJR establishes accruals for litigation for those matters that present loss contingencies as to which it is both probable that a loss will be incurred and the amount of such loss can be reasonably estimated. NJR also discloses contingent matters for which there is a reasonable possibility of a loss. Based upon currently available information, NJR believes that the results of litigation that is currently pending, taken together, will not have a materially adverse effect on the Company's financial condition, results of operations or cash flows. The actual results of resolving the pending litigation matters may be substantially higher than the amounts accrued.

The foregoing statements about NJR's litigation are based upon the Company's judgments, assumptions and estimates and are necessarily subjective and uncertain. The Company has a number of threatened and pending litigation matters at various stages.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

NJR's Common Stock is traded on the New York Stock Exchange under the ticker symbol NJR. As of October 16, 2019, NJR had 55,069 holders of record of its common stock.

In 1996, the Board of Directors authorized the Company to implement a share repurchase program, which has been expanded seven times since the inception of the program, authorizing a total of 19.5 million shares of common stock for repurchase. The share repurchase plan allows us to purchase our outstanding shares on the open market or in negotiated transactions, based on market and other conditions. We are not required to purchase any specific number of shares and may discontinue or suspend the program at any time. The share repurchase plan will expire when we have repurchased all shares authorized for repurchase thereunder, unless it is terminated earlier by action of our Board of Directors or additional shares are authorized for repurchase.

The following table sets forth NJR's repurchase activity for the quarter ended September 30, 2019:

Period	Total Number of Shares (or Units) Purchased	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) That May Yet Be Purchased Under the Plans or Programs
7/01/19 - 7/31/19	_	\$ —	_	2,431,053
8/01/19 - 8/31/19	_	\$	<u> </u>	2,431,053
9/01/19 - 9/30/19	_	\$ —	-	2,431,053
Total	_	\$	_	2,431,053

ITEM 6. SELECTED FINANCIAL DATA

CONSOLIDATED FINANCIAL STATISTICS

(Thousands, except per share data)

(Thousands, except per share data)						
Fiscal Years Ended September 30,		2019	2018	2017	2016	2015
SELECTED FINANCIAL DATA						
Operating revenues	\$ 2	2,592,045	\$ 2,915,109	\$ 2,268,617	\$ 1,880,905	\$ 2,733,987
Gas purchases	\$ 2	2,044,302	\$ 2,275,342	\$ 1,703,767	\$ 1,352,686	\$ 2,085,645
Net income	\$	169,505	\$ 233,436	\$ 132,065	\$ 131,672	\$ 180,960
Total assets	\$ 4	1,372,985	\$ 4,143,664	\$ 3,928,507	\$ 3,718,570	\$ 3,284,357
Common stock equity	\$ 1	,551,717	\$ 1,418,978	\$ 1,236,643	\$ 1,166,591	\$ 1,106,956
Long-term debt (1) (2)	\$ 1	,537,177	\$ 1,180,619	\$ 997,080	\$ 1,055,038	\$ 843,595
COMMON STOCK DATA						
Earnings per share-basic		\$1.90	\$2.66	\$1.53	\$1.53	\$2.12
Earnings per share-diluted		\$1.89	\$2.64	\$1.52	\$1.52	\$2.10
Dividends declared per share		\$1.19	\$1.11	\$1.038	\$0.975	\$0.915
NON-GAAP RECONCILIATION						
Net income	\$	169,505	\$ 233,436	\$ 132,065	\$ 131,672	\$ 180,960
Add:			,	· ,	,	,
Unrealized loss (gain) on derivative instruments and related transactions		2,881	26,770	(11,241)	46,883	(38,681)
Tax effect		(711)	(4,512)	4,062	(17,018)	14,391
Effects of economic hedging related to natural gas inventory		4,309	(22,570)	•	(36,816)	
Tax effect		(1,024)	7,362	(13,964)	13,364	3,058
Net financial earnings (3)	\$	174,960	\$ 240,486	\$ 149,392	\$ 138,085	\$ 151,503
Basic earnings per share		\$1.90	\$2.66	\$1.53	\$1.53	\$2.12
Add:						
Unrealized loss (gain) on derivative instruments and related transactions		0.03	0.31	(0.13)	0.55	(0.45)
Tax effect		(0.01)	(0.05)	0.05	(0.20)	0.17
Effects of economic hedging related to natural gas inventory		0.05	(0.26)	0.45	(0.43)	(0.10)
Tax effect		(0.01)	0.08	(0.17)	0.16	0.04
Net financial earnings per share-basic (3)		\$1.96	\$2.74	\$1.73	\$1.61	\$1.78
Diluted earnings per share		\$1.89	\$2.64	\$1.52	\$1.52	\$2.10
Add:						
Unrealized loss (gain) on derivative instruments and related transactions		0.03	0.30	(0.13)	0.54	(0.45
Tax effect		(0.01)	(0.05)	0.05	(0.20)	0.17
Effects of economic hedging related to natural gas inventory		0.05	(0.25)	0.44	(0.42)	(0.10
Tax effect		(0.01)	0.08	(0.17)	0.15	0.04
Net financial earnings per share-diluted (3)		\$1.95	\$2.72	\$1.71	\$1.59	\$1.76

⁽¹⁾ Includes long-term capital leases of \$25 million, \$26.4 million, \$28.9 million, \$30.7 million and \$35.7 million, respectively.

²⁾ Includes long-term solar asset financing obligation of \$80.4 million, \$89.8 million, \$28.2 million, \$0 and \$0, respectively.

⁽³⁾ NFE is a non-GAAP financial measure that eliminates the timing differences surrounding the recognition of certain derivative gains or losses, to effectively match the earnings effects of economic hedges associated with the physical sale or purchase of gas and, therefore, eliminate the impact of volatility to GAAP earnings associated with the related derivative instruments. For further discussion of this financial measure, see the Energy Services segment discussion in *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.*

ITEM 6. SELECTED FINANCIAL DATA (Continued)

NJNG OPERATING STATISTICS

Fiscal Years Ended September 30,	2019		2018		2017		2016		2015
Operating revenues (\$ in thousands)									
Residential	\$ 450,515	\$	441,486	\$	395,315	\$	345,597	\$	466,464
Commercial, industrial and other	104,372		95,351		98,777		80,994		106,505
Firm transportation	57,513		65,256		73,206		69,696		77,974
Total residential and commercial	612,400		602,093		567,298		496,287		650,943
Interruptible	6,637		7,522		7,970		8,867		10,049
Total system	619,037		609,615		575,268		505,154		660,992
BGSS incentive programs	91,756		122,250		120,369		89,192		120,978
Total operating revenues	\$ 710,793	\$	731,865	\$	695,637	\$	594,346	\$	781,970
Throughput (Bcf)									
Residential	46.0		45.5		40.7		36.9		45.9
Commercial, industrial and other	9.7		8.9		8.7		7.3		9.6
Firm transportation	13.7		15.5		14.4		14.1		16.0
Total residential and commercial	69.4		69.9		63.8		58.3		71.5
Interruptible	39.0		46.2		55.0		61.5		47.1
Total system	108.4		116.1		118.8		119.8		118.6
BGSS incentive programs	123.8		150.2		178.4		216.7		222.4
Total throughput	232.2		266.3		297.2		336.5		341.0
Customers at year-end	'								
Residential	486,474		474,495		460,013		448,273		437,979
Commercial, industrial and other	28,992		28,037		26,947		26,218		25,541
Firm transportation	32,107		36,126		42,790		46,608		48,673
Total residential and commercial	547,573		538,658		529,750		521,099		512,193
Interruptible	32		31		33		34		35
BGSS incentive programs	21		28		27		30		24
Total customers at year-end	547,626		538,717		529,810		521,163		512,252
Interest coverage ratio (1)	6.57		6.35		7.96		8.97		9.57
Average therm use per customer									
Residential	945		959		885		824		1,049
Commercial, industrial and other	10,198		10,992		11,183		11,378		9,799
Degree days	4,506		4,537		4,129		3,867		5,015
Weather as a percent of normal (2)	99.0%	, D	99.5%	ó	90.0%	ó	82.5%	ó	108.3%
Number of employees	709		686		680		670		649

⁽¹⁾ NJNG's income from operations divided by interest expense.

⁽²⁾ Normal heating degree days are based on a 20-year average, calculated based upon three reference areas representative of NJNG's service territory.

Operating revenue presents sales tax, net during fiscal 2019, due to the adoption of ASC 606, *Revenue from Contracts with Customers*. Prior to fiscal 2019, operating revenue only included sales tax on operating revenues excluding tax-exempt sales.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Critical Accounting Policies

We prepare our financial statements in accordance with GAAP. Application of these accounting principles requires the use of estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingencies during the reporting period. We regularly evaluate our estimates, including those related to the calculation of the fair value of derivative instruments, regulatory assets, income taxes, pension and postemployment benefits other than pensions and contingencies related to environmental matters and litigation. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. In the normal course of business, estimated amounts are subsequently adjusted to actual results that may differ from estimates.

Regulatory Accounting

NJNG maintains its accounts in accordance with the FERC Uniform System of Accounts as prescribed by the BPU and recognizes the impact of regulatory decisions on its financial statements. As a result of the ratemaking process, NJNG is required to apply the accounting principles in ASC 980, *Regulated Operations*, which differ in certain respects from those applied by unregulated businesses. Specifically, NJNG records regulatory assets when it is probable that certain operating costs will be recoverable from customers in future periods and records regulatory liabilities associated with probable future obligations to customers.

Regulatory decisions can have an impact on the recovery of costs, the rate of return earned on investment, and the timing and amount of assets to be recovered by rates. The BPU's regulation of rates is premised on the full recovery of prudently incurred costs and a reasonable rate of return on invested capital. Decisions to be made by the BPU in the future will impact the accounting for regulated operations, including decisions about the amount of allowable costs and return on invested capital included in rates and any refunds that may be required. If the BPU indicates that recovery of all or a portion of a regulatory asset is not probable or does not allow for recovery of and a reasonable return on investments in property plant and equipment, a charge to income would be made in the period of such determination.

Environmental Costs

At the end of each fiscal year, NJNG, with the assistance of an independent consulting firm, updates the environmental review of its MGP sites, including its potential liability for investigation and remedial action. From this review, NJNG estimates expenditures necessary to remediate and monitor these MGP sites. NJNG's estimate of these liabilities is developed from then-currently available facts, existing technology and current laws and regulations.

In accordance with accounting standards for contingencies, NJNG's policy is to record a liability when it is probable that the cost will be incurred and can be reasonably estimated. NJNG will determine a range of liabilities and will record the most likely amount. If no point within the range is more likely than any other, NJNG will accrue the lower end of the range. Since we believe that recovery of these expenditures, as well as related litigation costs, is possible through the regulatory process, we have recorded a regulatory asset corresponding to the related accrued liability. Accordingly, NJNG recorded an MGP remediation liability and a corresponding regulatory asset on the Consolidated Balance Sheets, which is based on the most likely amount.

The actual costs to be incurred by NJNG are dependent upon several factors, including final determination of remedial action, changing technologies and governmental regulations and the ultimate ability of other responsible parties to pay, as well as the potential impact of any litigation and any insurance recoveries. Previously incurred remediation costs, net of recoveries from customers and insurance proceeds received are included in regulatory assets on the Consolidated Balance Sheets.

If there are changes in the regulatory position surrounding these costs, or should actual expenditures vary significantly from estimates in that these costs are disallowed for recovery by the BPU, such costs would be charged to income in the period of such determination. See the *Legal Proceedings* section in *Note 14. Commitments and Contingent Liabilities* for more details.

Postemployment Employee Benefits

Our costs of providing postemployment employee benefits are dependent upon numerous factors, including actual plan experience and assumptions of future experience. Postemployment employee benefit costs are affected by actual employee demographics including age, compensation levels and employment periods, the level of contributions made to the plans, changes in long-term interest rates and the return on plan assets. Changes made to the provisions of the plans or healthcare legislation may also impact current and future postemployment employee benefit costs. Postemployment employee benefit costs may also be

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

significantly affected by changes in key actuarial assumptions, including anticipated rates of return on plan assets, changes in mortality tables, health care cost trends and discount rates used in determining the PBO. In determining the PBO and cost amounts, assumptions can change from period to period and could result in material changes to net postemployment employee benefit periodic costs and the related liability recognized by us.

Our postemployment employee benefit plan assets consist primarily of U.S. equity securities, international equity securities, fixed-income investments and other assets, with a targeted allocation of 34 percent, 17 percent, 38 percent and 11 percent, respectively. Fluctuations in actual market returns, as well as changes in interest rates, may result in increased or decreased postemployment employee benefit costs in future periods. Postemployment employee benefit expenses are included in O&M expense on the Consolidated Statements of Operations.

The following is a summary of a sensitivity analysis for each actuarial assumption:

Pension Plans

Actuarial Assumptions	Increase/ (Decrease)	Estimated Increase/(Decrease) on PBO (Thousands)	Estimated Increase/(Decrease) to Expense (Thousands)
Discount rate	1.00 %	\$(45,719)	\$ (4,274)
Discount rate	(1.00) %	\$ 57,229	\$ 4,840
Rate of return on plan assets	1.00 %	n/a	\$ (2,723)
Rate of return on plan assets	(1.00) %	n/a	\$ 2,723

Other Postemployment Benefits

	T /	Estimated	Estimated
Actuarial Assumptions	Increase/ (Decrease)	Increase/(Decrease) on PBO (Thousands)	Increase/(Decrease) to Expense (Thousands)
Discount rate	1.00 %	\$(39,954)	\$ (3,277)
Discount rate	(1.00) %	\$ 51,627	\$ 4,094
Rate of return on plan assets	1.00 %	n/a	\$ (788)
Rate of return on plan assets	(1.00) %	n/a	\$ 788

Actuarial Assumptions	Increase/ (Decrease)	Estimated Increase/(Decrease) on PBO (Thousands)	Estimated Increase/(Decrease) to Expense (Thousands)
Health care cost trend rate	1.00 %	\$ 49,061	\$ 6,412
Health care cost trend rate	(1.00) %	\$(38,747)	\$ (5,015)

Acquisitions

The Company follows the guidance in ASC 805, *Business Combinations*, for determining the appropriate accounting treatment for acquisitions. ASU No. 2017-01, *Clarifying the Definition of a Business*, provides an initial fair value screen to determine if substantially all of the fair value of the assets acquired is concentrated in a single asset or group of similar assets. If the initial screening test is not met, the set is considered a business based on whether there are inputs and substantive processes in place. Based on the results of this analysis and conclusion on an acquisition's classification of a business combination or an asset acquisition, the accounting treatment is derived.

If the acquisition is deemed to be a business, the acquisition method of accounting is applied. Identifiable assets acquired and liabilities assumed at the acquisition date are recorded at fair value. If the transaction is deemed to be an asset purchase, the cost accumulation and allocation model is used whereby the assets and liabilities are recorded based on the purchase price and allocated to the individual assets and liabilities based on relative fair values.

The determination and allocation of fair values to the identifiable assets acquired and liabilities assumed are based on various assumptions and valuation methodologies requiring considerable management judgment. The most significant variables in these valuations are discount rates and the number of years on which to base the cash flow projections, as well as other assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates based on the risk inherent in the acquired assets and related cash flows. The valuation of an acquired business is based on available information at the acquisition date and assumptions that are believed to be reasonable. However, a change in facts and circumstances as of the acquisition date can result in subsequent adjustments during the measurement period, but no later than one year from the acquisition date.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Investments in Equity Investees

The Company accounts for its investments in Steckman Ridge and PennEast, using the equity method of accounting where it is not the primary beneficiary, as defined under ASC 810, *Consolidation*, in that its respective ownership interests are 50 percent or less and/or it has significant influence over operating and management decisions. The Company's share of earnings is recognized as equity in earnings of affiliates on the Consolidated Statements of Operations.

Equity method investments are reviewed for impairment when changes in facts and circumstances indicate that the current fair value may be less than the asset's carrying amount. Factors that the Company analyzes in determining whether an impairment in its equity investments exists include reviewing the financial condition and near-term prospects of the investees, including economic conditions and trends in the general market, significant delays in or failure to complete significant projects, unfavorable regulatory or legal actions expected to substantially impact future earnings potential and lower than expected cash distributions from investees. If the Company determines the decline in the value of its equity method investment is other than temporary, an impairment charge is recorded in an amount equal to the excess of the carrying value of the asset over its fair value.

On September 10, 2019, the United States Court of Appeals for the Third Circuit issued an order overturning the United States District Court for the District of New Jersey's order granting PennEast condemnation and immediate access in accordance with the Natural Gas Act to certain properties in which New Jersey holds an interest. The Petition for Panel Rehearing or Rehearing En Banc filed with the United States Court of Appeals for the Third Circuit was denied on November 5, 2019.

On October 8, 2019, the NJDEP issued a letter indicating that it deemed PennEast's freshwater wetlands permit application to be administratively incomplete and closed the matter without prejudice. On October 11, 2019, PennEast submitted a letter to the NJDEP objecting to its position that the freshwater wetlands permit application is administratively incomplete.

On November 14, 2019, PennEast announced that it will ask the Supreme Court of the United States to review the September 2019 decision by the United States Court of Appeals for the Third Circuit.

As a result of the adverse court rulings, the Company evaluated its investment in PennEast for impairment and determined an impairment charge was not necessary. The Company estimated the fair value of its investment using probability-weighted scenarios of discounted future cash flows. Management made significant estimates and assumptions related to development options and legal outcomes, construction costs, timing of capital investments and in-service dates, revenues and discount rates. The discounted cash flow scenarios contemplate the impact of key assumptions of potential future court decisions and potential future management decisions and require management to make significant estimates regarding the likelihood of various scenarios and assumptions. It is reasonably possible that future unfavorable developments, such as a reduced likelihood of success from development options and legal outcomes, estimated increases in construction costs, increases in the discount rate, or further significant delays, could result in an impairment of our equity method investment. Also, the use of alternate judgments and assumptions could result in a different calculation of fair value, which could ultimately result in the recognition of an impairment charge in the Consolidated Financial Statements. Higher probabilities were assumed related to those scenarios where the project is completed. For further information, see *Note 7. Investments in Equity Investees*.

Impairment of Long-lived assets

Property, plant and equipment and finite-lived intangible assets are reviewed periodically when changes in facts and circumstances indicate that the carrying amount of an asset may not be fully recoverable in accordance with the appropriate accounting guidance. Finite-lived intangible assets are valued using an undiscounted future cash flows method. Factors that the Company analyzes in determining whether an impairment in its long-lived assets exists include determining if a significant decrease in the market price of a long-lived asset is present, a significant adverse change in the extent in which a long-lived asset is being used in its physical condition, legal proceedings or factors, significant business climate changes, accumulations of costs in significant excess of the amounts expected, a current-period operating or cash flow loss combined with a history of such events and current expectations that more likely than not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its estimated useful life. When an impairment indicator is present, the Company determines if the carrying value of the asset is recoverable by comparing it to its expected undiscounted future cash flows. If carrying value of the asset is greater than the expected undiscounted future cash flows, an impairment charge is recorded in an amount equal to the excess of the carrying value of the asset over its fair value.

Derivative Instruments

We record our derivative instruments held as assets and liabilities at fair value on the Consolidated Balance Sheets. In addition, since we choose not to designate any of our physical and financial natural gas commodity derivatives as accounting

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

hedges, changes in the fair value of Energy Services' commodity derivatives are recognized in earnings, as they occur, as a component of operating revenues or gas purchases on the Consolidated Statements of Operations. Changes in the fair value of foreign exchange contracts are recognized in gas purchases on the Consolidated Statements of Operations.

The fair value of derivative instruments is determined by reference to quoted market prices of listed exchange-traded contracts, published price quotations, pipeline tariff information or a combination of those items. Energy Services' portfolio is valued using the most current and reasonable market information. If the price underlying a physical commodity transaction does not represent a visible and liquid market, Energy Services may utilize additional published pipeline tariff information and/or other services to determine an equivalent market price. As of September 30, 2019, the fair value of its derivative assets and liabilities reported on the Consolidated Balance Sheets that is based on such pricing is considered immaterial.

Should there be a significant change in the underlying market prices or pricing assumptions, Energy Services may experience a significant impact on its financial position, results of operations and cash flows. Refer to *Item 7A. Quantitative and Qualitative Disclosures About Market Risks* for a sensitivity analysis related to the impact to derivative fair values resulting from changes in commodity prices. The valuation methods we use to determine fair values remained consistent for fiscal 2019, 2018 and 2017. We apply a discount to our derivative assets to factor in an adjustment associated with the credit risk of its physical natural gas counterparties and to our derivative liabilities to factor in an adjustment associated with its own credit risk. We determine this amount by using historical default probabilities corresponding to the appropriate S&P issuer ratings. Since the majority of our counterparties are rated investment grade, this results in an immaterial credit risk adjustment.

Gains and losses associated with derivatives utilized by NJNG to manage the price risk inherent in its natural gas purchasing activities are recoverable through its BGSS, subject to BPU approval. Accordingly, the offset to the change in fair value of these derivatives is recorded as either a regulatory asset or liability on the Consolidated Balance Sheets.

Clean Energy Ventures hedges certain of its expected production of SRECs through forward and futures contracts. Clean Energy Ventures intends to physically deliver all SRECs it sells and recognizes SREC revenue as operating revenue on the Consolidated Statements of Operations upon delivery of the underlying SREC.

We have not designated any derivatives as fair value or cash flow hedges as of September 30, 2019 and 2018.

Income Taxes

The determination of our provision for income taxes requires the use of estimates and the interpretation and application of tax laws. Judgment is required in assessing the deductibility and recoverability of certain tax benefits. We use the asset and liability method to determine and record deferred tax assets and liabilities, representing future tax benefits and taxes payable, which result from the differences in basis recorded in GAAP financial statements and amounts recorded in the income tax returns. The deferred tax assets and liabilities are recorded utilizing the statutorily enacted tax rates expected to be in effect at the time the assets are realized, and/or the liabilities settled. An offsetting valuation allowance is recorded when it is more likely than not that some or all of the deferred income tax assets won't be realized. Any significant changes to the estimates and judgments with respect to the interpretations, timing or deductibility could result in a material change to earnings and cash flows. For a more detailed description of Income Taxes see *Note 13. Income Taxes* in the accompanying Consolidated Financial Statements.

For state income tax and other taxes, estimates and judgments are required with respect to the apportionment among the various jurisdictions. In addition, we operate within multiple tax jurisdictions and are subject to audits in these jurisdictions. These audits can involve complex issues, which may require an extended period of time to resolve. We maintain a liability for the estimate of potential income tax exposure and, in our opinion, adequate provisions for income taxes have been made for all years reported. Any significant changes to the estimates and judgments with respect to the apportionment factor could result in a material change to earnings and cash flows.

Occasionally, the federal and state taxing authorities determine that it is necessary to make certain changes to the income tax laws. These changes may include but are not limited to changes in the tax rates and/or the treatment of certain items of income or expense. Accounting guidance requires that the Company reflect the effect of tax laws or tax rates at the date of enactment. Additionally, the Company is required to re-measure its deferred tax assets and liabilities as of the date of enactment. For non-regulated entities, the effect of changes in tax rates and/or tax laws are required to be included in income from continuing operations for the period that includes the enactment date. For regulated entities, if as the result of an action by a regulator it is probable that the future increase or decrease in taxes payable for items such as changes in tax law or rates will be recovered from or returned to customers through future rates, an asset or liability shall be recognized for that probable increase or decrease in future revenue. Accounting guidance also requires that regulatory liabilities/assets be considered a temporary difference for which a deferred tax asset/liability shall be recognized.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Accounting guidance requires that we establish reserves for uncertain tax positions when it is more likely than not that the positions will not be sustained when challenged by taxing authorities. Any changes to the estimates and judgments with respect to the interpretations, timing or deductibility could result in a change to earnings and cash flows. Interest and penalties related to unrecognized tax benefits, if any, are recognized within income tax expense and accrued interest, and penalties are recognized within accrued taxes on the Consolidated Balance Sheets.

To the extent that NJNG invests in property that qualifies for ITCs, the ITC is deferred and amortized to income over the life of the equipment in accordance with regulatory treatment. In general, for our unregulated subsidiaries, we recognize ITCs as a reduction to income tax expense when the property is placed in service.

Changes to the federal statutes related to ITCs, which have the effect of reducing or eliminating the credits, could have a negative impact on earnings and cash flows.

Recently Issued Accounting Standards

Refer to *Note 2. Summary of Significant Accounting Policies* in the accompanying Consolidated Financial Statements for discussion of recently issued accounting standards.

Management's Overview

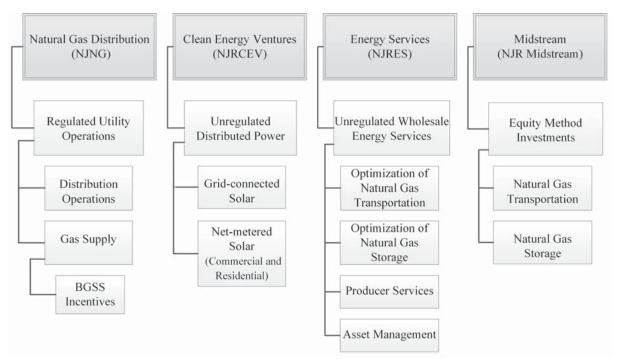
Consolidated

NJR is an energy services holding company providing retail natural gas service in New Jersey and wholesale natural gas and related energy services to customers in the United States and Canada. In addition, we invest in clean energy projects, midstream assets and provide various repair, sales and installation services. A more detailed description of our organizational structure can be found in *Item 1. Business*.

The following sections include a discussion of results for fiscal 2019 compared to fiscal 2018. The comparative results for fiscal 2018 with fiscal 2017 have been omitted from this Form 10-K, but may be found in *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations* on Form 10-K of our Annual Report for the fiscal year ended September 30, 2018.

Reporting Segments

We have four primary reporting segments as presented in the chart below:



ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

In addition to our four reporting segments, we have non-utility operations that either provide corporate support services or do not meet the criteria to be treated as a separate reporting segment. These operations, which comprise Home Services and Other, include: appliance repair services, sales and installations at NJRHS and commercial real estate holdings at CR&R.

A summary of our consolidated results in net income and assets by reporting segment and operations for the fiscal years ended September 30, is as follows:

(Thousands)		2019			2018			2017			
	Ne	t Income	Assets]	Net Income		Assets	Ne	t Income		Assets
Natural Gas Distribution	\$	78,062 \$	3,064,30	9 \$	84,048	\$	2,663,054	\$	86,930	\$	2,519,578
Clean Energy Ventures		77,473	864,32	3	75,849		865,018		24,873		771,340
Energy Services		(1,268)	290,84	7	53,139		396,852		476		398,277
Midstream		14,689	240,95	5	24,367		242,069		12,857		232,806
Home Services and Other		1,637	104,41	1	(3,555))	114,732		6,811		114,801
Intercompany (1)		(1,088)	(191,86	0)	(412))	(138,061)		118		(108,295)
Total	\$	169,505 \$	4,372,98	5 \$	233,436	\$	4,143,664	\$	132,065	\$	3,928,507

⁽¹⁾ Consists of transactions between subsidiaries that are eliminated in consolidation.

The decrease in net income of \$63.9 million during fiscal 2019, compared with fiscal 2018, was driven primarily by decreased earnings at Energy Services and an income tax benefit of \$59.6 million associated with the revaluation of deferred income taxes resulting from the Tax Act during fiscal 2018 that did not recur during fiscal 2019. The primary drivers of the changes noted above are described in more detail in the individual segment discussions.

The increase in assets during fiscal 2019, compared with fiscal 2018, was due primarily to increased utility plant at our Natural Gas Distribution segment and solar assets at Clean Energy Ventures, partially offset by the sale of our remaining wind assets at Clean Energy Ventures and the sale of equity securities at Midstream.

Non-GAAP Financial Measures

Our management uses NFE, a non-GAAP financial measure, when evaluating our operating results. Energy Services economically hedges its natural gas inventory with financial derivative instruments and calculates the related tax effect based on the statutory rate. NFE is a measure of the earnings based on eliminating timing differences surrounding the recognition of certain gains or losses, to effectively match the earnings effects of the economic hedges with the physical sale of gas and, therefore, eliminates the impact of volatility to GAAP earnings associated with the derivative instruments. To the extent we utilize forwards or futures to hedge forecasted SREC production, unrealized gains and losses are also eliminated for NFE purposes.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Non-GAAP financial measures are not in accordance with, or an alternative to, GAAP and should be considered in addition to, and not as a substitute for or a replacement of, the comparable GAAP measure and should be read in conjunction with those GAAP results. The following is a reconciliation of consolidated net income, the most directly comparable GAAP measure, to NFE for the fiscal years ended September 30:

(Thousands, except per share data)	2019	2018	2017
Net income	\$ 169,505	3 233,436	\$ 132,065
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	2,881	26,770	(11,241)
Tax effect	(711)	(4,512)	4,062
Effects of economic hedging related to natural gas inventory (1)	4,309	(22,570)	38,470
Tax effect	(1,024)	7,362	(13,964)
Net financial earnings	\$ 174,960	\$ 240,486	\$ 149,392
Basic earnings per share	\$ 1.90	2.66	\$ 1.53
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	0.03	0.31	(0.13)
Tax effect	(0.01)	(0.05)	0.05
Effects of economic hedging related to natural gas inventory (1)	0.05	(0.26)	0.45
Tax effect	(0.01)	0.08	(0.17)
Basic net financial earnings per share	\$ 1.96	2.74	\$ 1.73

⁽¹⁾ Effects of hedging natural gas inventory transactions where the economic impact is realized in a future period.

NFE by reporting segment and other operations for the fiscal years ended September 30, discussed in more detail within the operating results sections of each segment, is summarized as follows:

(Thousands)		2019	2018		2017	
Natural Gas Distribution	\$ 78	062 45%	\$ 84,048	35%	\$ 86,930	58%
Clean Energy Ventures	77.	473 44	75,849	32	24,873	17
Energy Services	2,	918 2	60,378	25	18,554	12
Midstream	14	689 8	24,367	10	12,857	9
Home Services and Other	1,	911 1	(3,829)	(2)	6,811	4
Eliminations (1)		(93) —	(327)	_	(633)	
Total	\$ 174.	960 100%	\$ 240,486	100%	\$ 149,392	100%

⁽¹⁾ Consists of transactions between subsidiaries that are eliminated in consolidation.

The decrease in NFE of \$65.5 million during fiscal 2019, compared with fiscal 2018, was driven primarily by the income tax benefit of \$59.6 million associated with the revaluation of deferred income taxes resulting from the Tax Act during fiscal 2018, that did not recur during fiscal 2019, and lower financial margin generated at Energy Services resulting from narrower pricing spreads and less price volatility in the physical natural gas market.

Natural Gas Distribution Segment

Overview

Our Natural Gas Distribution segment is comprised of NJNG, a natural gas utility that provides regulated retail natural gas service in central and northern New Jersey to approximately 547,600 residential and commercial customers in its service territory and also participates in the off-system sales and capacity release markets. The business is subject to various risks, which can negatively impact customer growth, operating and financing costs, fluctuations in commodity prices and customer conservation efforts. These risks include, but are not limited to, adverse economic conditions, customer usage, certain regulatory actions, environmental remediation and severe weather conditions. It is often difficult to predict the impact of events or trends associated with these risks.

In addition, NJNG's business is seasonal by nature, as weather conditions directly influence the volume of natural gas delivered to customers on an annual basis. Specifically, customer demand substantially increases during the winter months when natural gas is used for heating purposes. As a result, NJNG receives most of its natural gas distribution revenues during the first and second fiscal quarters and is subject to variations in earnings and working capital during the year.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

As a regulated company, NJNG is required to recognize the impact of regulatory decisions on its financial statements. See *Note 4. Regulation* in the accompanying Consolidated Financial Statements for a more detailed discussion on regulatory actions, including filings related to programs and associated expenditures, as well as rate requests related to recovery of capital investments and operating costs.

NJNG's operations are managed with the goal of providing safe and reliable service, growing its customer base, diversifying its utility gross margin, promoting clean energy programs and mitigating the risks discussed above.

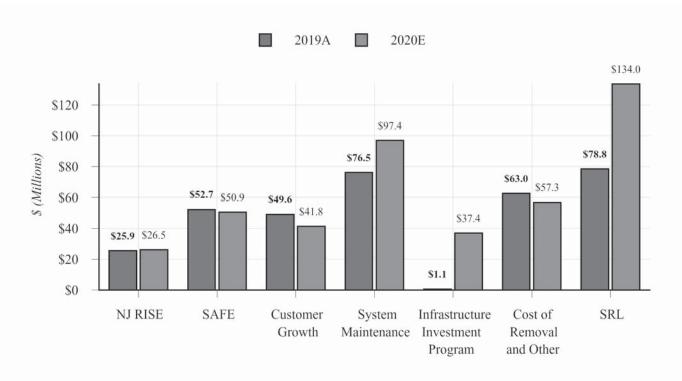
Base Rate Case

On March 29, 2019, NJNG filed a base rate case with the BPU requesting a natural gas revenue increase of \$128.2 million, including a change in NJNG's overall rate of return on rate base to 7.87 percent. NJNG is also seeking permission to request recovery for SRL in a future filing, upon completion of the project. On July 2, 2019, NJNG filed an update with actual information through May 31, 2019, which reflected a revenue increase of \$129.8 million. On September 30, 2019, NJNG filed a second update with actual information through August 31, 2019, which reflected a revenue increase of \$134.3 million.

On November 13, 2019, the BPU issued an order adopting a stipulation of settlement approving a \$62.2 million increase to base rates. This increase is predicated on an overall rate of return on rate base of 6.95 percent. These rates will be effective on November 15, 2019.

Infrastructure Projects

NJNG has significant annual capital expenditures associated with the management of its natural gas distribution and transmission system, including new utility plant associated with customer growth and its associated PIM and infrastructure programs. Below is a summary of NJNG's capital expenditures, including accruals for fiscal 2019 and estimates for expected investments over the next fiscal year:



Estimated capital expenditures are reviewed on a regular basis and may vary based on the ongoing effects of regulatory oversight, environmental regulations, unforeseen events and the ability to access capital.

Infrastructure Investment Program

On February 28, 2019, NJNG filed a petition with the BPU seeking authority to implement a five-year Infrastructure Investment Program. The IIP consists of two components: transmission and distribution investments and information technology replacement and enhancements. The total investment for the IIP is approximately \$507 million. All approved investments will be recovered through annual filings to adjust base rates.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

SAFE II and NJ RISE

NJNG continues to implement BPU-approved infrastructure projects that are designed to enhance the reliability and integrity of NJNG's gas distribution system.

The BPU approved the 5-year SAFE II program and the associated rate mechanism to replace the remaining unprotected steel mains and services from NJNG's natural gas distribution system at an estimated cost of approximately \$200 million, excluding AFUDC. The accelerated cost recovery methodology for the \$157.5 million associated with the extension of SAFE II was approved in NJNG's base rate case. The remaining \$42.5 million in capital expenditures will be requested for recovery in future base rate cases.

The BPU approved NJNG's NJ RISE capital infrastructure program, which consists of six capital investment projects estimated to cost \$102.5 million, excluding AFUDC, for gas distribution storm hardening and mitigation projects, along with associated depreciation expense. These system enhancements are intended to minimize service impacts during extreme weather events to customers in the most storm-prone areas of NJNG's service territory. Recovery of NJ RISE investments is included in NJNG's base rates.

In September 2018, the BPU approved NJNG's annual petition requesting a base rate increase of \$6.8 million for the recovery of SAFE II and NJ RISE capital investment costs, related to the 12 months ended June 30, 2018, with a weighted cost of capital of 6.9 percent including a return on equity of 9.75 percent, effective October 1, 2018. On September 27, 2019, the BPU approved NJNG's annual petition requesting a base rate increase of \$7.8 million, effective October 1, 2019.

Southern Reliability Link

The SRL is an approximately 30-mile, 30-inch transmission main designed to support improved system reliability and integrity in the southern portion of NJNG's service territory. All approvals required for the completion of the project have been received and construction began in December 2018. The cost to construct SRL is estimated to be between \$240 million and \$280 million upon completion. Costs associated with SRL will be requested for recovery in a future base rate case.

Customer Growth

In conducting NJNG's business, management focuses on factors it believes may have significant influence on its future financial results. NJNG's policy is to work with all stakeholders, including customers, regulators and policymakers, to achieve favorable results. These factors include the rate of NJNG's customer growth in its service territory, which can be influenced by political and regulatory policies, the delivered cost of natural gas compared with competing fuels, interest rates and general economic and business conditions. NJNG's total customers as of September 30, include the following:

	2019	2018	2017
Firm customers	,		
Residential	486,474	474,495	460,013
Commercial, industrial & other	28,992	28,037	26,947
Residential transport	22,870	26,490	32,653
Commercial transport	9,237	9,636	10,137
Total firm customers	547,573	538,658	529,750
Other	53	59	60
Total customers	547,626	538,717	529,810

During fiscal 2019, NJNG added 9,711 new customers, which represents a new customer growth rate of approximately 1.8 percent. During that same time period, NJNG converted 218 existing customers to natural gas heat and other services. This customer growth, as well as commercial customers who switched from interruptible to firm natural gas service, will contribute approximately \$5.6 million, on an annualized basis, to utility gross margin. NJNG also added 9,596 and 9,126 new customers and converted 613 and 662 existing customers to natural gas heat and other services during the fiscal years ended September 30, 2018 and 2017, respectively.

In addition, NJNG currently expects to add approximately 28,000 to 30,000 new customers during the three-year period of fiscal 2020 to 2022. NJNG's estimates are based on information from municipalities and developers, as well as external industry analysts and management's experience. NJNG estimates that approximately 65 percent of the growth will come from new construction markets and 35 percent from customer conversions to natural gas from other fuel sources. This new customer and conversion growth would increase utility gross margin under NJNG's base rates by approximately \$5.5 million annually, as

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

calculated under NJNG's CIP tariff. See the *Natural Gas Distribution Segment Operating Results* section that follows for a definition and further discussion of utility gross margin.

Energy Efficiency Programs

SAVEGREEN conducts home energy audits and provides various grants, incentives and financing alternatives designed to encourage the installation of high-efficiency heating and cooling equipment and other energy efficiency upgrades. Depending on the specific incentive or approval, NJNG recovers costs associated with the programs over a two- to 10-year period through a tariff rider mechanism. In September 2018, the BPU approved the continuation of existing SAVEGREEN programs and the addition of new programs with investments of \$135 million through December 2021.

On December 18, 2018, the BPU approved a decrease in NJNG's EE recovery rate reflecting actual costs incurred through September 30, 2018, which resulted in an annual recovery of approximately \$8.8 million, effective January 1, 2019. On October 25, 2019, the BPU approved NJNG's annual filing to increase its EE recovery rate, which will result in an annual recovery of approximately \$11.3 million, to be effective November 1, 2019.

Since inception, \$169.1 million in grants, rebates and loans have been provided to customers. The recovery includes a weighted average cost of capital that ranges from 6.69 percent to 7.76 percent, with a return on equity of 9.75 percent to 10.3 percent.

Conservation Incentive Program/BGSS

The CIP facilitates normalizing NJNG's utility gross margin for variances not only due to weather but also for other factors affecting customer usage, such as conservation and energy efficiency. Recovery of utility gross margin for the non-weather variance through the CIP is limited to the amount of certain gas supply cost savings achieved and is subject to a variable margin revenue test. Additionally, recovery of the CIP utility gross margin is subject to an annual earnings test. An annual review of the CIP must be filed by June 1, coincident with NJNG's annual BGSS filing, during which NJNG can request rate changes to the CIP. In May 2014, the BPU approved the continuation of the CIP program with no expiration date.

NJNG's total utility firm gross margin includes the following adjustments related to the CIP mechanism:

(Thousands)	2019 2018		2017
Weather (1)	\$ 2,699 \$	205 \$	19,261
Usage	(341)	(1,629)	(2,309)
Total	\$ 2,358 \$	(1,424) \$	16,952

⁽¹⁾ Compared with the CIP 20-year average, weather was 1 percent, 0.5 percent and 10 percent warmer-than-normal during fiscal 2019, 2018 and 2017, respectively.

Recovery of Natural Gas Costs

NJNG's cost of natural gas is passed through to our customers, without markup, by applying NJNG's authorized BGSS rate to actual therms delivered. There is no utility gross margin associated with BGSS costs; therefore, changes in such costs do not impact NJNG's earnings. NJNG monitors its actual gas costs in comparison to its BGSS rates to manage its cash flows associated with its allowed recovery of natural gas costs, which is facilitated through BPU-approved deferred accounting and the BGSS pricing mechanism. Accordingly, NJNG occasionally adjusts its periodic BGSS rates or can issue credits or refunds, as appropriate, for its residential and small commercial customers when the commodity cost varies from the existing BGSS rate. BGSS rates for its large commercial customers are adjusted monthly based on NYMEX prices.

NJNG's residential and commercial markets are currently open to competition, and its rates are segregated between BGSS (i.e., natural gas commodity) and delivery (i.e., transportation) components. NJNG earns utility gross margin through the delivery of natural gas to its customers and, therefore, is not negatively affected by customers who use its transportation service and purchase natural gas from another supplier. Under an existing order from the BPU, BGSS can be provided by suppliers other than the state's natural gas utilities; however, customers who purchase natural gas from another supplier continue to use NJNG for transportation service.

On April 18, 2019, the BPU approved NJNG's annual petition to maintain its BGSS rate for residential and small commercial customers and increase its balancing charge rate, resulting in a \$10.3 million increase to the annual revenues credited to BGSS, as well as changes to the CIP rate, which resulted in a \$30.9 million annual recovery decrease, effective October 1, 2018. The balancing charge rate includes the cost of balancing natural gas deliveries with customer usage for sales and transportation customers and balancing charge revenues are credited to BGSS.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF **OPERATIONS (Continued)**

On December 28, 2018, NJNG notified the BPU that it would implement a BGSS increase effective February 1, 2019, which resulted in an increase in revenues credited to BGSS of \$10.9 million through September 30, 2019.

On September 11, 2019, the BPU approved, on a provisional basis, a decrease to NJNG's BGSS rate for residential and small commercial customers and an increase to its balancing charge rate, resulting in a \$2 million decrease to the annual revenues credited to BGSS, as well as changes to the CIP rates, which will result in a \$10.6 million annual recovery increase, effective October 1, 2019.

Refer to Note 4. Regulation - BGSS and CIP in the accompanying Consolidated Financial Statements for a further discussion of NJNG's periodic BGSS and CIP rate adjustments.

BGSS Incentive Programs

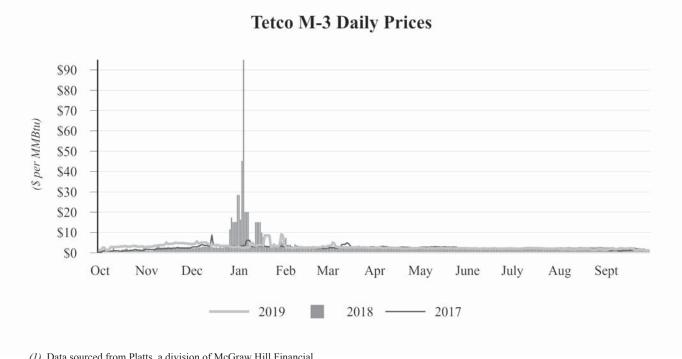
NJNG is eligible to receive financial incentives for reducing BGSS costs through a series of utility gross margin-sharing programs that include off-system sales, capacity release and storage incentive programs. These programs are designed to encourage better utilization and hedging of NJNG's natural gas supply, transportation and storage assets. Depending on the program, NJNG shares 80 or 85 percent of utility gross margin generated by these programs with firm customers. Utility gross margin from incentive programs was \$8.4 million, \$12.5 million and \$13.7 million during the fiscal years ended September 30, 2019, 2018 and 2017, respectively.

Hedging

In order to provide relative price stability to its natural gas supply portfolio, NJNG employs a hedging strategy with the goal of having at least 75 percent of the Company's projected winter periodic BGSS gas sales volumes hedged by each November 1 and at least 25 percent of the projected periodic BGSS gas sales hedged for the following April-through-March period. This is accomplished with the use of various financial instruments including futures, swaps and options used in conjunction with commodity and/or weather-related hedging activity.

Commodity prices

Our Natural Gas Distribution segment is affected by the price of natural gas, which can have a significant impact on our cash flows, short-term financing costs, the price of natural gas charged to our customers through the BGSS clause, our ability to collect accounts receivable, which impacts our bad debt expense, and our ability to maintain a competitive advantage over other energy sources. Natural gas commodity prices may experience high volatility as shown in the graph below, which illustrates the daily natural gas prices⁽¹⁾ in the Northeast market region, also known as TETCO M-3.



(1) Data sourced from Platts, a division of McGraw Hill Financial.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

The maximum price per MMBtu was \$9.17, \$94.93 and \$8.71 and the minimum price was \$1.09, \$0.53 and \$0.36 for the fiscal years ended September 30, 2019, 2018 and 2017, respectively. A more detailed discussion of the impacts of the price of natural gas on operating revenues, gas purchases and cash flows can be found in the *Results of Operations* and *Cash Flow* sections of *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations*.

Societal Benefits Charge

USF

NJNG's qualifying customers are eligible for the USF program, which is administered by the New Jersey Department of Community Affairs, to help make energy bills more affordable. In September 2018, the BPU approved NJNG's annual USF compliance filing to increase the statewide USF rate, which will result in a \$1 million annual increase, effective October 1, 2018. On June 24, 2019, NJNG filed its annual USF compliance filing proposing an increase to the statewide USF rate, which will result in the annual recovery increasing by \$1.2 million, effective October 1, 2019. Refer to *Note 4. Regulation - Societal Benefits Clause* in the accompanying Consolidated Financial Statements for a further discussion of NJNG's USF rates.

Environmental Remediation

NJNG is responsible for the environmental remediation of former MGP sites, which contain contaminated residues from former gas manufacturing operations that ceased operating at these sites by the mid-1950s and, in some cases, had been discontinued many years earlier. Actual MGP remediation costs may vary from management's estimates due to the developing nature of remediation requirements, regulatory decisions by the NJDEP and related litigation. NJNG reviews these costs at the end of each fiscal year and adjusts its liability and corresponding regulatory asset as necessary to reflect its expected future remediation obligation. Accordingly, NJNG recognized a regulatory asset and an obligation of \$131.1 million as of September 30, 2019, a increase of \$280,000, compared with the prior fiscal period. On September 27, 2019, NJNG filed its annual SBC application requesting to recover remediation expenses including an increase in the RAC, of approximately \$1.4 million annually and an increase to the NJCEP factor, which will result in an annual increase of approximately \$3.3 million, to be effective April 1, 2020.

In June 2019, NJNG initiated a preliminary assessment of a site in Aberdeen, New Jersey to determine prior ownership and if there were former MGP operations active at the location. The costs associated with preliminary assessment activities are considered immaterial for fiscal 2019 and are included as a component of NJNG's annual SBC application to recover remediation expenses. We will continue to gather information to further refine and enhance its estimate of potential costs for this site as it becomes available. See *Note 14. Commitments and Contingent Liabilities* for a more detailed description.

Operating Results

NJNG's operating results for the fiscal years ended September 30, are as follows:

(Thousands)	2019	2018	2017
Operating revenues	\$ 710,793	\$ 731,865 \$	695,637
Operating expenses			
Gas purchases (1) (2)	336,489	333,208	269,480
Operation and maintenance	165,757	159,443	140,387
Regulatory rider expense (3)	33,937	38,969	40,243
Depreciation and amortization	57,980	53,208	49,347
Energy and other taxes	5,441	44,184	42,417
Total operating expenses	599,604	629,012	541,874
Operating income	111,189	102,853	153,763
Other income, net	2,441	4,584	2,470
Interest expense, net of capitalized interest	26,134	25,299	25,818
Income tax provision (benefit)	9,434	(1,910)	43,485
Net income	\$ 78,062	\$ 84,048 \$	86,930

⁽¹⁾ Includes the purchased cost of the natural gas, fees paid to pipelines and storage facilities, adjustments as a result of BGSS incentive programs and hedging transactions. These expenses are passed through to customers and are offset by corresponding revenues.

⁽²⁾ Includes related party transactions of approximately \$16.2 million, \$57.2 million and \$10.8 million during fiscal 2019, 2018 and 2017, respectively, a portion of which are eliminated in consolidation.

⁽³⁾ Consists of expenses associated with state-mandated programs, the RAC and energy efficiency programs, and are calculated on a per-therm basis. These expenses are passed through to customers and offset by corresponding revenues.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Operating Revenues and Gas Purchases

Operating revenues decreased 2.9 percent during fiscal 2019 and increased 5.2 percent during fiscal 2018. Gas purchases increased 1 percent during fiscal 2019 and increased 23.6 percent during fiscal 2018. The factors contributing to the (decreases) increases in operating revenues and gas purchases during fiscal 2019 and 2018, are as follows:

	2019 v. 2018	2018 v.	2017
(Thousands)	Operating Gas revenue purcha		Gas purchases
ASC 606 adoption - sales tax election	\$ (39,426) \$	_ \$ \$	S —
BGSS incentives	(30,494) (26,4	410) 1,881	3,124
Tax Act impact to base rates	(14,932)		_
Tax Act refund (1)	29,503	(35,910)	_
Average BGSS rates (2)	24,123 24,1	1,147	1,413
Bill credits (3)	_	— 41,971	39,260
Firm sales	5,907 6,0	004 49,414	19,779
SAFE II/NJ RISE	6,646	 4,625	_
CIP adjustments	3,782	— (18,375)	_
Other ⁽⁴⁾	(6,181)	436) (8,525)	152
Total (decrease) increase	\$ (21,072) \$ 3,2	281 \$ 36,228 \$	63,728

- (1) Operating revenues exclude sales tax of \$6.4 million during fiscal 2019, which is included in the ASC 606 adoption sales tax election line.
- (2) Operating revenues include changes in sales tax of \$266,000 during fiscal 2018.
- (3) Operating revenues include changes in sales tax of \$2.7 million during fiscal 2018.
- (4) Other includes changes in rider rates, including those related to EE, NJCEP and other programs.

Non-GAAP Financial Measures

Management uses utility gross margin, a non-GAAP financial measure, when evaluating the operating results of NJNG. NJNG's utility gross margin is defined as natural gas revenues less natural gas purchases, sales tax and regulatory rider expenses, and may not be comparable to the definition of gross margin used by others in the natural gas distribution business and other industries. Management believes that utility gross margin provides a meaningful basis for evaluating utility operations since natural gas costs, sales tax and regulatory rider expenses are included in operating revenue and passed through to customers and, therefore, have no effect on utility gross margin. Non-GAAP financial measures are not in accordance with, or an alternative to, GAAP and should be considered in addition to, and not as a substitute for, the comparable GAAP measure.

Utility Gross Margin

A reconciliation of operating revenues, the closest GAAP financial measure to NJNG's utility gross margin, is as follows for the fiscal years ended September 30:

(Thousands)	 2019	2018	2017
Operating revenues	\$ 710,793 \$	731,865 \$	695,637
Less:			
Gas purchases	336,489	333,208	269,480
Energy taxes	_	39,426	37,917
Regulatory rider expense	33,937	38,969	40,243
Utility gross margin	\$ 340,367 \$	320,262 \$	347,997

⁽¹⁾ Energy taxes does not include sales tax during fiscal 2019, due to the adoption of ASC 606, Revenue from Contracts with Customers. Energy taxes includes only sales tax on operating revenues during fiscal 2018 and 2017, excluding tax-exempt sales.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Utility gross margin consists of three components:

- utility firm gross margin generated from only the delivery component of either a sales tariff or a transportation tariff from residential and commercial customers who receive natural gas service from NJNG;
- BGSS incentive programs, where revenues generated or savings achieved from BPU-approved off-system sales, capacity release or storage incentive programs are shared between customers and NJNG; and
- utility gross margin generated from off-tariff customers, as well as interruptible customers.

The following provides more information on the components of utility gross margin and associated throughput (Bcf) of natural gas delivered to customers:

	2019	1	2018		2017	.7	
(\$ in thousands)	Margin	Bcf	Margin	Bcf	Margin	Bcf	
Utility gross margin/throughput							
Residential	\$ 224,597	46.0	\$ 203,195	45.5	\$ 218,093	40.7	
Commercial, industrial and other	50,553	9.7	46,636	8.9	51,510	8.7	
Firm transportation	51,069	13.7	51,880	15.5	58,172	14.4	
Total utility firm gross margin/throughput	326,219	69.4	301,711	69.9	327,775	63.8	
BGSS incentive programs	8,398	123.8	12,482	150.2	13,724	178.4	
Interruptible/off-tariff agreements	5,750	39.0	6,069	46.2	6,498	55.0	
Total utility gross margin/throughput	\$ 340,367	232.2	\$ 320,262	266.3	\$ 347,997	297.2	

Utility Firm Gross Margin

A description of the factors contributing to the increases (decreases) increases in utility firm gross margin during fiscal 2019 and 2018, are as follows:

(Thousands)	2019 v. 2018	2018 v. 2017
Tax Act impact	\$ 14,451	\$ (33,657)
NJ RISE/SAFE II	6,515	4,334
Customer growth	3,909	4,236
SAVEGREEN	(367)	(977)
Total increase (decrease)	\$ 24,508	\$ (26,064)

BGSS Incentive Programs

A description of the factors contributing to the (decreases) increases in utility gross margin generated by NJNG's BGSS incentive programs during fiscal 2019 and 2018, are as follows:

(Thousands)	2019 v. 2018	2018 v. 2017
Capacity release	\$ (1,665)	\$ (745)
Storage	(1,556)	(954)
Off-system sales	(863)	457
Total decrease	\$ (4,084)	\$ (1,242)

The increase in utility gross margin was due primarily to credits related to the Tax Act during fiscal 2018, that did not recur during fiscal 2019, an increase in revenues related to the NJ RISE/SAFE II programs and customer growth, partially offset by a decrease in capacity release volume, fewer market opportunities for the storage incentive program, as well as lower margins on off-system sales due primarily to lower spreads in the average price of gas bought and sold.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Operation and Maintenance Expense

A summary of the factors contributing to the increases (decreases) in O&M expense during fiscal 2019 and 2018, are as follows:

(Thousands)	2019 v. 201	8 2018 v. 2017
Shared corporate costs	\$ 8,590	\$ 5,991
Maintenance and repairs	3,982	(16)
Compensation and benefits	(3,214)	5,609
Consulting	(2,844)	5,184
Other	(200)	2,288
Total increase	\$ 6,314	\$ 19,056

The increase in O&M expense during fiscal 2019 compared with fiscal 2018 was due primarily to increased shared corporate costs related to technology improvement projects and increased maintenance expense partially offset by decreased compensation and benefits as a result of additional expenses related to a voluntary early retirement program in fiscal 2018 that did recur.

Depreciation Expense

Depreciation expense increased \$4.8 million in fiscal 2019, compared with fiscal 2018, as a result of additional utility plant being placed into service.

Operating Income

Operating income increased \$8.3 million in fiscal 2019, compared with fiscal 2018, due primarily to the increase in total utility gross margin of \$20.1 million, partially offset by the increase in O&M and depreciation, as previously discussed.

Other Income

Other income decreased \$2.1 million during fiscal 2019, compared with fiscal 2018, due primarily to changes in the capitalization of net periodic benefit costs resulting from the adoption of ASU 2017-07, an amendment to ASC 715, *Compensation - Retirement Benefits*. See *Note 2. Summary of Significant Accounting Policies* for more information.

Income Tax Provision

Income tax provision increased \$11.3 million during fiscal 2019, compared with fiscal 2018, due primarily to the refund related to the Tax Act during fiscal 2018 that did not recur, partially offset by the amortization of overcollected taxes included in base rates.

Net Income

Net income decreased \$6 million to \$78.1 million in fiscal 2019, compared with fiscal 2018, due primarily to increased O&M and depreciation.

Clean Energy Ventures Segment

Overview

Our Clean Energy Ventures segment actively pursues opportunities in the renewable energy markets. Clean Energy Ventures enters into various agreements to install solar net-metered systems for residential and commercial customers, as well as large commercial grid-connected projects. In addition, Clean Energy Ventures enters into various long-term agreements, including PPAs, to supply energy from solar projects.

The primary contributors toward the value of qualifying clean energy projects are tax incentives and SRECs. Changes in the federal statutes related to the ITC or in the marketplace and/or relevant state legislation and regulatory policies affecting the market for solar renewable energy credits, could significantly affect future results.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Solar

Solar projects placed in service and related expenditures for the fiscal years ended September 30, are as follows:

(\$ in Thousands)		2019			2018			2017	
Placed in service	Projects	MW	Costs	Projects	MW	Costs	Projects	MW	Costs
Grid-connected (1)	3	29.0	\$ 64,684	3	33.7	\$ 70,216	2	20.0	\$ 62,700
Net-metered:									
Commercial (1) (2)	4	22.8	71,730	_		74	3	7.1	19,714
Residential	815	8.3	26,796	910	8.5	27,342	1,300	12.4	37,901
Total placed in service	822	60.1	\$ 163,210	913	42.2	\$ 97,632	1,305	39.5	\$ 120,315

⁽¹⁾ Includes projects subject to sale-leaseback arrangements.

Since its inception, Clean Energy Ventures has constructed a total of 291.4 MW of solar capacity. Projects that are placed in service through December 31, 2019, qualify for a 30 percent federal ITC. Projects placed in service after December 31, 2019, may also qualify for a 30 percent federal ITC if five percent or more of the total costs of a solar property are incurred before the end of the applicable year and there are continuous efforts to advance towards completion of the project, based on the IRS guidance around the ITC safe harbor determination. The credit will decline to 26 percent for property under construction during 2020 and to 22 percent for property under construction during 2021. The ITC will be reduced to 10 percent for any property that is under construction before 2022, but not placed in service before 2024.

Clean Energy Ventures may enter into transactions to sell certain of its commercial solar assets concurrent with agreements to lease the assets back over a period of six to 15 years. The Company will continue to operate the solar assets and is responsible for related expenses and entitled to retain the revenue generated from SRECs and energy sales. The ITCs and other tax benefits associated with these solar projects transfer to the buyer; however, the lease payments are structured so that Clean Energy Ventures is compensated for the transfer of the related tax incentives. Accordingly, for solar projects financed under sale leasebacks, Clean Energy Ventures recognizes the equivalent value of the ITC in other income on the Consolidated Statements of Operations over the respective five-year ITC recapture periods, starting with the second year of the lease. Clean Energy Ventures has entered into five sale-leaseback transactions, three during fiscal 2018 with costs of \$70.2 million and two during fiscal 2017 with costs of \$31.1 million. Clean Energy Ventures did not enter into sale-leaseback transactions during fiscal 2019.

Excluding the project costs related to the commercial solar projects that were included in the sale-leaseback transactions, the Company had \$163.2 million, \$27.4 million and \$89.2 million of solar-related capital expenditures that were placed in service and ITC-eligible during fiscal 2019, 2018 and 2017, respectively, which were recognized in income tax (benefit) provision on the Consolidated Statements of Operations.

As part of its solar investment portfolio, Clean Energy Ventures operates a residential solar program, The Sunlight Advantage®, which provides qualifying homeowners the opportunity to have a solar system installed at their home with no installation or maintenance expenses. Clean Energy Ventures owns, operates and maintains the system over the life of the contract in exchange for monthly lease payments.

Once a solar installation has received the proper certifications and commences operations, each MWh of electricity produced creates an SREC that represents the renewable energy attribute of the solar-electricity generated that can be sold to third parties, predominantly load-serving entities that are required to comply with the solar requirements under New Jersey's renewable portfolio standard.

SREC activity for the fiscal years ended September 30, is as follows:

	2019	2018	2017
Inventory balance as of October 1,	105,192	48,357	24,135
SRECs generated	311,803	245,147	197,521
SRECs delivered	(363,600)	(188,312)	(173,299)
Inventory balance as of September 30,	53,395	105,192	48,357

SRECs generated increased 27.2 percent and 24.1 percent for the fiscal years ended September 30, 2019 and 2018, respectively, compared with the previous fiscal years. The average SREC sales price was \$207 in fiscal 2019, \$217 in fiscal 2018 and \$233 in fiscal 2017.

⁽²⁾ Includes a 4.4 MW commercial solar project acquired in August 2019.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Clean Energy Ventures hedges a portion of its expected SREC production through the use of forward sales contracts. The following table reflects the hedged percentage of SREC inventory and projected SREC production related to its in-service commercial and residential assets as of September 30, 2019:

Energy Year (1)	Percent of SRECs Hedged
2020	93%
2021	85%
2022	45%

⁽¹⁾ Energy years are compliance periods for New Jersey's renewable portfolio standard that run from June 1 to May 31.

There are no direct costs associated with the production of SRECs by our solar assets. All related costs are included as a component of O&M expenses on the Consolidated Statements of Operations, including such expenses as facility maintenance and various fees.

Onshore Wind

Clean Energy Ventures invested in small to mid-size onshore wind projects that fit its investment profile at the time of investment. The wind projects were eligible for PTCs for a 10-year period following commencement of operations and had PPAs of various terms in place, which typically govern the sale of energy, capacity and/or renewable energy credits. Once a wind installation commenced operations, each MWh of electricity produced created a REC that represented the renewable energy attribute of the wind-electricity generated that can be sold to third parties. There were no direct costs associated with the production of RECs by our former wind assets and all related costs were included as a component of O&M expenses on the Consolidated Statements of Operations.

In June 2018, Clean Energy Ventures completed the sale of its membership interest in its 9.7 MW wind farm in Two Dot, Montana to NorthWestern Energy for a total purchase price of \$18.5 million. The transaction generated a pre-tax gain of approximately \$951,000, which was recognized as a component of O&M on the Consolidated Statements of Operations.

On February 7, 2019, Clean Energy Ventures finalized the sale of its remaining wind assets to a subsidiary of Skyline Renewables LLC for total proceeds of \$208.6 million. The transaction generated a pre-tax gain of \$645,000, which was recognized as a component of O&M expense on the Consolidated Statements of Operations.

Operating Results

Clean Energy Ventures' financial results for the fiscal years ended September 30, are summarized as follows:

(Thousands)	2	2019	2018	2017
Operating revenues	\$	98,099 \$	71,375 \$	64,394
Operating expenses				
Operation and maintenance		27,425	25,921	22,965
Depreciation and amortization		32,997	31,877	31,834
Other taxes		1,189	1,137	1,209
Total operating expenses		61,611	58,935	56,008
Operating income		36,488	12,440	8,386
Other income, net		6,910	1,797	1,589
Interest expense, net		14,846	18,320	16,263
Income tax benefit		(48,921)	(79,932)	(31,161)
Net income	\$	77,473 \$	75,849 \$	24,873

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Operating Revenues

Operating revenues increased \$26.7 million in fiscal 2019, compared with fiscal 2018, due primarily to an increase in SREC sales, partially offset by decreased wind electricity sales as a result of the sale of the remaining wind assets on February 7, 2019.

Operation and Maintenance Expense

O&M expense increased \$1.5 million in fiscal 2019, compared with fiscal 2018, due primarily to an increase in shared corporate costs and compensation costs, partially offset by a decrease in maintenance expenses and a pre-tax gain of \$645,000, associated with the sale of the wind assets.

Depreciation Expense

Depreciation expense increased \$1.1 million in fiscal 2019, compared with fiscal 2018, as a result of increases in solar capital additions placed in service.

Other Income

Operating income increased \$5.1 million in fiscal 2019, compared with fiscal 2018, due primarily to an increase in the recognition of the transfer of ITCs related to solar sale leasebacks.

Income Tax Benefit

Income tax benefit decreased \$31 million during fiscal 2019, compared with fiscal 2018, due primarily to an income tax benefit of \$61.4 million associated with the revaluation of deferred income taxes resulting from the Tax Act during fiscal 2018, that did not recur during fiscal 2019, as well as higher pre-tax income, partially offset by an increase in ITCs recognized.

Income tax benefit during fiscal 2019, 2018 and 2017 includes \$61.9 million, \$10.5 million and \$24.6 million, respectively, of ITCs associated with solar projects that were completed and placed into service during the corresponding fiscal year. Income tax benefit during fiscal 2019, 2018 and 2017 includes \$3.8 million, \$10.8 million and \$9.9 million, respectively, of PTCs associated with wind projects. Clean Energy Ventures recognized \$56.8 million, \$19 million and \$29.2 million related to tax credits, net of deferred taxes, during fiscal 2019, 2018 and 2017, respectively.

Net Income

Net income in fiscal 2019 increased \$1.6 million, compared with fiscal 2018, due primarily to increased operating revenue, partially offset by the decreased income tax benefit, as previously discussed.

Energy Services Segment

Overview

Energy Services markets and sells natural gas to wholesale and retail customers and manages natural gas storage and transportation assets throughout major market areas across North America. Energy Services maintains a strategic portfolio of natural gas storage and transportation contracts that it utilizes in conjunction with its market expertise to provide service and value to its customers. Availability of these storage and transportation contracts allows Energy Services to generate market opportunities by capturing price differentials over specific time horizons and between geographic market locations.

Energy Services also provides management of storage and transportation assets for natural gas producers and regulated utilities. These management transactions typically involve the release of producer/utility-owned storage and/or transportation capacity in combination with an obligation to purchase and/or deliver physical natural gas. In addition to the contractual purchase and/or sale of physical natural gas, Energy Services generates or pays fee-based margin in exchange for its active management and may provide the producer and/or utility with additional margin based on actual results.

In conjunction with the active management of these contracts, Energy Services generates financial margin by identifying market opportunities and simultaneously entering into natural gas purchase/sale, storage or transportation contracts and financial derivative contracts. In cases where storage is utilized to fulfill these contracts, these forecast sales and/or purchases are economically hedged through the use of financial derivative contracts. The financial derivative contracts consist primarily of exchange-traded

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

futures, options and swap contracts, and are frequently used to lock in anticipated transactional cash flows and to help manage volatility in natural gas market prices. Generally, when its storage and transportation contracts are exposed to periods of increased market volatility, Energy Services is able to implement strategies that allow it to capture margin by improving the respective time or geographic spreads on a forward basis.

Energy Services accounts for its physical commodity contracts and its financial derivative instruments at fair value on the Consolidated Balance Sheets. Changes in the fair value of physical commodity contracts and financial derivative instruments are included in earnings as a component of operating revenue or gas purchases on the Consolidated Statements of Operations. Volatility in reported net income at Energy Services can occur over periods of time due to changes in the fair value of derivatives, as well as timing differences related to certain transactions. Unrealized gains and losses can fluctuate as a result of changes in the price of natural gas, SRECs and foreign currency from the original transaction price. Volatility in earnings can also occur as a result of timing differences between the settlement of financial derivatives and the sale of the underlying physical commodity. For example, when a financial instrument settles and the physical natural gas is injected into inventory, the realized gains and losses associated with the financial instrument are recognized in earnings. However, the gains and losses associated with the physical natural gas are not recognized in earnings until the natural gas inventory is withdrawn from storage and sold, at which time Energy Services realizes the entire margin on the transaction.

In February 2018, NJR sold all of the issued and outstanding shares of capital stock of NJRRS, which was a component of our Energy Services segment. We received \$9.5 million in cash and a natural gas swap contract with a gain at inception of \$14.6 million. The sale generated a pre-tax gain of \$3.7 million, which was recognized as a reduction to O&M on the Consolidated Statements of Operations.

Operating Results

Energy Services' financial results for the fiscal years ended September 30, are summarized as follows:

(Thousands)	2019	2018	2017
Operating revenues (l)	\$ 1,742,791 \$	2,112,804	\$ 1,462,681
Operating expenses			
Gas purchases (including demand charges (2)(3))	1,719,519	1,995,335	1,441,310
Operation and maintenance	19,555	32,884	20,371
Depreciation and amortization	118	76	63
Other taxes	1,388	2,732	1,788
Total operating expenses	1,740,580	2,031,027	1,463,532
Operating income (loss)	2,211	81,777	(851)
Other income	153	303	59
Interest expense, net	5,205	3,945	2,747
Income tax (benefit) provision	(1,573)	24,996	(4,015)
Net (loss) income	\$ (1,268) \$	53,139	\$ 476

⁽¹⁾ Includes related party transactions of approximately \$8.2 million, \$48.3 million and \$316,000 during fiscal 2019, 2018 and 2017, respectively, which is eliminated in consolidation.

As of September 30, Energy Services' portfolio of financial derivative instruments are composed of:

(in Bcf)	2019	2018	2017
Net short futures contracts	34.6	24.3	16.4
Net long options	1.0	_	_

⁽²⁾ Costs associated with pipeline and storage capacity that are expensed over the term of the related contracts, which generally varies from less than one year to 10 years.

⁽³⁾ Includes related party transactions of approximately \$3.4 million, \$4.5 million and \$4.6 million during fiscal 2019, 2018 and 2017, respectively, a portion of which are eliminated in consolidation.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Operating Revenues and Gas Purchases

During fiscal 2019, operating revenues decreased \$370 million and gas purchases decreased \$275.8 million, due primarily to decreased volumes and less price volatility in the physical gas market. Gas purchases also include a decrease due to the changes in the economic hedging of natural gas inventory of \$26.9 million, partially offset by an increase of \$21.1 million in unrealized gains on derivative instruments.

Future results at Energy Services are contingent upon natural gas market price volatility driven by variations in both the supply and demand balances caused by weather and other factors. As a result, variations in weather patterns in the key market areas served may affect earnings during the fiscal year. Changes in market fundamentals, such as an increase in supply and decrease in demand due to milder temperatures, and reduced volatility, can negatively impact Energy Services' earnings. See *Item 7*. *Management's Discussion and Analysis of Financial Condition and Results of Operations - Natural Gas Distribution Segment* for TETCO M-3 Daily Prices, which illustrates the daily natural gas prices in the Northeast market region.

Operation and Maintenance Expense

O&M expense decreased \$13.3 million during fiscal 2019, compared with fiscal 2018, due primarily to decreased incentive compensation, partially offset by a pre-tax gain of \$3.7 million associated with the sale of NJR Retail Services Company in February 2018 that did not recur.

Income Tax (Benefit) Provision

Income taxes decreased \$26.6 million during fiscal 2019, compared with fiscal 2018, due primarily to decreased operating income, along with income tax expense of \$6.1 million during fiscal 2018, associated with the revaluation of deferred income taxes that did not recur during fiscal 2019.

Net Income

Net income decreased \$54.4 million during fiscal 2019, compared with fiscal 2018, due primarily to decreased operating revenue, partially offset by the related decreases in income tax provision and O&M.

Non-GAAP Financial Measures

Management uses financial margin and NFE, non-GAAP financial measures, when evaluating the operating results of Energy Services. Energy Services economically hedges its natural gas inventory with financial derivative instruments and calculates the related tax effect based on the statutory rate. Financial margin and NFE are based on removing timing differences associated with certain derivative instruments, as discussed above. Management views these measures as representative of the overall expected economic result and uses these measures to compare Energy Services' results against established benchmarks and earnings targets, as these measures eliminate the impact of volatility on GAAP earnings as a result of timing differences associated with the settlement of derivative instruments. To the extent that there are unanticipated impacts from changes in the market value related to the effectiveness of economic hedges, Energy Services' actual non-GAAP results can differ from the results anticipated at the outset of the transaction. Non-GAAP financial measures are not in accordance with, or an alternative to, GAAP and should be considered in addition to, and not as a substitute for, the comparable GAAP measure.

When Energy Services reconciles the most directly comparable GAAP measure to both financial margin and NFE, the current-period unrealized gains and losses on derivatives are excluded as a reconciling item. Financial margin and NFE also exclude the effects of economic hedging of the value of our natural gas in storage and, therefore, only include realized gains and losses related to natural gas withdrawn from storage, effectively matching the full earnings effects of the derivatives with realized margins on the related physical gas flows.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Financial Margin

The following table is a computation of Energy Services' financial margin for the fiscal years ended September 30.

(Thousands)	2019	2018	2017
Operating revenues	\$ 1,742,791	\$ 2,112,804	\$ 1,462,681
Less: Gas purchases	1,719,519	1,995,335	1,441,310
Add:			
Unrealized loss (gain) on derivative instruments and related transactions (1)	1,195	26,728	(10,063)
Effects of economic hedging related to natural gas inventory (2)	4,309	(22,570)	38,470
Financial margin	\$ 28,776	\$ 121,627	\$ 49,778

⁽¹⁾ Includes unrealized (gains) losses related to an intercompany transaction between NJNG and Energy Services that have been eliminated in consolidation of approximately \$995,000, \$85,000 and \$(751,000) for the fiscal years ended September 30, 2019, 2018 and 2017, respectively.

A reconciliation of operating income, the closest GAAP financial measure to Energy Services' financial margin, is as follows for the fiscal years ended September 30:

(Thousands)	2019	2018	2017
Operating income (loss)	\$ 2,211	\$ 81,777	\$ (851)
Add:			
Operation and maintenance	19,555	32,884	20,371
Depreciation and amortization	118	76	63
Other taxes	1,388	2,732	1,788
Subtotal	23,272	117,469	21,371
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	1,195	26,728	(10,063)
Effects of economic hedging related to natural gas inventory	4,309	(22,570)	38,470
Financial margin	\$ 28,776	\$ 121,627	\$ 49,778

Financial margin decreased \$92.9 million during fiscal 2019, compared with fiscal 2018, due primarily to narrower pricing spreads, decreased volumes and less price volatility in the physical natural gas markets.

Net Financial Earnings

A reconciliation of Energy Services' net income (loss), the most directly comparable GAAP financial measure to NFE, is as follows for the fiscal years ended September 30:

(Thousands)	2019	2018	2017
Net (loss) income	\$ (1,268) \$	53,139	\$ 476
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	1,195	26,728	(10,063)
Tax effect (1)	(294)	(4,281)	3,635
Effects of economic hedging related to natural gas inventory	4,309	(22,570)	38,470
Tax effect	(1,024)	7,362	(13,964)
Net financial earnings	\$ 2,918 \$	60,378	\$ 18,554

⁽¹⁾ Includes taxes related to an intercompany transaction between NJNG and Energy Services that have been eliminated in consolidation of approximately \$(310,000), \$(337,000) and \$427,000 for the fiscal years ended September 30, 2019, 2018 and 2017, respectively.

NFE decreased \$57.5 million during fiscal 2019, compared with fiscal 2018, due primarily to lower financial margin, as previously discussed, partially offset by decreased income tax expense.

Future results are subject to Energy Services' ability to expand its wholesale sales and service activities and are contingent upon many other factors, including an adequate number of appropriate and credit-qualified counterparties in an active and liquid natural marketplace; volatility in the natural gas market due to weather or other fundamental market factors impacting supply and/ or demand; transportation, storage and/or other market arbitrage opportunities; sufficient liquidity in the overall energy trading market; and continued access to liquidity in the capital markets.

⁽²⁾ Effects of hedging natural gas inventory transactions where the economic impact is realized in a future period.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Midstream Segment

Overview

Our Midstream segment invests in natural gas assets, such as natural gas transportation and storage facilities. We believe that acquiring, owning and developing these midstream assets, which operate under a tariff structure that has either regulated or market-based rates, can provide us a growth opportunity. To that end, we have a 50 percent ownership interest in Steckman Ridge, a storage facility that operates under market-based rates, and a 20 percent ownership interest in PennEast, a natural gas pipeline.

The Company, through our subsidiary NJR Pipeline Company, is a 20 percent investor in PennEast, a partnership whose purpose is to construct and operate a 120-mile natural gas pipeline that will extend from northeast Pennsylvania to western New Jersey. PennEast received a Certificate of Public Convenience and Necessity for the project from FERC on January 19, 2018.

As of September 30, 2019, our net investments in Steckman Ridge and PennEast were \$114.4 million and \$85.8 million, respectively.

On September 10, 2019, the United States Court of Appeals for the Third Circuit issued an order overturning the United States District Court for the District of New Jersey's order granting PennEast condemnation and immediate access in accordance with the Natural Gas Act to certain properties in which New Jersey holds an interest. The Petition for Panel Rehearing or Rehearing En Banc filed with the United States Court of Appeals for the Third Circuit was denied on November 5, 2019.

On October 8, 2019, the NJDEP issued a letter indicating that it deemed PennEast's freshwater wetlands permit application to be administratively incomplete and closed the matter without prejudice. On October 11, 2019, PennEast submitted a letter to the NJDEP objecting to its position that the freshwater wetlands permit application is administratively incomplete.

On November 14, 2019, PennEast announced that it will ask the Supreme Court of the United States to review the September 2019 decision by the United States Court of Appeals for the Third Circuit.

PennEast management remains committed to the pipeline project and is currently pursuing its appellate rights and development options to proceed with construction of the pipeline, the nature, timing and extent of which, including impacts to the timing, costs of construction and impacts to the in-service date, are in the process of being determined.

As a result of the recent adverse court rulings, we evaluated our investment for impairment and determined an impairment charge was not necessary. We estimated the fair value of our investment in PennEast using probability-weighted scenarios of discounted future cash flows. It is reasonably possible that future unfavorable developments, such as a reduced likelihood of success from development options and legal outcomes, estimated increases in construction costs, increases in the discount rate, or further significant delays, could result in an impairment of our equity method investment. Also, the use of alternate judgments and assumptions could result in a different calculation of fair value, which could ultimately result in the recognition of an impairment charge in the Consolidated Financial Statements. See *Note 7. Investments in Equity Investees* for further details.

Operating Results

The financial results of our Midstream segment for the fiscal years ended September 30, are summarized as follows:

(Thousands)	2019	2018	2017
Equity in earnings of affiliates	\$ 15,832 \$	16,165 \$	17,797
Operation and maintenance	\$ 4,038 \$	4,441 \$	2,302
Other income	\$ 7,345 \$	5,775 \$	4,162
Interest expense, net	\$ 2,185 \$	1,667 \$	960
Income tax provision (benefit)	\$ 2,254 \$	(8,548) \$	5,820
Net income	\$ 14,689 \$	24,367 \$	12,857

Equity in earnings of affiliates are driven primarily by storage revenues generated by Steckman Ridge and AFUDC earned at PennEast. Equity in earnings of affiliates is as follows for the fiscal years ended September 30:

(Thousands)	2019	2018	2017
Steckman Ridge	\$ 9,472 \$	11,283 \$	13,351
PennEast	6,360	4,882	4,446
Total equity in earnings of affiliates	\$ 15,832 \$	16,165 \$	17,797

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Equity in earnings of affiliates decreased \$333,000 during fiscal 2019, compared with fiscal 2018, due primarily to decreases in storage revenue and increases in debt service costs at Steckman Ridge, partially offset by an increase in AFUDC earned at PennEast.

O&M expense decreased \$403,000 during fiscal 2019, compared with fiscal 2018, due primarily to decreased consulting expenses.

Other income increased \$1.6 million during fiscal 2019, compared with fiscal 2018, due primarily to the realized and unrealized gains of \$1.6 million associated with the sale of Dominion shares.

Interest expense, net increased \$518,000 during fiscal 2019, compared with fiscal 2018, due primarily to increased intercompany borrowing related to our PennEast investment.

Income taxes increased \$10.8 million during fiscal 2019, compared with fiscal 2018, due primarily to an income tax benefit of \$13.9 million associated with the revaluation of deferred income taxes resulting from the Tax Act during fiscal 2018, that did not recur during fiscal 2019.

Net income in fiscal 2019 decreased \$9.7 million, compared with fiscal 2018, due primarily to the decreased income tax benefit, partially offset by increased other income, as previously discussed.

Home Services and Other Operations

Overview

The financial results of Home Services and Other consist primarily of the operating results of NJRHS. NJRHS provides service, sales and installation of appliances to approximately 108,000 service contract customers and has been focused on growing its installation business and expanding its service contract customer base. Home Services and Other also includes organizational expenses incurred at NJR and rental income at CR&R.

Operating Results

The consolidated financial results of Home Services and Other for the fiscal years ended September 30, are summarized as follows:

_(Thousands)	 2019	2018	2017
Operating revenues	\$ 50,902 \$	50,057 \$	49,591
Operation and maintenance	\$ 41,679 \$	42,519 \$	38,612
Energy and other taxes	\$ 3,167 \$	4,042 \$	3,938
Other (loss) income, net	\$ (542) \$	5,680 \$	4,834
Income tax provision	\$ 1,428 \$	11,944 \$	3,857
Net income (loss)	\$ 1,637 \$	(3,555) \$	6,811

Operating revenue increased \$845,000 during fiscal 2019, compared with fiscal 2018, due primarily to an increase in furnace/air conditioner combination installations at NJRHS along with increased contract revenue.

O&M expense decreased \$840,000 during fiscal 2019, compared with fiscal 2018, due primarily to decreased compensation costs.

Other income, net decreased \$6.2 million during fiscal 2019, compared with fiscal 2018, due primarily to the sale of equity securities in an energy company, which resulted in a pre-tax gain of \$5.3 million during fiscal 2018, as well as an increase in expense related to changes in the capitalization of net periodic benefit costs resulting from the adoption of ASU 2017-07, an amendment to ASC 715, Compensation - Retirement Benefits. See Note 2. Summary of Significant Accounting Policies for more detail.

Income taxes decreased \$10.5 million during fiscal 2019, compared with fiscal 2018, due primarily to income tax expense of \$9.7 million associated with the revaluation of deferred income taxes resulting from the Tax Act during fiscal 2018 that did not recur during fiscal 2019.

Net income increased \$5.2 million during fiscal 2019, compared with fiscal 2018, due primarily to decrease in income tax provision, partially offset by the decrease in other income, net, as previously discussed.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Non-GAAP Financial Measures

NFE is based on removing timing differences associated with NJR's variable-for-fixed interest rate swap. Non-GAAP financial measures are not in accordance with, or an alternative to, GAAP, and should be considered in addition to, and not as a substitute, for the comparable GAAP measure.

A reconciliation of Home Services and Other's net income for the fiscal years ended September 30, to the GAAP financial measure most directly comparable to NFE, is as follows:

(Thousands)	2019	2018	2017
Net income (loss)	\$ 1,637 \$	(3,555) \$	6,811
Add:			
Unrealized loss (gain) on derivative instruments and related transactions	381	(381)	_
Tax effect	(107)	107	_
Net financial earnings (loss)	\$ 1,911 \$	(3,829) \$	6,811

Liquidity and Capital Resources

Our objective is to maintain an efficient consolidated capital structure that reflects the different characteristics of each reporting segment and business operations and provides adequate financial flexibility for accessing capital markets as required.

Our consolidated capital structure as of September 30, was as follows:

	2019	2018
Common stock equity	50%	49%
Long-term debt	49	41
Short-term debt	1	10
Total	100%	100%

Common Stock Equity

We satisfy our external common equity requirements, if any, through issuances of our common stock, including the proceeds from stock issuances under our DRP. The DRP allows us, at our option, to use treasury shares or newly issued shares to raise capital. On September 28, 2018, we registered approximately 3.2 million shares of additional common stock for issuance under the DRP.

NJR raised approximately \$57.4 million and \$41.7 million of equity by issuing approximately 1,181,000 and 1,014,000 new shares through the waiver discount feature of the DRP during fiscal 2019 and 2018, respectively. NJR did not issue new shares through the waiver discount feature of the DRP during fiscal 2017. NJR also raised approximately \$16.7 million and \$17.1 million of equity through the DRP by issuing approximately 351,000 and 413,000 shares of treasury stock during fiscal 2019 and 2018, respectively.

In 1996, the Board of Directors authorized us to implement a share repurchase program, which has been expanded seven times since the inception of the program, authorizing a total of 19.5 million shares of common stock for repurchase. As of September 30, 2019, we have repurchased a total of approximately 17.1 million shares and may repurchase an additional 2.4 million shares under the approved program. There were no shares of common stock shares repurchased during fiscal 2019 and 2018.

Debt

NJR and its unregulated subsidiaries generally rely on cash flows generated from operating activities and the utilization of committed credit facilities to provide liquidity to meet working capital and short-term debt financing requirements. NJNG also relies on the issuance of commercial paper for short-term funding. NJR and NJNG periodically access the capital markets to fund long-lived assets through the issuance of long-term debt securities.

We believe that our existing borrowing availability, equity proceeds and cash flows from operations will be sufficient to satisfy our working capital, capital expenditures and dividend requirements for the next 12 months. NJR, NJNG, Clean Energy Ventures, Midstream and Energy Services currently anticipate that each of their financing requirements for the next 12 months will be met primarily through the issuance of short and long-term debt, meter and solar sale-leasebacks and proceeds from the issuance of equity.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

We believe that as of September 30, 2019, NJR and NJNG were, and currently are, in compliance with all existing debt covenants, both financial and non-financial.

Short-Term Debt

We use our short-term borrowings primarily to finance Energy Services' short-term liquidity needs, Midstream segment's PennEast contributions, share repurchases and, on an initial basis, Clean Energy Ventures' investments. Energy Services' use of high volume storage facilities and anticipated pipeline park-and-loan arrangements, combined with related economic hedging activities in the volatile wholesale natural gas market, create significant short-term cash requirements.

NJNG satisfies its debt needs by issuing short- and long-term debt based on its financial profile. The seasonal nature of NJNG's operations creates large short-term cash requirements, primarily to finance natural gas purchases and customer accounts receivable. NJNG obtains working capital for these requirements and for the temporary financing of construction and MGP remediation expenditures and energy tax payments, based on its financial profile, through the issuance of commercial paper supported by the NJNG Credit Facility or through short-term bank loans under the NJNG Credit Facility.

As of September 30, 2019, NJR and NJNG, respectively, had revolving credit facilities totaling \$425 million and \$250 million, and letters of credit outstanding totaling \$4.8 million and \$731,000, which reduced the amounts available under the facilities along with short-term borrowings to \$394.8 million and \$249.3 million.

Short-term borrowings were as follows:

	Thr	ee Months Ended	Twelve Months Ended		
(\$ in thousands)		September 30, 2019			
NJR		<u>-</u>			
Notes Payable to banks:					
Balance at end of period	\$	25,450	\$ 25,450		
Weighted average interest rate at end of period		3.04%	3.04%		
Average balance for the period	\$	6,072	\$ 96,624		
Weighted average interest rate for average balance		3.18%	3.28%		
Month end maximum for the period	\$	25,450	\$ 280,000		
NJNG					
Commercial Paper and Notes Payable to banks:					
Balance at end of period	\$	_	\$		
Weighted average interest rate at end of period		<u>_%</u>	—%		
Average balance for the period	\$	20,203	\$ 54,835		
Weighted average interest rate for average balance		2.33%	2.62%		
Month end maximum for the period	\$	_	\$ 123,500		

Due to the seasonal nature of natural gas prices and demand, and because inventory levels are built up during its natural gas injection season (April through October), NJR and NJNG's short-term borrowings tend to peak in the November through January time frame.

NJR

On December 5, 2018, NJR entered into an Amended and Restated Credit Agreement governing a \$425 million NJR Credit Facility. The NJR Credit Facility expires on December 5, 2023, subject to two mutual options for a one-year extension beyond that date. The NJR Credit Facility permits the borrowing of revolving loans and swingline loans, as well as the issuance of letters of credit. The NJR Credit Facility also includes an accordion feature, which would allow NJR, in the absence of a default or event of default, to increase from time to time, with the existing or new lenders, the revolving credit commitments under the NJR Credit Facility in minimum increments of \$50 million up to a maximum of \$250 million. Certain of NJR's unregulated subsidiaries have guaranteed all of NJR's obligations under the NJR Credit Facility. The NJR Credit Facility is used primarily to finance its share repurchases, to satisfy Energy Services' short-term liquidity needs and to finance, on an initial basis, unregulated investments.

As of September 30, 2019, the consolidated total indebtedness to total capitalization ratio, as defined in the NJR Credit Facility, was 51 percent.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

As of September 30, 2019, NJR had \$25.5 million outstanding under the NJR Credit Facility. Neither NJNG nor its assets are obligated or pledged to support the NJR Credit Facility.

During fiscal 2019, NJR's average interest rate under the NJR Credit Facility was 3.28 percent, resulting in interest expense of \$3.2 million. Based on average borrowings under the facilities of \$96.6 million during the period, a 100 basis point change in the underlying average interest rate would have caused a change in interest expense of approximately \$1 million during fiscal 2019.

As of September 30, 2019, NJR had two letters of credit outstanding totaling \$4.8 million, on behalf of Energy Services. These letters of credit reduce the amount available under NJR's committed credit facility by the same amount. NJR does not anticipate that these letters of credit will be drawn upon by the counterparties and anticipates that they will be renewed as necessary.

Energy Services' letters of credit are used for margin requirements for natural gas transactions and expire on dates ranging from December 2019 to September 2020.

On October 9, 2019, NJR entered into a \$350 million Bridge Facility, which was used primarily to finance the Leaf River acquisition. The Bridge Facility accrues interest at the LIBOR rate for a 1-month interest period plus 0.875 percent during the first 180 days, and 1.075 percent after 180 days, which is dependent on the credit rating of NJNG from Fitch and Moody's. The occurrence of an event of default under the Bridge Facility could result in all loans and other obligations of NJR becoming immediately due and payable and the Bridge Facility being terminated. Loans under the Bridge Facility are required to be prepaid to the extent of new cash proceeds received upon the issuance of equity of NJR, the incurrence of indebtedness by NJR or its subsidiaries, the disposition of assets by NJR or its subsidiaries or upon other specified events, in each case subject to certain exceptions set forth in the Bridge Facility. See *Note 18. Subsequent Events* for more information.

NJNG

NJNG's commercial paper is sold through several commercial banks under an issuing and paying agency agreement and is supported by the \$250 million NJNG Credit Facility. On December 5, 2018, NJNG entered into an Amended and Restated Credit Agreement governing a \$250 million NJNG Credit Facility. The NJNG Credit Facility expires on December 5, 2023, subject to two mutual options for a one-year extension beyond that date. The NJNG Credit Facility permits the borrowing of revolving loans and swingline loans, as well as the issuance of letters of credit. The NJNG Credit Facility also includes an accordion feature, which would allow NJNG, in the absence of a default or event of default, to increase from time to time, with the existing or new lenders, the revolving credit commitments under the NJNG Credit Facility in minimum increments of \$50 million up to a maximum of \$100 million.

As of September 30, 2019, NJNG's consolidated total indebtedness to total capitalization ratio was 44 percent. As of September 30, 2019, the unused amount available under the NJNG Credit Facility, including amounts allocated to the backstop under the commercial paper program and the issuance of letters of credit, was \$249.3 million. During fiscal 2019, NJNG's weighted average interest rate on outstanding commercial paper was 2.62 percent, resulting in interest expense of \$1.5 million. Based on average borrowings under the facility of \$54.8 million during the period, a 100 basis point change in the underlying average interest rate would have caused a change in interest expense of approximately \$549,000 during fiscal 2019.

As of September 30, 2019, NJNG has two letters of credit outstanding for \$731,000. These letters of credit reduce the amount available under NJNG's committed credit facility by the same amount. NJNG does not anticipate that these letters of credit will be drawn upon by the counterparties. These letters of credit are used as collateral for soil remediation systems and expire in August 2020.

Short-Term Debt Covenants

Borrowings under the NJR Credit Facility and NJNG Credit Facility are conditioned upon compliance with a maximum leverage ratio (consolidated total indebtedness to consolidated total capitalization as defined in the applicable agreements), of not more than .65 to 1.00 at any time. These revolving credit facilities contain customary representations and warranties for transactions of this type. They also contain customary events of default and certain covenants that will limit NJR's or NJNG's ability, beyond agreed upon thresholds, to, among other things:

- incur additional debt;
- incur liens and encumbrances;

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

- make dispositions of assets;
- · enter into transactions with affiliates; and
- merge, consolidate, transfer, sell or lease all or substantially all of the borrowers' or guarantors' assets.

These covenants are subject to a number of exceptions and qualifications set forth in the applicable agreements.

Default Provisions

The agreements governing our long-term and short-term debt obligations include provisions that, if not complied with, could require early payment or similar actions. Default events include, but are not limited to, the following:

- · defaults for non-payment;
- defaults for breach of representations and warranties;
- · defaults for insolvency;
- · defaults for non-performance of covenants;
- cross-defaults to other debt obligations of the borrower; and
- guarantor defaults.

The occurrence of an event of default under these agreements could result in all loans and other obligations of the borrower becoming immediately due and payable and the termination of the credit facilities or term loan.

Long-Term Debt

NJR

NJR has \$50 million of 3.25 percent senior notes due September 2022, issued under a private placement debt shelf facility.

In November 2014, NJR issued \$100 million in 3.48 percent senior notes due November 2024, under the Prudential Facility, which fully utilized the remaining capacity under the facility. The notes issued under the Prudential Facility are guaranteed by certain unregulated subsidiaries of NJR.

In August 2016, NJR issued \$50 million in 3.2 percent senior notes due August 18, 2023, and \$100 million in 3.54 percent senior notes due August 18, 2026. The notes are guaranteed by certain of our unregulated subsidiaries. The notes are unsecured. The proceeds of the notes were used for general corporate purposes, including working capital and capital expenditures.

In June 2018, NJR entered into a note purchase agreement, under which we issued \$100 million of 3.96 percent senior notes due June 8, 2028. The notes are not secured by assets, but are instead guaranteed by certain unregulated subsidiaries of NJR. The proceeds of the notes were used for general corporate purposes, including, but not limited to, funding capital expenditures.

On July 17, 2019, NJR entered into a Note Purchase Agreement for \$150 million of 3.29 percent senior notes due on July 17, 2029. NJR issued \$50 million of these senior notes on July 17, 2019 and issued the remaining \$100 million of these senior notes on August 15, 2019. The proceeds were used for environmentally beneficial activities such as the funding of commercial solar projects. The senior notes are not secured by assets, but are instead guaranteed by certain unregulated subsidiaries of NJR.

Neither NJNG nor its assets are obligated or pledged to support NJR's long-term debt.

NJNG

NJNG and the Trustee are parties to the Mortgage Indenture, which secures all of NJNG's outstanding FMB. The Mortgage Indenture provides a direct first mortgage lien upon substantially all of the operating properties and franchises of NJNG (other than excepted property, such as cash on hand, choses-in-action, securities, rent, natural gas meters and certain materials, supplies, appliances and vehicles), subject only to certain permitted encumbrances. The Mortgage Indenture contains provisions subjecting after-acquired property (other than excepted property and subject to pre-existing liens, if any, at the time of acquisition) to the lien thereof

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

As of September 30, 2019, NJNG's long-term debt consisted of \$892.8 million in fixed-rate debt issuances, with maturities ranging from 2024 to 2059, which is secured by the Mortgage Indenture and \$25 million in capital leases with various maturities ranging from 2020 to 2025.

On April 15, 2015, NJNG issued \$50 million of 2.82 percent senior notes due April 15, 2025, and \$100 million of 3.66 percent senior notes due April 15, 2045, in the private placement market pursuant to a note purchase agreement entered into on February 12, 2015. The notes are secured by an equal principal amount of NJNG's FMB (Series SS and TT, respectively) issued under NJNG's Mortgage Indenture. The proceeds of the notes were used for general corporate purposes, to refinance or retire debt and to fund capital expenditure requirements. The notes are subject to required prepayments upon the occurrence of certain events. NJNG may at any time prepay all or a portion of the notes at a make-whole prepayment price.

In June 2015, NJNG entered into a treasury lock transaction to fix a benchmark treasury rate of 3.26 percent associated with a \$125 million debt issuance that was finalized in May 2018. This debt issuance coincided with the maturity of NJNG's \$125 million, 5.60 percent notes that came due in May 2018. This treasury lock was settled on March 13, 2018, which coincided with the pricing of the new debt being issued. Settlement of the treasury lock resulted in a \$2.6 million loss, which is recorded as a component of regulatory assets on the Consolidated Balance Sheets and will be amortized to earnings over the 30-year term of the \$125 million, 4.01 percent notes that were issued on May 11, 2018.

In June 2016, NJNG entered into a Note Purchase Agreement, under which NJNG issued \$125 million of its 3.63 percent senior notes due June 21, 2046. The notes are secured by an equal principal amount of NJNG's FMB (series UU) issued under NJNG's Mortgage Indenture. The proceeds of the notes were used for general corporate purposes, including, but not limited to, refinancing or retiring short-term debt and funding capital expenditures. The notes are subject to required prepayments upon the occurrence of certain events. NJNG may prepay all or any part of the notes in amounts not less than \$1 million in aggregate principal amount of the notes then outstanding at 100 percent of the aggregate principal amount, plus accrued interest and a makewhole amount, if applicable.

On May 31, 2017, the BPU approved a petition filed by NJNG requesting authorization over a three-year period to issue up to \$400 million of medium-term notes with a maturity of not more than 40 years, for up to five years with an option for two additional one-year extensions; enter into interest rate risk management transactions related to debt securities and redeem and refinance or defease any of NJNG's outstanding long-term debt securities.

On May 11, 2018, NJNG entered into a Note Purchase Agreement, under which NJNG issued \$125 million of 4.01 percent senior notes due May 11, 2048. The interest rate includes the quoted March 9, 2018 30-year treasury rate, plus a market-based credit spread. The notes are secured by an equal principal amount of NJNG's FMB (series VV) issued under NJNG's Mortgage Indenture. The proceeds of the notes were used for general corporate purposes, including, but not limited to, refinancing or retiring short-term debt and funding capital expenditures.

On April 18, 2019, NJNG completed the remarketing of three FMBs, in the amount of \$35.8 million, with a weighted average interest rate of 3.02 percent. The bonds have maturity dates ranging from April 2038 to April 2059. The bonds were previously purchased in lieu of redemption and were being held by NJNG.

On July 17, 2019, NJNG entered into a Note Purchase Agreement, under which NJNG issued \$100 million of 3.76 percent senior notes due July 17, 2049 and \$85 million of 3.86 percent senior notes due July 17, 2059. The senior notes are secured by an equal principal amount of NJNG's FMBs issued under NJNG's Mortgage Indenture. The proceeds of the notes were used for general corporate purposes, including, but not limited to, refinancing or retiring short-term debt and funding capital expenditures.

On August 1, 2019, NJNG completed a remarketing of three existing variable rate EDA Bonds with a total principal amount of \$97 million, which fixed the interest rates of the bonds. NJNG remarketed \$46.5 million at 3.00 percent due August 1, 2041, \$41 million at 3.00 percent due August 2043, and \$9.5 million at 2.75 percent due August 1, 2039. EDA Bonds are special, limited obligations of the EDA payable solely from payments made by NJNG pursuant to a Loan Agreement and are secured by the pledge of \$97 million principal amount of the FMB issued by NJNG. The proceeds of the notes were used for general corporate purposes.

NJR is not obligated directly or contingently with respect to the NJNG notes or the FMB.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Long-Term Debt Covenants and Default Provisions

The NJR and NJNG long-term debt instruments contain customary representations and warranties for transactions of their type. They also contain customary events of default and certain covenants that will limit NJR or NJNG's ability beyond agreed upon thresholds to, among other things:

- incur additional debt (including a covenant that limits the amount of consolidated total debt of the borrower at the end of a fiscal quarter to 65 percent of the consolidated total capitalization of the borrower, as those terms are defined in the applicable agreements, and a covenant limiting priority debt to 20 percent of the borrower's consolidated total capitalization, as those terms are defined in the applicable agreements);
- incur liens and encumbrances;
- make loans and investments;
- make dispositions of assets;
- make dividends or restricted payments;
- · enter into transactions with affiliates; and
- merge, consolidate, transfer, sell or lease substantially all of the borrower's assets.

The aforementioned covenants are subject to a number of exceptions and qualifications set forth in the applicable Note Purchase Agreements.

In addition, the FMB issued by NJNG under the Mortgage Indenture are subject to certain default provisions. Events of Default, as defined in the Mortgage Indenture, consist mainly of:

- failure for 30 days to pay interest when due;
- failure to pay principal or premium when due and payable;
- failure to make sinking fund payments when due;
- failure to comply with any other covenants of the Mortgage Indenture after 30 days' written notice from the Trustee;
- failure to pay or provide for judgments in excess of \$30 million in aggregate amount within 60 days of the entry thereof; or
- certain events that are or could be the basis of a bankruptcy, reorganization, insolvency or receivership proceeding.

Upon the occurrence and continuance of such an Event of Default, the Mortgage Indenture, subject to any provisions of law applicable thereto, provides that the Trustee may take possession and conduct the business of NJNG, may sell the trust estate or proceed to foreclose the lien of the Mortgage Indenture. The interest rate on defaulted principal and interest, to the extent permitted by law, on the FMB issued under the Mortgage Indenture is the rate stated in the applicable supplement or, if no such rate is stated, six percent per annum.

Sale-Leaseback

NJNG

NJNG received \$9.9 million, \$7.8 million and \$9.6 million in fiscal 2019, 2018 and 2017, respectively, in connection with the sale-leaseback of its natural gas meters. During fiscal 2019, 2018 and 2017, NJNG exercised early purchase options with respect to meter leases by making final principal payments of \$1.1 million, \$2.2 million and \$2.4 million, respectively. NJNG continues to evaluate this sale-leaseback program based on current market conditions. As noted, natural gas meters are accepted as property under the Mortgage Indenture.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Clean Energy Ventures

Clean Energy Ventures received proceeds of \$71.5 million and \$32.9 million in fiscal 2018 and 2017, respectively, in connection with the sale-leaseback of commercial solar assets. Clean Energy Ventures did not receive proceeds related to the sale-leaseback of commercial solar assets during fiscal 2019. Clean Energy Ventures has entered into transactions to sell certain of its commercial solar assets concurrent with agreements to lease the assets back over six- to 15-year terms. These sale-leasebacks are financing obligations secured by the solar assets, related future cash flows from SREC and energy sales and a continuing guaranty by NJR. ITCs and other tax benefits associated with these solar projects were transferred to the buyer. Clean Energy Ventures will continue to operate the solar projects and retain ownership of SRECs generated, and has the option to renew the lease or repurchase the assets at the end of the lease term per the terms of the arrangement.

Contractual Obligations

The following table is a summary of contractual cash obligations and financial commitments and their applicable payment due dates as of September 30, 2019:

		Up to	1-3	3-5	After
(Thousands)	Total	1 Year	Years	Years	5 Years
Long-term debt (1)	\$ 2,368,723	\$ 51,387	\$ 152,775	\$216,326	\$ 1,948,235
Capital lease obligations (1)	38,624	11,707	14,097	8,647	4,173
Solar asset financing obligations (1)	69,617	7,830	15,605	15,237	30,945
Operating leases (1)	76,901	4,411	9,307	8,778	54,405
Short-term debt	25,450	25,450	_	_	_
New Jersey Clean Energy Program (1)	15,468	15,468	_	_	_
Construction obligations	27,591	27,591	_	_	_
Remediation expenditures (2)	131,080	20,080	36,928	18,240	55,832
Natural gas supply purchase obligations-NJNG	186,735	20,616	62,659	67,712	35,748
Demand fee commitments-NJNG	1,094,526	129,256	242,280	165,024	557,966
Natural gas supply purchase obligations-Energy Services	285,740	266,931	18,809	_	_
Demand fee commitments-Energy Services	309,367	104,237	144,992	50,350	9,788
Total contractual cash obligations	\$ 4,629,822	\$ 684,964	\$ 697,452	\$550,314	\$ 2,697,092

- (1) These obligations include an interest component, as defined under the related governing agreements or in accordance with the applicable tax statute.
- (2) Expenditures are estimated. See Note 14. Commitments and Contingent Liabilities in the accompanying Consolidated Financial Statements.

NJR does not expect to be required to make additional contributions to fund the pension plans over the next three fiscal years based on current actuarial assumptions; however, funding requirements are uncertain and can depend significantly on changes in actuarial assumptions, returns on plan assets and changes in the demographics of eligible employees and covered dependents. In addition, as in the past, we may elect to make discretionary contributions to the plans in excess of the minimum required amount. We made no discretionary contributions to the pension plans in fiscal 2019 and 2018. There are no federal requirements to prefund OPEB benefits. However, we are required to fund certain amounts due to regulatory agreements with the BPU. We anticipate that the annual funding level of the OPEB plans will range from \$5 million to \$10 million annually over each of the next five years. Additional contributions may vary based on market conditions and various assumptions.

As of September 30, 2019, there were NJR guarantees covering approximately \$339 million of natural gas purchases and Energy Services demand fee commitments not yet reflected in accounts payable on the Consolidated Balance Sheets.

NJNG incurs significant capital expenditures consisting primarily of its construction program to support customer growth, maintenance of its distribution and transmission system and replacement needed under pipeline safety regulations. During fiscal 2019, committed and spent capital expenditures totaled \$347.6 million. During fiscal 2020 and 2021, NJNG's total capital expenditures are projected to be \$445.3 million and \$311.6 million, respectively.

NJNG expects to fund its obligations with a combination of cash flow from operations, cash on hand, issuance of commercial paper, available capacity under its revolving credit facility and the issuance of long-term debt.

As of September 30, 2019, NJNG's future MGP expenditures are estimated to be \$131.1 million. For a more detailed description of MGP see *Note 14*. *Commitments and Contingent Liabilities* in the accompanying Consolidated Financial Statements.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Estimated capital expenditures are reviewed on a regular basis and may vary based on the ongoing effects of regulatory constraints, environmental regulations, unforeseen events and the ability to access capital.

Clean Energy Ventures' expenditures include clean energy projects that support our goal to promote renewable energy. Accordingly, Clean Energy Ventures enters into agreements to install solar equipment involving both residential and commercial projects. We estimate the value of solar-related projects placed in service during fiscal 2020 to be between \$125 million and \$145 million.

Capital expenditures related to clean energy projects are subject to change due to a variety of factors that may affect our ability to commence operations at these projects on a timely basis or at all, including logistics associated with the start-up of residential and commercial solar projects, such as timing of construction schedules, the permitting and regulatory process, any delays related to electric grid interconnection, economic trends or unforeseen events and the ability to access capital or allocation of capital to other investments or business opportunities.

During fiscal 2019, Midstream had a total of \$4.1 million of expenditures related to our investment in the PennEast pipeline project. Expenditures in the PennEast pipeline are expected to total between \$3 million and \$10 million during fiscal 2020. Capital expenditures related to our Midstream investment in the Adelphia project were \$20.4 million. Including the purchase price of \$166 million and assuming the transaction closes, we estimate expenditures related to the Adelphia project to be between \$270 million and \$290 million in fiscal 2020.

Energy Services does not currently anticipate any significant capital expenditures in fiscal 2020 and 2021.

Off-Balance-Sheet Arrangements

Our off-balance-sheet arrangements consist of guarantees covering approximately \$339 million of natural gas purchases, SREC sales and demand fee commitments, and four outstanding letters of credit totaling \$5.5 million, as previously mentioned. See *Note 14. Commitments and Contingent Liabilities* and *Note 9. Debt* for more information.

Cash Flows

Operating Activities

Cash flows from operating activities during fiscal 2019 totaled \$189.4 million compared with \$398.3 million during fiscal 2018. Operating cash flows are primarily affected by variations in working capital, which can be impacted by several factors, including:

- seasonality of our business;
- fluctuations in wholesale natural gas prices and other energy prices, including changes in derivative asset and liability values;
- · timing of storage injections and withdrawals;
- the deferral and recovery of gas costs;
- changes in contractual assets used to optimize margins related to natural gas transactions;
- broker margin requirements;
- impact of unusual weather patterns on our wholesale business;
- timing of the collections of receivables and payments of current liabilities;
- · volumes of natural gas purchased and sold; and
- timing of SREC deliveries.

The decrease of \$208.9 million in operating cash flows during fiscal 2019, compared with fiscal 2018, was due primarily to lower financial margin generated at Energy Services and increased working capital requirements as mentioned above.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

Investing Activities

Cash flows used in investing activities totaled \$282.6 million during fiscal 2019, compared with \$373.1 million during fiscal 2018. The decrease of \$90.5 million was due primarily to proceeds, net of closing costs, from the sale of our remaining wind assets of \$205.7 million and Dominion shares of \$34.5 million, partially offset by an increase in capital expenditures of \$85.7 million for utility plant and \$34.4 million in solar capital expenditures.

NJNG's capital expenditures result primarily from the need for services, mains and meters to support its continued customer growth, mandated pipeline safety rulemaking, general system improvements and approved infrastructure programs. NJNG's capital expenditures, including cost of removal, totaled \$340.2 million and \$254.5 million in fiscal 2019 and fiscal 2018, respectively.

The Company enters into various agreements to install, own and operate solar equipment, including both residential and commercial projects. During fiscal 2019 and fiscal 2018, capital expenditures on these projects totaled \$157.8 million and \$123.4 million, respectively.

Financing Activities

Financing cash flows generally are seasonal in nature and are impacted by the volatility in pricing in the natural gas and other energy markets. NJNG's inventory levels are built up during its natural gas injection season (April through October) and reduced during withdrawal season (November through March) in response to the supply requirements of its customers. Changes in financing cash flows can also be impacted by gas management and marketing activities at Energy Services and clean energy investments at Clean Energy Ventures.

Cash flows from financing activities during fiscal 2019 totaled \$95.6 million, compared with cash flows used in financing activities of \$26 million during fiscal 2018. The increase of \$121.6 million was due primarily to \$185 million in new long-term borrowings at NJNG and \$150 million at NJR along with an additional \$35.8 million of long-term debt that was remarketed at NJNG. The new debt was partially offset by \$100 million of long-term debt at NJR that matured on August 16, 2019, and proceeds of \$71.5 million from the solar sale-leasebacks at Clean Energy Ventures during fiscal 2018 that did not recur in fiscal 2019.

NJNG received \$9.9 million, \$7.8 million and \$9.6 million for fiscal 2019, 2018 and 2017, respectively, in connection with the sale-leaseback of its natural gas meters. During fiscal 2019, 2018 and 2017, NJNG exercised early purchase options with respect to meter leases by making final principal payments of \$1.1 million, \$2.2 million and \$2.4 million, respectively. NJNG continues to evaluate the natural gas meter sale-leaseback program based on current market conditions.

Credit Ratings

The table below summarizes NJNG's current credit ratings issued by two rating entities, Moody's and Fitch, as of September 30, 2019:

	Moody's	Fitch
Corporate Rating	N/A	A-
Commercial Paper	P-1	F-2
Senior Secured	Aa3	A+
Ratings Outlook	Negative	Stable

On November 29, 2018, Fitch assigned a first-time long-term issuer default rating to NJNG. The rating reflects a constructive regulatory environment, including margin decoupling and fuel cost recovery, and strong customer growth. Other considerations were the weakened credit metrics driven by the impact of tax reform and an elevated capital program, with a substantial portion of investment recovered under tracking mechanisms. On March 28, 2019, Fitch affirmed the ratings outlook as stable.

On February 8, 2019, Moody's revised NJNG's secured rating from Aa2 to Aa3. This change reflects Moody's view that NJNG's credit measures are expected to deteriorate due to loss of cash flow from deferred taxes, lower authorized returns and peak capital programs in 2019 and 2020. These measures are mitigated by the credit supportive regulatory rate construct and NJNG's recovery mechanism. Management's response and regulatory outcomes have partially mitigated some of the near-term negative cash flow impacts related to tax reform. This action does not currently affect any of NJNG's short- or long-term borrowing rates.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (Continued)

NJNG's Moody's and Fitch ratings are investment-grade ratings. NJR is not a rated entity. On May 24, 2019, at NJNG's request, S&P withdrew all ratings on NJNG, including its 'A' senior secured debt rating and 'A-2' short-term and commercial paper rating.

Although NJNG is not party to any lending agreements that would accelerate the maturity date of any obligation caused by a failure to maintain any specific credit rating, if such ratings are downgraded below investment grade, borrowing costs could increase, as would the costs of maintaining certain contractual relationships and future financing and our access to capital markets would be reduced. Even if ratings are downgraded without falling below investment grade, NJR and NJNG could face increased borrowing costs under their credit facilities. A rating set forth above is not a recommendation to buy, sell or hold NJR's or NJNG's securities and may be subject to revision or withdrawal at any time. Each rating set forth above should be evaluated independently of any other rating.

The timing and mix of any external financings will target a common equity ratio that is consistent with maintaining NJNG's current short-term and long-term credit ratings.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Financial Risk Management

Commodity Market Risks

Natural gas is a nationally traded commodity. Its prices are determined effectively by the NYMEX, CME, ICE and over-the-counter markets. The prices on the NYMEX, CME, ICE and over-the-counter markets generally reflect the national balance of natural gas supply and demand, but are also significantly influenced from time to time by other events.

Our regulated and deregulated businesses are subject to market risk due to fluctuations in the price of natural gas. To economically hedge against such fluctuations, we have entered into forwards, futures, options and swap agreements. To manage these derivative instruments, we have well-defined risk management policies and procedures that include daily monitoring of volumetric limits and monetary guidelines. Our natural gas businesses are conducted through three of our reporting segments. NJNG is a regulated utility that uses futures, options and swaps to economically hedge against price fluctuations, and its recovery of natural gas costs is governed by the BPU. Energy Services uses futures, options, swaps and physical contracts to economically hedge purchases and sales of natural gas. Financial derivatives have historically been transacted on an exchange and cleared through an FCM, thus requiring daily cash margining for a majority of Energy Services' and NJNG's positions.

The following table reflects the changes in the fair market value of financial derivatives related to natural gas purchases and sales from September 30, 2018 to September 30, 2019:

	Balance Increase		L	ess	Balance						
(Thousands)	September 30, (1		1 / /				ounts ttled	Septemark 201	
Natural Gas Distribution	\$	94		\$	(4,611)	\$	(4,329)	\$	(188)		
Energy Services	(1	3,925)	(1)		(3,980)		(6,265)	((11,640)		
Total	\$ (1	3,831)		\$	(8,591)	\$	(10,594)	\$ ((11,828)		

⁽¹⁾ Includes the addition of \$9.5 million related to the fair value of the derivative instrument acquired through the disposition of NJRRS.

There were no changes in methods of valuations during the year ended September 30, 2019.

The following is a summary of fair market value of financial derivatives as of September 30, 2019, excluding foreign exchange contracts discussed below, by method of valuation and by maturity for each fiscal year period:

(Thousands)	2020	2021	2022 - 2024	After 2024	Total Fair Value
Price based on NYMEX/CME	\$ 2,849 \$	913	\$ 113	\$ —	\$ 3,875
Price based on ICE	(14,296)	(1,410)	3	_	(15,703)
Total	\$ (11,447) \$	(497)	\$ 116	\$ —	\$ (11,828)

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK (Continued)

The following is a summary of financial derivatives by type at September 30, 2019:

		Volume Bcf	Price per MMBtu ⁽¹⁾	Amounts included in Derivatives (Thousands)
Natural Gas Distribution	Futures	27.6	\$1.38 - \$3.77	\$ (188)
Energy Services	Futures	(29.6)	\$0.59 - \$6.25	(15,516)
	Swaps	(5.0)	\$2.72 - \$3.46	3,876
	Options	1.0	\$0.02 - \$0.02	<u> </u>
Total				\$ (11,828)

⁽¹⁾ Million British thermal units

The following table reflects the changes in the fair market value of physical commodity contracts from September 30, 2018 to September 30, 2019:

	Balance Increase		Less	Balance
(Thousands)	September 30, 2018	(Decrease) in Fair Market Value	Amounts Settled	September 30, 2019
Natural Gas Distribution - Prices based on other external data	\$ (107)	2,691	2,762	\$ (178)
Energy Services - Prices based on other external data	(17,877)	(25,137)	(11,390)	(31,624)
Total	\$ (17,984)	(22,446)	(8,628)	\$ (31,802)

The following table reflects the changes in the fair market value of interest rate contracts from September 30, 2018 to September 30, 2019:

	Balance	Increase	Less	Balance
(Thousands)	September 2018	30, (Decrease) in Fair Market Value	Amounts Settled	September 30, 2019
Home Services and Other - Prices based on other external data	\$ 3	381 (233) 148	\$ —

Foreign Currency Market Risks

The following table reflects the changes in the fair market value of financial derivatives related to foreign currency hedges from September 30, 2018 to September 30, 2019:

	Balance		Incre	ase	Less	Bala	nce
(Thousands)	September 30, 2018		(Decrease) in Fair Market Value		Amounts Settled	September 30 2019	
Energy Services	\$	(244)		(283)	(242)	\$	(285)

There were no changes in methods of valuations during the fiscal year ended September 30, 2019.

The following is a summary of fair market value of financial derivatives related to foreign currency hedges as of September 30, 2019, by method of valuation and by maturity for each fiscal year period:

(Thousands)	2020		2021	2022 - 2024	After 2024	Fair V	
Prices based on other external data	\$	(211)	(74)) —	_	\$	(285)

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK (Continued)

Our market price risk is predominately related to changes in the price of natural gas at the Henry Hub, which is the delivery point for the NYMEX natural gas futures contracts. As the fair value of futures and fixed price swaps is linked to this location, the price sensitivity analysis has been prepared for all open Henry Hub natural gas futures and fixed swap positions. Based on this, an illustrative 10 percent movement in the natural gas futures contract price, for example, increases (decreases) the reported derivative fair value of all open, unadjusted Henry Hub natural gas futures and fixed swap positions by approximately \$(6.0) million. This analysis does not include potential changes to reported credit adjustments embedded in the \$4.2 reported fair value.

Derivative Fair Value Sensitivity Analysis

(Thousands)	Henry Hub Futures and Fixed Price Swaps								ps	
Percent increase in NYMEX natural gas futures prices		0%	:	5%	1	10%		15%		20%
Estimated change in derivative fair value	\$	_	\$	3,006	\$	6,012	\$	9,019	\$	12,025
Ending derivative fair value	\$	4,154	\$	7,160	\$	10,166	\$	13,173	\$	16,179
Percent decrease in NYMEX natural gas futures prices		0%	(:	5)%	(1	0)%		(15)%		(20)%
Estimated change in derivative fair value	\$	_	\$	(3,006)	\$	(6,012)	\$	(9,019)	\$	(12,025)
Ending derivative fair value	\$	4,154	\$	1,148	\$	(1,858)	\$	(4,865)	\$	(7,871)

Wholesale Credit Risk

Natural Gas Distribution and Energy Services engage in wholesale marketing activities and Clean Energy Ventures engages in SREC sales. We monitor and manage the credit risk of our operations through credit policies and procedures that management believes reduce overall credit risk. These policies include a review and evaluation of prospective counterparties' financial statements and/or credit ratings, daily monitoring of counterparties' credit limits, daily communication with traders regarding credit status and the use of credit mitigation measures, such as minimum margin requirements, collateral requirements and netting agreements. Examples of collateral include letters of credit and cash received for either prepayment or margin deposit.

Our Risk Management Committee continuously monitors our credit risk management policies and procedures and is composed of individuals from NJR-affiliated companies. The Risk Management Committee meets at least once a month and, among other things, evaluates the effectiveness of existing credit policies and procedures, reviews material transactions and discusses emerging issues.

The following is a summary of gross and net credit exposures, grouped by investment and non-investment grade counterparties, as of September 30, 2019. Gross credit exposure is defined as the unrealized fair value of derivative and energy trading contracts, plus any outstanding wholesale receivable for the value of natural gas or power delivered and/or financial derivative commodity contract that has settled for which payment has not yet been received. Net credit exposure is defined as gross credit exposure reduced by collateral received from counterparties and/or payables, where netting agreements exist. The amounts presented below exclude accounts receivable for NJNG retail natural gas sales and services. Energy Services' and Clean Energy Ventures' counterparty credit exposure as of September 30, 2019, is as follows:

(Thousands)	Gross Credit Exposure	Net Credit Exposure
Investment grade	\$ 139,100	\$ 121,026
Noninvestment grade	17,966	695
Internally-rated investment grade	27,767	23,200
Internally-rated noninvestment grade	10,480	4,119
Total	\$ 195,313	\$ 149,040

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK (Continued)

NJNG's counterparty credit exposure as of September 30, 2019, is as follows:

(Thousands)	Gross Credit Exposure		 Credit osure
Investment grade	\$	2,830	\$ 2,161
Noninvestment grade		31	
Internally-rated investment grade		181	54
Internally-rated noninvestment grade		18,844	12,980
Total	\$	21,886	\$ 15,195

Due to the inherent volatility in the market price for natural gas, electricity and SRECs, the market value of contractual positions with individual counterparties could exceed established credit limits or collateral provided by those counterparties. If a counterparty failed to perform the obligations under its contract (for example, failed to make payment for natural gas received), we could sustain a loss. This loss would comprise the loss on natural gas delivered but not paid for and/or the cost of replacing natural gas not delivered or received at a price that exceeds the original contract price. Any such loss could have a material impact on our financial condition, results of operations or cash flows.

Effects of Interest Rate and Foreign Currency Rate Fluctuations

We are also exposed to changes in interest rates on our debt hedges, variable rate debt and changes in foreign currency rates for our business conducted in Canada using Canadian dollars. We do not believe an immediate 10 percent increase or decrease in interest rates or foreign currency rates would have a material effect on our operating results or cash flows.

For more information regarding the interest rate risk related to our short-term debt, please see the *Liquidity and Capital Resources - Debt* section of *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.*

Effects of Inflation

Although inflation rates have been relatively low to moderate in recent years, including the three most recent fiscal years, any change in price levels has an effect on operating results due to the capital-intensive and regulated nature of our utility subsidiary. We attempt to minimize the effects of inflation through cost control, productivity improvements and regulatory actions, when appropriate.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of New Jersey Resources Corporation is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and 15d-15(f) of the Securities and Exchange Act of 1934, as amended. The Company's internal control over financial reporting is a process designed to provide reasonable assurance to the Company's Management and Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements
 in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are
 being made only in accordance with authorizations of management and directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition
 of the Company's assets that could have a material effect on the financial statements.

Under the supervision and with the participation of the Company's management, including its principal executive officer and principal financial officer, management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of September 30, 2019. In making this assessment, management used the criteria for effective internal control over financial reporting described in the *Internal Control-Integrated Framework (2013)* set forth by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the assessment, management concluded that, as of September 30, 2019, the Company's internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the Unites States of America.

The conclusion of the Company's principal executive officer and principal financial officer is based on the recognition that there are inherent limitations in all systems of internal control over financial reporting. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements, errors or fraud. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Company's independent registered public accounting firm, Deloitte & Touche LLP, has issued its report on the effectiveness of the Company's internal control over financial reporting as of September 30, 2019, which appears herein.

November 22, 2019

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareowners and the Board of Directors of New Jersey Resources Corporation:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of New Jersey Resources Corporation and subsidiaries (the "Company") as of September 30, 2019 and 2018, and the related consolidated statements of operations, comprehensive income, common stock equity, and cash flows, for each of the three years in the period ended September 30, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of September 30, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 22, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Regulation - Impact of Rate-Regulation on Various Account Balances and Disclosures - Refer to Notes 2 and 4 to the financial statements

Critical Audit Matter Description

New Jersey Natural Gas ("NJNG") is a regulated gas distribution company that serves customers in central and northern New Jersey. The Company is subject to regulation by the New Jersey Board of Public Utilities (the "BPU"), which has jurisdiction with respect to the rates of gas distribution companies in New Jersey. Management has determined it meets the requirements under accounting principles generally accepted in the United States of America to prepare its financial statements in accordance with the ASC 980, *Regulated Operations*.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJNG is subject to cost-based regulation; therefore, it is permitted to recover authorized operating expenses and earn a reasonable return on its utility capital investments based on the BPU's approval. The impact of the ratemaking process and decisions authorized by the BPU allows NJNG to capitalize or defer certain costs that are expected to be recovered from its customers as regulatory assets, and to recognize certain obligations representing amounts that are probable future expenditures as regulatory liabilities in accordance with accounting guidance applicable to regulated operations. Regulatory decisions can have an impact on the recovery of costs, the rate of return earned on investment, and the timing and amount of assets to be recovered by rates. Decisions to be made by the BPU in the future will impact the accounting for regulated operations, including decisions about the amount of allowable costs and return on invested capital included in rates and any refunds that may be required.

Accounting for the economics of rate-regulation impacts multiple financial statement line items and disclosures, such as regulated property, plant, and equipment, regulatory assets and liabilities, operating revenues and depreciation expense. While the Company has indicated it expects to recover costs from customers through regulated rates, there is a risk that the BPU will not approve full recovery of such costs or full recovery of all amounts invested in the utility business and a reasonable return on that investment. We identified the impact of rate-regulation as a critical audit matter due to the significant judgments made by management to support its assertions about impact of future regulatory orders on the financial statements. Management judgments include assessing the probability of recovery in future rates of incurred costs and a refund to customers. Given that management's accounting judgments are based on assumptions about the outcome of future decisions by the BPU, auditing these judgments requires specialized knowledge of accounting for rate regulation and the rate setting process due to its inherent complexities.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the uncertainty of future decisions by the BPU included the following, among others:

- We tested the effectiveness of controls over the relevant regulatory account balances and disclosures, including management's
 controls over the monitoring and evaluation of regulatory developments that may affect the probability of recovering costs
 in future rates or of a future reduction in rates.
- We evaluated the Company's disclosures related to the impacts of rate regulation, including the balances recorded and regulatory developments.
- We read relevant regulatory orders issued by the BPU for the Company and other public utilities in New Jersey, regulatory statutes, interpretations, procedural memorandums, filings made by interveners, and other publicly available information to assess the probability of recovery in future rates or of a future reduction in rates based on precedence of the BPU's treatment of similar costs under similar circumstances. We also obtained and read the November 13, 2019 BPU order adopting the stipulation of settlement for NJNG's March 2019 base rate case as well as the publicly available filings made by the Company and its related attachments. We evaluated the external information and compared that to management's assertions regarding the probability of recovery or refund of regulatory asset and liability balances.
- We obtained an analysis from management describing the orders and filings that support management's assertions regarding
 the probability of recovery for regulatory assets or refund or future reduction in rates for regulatory liabilities to assess
 management's assertion that amounts are probable of recovery or a future reduction in rates.

Investments in Equity Investees - PennEast - Refer to Notes 2 and 7 to the financial statements

Critical Audit Matter Description

The Company, through its subsidiary NJR Pipeline Company, is a 20 percent investor in PennEast Pipeline Company, LLC ("PennEast"), a partnership whose purpose is to construct and operate a 120-mile natural gas pipeline that will extend from northeast Pennsylvania to western New Jersey. In the fourth quarter of 2019, PennEast received adverse court rulings. As a result, the Company evaluated its investment for impairment by comparing the estimated fair value of the investment to the carrying value and determined that an impairment charge was not necessary. The Company estimated the fair value of its investment using probability-weighted scenarios of discounted future cash flows. Management made significant estimates and assumptions related to development options and legal outcomes, construction costs, timing of capital investments and in-service dates, revenues (including forecasted volumes and rates), and discount rates. The discounted cash flow scenarios contemplate the impact of key assumptions of potential future court decisions and potential future management decisions and requires management to make significant estimates regarding the likelihood of various scenarios and assumptions. Higher probabilities were assumed related to those scenarios where the project is completed.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

We identified the evaluation of impairment for the PennEast investment as a critical audit matter because of the significant estimates and assumptions management makes to estimate the fair value of its investment. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's estimates and assumptions related to the probabilities associated with the development options and legal outcomes, the forecasts of revenues and construction costs, and the selection of the discount rate used in the probability-weighted scenarios of discounted future cash flows.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the probabilities associated with the development options and legal outcomes, the forecasts of future revenues and construction costs, and the selection of the discount rate used by management in the probability-weighted scenarios of discounted future cash flows used in the evaluation of impairment for the PennEast investment included the following, among others:

- We tested the effectiveness of controls over management's evaluation of the PennEast investment for impairment including those related to the probabilities associated with the development options and legal outcomes, the forecasting of future revenues and construction costs, and the selection of the discount rate.
- We evaluated the reasonableness of the probabilities related to the development options and legal outcomes by making inquiries with legal counsel regarding the likely outcomes of future court rulings, and with engineering, operations, and the executive management team regarding the viability of development options. We compared the results of these legal and management inquiries to internal communications to management, the Board of Directors, and PennEast member partners to search for contradictory information. We also read external information included in press releases, earnings releases, regulatory filings, and other PennEast member communications to search for contradictory information.
- We evaluated the reasonableness of the forecasts of revenues (including forecasted volumes and rates) and construction costs by:
 - Comparing management's volume assumptions to contractual agreements where applicable and information regarding demand and capacity volumes in the region for the remaining volumes.
 - Comparing management's rate assumptions to contractual agreements where applicable and evaluating management's future price assumptions against relevant market price curves.
 - Evaluating the reasonableness of management's construction cost assumptions by comparing other similar pipeline project
 costs to the construction costs assumed by management, in addition to agreeing to source information used by management
 to develop the construction cost estimate.
 - Reading internal communications to management and the Board of Directors and external information included in press releases, earnings releases and other PennEast member communications to search for contradictory information.
- We evaluated the selection of the discount rate with the assistance of our fair value specialists, by:
 - Testing the source information underlying the determination of the discount rate and the mathematical accuracy of the calculation.
 - Developing a range of independent estimates and comparing those to the discount rate selected by management.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey

November 22, 2019

We have served as the Company's auditor since 1951.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareowners and the Board of Directors of New Jersey Resources Corporation:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of New Jersey Resources Corporation and subsidiaries (the "Company") as of September 30, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements and financial statement schedule as of and for the year ended September 30, 2019, of the Company and our report dated November 22, 2019, expressed an unqualified opinion on those financial statements and financial statement schedule.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey

November 22, 2019

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

CONSOLIDATED STATEMENTS OF OPERATIONS

(Thousands, except per share data)			
Fiscal years ended September 30,	2019	2018	2017
OPERATING REVENUES			
Utility	\$ 710,793	\$ 731,865	\$ 695,637
Nonutility	1,881,252	2,183,244	1,572,980
Total operating revenues	2,592,045	2,915,109	2,268,617
OPERATING EXPENSES			
Gas purchases:			
Utility	320,256	276,005	258,687
Nonutility	1,716,098	1,990,832	1,436,740
Related parties	7,948	8,505	8,340
Operation and maintenance	256,951	263,113	222,176
Regulatory rider expenses	33,937	38,969	40,243
Depreciation and amortization	91,730	85,701	81,841
Energy and other taxes	11,190	52,102	49,366
Total operating expenses	2,438,110	2,715,227	2,097,393
OPERATING INCOME	153,935	199,882	171,224
Other income, net	11,273	13,047	10,257
Interest expense, net of capitalized interest	47,082	46,286	44,886
INCOME BEFORE INCOME TAXES AND EQUITY IN EARNINGS OF AFFILIATES	118,126	166,643	136,595
Income tax (benefit) provision	(37,751)	(53,785)	18,343
Equity in earnings of affiliates	13,628	13,008	13,813
NET INCOME	\$ 169,505	\$ 233,436	\$ 132,065
EARNINGS PER COMMON SHARE			
Basic	\$1.90	\$2.66	\$1.53
Diluted	\$1.89	\$2.64	\$1.52
WEIGHTED AVERAGE SHARES OUTSTANDING			
Basic	89,242	87,689	86,321
Diluted	89,616	88,315	87,144

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Thousands) Fiscal years ended September 30, 2019 2018 2017 Net income **\$ 169,505** \$ 233,436 \$ 132,065 Other comprehensive (loss) income, net of tax: Unrealized (loss) gain on investments in equity securities, net of tax of \$0, \$6,973 and (19,245)6,846 \$(4,401), respectively Reclassifications of losses to net income on investments in equity securities, net of tax of \$0, \$(858) and \$0, respectively 11,647 Adjustment to postemployment benefit obligation, net of tax of \$6,106, \$(573) and \$(3,487), respectively (15,731)1,520 5,053 (15,731)11,899 Other comprehensive (loss) income (6,078)**153,774** \$ 227,358 \$ Comprehensive income 143,964

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Thousands) Fiscal years ended September 30,	2019	2018		2017
CASH FLOWS FROM OPERATING ACTIVITIES				
Net income	\$ 169,505	\$ 233,436	\$	132,065
Adjustments to reconcile net income to cash flows from operating activities				
Unrealized loss (gain) on derivative instruments	2,881	26,770		(11,241)
Gain on sale of available for sale securities	(1,567)	(5,332)		(7,287)
Gain on sale of businesses	(645)	(4,663)		01.041
Depreciation and amortization Amortization of acquired wholesale energy contracts	91,730 8,424	85,701 18,222		81,841
Allowance for equity used during construction	(6,492)	(5,531)		762 (3,867)
Allowance for doubtful accounts	2,387	2,579		2,023
Deferred income taxes	(59,013)	15,590		41,442
Deferred income tax benefit due to tax legislation	(5),010)	(75,736)		-
Equivalent value of ITCs recognized on equipment financing	(6,482)			_
Manufactured gas plant remediation costs	(13,878)	(16,171)		(10,934)
Equity in earnings, net of distributions received from equity investees	(4,156)	(1,725)		(462)
Cost of removal - asset retirement obligations	(258)	(298)		(484)
Contributions to postemployment benefit plans	(8,157)	(6,359)		(6,077)
Tax benefit of delivered shares from stock based compensation	1,290	2,950		1,285
Changes in:				
Components of working capital	(27,759)	97,004		17,081
Other noncurrent assets	3,415	17,860		13,978
Other noncurrent liabilities	 38,125	 13,989		(2,079)
Cash flows from operating activities	 189,350	 398,286		248,046
CASH FLOWS USED IN INVESTING ACTIVITIES				
Expenditures for:	(200 021)	(206,880)		(144,106)
Utility plant Solar and wind equipment	(300,031) (157,828)	(123,421)		(144,100)
Midstream and other	(23,100)	(6,644)		(2,434)
Cost of removal	(40,195)	(47,643)		(32,143)
Acquisition of retail and wholesale energy contracts	(40,173)	(47,043)		(55,661)
Investments in equity investees	(4,102)	(16,151)		(27,070)
Distributions from equity investees in excess of equity in earnings	2,428	3,117		2,749
Cash paid related to acquisition		(10,000)		
Proceeds from sale of property, net of closing costs	_	_		9,443
Proceeds from sale of businesses, net of closing costs	205,745	27,916		· —
Proceeds from sale of available for sale securities, net	34,484	 6,616		6,639
Cash flows used in investing activities	 (282,599)	 (373,090)		(391,983)
CASH FLOWS FROM (USED IN) FINANCING ACTIVITIES	465.000	225.000		100.000
Proceeds from long-term debt	467,900	225,000		100,000
Payments of long-term debt (Payments of) proceeds from short-term debt, net	(218,638) (126,500)	(165,486) (114,050)		(97,854) 144,300
Proceeds from sale-leaseback transaction - solar	(120,300)	71,538		32,901
Proceeds from sale-leaseback transaction - solar Proceeds from sale-leaseback transaction - gas meters	9,895	7,820		9,587
Payments of common stock dividends	(104,059)	(95,835)		(87,988)
Proceeds from waiver discount issuance of common stock	57,391	41,677		(67,700)
Proceeds from issuance of common stock	16,717	17,136		17,492
Purchases of treasury stock				(6,355)
Tax withholding payments related to net settled stock compensation	(7,104)	(13,755)		(4,788)
Cash flows from (used in) financing activities	95,602	(25,955)		107,295
Change in cash, cash equivalents and restricted cash	2,353	(759)		(36,642)
Cash, cash equivalents and restricted cash at beginning of period	1,710	2,469		39,111
	\$ 4,063	\$ 1,710	\$	2,469
Cash, cash equivalents and restricted cash at end of period				
Cash, cash equivalents and restricted cash at end of period CHANGES IN COMPONENTS OF WORKING CAPITAL		(7,524)	\$	(56,974)
	\$ 63,795	\$ 15 161		3,022
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories	\$ 14,265	\$ 15,464		(00)
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs	\$ 14,265 (15,733)	\$ 30,439		(90)
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable	\$ 14,265 (15,733) (74,031)	\$ 30,439 51,187		20,663
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties	\$ 14,265 (15,733) (74,031) (360)	\$ 30,439 51,187 (1)		20,663
Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes	\$ 14,265 (15,733) (74,031) (360) 2,271	\$ 30,439 51,187 (1) 1,254		20,663 2 10,366
Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256	\$ 30,439 51,187 (1) 1,254 40,422		20,663 2 10,366 13,086
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004)	\$ 30,439 51,187 (1) 1,254 40,422 (30,974)		20,663 2 10,366 13,086 22,570
Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209)	\$ 30,439 51,187 (1) 1,254 40,422 (30,974) 368		20,663 2 10,366 13,086 22,570 (5,877)
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits Other current assets	14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209) 1,991	30,439 51,187 (1) 1,254 40,422 (30,974) 368 (3,631)	6	20,663 2 10,366 13,086 22,570 (5,877) 10,313
Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits Other current assets Total	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209)	\$ 30,439 51,187 (1) 1,254 40,422 (30,974) 368	\$	20,663 2 10,366 13,086 22,570 (5,877) 10,313
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits Other current assets Total SUPPLEMENTAL DISCLOSURES	14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209) 1,991	30,439 51,187 (1) 1,254 40,422 (30,974) 368 (3,631)	\$	20,663 2 10,366 13,086 22,570 (5,877) 10,313
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits Other current assets Total SUPPLEMENTAL DISCLOSURES Cash paid (received) for:	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209) 1,991 (27,759)	\$ 30,439 51,187 (1) 1,254 40,422 (30,974) 368 (3,631) 97,004		20,663 2 10,366 13,086 22,570 (5,877) 10,313 17,081
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits Other current assets Total SUPPLEMENTAL DISCLOSURES Cash paid (received) for: Interest (net of amounts capitalized)	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209) 1,991 (27,759)	\$ 30,439 51,187 (1) 1,254 40,422 (30,974) 368 (3,631) 97,004	\$	20,663 2 10,366 13,086 22,570 (5,877) 10,313 17,081
CHANGES IN COMPONENTS OF WORKING CAPITAL Receivables Inventories Recovery of gas costs Gas purchases payable Gas purchases payable - related parties Prepaid and accrued taxes Accounts payable and other Restricted broker margin accounts Customers' credit balances and deposits Other current assets Total SUPPLEMENTAL DISCLOSURES Cash paid (received) for:	\$ 14,265 (15,733) (74,031) (360) 2,271 2,256 (22,004) (209) 1,991 (27,759)	\$ 30,439 51,187 (1) 1,254 40,422 (30,974) 368 (3,631) 97,004		20,663 2 10,366 13,086 22,570 (5,877) 10,313 17,081

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

CONSOLIDATED BALANCE SHEETS

ASSETS

(Thousands)	
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September 30,	2019	2018
PROPERTY, PLANT AND EQUIPMENT		
Utility plant, at cost	\$ 2,625,730 \$	2,368,914
Construction work in progress	232,233	192,481
Nonutility plant and equipment, at cost	861,904	697,406
Construction work in progress	62,492	45,690
Total property, plant and equipment	3,782,359	3,304,491
Accumulated depreciation and amortization, utility plant	(585,160)	(530,753)
Accumulated depreciation and amortization, nonutility plant and equipment	(156,033)	(122,689)
Property, plant and equipment, net	3,041,166	2,651,049
CURRENT ASSETS		
Cash and cash equivalents	2,676	1,458
Customer accounts receivable:		
Billed	139,263	205,490
Unbilled revenues	6,510	7,199
Allowance for doubtful accounts	(6,148)	(5,704)
Regulatory assets	32,871	18,297
Gas in storage, at average cost	169,803	184,633
Materials and supplies, at average cost	14,475	13,910
Prepaid and accrued taxes	22,602	23,047
Derivatives, at fair value	25,103	27,396
Restricted broker margin accounts	73,723	53,719
Asset held for sale	_	206,905
Other current assets	30,728	33,730
Total current assets	511,606	770,080
NONCURRENT ASSETS		
Investments in equity investees	200,268	190,866
Regulatory assets	496,637	368,592
Derivatives, at fair value	7,426	10,560
Available for sale securities	<u> </u>	32,917
Intangible assets	14,611	23,375
Other noncurrent assets	101,271	96,225
Total noncurrent assets	820,213	722,535
Total assets	\$ 4,372,985 \$	4,143,664

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

CAPITALIZATION AND LIABILITIES

(Thousands, except share data)		
September 30,	2019	2018
CAPITALIZATION		
Common stock, \$2.50 par value; authorized 150,000,000 shares; outstanding September 30, 2019 — 89,998,788; September 30, 2018 — 88,292,956	\$ 226,649	\$ 226,196
Premium on common stock	291,331	274,748
Accumulated other comprehensive loss, net of tax	(31,787)	(12,610
Treasury stock at cost and other; shares September 30, 2019 — 660,734; September 30, 2018 — 2,185,013	(10,436)	(76,473
Retained earnings	1,075,960	1,007,117
Common stock equity	1,551,717	1,418,978
Long-term debt	1,537,177	1,180,619
Total capitalization	3,088,894	2,599,597
CURRENT LIABILITIES		
Current maturities of long-term debt	21,419	123,545
Short-term debt	25,450	151,950
Gas purchases payable	137,271	211,303
Gas purchases payable to related parties	790	1,150
Accounts payable and other	129,724	135,240
Dividends payable	28,122	25,824
Accrued taxes	3,394	1,568
Regulatory liabilities	_	8,185
New Jersey Clean Energy Program	15,468	14,052
Derivatives, at fair value	57,623	46,652
Liabilities held for sale	_	4,182
Customers' credit balances and deposits	27,116	27,325
Total current liabilities	446,377	750,976
NONCURRENT LIABILITIES		
Deferred income taxes	190,663	242,436
Deferred investment tax credits	3,653	3,976
Deferred gain	1,554	9,104
Derivatives, at fair value	18,821	22,982
Manufactured gas plant remediation	131,080	130,800
Postemployment employee benefit liability	246,517	137,007
Regulatory liabilities	202,435	209,139
Asset retirement obligation	31,046	28,688
Other noncurrent liabilities	11,945	8,959
Total noncurrent liabilities	837,714	
Commitments and contingent liabilities (Note 14)		
Total capitalization and liabilities	\$ 4,372,985	\$ 4,143,664

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

CONSOLIDATED STATEMENTS OF COMMON STOCK EQUITY

(Thousands)	Number of Shares	Common Stock	Premium on Common Stock	Accumulated Other Comprehensive (Loss) Income	Treasury Stock And Other	Retained Earnings	Total
Balance at September 30, 2016	86,086	\$ 221,654	\$ 215,580	\$ (15,155)	\$ (81,044)	\$ 825,556	\$1,166,591
Net income	_	_	_	_	_	132,065	132,065
Other comprehensive income	_	_	_	11,899	_	_	11,899
Common stock issued:							
Incentive compensation plan	241	604	5,090	_	_	_	5,694
Dividend reinvestment plan (1)	472	_	(946)	_	18,568	_	17,622
Cash dividend declared (\$1.0375 per share)	_	_	_	_	_	(89,637)	(89,637)
Treasury stock and other	(243)	_	(28)	_	(7,563)	_	(7,591)
Balance at September 30, 2017	86,556	222,258	219,696	(3,256)	(70,039)	867,984	1,236,643
Net income	_	_	_	_	_	233,436	233,436
Other comprehensive loss	_	_	_	(6,078)	_	_	(6,078)
Common stock issued:							
Incentive compensation plan	561	1,403	15,169	_	_	_	16,572
Dividend reinvestment plan (1)	413	_	755	_	16,339	_	17,094
Waiver discount	1,014	2,535	39,142	_	_	_	41,677
Cash dividend declared (\$1.11 per share)	_	_	_	_	_	(97,579)	(97,579)
Treasury stock and other	(251)	_	(14)	_	(22,773)	_	(22,787)
Reclassifications of certain income tax effects to retained earnings	_	_	_	(3,276)	_	3,276	_
Balance at September 30, 2018	88,293	226,196	274,748	(12,610)	(76,473)	1,007,117	1,418,978
Net income	_	_	_	_	_	169,505	169,505
Other comprehensive loss	_	_	_	(15,731)	_	_	(15,731)
Common stock issued:							
Incentive compensation plan	182	453	3,334	_	_	_	3,787
Dividend reinvestment plan (1)	351	_	2,718	_	13,945	_	16,663
Waiver discount	1,181	_	10,531	_	46,860	_	57,391
Cash dividend declared (\$1.19 per share)		_	_	_	_	(106,342)	(106,342)
Treasury stock and other	(8)	_	_	_	5,232	_	5,232
Adoption of ASU 2016-01 (2)	_	_	_	(3,446)	_	3,446	_
Adoption of ASU 2017-05 (2)	_	_	_	_	_	4,970	4,970
Adoption of ASU 2014-09/ASC 606 (2)	_	_	_	_	_	(2,736)	(2,736)
Balance at September 30, 2019	89,999	\$ 226,649	\$ 291,331	\$ (31,787)	\$ (10,436)	\$1,075,960	\$1,551,717

⁽¹⁾ Shares sold through the DRP are issued from treasury stock at average cost, which may differ from the actual market price paid.

⁽²⁾ See Note 2. Summary of Significant Accounting Policies - Recently Adopted Updates to the Accounting Standards Codification section for more details.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

1. NATURE OF THE BUSINESS

New Jersey Resources Corporation provides regulated gas distribution services and operates certain unregulated businesses primarily through the following:

New Jersey Natural Gas Company provides natural gas utility service to approximately 547,600 retail customers in central and northern New Jersey and is subject to rate regulation by the BPU. NJNG comprises the Natural Gas Distribution segment.

NJR Clean Energy Ventures Corporation, the Company's clean energy subsidiary, comprises the Clean Energy Ventures segment and consists of the Company's capital investments in commercial and residential solar projects located throughout New Jersey. Clean Energy Ventures finalized the sale of its remaining wind assets on February 7, 2019; see *Note 17. Acquisitions and Dispositions* for more details.

NJR Energy Services Company comprises the Energy Services segment. Energy Services maintains and transacts around a portfolio of natural gas storage and transportation capacity contracts and provides physical wholesale energy, retail energy and energy management services in the U.S. and Canada. From July 2017 through February 2018, NJR Retail Services Company provided retail natural gas supply and transportation services to commercial and industrial customers in Delaware, Maryland, Pennsylvania and New Jersey as part of the Energy Services segment. NJRRS was sold to an unrelated third party on February 28, 2018. See *Note 17. Acquisitions and Dispositions* for more details regarding the sale.

NJR Midstream Holdings Corporation, which comprises the Midstream segment, invests in energy-related ventures through its subsidiaries: NJR Steckman Ridge Storage Company, which holds the Company's 50 percent combined ownership interest in Steckman Ridge, located in Pennsylvania; NJNR Pipeline; and NJR Pipeline Company, which includes Adelphia Gateway, LLC and the Company's 20 percent ownership interest in PennEast. See *Note 7. Investments in Equity Investees* for more information.

NJR Retail Holdings Corporation has two principal subsidiaries: NJR Home Services Company, which provides heating, central air conditioning, standby generators, solar and other indoor and outdoor comfort products to residential homes throughout New Jersey; and Commercial Realty & Resources Corporation, which owns commercial real estate. NJR Home Services Company and Commercial Realty & Resources Corporation are included in Home Services and Other operations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The Consolidated Financial Statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated.

Other financial investments or contractual interests that lack the characteristics of a voting interest entity, which are commonly referred to as variable interest entities, are evaluated by the Company to determine if the entity has the power to direct business activities and, therefore, would be considered a controlling interest that the Company would have to consolidate. Based on those evaluations, NJR has determined that it does not have any investments in variable interest entities as of September 30, 2019, 2018 and 2017.

Investments in entities over which the Company does not have a controlling financial interest are either accounted for under the equity method or cost method of accounting.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires the Company to make estimates that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosure of contingencies during the reporting period. On a quarterly basis or more frequently whenever events or changes in circumstances indicate a need, the Company evaluates its estimates, including those related to the calculation of the fair value of derivative instruments, debt, equity method investments, unbilled revenues, allowance for doubtful accounts, provisions for depreciation and amortization, long-lived assets, regulatory assets and liabilities, income taxes, pensions and other postemployment benefits, contingencies related to environmental matters and litigation. ARO are evaluated as often as needed. The Company's estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Company has legal, regulatory and environmental proceedings during the normal course of business that can result in loss contingencies. When evaluating the potential for a loss, the Company will establish a reserve if a loss is probable and can be reasonably estimated, in which case it is the Company's policy to accrue the full amount of such estimates. Where the information is sufficient only to establish a range of probable liability, and no point within the range is more likely than any other, it is the Company's policy to accrue the lower end of the range. In the normal course of business, estimated amounts are subsequently adjusted to actual results that may differ from estimates.

Acquisitions

The Company follows the guidance in ASC 805, *Business Combinations*, for determining the appropriate accounting treatment for acquisitions. ASU No. 2017-01, *Clarifying the Definition of a Business*, provides an initial fair value screen to determine if substantially all of the fair value of the assets acquired is concentrated in a single asset or group of similar assets. If the initial screening test is not met, the set is considered a business based on whether there are inputs and substantive processes in place. Based on the results of this analysis and conclusion on an acquisition's classification of a business combination or an asset acquisition, the accounting treatment is derived.

If the acquisition is deemed to be a business, the acquisition method of accounting is applied. Identifiable assets acquired and liabilities assumed at the acquisition date are recorded at fair value. If the transaction is deemed to be an asset purchase, the cost accumulation and allocation model is used whereby the assets and liabilities are recorded based on the purchase price and allocated to the individual assets and liabilities based on relative fair values.

The determination and allocation of fair values to the identifiable assets acquired and liabilities assumed are based on various assumptions and valuation methodologies requiring considerable management judgment. The most significant variables in these valuations are discount rates and the number of years on which to base the cash flow projections, as well as other assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates based on the risk inherent in the acquired assets and related cash flows. The valuation of an acquired business is based on available information at the acquisition date and assumptions that are believed to be reasonable. However, a change in facts and circumstances as of the acquisition date can result in subsequent adjustments during the measurement period, but no later than one year from the acquisition date.

Revenues

Revenues from the sale of natural gas to NJNG customers are recognized in the period that gas is delivered and consumed by customers, including an estimate for unbilled revenue.

NJNG records unbilled revenue for natural gas services. Natural gas sales to individual customers are based on meter readings, which are performed on a systematic basis throughout the month. At the end of each month, the amount of natural gas delivered to each customer after the last meter reading through the end of the respective accounting period is estimated, and recognizes unbilled revenues related to these amounts. The unbilled revenue estimates are based on estimated customer usage by customer type, weather effects, unaccounted-for gas and the most current tariff rates.

Clean Energy Ventures recognizes revenue when SRECs are transferred to counterparties. SRECs are physically delivered through the transfer of certificates as per contractual settlement schedules.

Revenues for Energy Services are recognized when the natural gas is physically delivered to the customer. In addition, changes in the fair value of derivatives that economically hedge the forecasted sales of the natural gas are recognized in operating revenues as they occur, as noted above. Energy Services also recognizes changes in the fair value of SREC derivative contracts as a component of operating revenues.

Revenues from all other activities are recorded in the period during which products or services are delivered and accepted by customers, or over the related contractual term.

See Note 3. Revenue for further information.

Gas Purchases

NJNG's tariff includes a component for BGSS, which is designed to allow it to recover the cost of natural gas through rates charged to its customers and is typically revised on an annual basis. As part of computing its BGSS rate, NJNG projects its cost of natural gas, net of supplier refunds, the impact of hedging activities and cost savings created by BGSS incentive programs.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJNG subsequently recovers or credits the difference, if any, of actual costs compared with those included in current rates. Any underrecoveries or overrecoveries are either credited to customers or deferred and, subject to BPU approval, reflected in the BGSS rates in subsequent years.

Natural gas purchases at Energy Services are composed of gas costs to be paid upon completion of a variety of transactions, as well as realized gains and losses from settled derivative instruments and unrealized gains and losses on the change in fair value of derivative instruments that have not yet settled. Changes in the fair value of derivatives that economically hedge the forecasted purchases of natural gas are recognized in gas purchases as they occur.

Demand Fees

For the purpose of securing storage and pipeline capacity in support of their respective businesses, the Energy Services and Natural Gas Distribution segments enter into storage and pipeline capacity contracts, which require the payment of associated demand fees and charges that allow them access to a high priority of service in order to maintain the ability to access storage or pipeline capacity during a fixed time period, which generally ranges from one to 10 years. Many of these demand fees and charges are based on established tariff rates as established and regulated by FERC. These charges represent commitments to pay storage providers and pipeline companies for the priority right to transport and/or store natural gas utilizing their respective assets.

The following table summarizes the demand charges, which are net of capacity releases, and are included as a component of gas purchases on the Consolidated Statements of Operations for the fiscal years ended September 30:

(Millions)	 2019	2018	20	017
Energy Services	\$ 120.4 \$	153.0	\$	126.4
Natural Gas Distribution	119.1	92.5		80.2
Total	\$ 239.5 \$	245.5	\$	206.6

Energy Services expenses demand charges over the term of the service being provided.

The Natural Gas Distribution segment's costs associated with demand charges are included in its weighted average cost of gas. The demand charges are expensed based on NJNG's BGSS sales and recovered as part of its gas commodity component of its BGSS tariff.

Operations and Maintenance Expenses

Operations and maintenance expenses include operations and maintenance salaries and benefits, materials and supplies, usage of vehicles, tools and equipment, payments to contractors, utility plant maintenance, customer service, professional fees and other outside services, insurance expense, accretion of cost of removal for future retirements of utility assets and other administrative expenses and are expensed as incurred.

Stock-Based Compensation

Stock-based compensation represents costs related to stock-based awards granted to employees and NJR Board of Directors members. NJR recognizes stock-based compensation based upon the estimated fair value of awards. The recognition period for these costs begins at either the applicable service inception date or grant date and continues throughout the requisite service period. The related compensation cost is recognized as O&M expense on the Consolidated Statements of Operations. See *Note 10. Stock-Based Compensation* for further information.

Sales Tax Accounting

As a result of the adoption of ASC 606, *Revenue from Contracts with Customers*, as of October 1, 2018, the Company excludes from the transaction price all sales taxes that are assessed by a governmental authority and therefore presents sales tax on a net basis in operating revenues on the Consolidated Statements of Operations. Prior to October 1, 2018, sales tax was presented in both operating revenues and operating expenses on the Consolidated Statements of Operations.

Income Taxes

The Company computes income taxes using the asset and liability method, whereby deferred income taxes are generally determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. See *Note 13. Income Taxes*. In addition, the Company evaluates its tax positions to determine the appropriate accounting and recognition of future obligations associated with unrecognized tax benefits.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Company invests in property that qualifies for federal ITCs and utilizes the ITCs, as allowed, based on the cost and life of the assets. ITCs at NJNG are deferred and amortized as a reduction to the tax provision over the average lives of the related equipment in accordance with regulatory treatment. ITCs at the unregulated subsidiaries of NJR are recognized as a reduction to income tax expense when the property is placed in service. PTCs are recognized as reductions to current federal income tax expense as PTCs are generated through the production activities of the assets. Changes to the federal statutes related to ITCs and PTCs, which have the effect of reducing or eliminating the credits, could have a negative impact on earnings and cash flows.

Investments in Equity Investees

The Company accounts for its investments in Steckman Ridge and PennEast using the equity method of accounting where it is not the primary beneficiary, as defined under ASC 810, *Consolidation*, its respective ownership interests are 50 percent or less and/or it has significant influence over operating and management decisions. The Company's share of earnings is recognized as equity in earnings of affiliates on the Consolidated Statements of Operations.

Equity method investments are reviewed for impairment when changes in facts and circumstances indicate that the current fair value may be less than the asset's carrying amount. If the Company determines the decline in the value of its equity method investment is other than temporary, an impairment charge is recorded in an amount equal to the excess of the carrying value of the asset over its fair value.

Property Plant and Equipment

Regulated property, plant and equipment is stated at original cost. Costs include direct labor, materials and third-party construction contractor costs, AFUDC and certain indirect costs related to equipment and employees engaged in construction. Nonregulated property, plant and equipment is stated at original cost. Costs include direct labor, materials and third-party construction contractor costs and certain indirect costs related to equipment and employees engaged in construction. Upon retirement, the cost of depreciable property, plus removal costs less salvage, is charged to accumulated depreciation with no gain or loss recorded.

Depreciation is computed on a straight-line basis over the useful life of the assets for unregulated entities, and using rates based on the estimated average lives of the various classes of depreciable property for NJNG. The composite rate of depreciation used for NJNG was 2.25 percent of average depreciable property in fiscal 2019, 2.29 percent in fiscal 2018 and 2.25 percent in fiscal 2017. The Company recorded \$91.7 million, \$85.7 million and \$81.8 million in depreciation expense during fiscal 2019, 2018 and 2017, respectively. The overall depreciation rate is 2.4 percent, as settled in the base rate case.

Property, plant and equipment was comprised of the following as of September 30:

(Thousands)

(1.000000000)			
Property Classifications	Estimated Useful Lives	2019	2018
Distribution facilities	38 to 74 years	\$ 2,414,603	\$ 2,151,249
Transmission facilities	35 to 56 years	330,912	295,692
Storage facilities	34 to 47 years	79,916	79,470
Solar property	15 to 25 years	879,597	720,562
Midstream property	30 years	28,445	6,747
All other property	5 to 35 years	48,886	50,771
Total property, plant and equipment		3,782,359	3,304,491
Accumulated depreciation and amortization		(741,193)	(653,442)
Property, plant and equipment, net		\$ 3,041,166	\$ 2,651,049

Capitalized and Deferred Interest

NJNG's base rates include the ability to recover AFUDC on its construction work in progress. For all NJNG construction projects, an incremental cost of equity is recoverable during periods when NJNG's short-term debt balances are lower than its construction work in progress. For more information on AFUDC treatment with respect to certain accelerated infrastructure projects, see *Note 4. Regulation - Infrastructure Programs*.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Capitalized amounts associated with the debt and equity components of NJNG's AFUDC are recorded in utility plant on the Consolidated Balance Sheets. Corresponding amounts for the debt component are recognized in interest expense and in other income for the equity component on the Consolidated Statements of Operations. Capitalized and deferred interest include the following for the fiscal years ended September 30:

(\$ in thousands)	2019		2018		2017
AFUDC:					
Debt	\$ 3,710	\$	1,979	\$	1,311
Equity	6,492		5,531		3,867
Total	\$ 10,202	\$	7,510	\$	5,178
Weighted average interest rate	6.35%	6	5.94%	ó	6.90%

Pursuant to a BPU order, NJNG is permitted to recover carrying costs on uncollected balances related to SBC program costs, which include NJCEP, RAC and USF expenditures. See *Note 4. Regulation*. The SBC interest rate changes each September based on the August 31 seven-year constant maturity treasury rate plus 60 basis points. The rate was 3.30 percent, 3.41 percent and 2.55 percent for the fiscal years ended September 30, 2019, 2018 and 2017, respectively. Accordingly, other income included \$760,000, \$411,000 and \$78,000 in the fiscal years ended September 30, 2019, 2018 and 2017, respectively.

Clean Energy Ventures capitalizes interest on the allocation of the costs of debt borrowed for the financing of solar investments. Capitalized amounts are included in nonutility plant and equipment on the Consolidated Balance Sheets.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on deposit and temporary investments with maturities of three months or less, and excludes restricted cash of \$1.4 million and \$252,000 as of September 30, 2019 and 2018, respectively, related to escrow balances for utility plant projects, which is recorded in other current and noncurrent assets on the Consolidated Balance Sheets.

Loans Receivable

NJNG currently provides loans, with terms ranging from 2 to 10 years, to customers that elect to purchase and install certain energy-efficient equipment in accordance with its BPU-approved SAVEGREEN program. The loans are recognized at net present value on the Consolidated Balance Sheets. The Company recorded \$12.4 million and \$10.4 million in other current assets and \$38.8 million and \$39.5 million in other noncurrent assets as of September 30, 2019 and 2018, respectively, on the Consolidated Balance Sheets, related to the loans. If NJNG determines a loan is impaired, the basis of the loan would be subject to regulatory review for recovery. As of September 30, 2019 and 2018, an allowance for doubtful accounts for SAVEGREEN loans was not considered necessary.

Regulatory Assets & Liabilities

Under cost-based regulation, regulated utility enterprises generally are permitted to recover their operating expenses and earn a reasonable rate of return on their utility investment.

Our Natural Gas Distribution segment maintains its accounts in accordance with the FERC Uniform System of Accounts as prescribed by the BPU and in accordance with the ASC 980, *Regulated Operations*. As a result of the impact of the ratemaking process and regulatory actions of the BPU, NJNG is required to recognize the economic effects of rate regulation. Accordingly, NJNG capitalizes or defers certain costs that are expected to be recovered from its customers as regulatory assets and recognizes certain obligations representing probable future expenditures as regulatory liabilities on the Consolidated Balance Sheets. See *Note 4. Regulation* for a more detailed description of NJNG's regulatory assets and liabilities.

Gas in Storage

Gas in storage is reflected at average cost on the Consolidated Balance Sheets and represents natural gas and LNG that will be utilized in the ordinary course of business.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The following table summarizes gas in storage, at average cost by company, as of September 30:

	2019		2018	
(\$ in thousands)	Gas in Storage	Bcf	Gas in Storage	Bcf
Energy Services	\$ 52,390	25.6	\$ 90,166	34.1
Natural Gas Distribution	117,413	27.0	94,467	24.9
Total	\$ 169,803	52.6	\$ 184,633	59.0

Derivative Instruments

The Company accounts for its financial instruments, such as futures, options, foreign exchange contracts and interest rate contracts, as well as its physical commodity contracts related to the purchase and sale of natural gas at Energy Services, as derivatives, and therefore recognizes them at fair value on the Consolidated Balance Sheets. The Company's unregulated subsidiaries record changes in the fair value of their financial commodity derivatives in gas purchases and changes in the fair value of their physical forward contracts in gas purchases or operating revenues, as appropriate, on the Consolidated Statements of Operations. Ineffective portions of the cash flow hedges are recognized immediately in earnings.

The ASC 815, *Derivatives and Hedging* also provides for a NPNS scope exception for qualifying physical commodity contracts that are intended for purchases and sales during the normal course of business and for which physical delivery is probable. Effective January 1, 2016, the Company prospectively applies this normal scope exception on a case-by-case basis to physical commodity contracts at NJNG and forward SREC contracts at Clean Energy Ventures. When applied, it does not record changes in the fair value of these contracts until the contract settles and the related underlying natural gas or SREC is delivered. Gains and/or losses on NJNG's derivatives used to economically hedge its regulated natural gas supply obligations, as well as its exposure to interest rate variability, are recoverable through its BGSS, a component of its tariff. Accordingly, the offset to the change in fair value of these derivatives is recorded as a regulatory asset or liability on the Consolidated Balance Sheets. See *Note 5. Derivative Instruments* for additional details regarding natural gas trading and hedging activities.

Fair values of exchange-traded instruments, including futures and swaps, are based on unadjusted, quoted prices in active markets. The Company's non-exchange-traded financial instruments, foreign currency derivatives, over-the-counter physical commodity contracts at Energy Services and interest rate contracts are valued using observable, quoted prices for similar or identical assets when available. In establishing the fair value of contracts for which a quoted basis price is not available at the measurement date, management utilizes available market data and pricing models to estimate fair values. Fair values are subject to change in the near term and reflect management's best estimate based on a variety of factors. Estimating fair values of instruments that do not have quoted market prices requires management's judgment in determining amounts that could reasonably be expected to be received from, or paid to, a third party in settlement of the instruments. These amounts could be materially different from amounts that might be realized in an actual sale transaction.

Assets Held for Sale

The Company classifies an asset as held for sale if there is a commitment to sell the asset, the asset is available for immediate sale, the sale is probable and the sale will be completed within one year. Assets classified as held for sale are measured at the lower of their carrying value or fair value less cost to sell.

In March 2018, Clean Energy Ventures committed to a plan to sell its wind assets and expected that the sale would be completed within the next 12 months. Accordingly, the Company classified its wind assets and related liabilities as held for sale on the Consolidated Balance Sheets, which resulted in depreciation expense on wind assets no longer being recorded.

On June 1, 2018, Clean Energy Ventures completed the sale of its membership interest in a 9.7 MW wind farm in Two Dot, Montana, and on February 7, 2019, Clean Energy Ventures finalized the sale of its remaining wind assets. See *Note 17. Acquisitions and Dispositions* for more details.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The major classes of assets and liabilities included within the disposal group as held for sale are as follows:

(Thousands)	Sep	otember 30, 2018	Assets classified as eld for sale		ssets Sold	adj	Other ustments (1)	Sep	otember 30, 2019
Assets held for sale:									
Property, plant and equipment - wind equipment, at cost	\$	224,356	\$ _	\$ (2	24,356)	\$	_	\$	_
Property, plant and equipment - accumulated depreciation, wind equipment		(18,501)	_		18,501	\$	_		_
Prepaid and accrued taxes		789	1,747		(1,541)	\$	(995)		_
Other noncurrent assets		261	_		(261)	\$			<u> </u>
	\$	206,905	\$ 1,747	\$ (2	07,657)	\$	(995)	\$	_
Liabilities held for sale:									
Accounts payable and other (1)	\$	186	\$ _	\$	(186)	\$	_	\$	_
Asset retirement obligation		3,996	_		(3,996)				_
	\$	4,182	\$ 	\$	(4,182)	\$	_	\$	_

⁽¹⁾ Activity relates to amortization of prepaid and other current assets prior to the sale of the Company's remaining wind assets in February 2019.

Software Costs

The Company capitalizes certain costs, such as software design and configuration, coding, testing and installation, that are incurred to purchase or create and implement computer software for internal use. Capitalized costs include external costs of materials and services utilized in developing or obtaining internal-use software and payroll and payroll-related costs for employees who are directly associated with and devote time to the internal-use software project. Maintenance costs are expensed as incurred. Upgrades and enhancements are capitalized if it is probable that such expenditures will result in additional functionality. Amortization is recorded on the straight-line basis over the estimated useful lives. The Company capitalized \$6.5 million in other noncurrent assets on the Consolidated Balance Sheets and recorded \$9.1 million in O&M on the Consolidated Statements of Operations for the fiscal year ended September 30, 2019, related to information technology replacement and enhancement projects.

Investments in Equity Securities

Investments in equity securities were carried at fair value on the Consolidated Balance Sheets. For the fiscal year ended September 30, 2018, total unrealized gains and losses associated with equity securities were included as a part of accumulated other comprehensive income, a component of common stock equity, and reclassifications of realized gains or losses out of other comprehensive income into earnings were recorded in other income, net on the Consolidated Statements of Operations, based on average cost. On October 1, 2018, the Company adopted ASU No. 2016-01, an amendment to ASC 825, *Financial Instruments*. As a result, both realized and unrealized gains and losses were recorded in other income, net on the Consolidated Statements of Operations, based on average cost.

As of September 30, 2018, the Company's investments in equity securities were comprised of an investment in DM Common Units, which had a fair value of \$32.9 million. On January 28, 2019, Dominion and DM finalized an agreement and plan of merger and outstanding DM Common Units held immediately before the closing of the merger were converted into 0.2492 shares of Dominion common stock. This resulted in the conversion of the Company's 1.84 million DM Common Units into approximately 458,000 Dominion shares. On March 6, 2019, the Company sold its investment in Dominion and received proceeds of approximately \$34.5 million related to the sale and recorded total realized gains of \$1.6 million in other income, net on the Consolidated Statements of Operations.

Intangible Assets

Finite-lived intangible assets are stated at cost less accumulated amortization. The Company amortizes intangible assets based upon the pattern in which the economic benefits are consumed over the life of the asset unless a pattern cannot be reliably determined, in which case the Company uses a straight-line amortization method. As of September 30, 2019, intangible assets consist of acquired wholesale natural gas energy contracts and certain internal-use software costs totaling \$14.6 million. The wholesale natural gas contracts are being amortized based upon expected cash flows over the respective terms of the agreements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The estimated future amortization expense for the next five years as of September 30, is as follows:

(Thousands)	
2020	\$ 5,011
2021	\$ 4,691
2022	\$ 2,561
2023	\$ 2,271
2024 and thereafter	\$ 77

Long-lived Assets

The Company reviews the recoverability of long-lived assets and finite-lived intangible assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable, such as significant adverse changes in regulation, business climate or market conditions, including prolonged periods of adverse commodity and capacity prices. If there are changes indicating that the carrying value of such assets may not be recoverable, an undiscounted cash flows test is performed. If the sum of the expected future undiscounted cash flows is less than the carrying amount of the asset, an impairment loss is recognized by reducing the recorded value of the asset to its fair value. Factors that the Company analyzes in determining whether an impairment in its long-lived assets exists include: a significant decrease in the market price of a long-lived asset; a significant adverse change in the extent in which a long-lived asset is being used in its physical condition; legal proceedings or factors; significant business climate changes; accumulations of costs in significant excess of the amounts expected; a current-period operating or cash flow loss combined with a history of such events; and current expectations that more likely than not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its estimated useful life. During fiscal years 2019 and 2018, there were no events or circumstances that indicated that the carrying value of long-lived assets or finite-lived intangibles were not recoverable.

Debt Issuance Costs

Debt issuance costs are capitalized and amortized as interest expense on a basis which approximates the effective interest method over the term of the related debt. Debt issuance costs are presented as a direct deduction from the carrying amount of the related debt. See *Note 9. Debt* for the total unamortized debt issuance costs that are recorded as a reduction to long-term debt on the Consolidated Balance Sheets.

Sale-Leasebacks

NJNG utilizes sale-leaseback arrangements as a financing mechanism to fund certain of its capital expenditures related to natural gas meters, whereby the physical asset is sold concurrent with an agreement to lease the asset back. These agreements include options to renew the lease at the end of the term or repurchase the asset. Proceeds from sale-leaseback transactions are accounted for as financings and are included in long-term debt on the Consolidated Balance Sheets. During fiscal 2019 and 2018, NJNG received \$9.9 million and \$7.8 million, respectively, in connection with the sale-leaseback of its natural gas meters with terms ranging from seven to 11 years.

In addition, for certain of its commercial solar energy projects, the Company enters into lease agreements that provide for the sale of commercial solar energy assets to third parties and the concurrent leaseback of the assets. For sale-leaseback transactions where the Company has concluded that the terms of the arrangement create a continuing involvement in the asset and the asset is considered integral equipment, the Company uses the financing method to account for the transaction. Under the financing method, the Company recognizes the proceeds received from the lessor that constitute a payment to acquire the solar energy asset as a financing arrangement, which is recorded as a component of debt on the Consolidated Balance Sheets.

Clean Energy Ventures received \$71.5 million and \$32.9 million in proceeds related to the sale of commercial solar assets during fiscal 2018 and 2017. Clean Energy Ventures simultaneously entered into agreements to lease the assets back over six- to 15-year terms. The Company continues to operate the solar assets and is responsible for related expenses and entitled to retain the revenue generated from SRECs and energy sales. The ITCs and other tax benefits associated with these solar projects have been transferred to the buyer; however, the lease payments are structured so that Clean Energy Ventures is compensated for the transfer of the related tax incentives. Accordingly, Clean Energy Ventures recognizes the equivalent value of the ITC in other income on the Consolidated Statements of Operations over the respective five-year ITC recapture periods, starting with the second year of the lease. Clean Energy Ventures did not enter into sale-leaseback arrangements during fiscal 2019 and therefore recognized the full ITC in income tax (benefit) provision on the Consolidated Statements of Operations when the assets were placed in service.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Environmental Contingencies

Loss contingencies are recorded as liabilities when it is probable a liability has been incurred and the amount of the loss is reasonably estimable in accordance with accounting standards for contingencies. Estimating probable losses requires an analysis of uncertainties that often depend upon judgments about potential actions by third parties. Accruals for loss contingencies are recorded based on an analysis of potential results.

With respect to environmental liabilities and related costs, NJNG periodically, and at least annually, performs an environmental review of the MGP sites, including a review of potential liability for investigation and remedial action. NJNG's estimate of these liabilities is based upon known facts, existing technology and enacted laws and regulations in place when the review was completed. Where it is probable that costs will be incurred, and the information is sufficient to establish a range of possible liability, NJNG accrues the most likely amount in the range. If no point within the range is more likely than the other, it is NJNG's policy to accrue the lower end of the range. The actual costs to be incurred by NJNG are dependent upon several factors, including final determination of remedial action, changing technologies and governmental regulations, the ultimate ability of other responsible parties to pay and any insurance recoveries. NJNG will continue to seek recovery of MGP-related costs through the RAC. If any future regulatory position indicates that the recovery of such costs is not probable, the related non-recoverable costs would be charged to income in the period of such determination. See *Note 14. Commitments and Contingent Liabilities* for more details.

Pension and Postemployment Plans

The Company has two noncontributory defined pension plans covering eligible employees, including officers. Benefits are based on each employee's years of service and compensation. The Company's funding policy is to contribute annually to these plans at least the minimum amount required under the Employee Retirement Income Security Act, as amended, and not more than can be deducted for federal income tax purposes. Plan assets consist of equity securities, fixed-income securities and short-term investments. The Company made no discretionary contributions to the pension plans in fiscal 2019, 2018 and 2017.

The Company also provides two primarily noncontributory medical and life insurance plans for eligible retirees and dependents. Medical benefits, which make up the largest component of the plans, are based upon an age and years-of-service vesting schedule and other plan provisions. Funding of these benefits is made primarily into Voluntary Employee Beneficiary Association trust funds. The Company contributed \$7.9 million, \$6.2 million and \$6 million in aggregate to these plans in fiscal 2019, 2018 and 2017, respectively, which is recorded in postemployment employee benefit liability on the Consolidated Balance Sheets. See *Note 11. Employee Benefit Plans*, for a more detailed description of the Company's pension and postemployment plans.

Asset Retirement Obligations

The Company recognizes ARO related to the costs associated with cutting and capping NJNG's main and service gas distribution mains, which is required by New Jersey law when taking such gas distribution mains out of service. The Company also recognizes ARO associated with Clean Energy Ventures' solar assets when there are decommissioning provisions in lease agreements that require removal of the asset at the end of the lease term.

ARO are initially recognized when the legal obligation to retire an asset has been incurred and a reasonable estimate of fair value can be made. The discounted fair value is recognized as an ARO liability with a corresponding amount capitalized as part of the carrying cost of the underlying asset. The obligation is subsequently accreted to the future value of the expected retirement cost and the corresponding asset retirement cost is depreciated over the life of the related asset. Accretion expense associated with Clean Energy Ventures' ARO is recognized as a component of operations and maintenance expense on the Consolidated Statements of Operations. Accretion amounts associated with NJNG's ARO are recognized as part of its depreciation expense and the corresponding regulatory asset and liability will be shown gross on the Consolidated Balance Sheets.

Estimating future removal costs requires management to make significant judgments because most of the removal obligations span long time frames and removal may be conditioned upon future events. Asset removal technologies are also constantly changing, which makes it difficult to estimate removal costs. Accordingly, inherent in the estimate of ARO are various assumptions including the ultimate settlement date, expected cash outflows, inflation rates, credit-adjusted risk-free rates and consideration of potential outcomes where settlement of the ARO can be conditioned upon events. In the latter case, the Company develops possible retirement scenarios and assigns probabilities based on management's reasonable judgment and knowledge of industry practice. Accordingly, ARO are subject to change.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Accumulated Other Comprehensive Income

The following table presents the changes in the components of accumulated other comprehensive income, net of related tax effects, as of September 30:

(Thousands)	Ir	nvestments in Equity Securities	pos	djustment to temployment efit obligation	Total
Balance at September 30, 2017	\$	11,044	\$	(14,300)	\$ (3,256)
Other comprehensive income, net of tax					
Other comprehensive (loss) income, before reclassifications, net of tax of \$6,973, \$(125), \$6,848		(19,245)		464	(18,781)
Amounts reclassified from accumulated other comprehensive income, net of tax of \$(858), \$(448), \$(1,306)		11,647		1,056 ⁽¹⁾	12,703
Net current-period other comprehensive (loss) income, net of tax of \$6,115, \$(573), \$5,542		(7,598)		1,520	(6,078)
Reclassifications of certain income tax effects to retained earnings (2)		_		(3,276)	(3,276)
Balance at September 30, 2018	\$	3,446	\$	(16,056)	\$ (12,610)
Other comprehensive income, net of tax					
Other comprehensive (loss) income, before reclassifications, net of tax of \$0, \$6,557, \$6,557		_		(16,978)	(16,978)
Amounts reclassified from accumulated other comprehensive income (loss), net of tax of \$0, \$(451), \$(451)		_		1,247 (1)	1,247
Net current-period other comprehensive income, net of tax of \$0, \$6,106, \$6,106		_		(15,731)	(15,731)
Reclassifications of certain income tax effects to retained earnings (3)		(3,446)		_	(3,446)
Balance at September 30, 2019	\$	_	\$	(31,787)	\$ (31,787)
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⁽¹⁾ Included in the computation of net periodic pension cost, a component of O&M expense on the Consolidated Statements of Operations. For more details, see Note 11. Employee Benefit Plans.

Foreign Currency Transactions

The market area of Energy Services includes Canadian delivery points and as a result, Energy Services incurs certain natural gas commodity costs and demand fees denominated in Canadian dollars. Gains or losses that occur as a result of these foreign currency transactions are reported as a component of gas purchases on the Consolidated Statements of Operations. Gains and losses recognized for the fiscal years ended September 30, 2019, 2018 and 2017, are considered immaterial.

Reclassification

Certain prior period amounts related to restricted cash on the Consolidated Statements of Cash Flows and compensation costs on the Consolidated Statements of Operations have been reclassified to conform to the current period presentation due to the ASU adoptions listed below.

Recently Adopted Updates to the Accounting Standards Codification

Revenue

In May 2014, the FASB issued ASU No. 2014-09, and added ASC 606, *Revenue from Contracts with Customers*, to the ASC. ASC 606 supersedes ASC 605, *Revenue Recognition*, as well as most industry-specific guidance, and prescribes a single, comprehensive revenue recognition model designed to improve financial reporting comparability across entities, industries, jurisdictions and capital markets. The Company adopted the new guidance in the first quarter of fiscal 2019 and applied the new provisions on a modified retrospective basis.

⁽²⁾ Due to the adoption of ASU No. 2018-02, an amendment to ASC 740, *Income Taxes*. See *Note 2. Summary of Significant Accounting Policies - Recently Adopted Updates to the Accounting Standards Codification* section for more details.

⁽³⁾ Due to the adoption of ASU No. 2016-01, an amendment to ASC 825, Financial Instruments. See Note 2. Summary of Significant Accounting Policies - Recently Adopted Updates to the Accounting Standards Codification section for more details.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Company recorded a cumulative-effect adjustment of \$3.8 million, \$2.7 million net of deferred income taxes, to retained earnings at Home Services and Other during the first quarter of fiscal 2019. As of October 1, 2018, NJRHS recognizes contract revenue on a straight-line basis over the term of the contract. Previously, contract revenue was recognized over the term of the service contract based on expected demand for services. The Company elected the practical expedient to exclude from the transaction price all sales taxes that are assessed by a governmental authority and therefore presents sales tax on a net basis in operating revenues on the Consolidated Statements of Operations. Prior to adoption, operating revenue and energy taxes and other would have been \$45.3 million higher for fiscal 2019, due to the Company's sales tax presentation. There was no additional impact on the Company's financial position, results of operations or cash flows.

The Company concluded that its tariff-based sales of natural gas are within the scope of the new guidance and the adoption did not result in any modification to the pattern of revenue recognition from such sales. Revenues from derivative instruments, such as those related to the Company's SREC sales and natural gas purchases and sales will continue to be accounted for under ASC 815 and thus are outside the scope of ASC 606. Additionally, NJNG revenues generated by the CIP have been determined to be alternative revenue programs under ASC 980 and are also outside the scope of ASC 606, as they are deemed to be a contract with the BPU. The Company also evaluated its renewable asset PPA arrangements and determined that no modification to the pattern of revenue recognition of the related electricity, capacity and REC sales was necessary. Revenues from RECs sold as part of a bundled arrangement continue to be recognized in the same period as the related generation.

Based on the completion of the Company's evaluation and assessment of its revenue streams, the Company concluded that the new guidance did not have a material impact on its financial position, results of operations or cash flows. ASC 606 requires expanded disclosures, including the disclosure of performance obligations, disaggregated revenues and contract balances, which is included in *Note 3. Revenue*.

Statement of Cash Flows

In August 2016, the FASB issued ASU No. 2016-15, an amendment to ASC 230, *Statement of Cash Flows*, which addresses eight specific cash flow issues for which there has been diversity in practice. The Company adopted this guidance in the first quarter of fiscal 2019 and applied the new provisions on a retrospective basis, which did not impact its statement of cash flows.

In November 2016, the FASB issued ASU No. 2016-18, an amendment to ASC 230, *Statement of Cash Flows*, which requires that any amounts that are deemed to be restricted cash or restricted cash-equivalents be included in cash and cash-equivalent balances on the cash flow statement and, therefore, transfers between cash and restricted cash accounts will no longer be recognized within the statement of cash flows. The Company adopted this guidance in the first quarter of fiscal 2019 and applied the new provisions on a retrospective basis, which did not materially impact its statement of cash flows. Accordingly, the following table provides a reconciliation of cash and cash equivalents and restricted cash reported on the Consolidated Balance Sheets to the total amounts in the Consolidated Statements of Cash Flows as follows:

(Thousands)	September 30 2019		September 30, 2018	September 30, 2017	September 30, 2016
Balance Sheet					
Cash and cash equivalents	\$	2,676	\$ 1,458	\$ 2,226	\$ 37,546
Restricted cash in other noncurrent assets		1,387	252	243	1,565
Statements of Cash Flow					
Cash, cash equivalents and restricted cash in the statement of cash flows	\$	4,063	\$ 1,710	\$ 2,469	\$ 39,111

Financial Instruments

In January 2016, the FASB issued ASU No. 2016-01, an amendment to ASC 825, *Financial Instruments*, to address certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. The standard affects investments in equity securities that do not result in consolidation and are not accounted for under the equity method and the presentation of certain fair value changes for financial liabilities measured at fair value. It also simplifies the impairment assessment of equity investments without a readily determinable fair value by requiring a qualitative assessment. The Company adopted this guidance in the first quarter of fiscal 2019 and applied the new provisions on a modified retrospective basis which resulted in the reclassification of \$4.7 million, \$3.4 million net of deferred income tax expense, to the opening balance of retained earnings from accumulated other comprehensive income related to investments in equity securities. Subsequent changes to the fair value of the Company's investments in equity securities are recorded in other income, net in the Consolidated Statement of Operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Business Combinations

In January 2017, the FASB issued ASU No. 2017-01, an amendment to ASC 805, *Business Combinations*, clarifying the definition of a business in the ASC, which is intended to reduce the complexity surrounding the assessment of a transaction as an asset acquisition or business combination. The amendment provides an initial fair value screen to reduce the number of transactions that would fit the definition of a business, and when the screen threshold is not met, provides an updated model that further clarifies the characteristics of a business. The Company adopted this guidance in the first quarter of fiscal 2019 and the new provisions will be applied on a prospective basis. The amendment could potentially have material impacts on future transactions that the Company may enter into by altering the Company's conclusion on the accounting framework that is applied to acquisitions.

Gains and Losses from the Derecognition of Nonfinancial Assets

In February 2017, the FASB issued ASU No. 2017-05, an amendment to ASC 610-20, *Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets*, which clarifies the scope and accounting related to the derecognition of nonfinancial assets, including partial sales and contributions of nonfinancial assets to a joint venture or other non-controlled investee. The Company adopted this guidance in the first quarter of fiscal 2019, concurrently with ASC 606, and applied the new provisions on a modified retrospective basis through a cumulative effect adjustment of \$6.8 million, \$5 million net of deferred income tax expense, to the opening balance of retained earnings related to a transfer of a nonfinancial asset that was previously recorded as a deferred gain on the Consolidated Balance Sheets.

Compensation - Retirement Benefits

In March 2017, the FASB issued ASU No. 2017-07, an amendment to ASC 715, Compensation - Retirement Benefits, which changes the presentation of net periodic benefit cost on the income statement by requiring companies to present all components of net periodic benefit cost, other than service cost, outside a subtotal of income from operations. The amendment also states that only the service cost component of net periodic benefits costs is eligible for capitalization, when applicable. The amendment establishes a practical expedient that permits entities to use their previously disclosed service and other costs in their pension and other postretirement benefit plan footnotes in the prior comparative periods as the estimation basis when applying the retrospective presentation of these costs in the income statement. The Company adopted this guidance in the first quarter of fiscal 2019, and applied the new provisions on a retrospective basis for income statement presentation, and is applying the new provisions on a prospective basis for changes to capitalization of costs. Accordingly, the following amounts on the Consolidated Statement of Operations for fiscal 2018 and 2017 have been adjusted:

(Thousands)	As Previously Reported	Effect of Change		As Adjusted
Fiscal 2018				
Statements of Operations				
Operation and maintenance	\$ 266,919	\$	(3,806) \$	263,113
Total operating expenses	\$ 2,719,033	\$	(3,806) \$	2,715,227
Operating income	\$ 196,076	\$	3,806 \$	199,882
Other income (expense), net	\$ 16,853	\$	(3,806) \$	13,047
Fiscal 2017			,	
Statements of Operations				
Operation and maintenance	\$ 226,356	\$	(4,180) \$	222,176
Total operating expenses	\$ 2,101,573	\$	(4,180) \$	2,097,393
Operating income	\$ 167,044	\$	4,180 \$	171,224
Other income (expense), net	\$ 14,437	\$	(4,180) \$	10,257

The changes related to the costs that will be eligible for capitalization will not have a material impact on the Company's financial position, results of operations or cash flows upon adoption. There was no additional impact to the Company's financial position, results of operations or cash flows.

Stock Compensation

In May 2017, the FASB issued ASU No. 2017-09, an amendment to ASC 718, *Compensation - Stock Compensation*, which clarifies the accounting for changes to the terms or conditions of share-based payments. The Company adopted this guidance in the first quarter of fiscal 2019, and will apply the new provisions prospectively to awards modified on or after October 1, 2018. There was no impact to the Company's financial position, results of operations or cash flows upon adoption.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Intangibles

In August 2018, the FASB issued ASU No. 2018-15, an amendment to ASC 350, *Intangibles - Goodwill and Other*, which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The Company elected to early adopt this guidance in the second quarter of fiscal 2019, as the Company has begun work on key technology replacement and enhancement initiatives and will apply the new provisions on a prospective basis. There was no material impact to the Company's financial position, results of operations or cash flows upon adoption; however as work progresses on the Company's key technology initiatives there may be a material impact in the future.

Other Recent Updates to the Accounting Standards Codification

Leases

In February 2016, the FASB issued ASU No. 2016-02, an amendment to ASC 842, *Leases*, which, along with other ASU's containing minor amendments and technical corrections, provides for a comprehensive overhaul of the lease accounting model and changes the definition of a lease within the accounting literature. Under the new standard, all leases with a term greater than one year will be recorded on the balance sheet. Amortization of the related asset will be accounted for using one of two approaches prescribed by the guidance. Additional disclosures will be required to allow the user to assess the amount, timing and uncertainty of cash flows arising from leasing activities. A modified retrospective transition approach is required for leases existing at the time of adoption.

In January 2018, the FASB issued ASU No. 2018-01, a further amendment to ASC 842, *Leases*, which was introduced by ASU No. 2016-02, as discussed above. This update provides an optional practical expedient that allows companies to not evaluate existing or expired land easements that were not previously accounted for under Topic 840 as leases. The Company adopted the new guidance on October 1, 2019 and elected this practical expedient. In July 2018, the FASB issued ASU No. 2018-11, which provides an optional transition method to ASC 842 that allows the Company to recognize a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption. The Company transitioned to the new guidance on a modified retrospective basis and elected this transition method.

The Company's other practical expedient elections include the package of practical expedients whereby the Company was not required to reassess all of its leases identified, lease classifications and initial direct costs associated with leases. The Company also elected to not separate non-lease components from lease components and elected to exclude short-term leases from the recognition requirements of ASC 842. The Company did not elect the portfolio approach for the application of the discount rate and therefore applies a discount rate individually to each lease in its population.

The Company completed the review of its contracts which involved identifying and evaluating its lease population. The Company's operating leases primarily consist of office space, general office equipment and land leases related to solar assets. The Company expects to recognize right-of-use assets and liabilities totaling approximately \$60 million to \$70 million arising from current operating leases on its statement of financial position beginning October 1, 2019. This estimate does not include the expected right-of-use assets and lease liabilities that will be recorded in connection with the acquisition of Leaf River or Adelphia. The Company has no material arrangements as a lessor at this time. The Company does not expect the amendments to the standard to have an impact on its results of operations or cash flows.

Financial Instruments

In June 2016, the FASB issued ASU No. 2016-13, an amendment to ASC 326, *Financial Instruments - Credit Losses*, which changes the impairment model for certain financial assets that have a contractual right to receive cash, including trade and loan receivables. The new model requires recognition based upon an estimation of expected credit losses rather than recognition of losses when it is probable that they have been incurred. An entity will apply the amendment through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. The guidance is effective for the Company beginning October 1, 2020, with early adoption permitted. The Company is currently evaluating the amendment and all subsequent amendments related to this topic, to understand the impact on its financial position, results of operations and cash flows upon adoption and will apply the new guidance to its trade and loan receivables on a modified retrospective basis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Derivatives and Hedging

In August 2017, the FASB issued ASU No. 2017-12, an amendment to ASC 815, *Derivatives and Hedging*, which, along with other ASU's containing minor amendments and technical corrections, is intended to make targeted improvements to the accounting for hedging activities by better aligning an entity's risk management activities and financial reporting for hedging relationships. These amendments modify the accounting for both nonfinancial and financial risk components and align the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. Additionally, the amendments are intended to simplify the application of the hedge accounting guidance and provide relief to companies by easing certain hedge documentation requirements. The guidance is effective for the Company beginning October 1, 2019, with early adoption permitted. Upon adoption, the transition requirements and elections will be applied to hedging relationships existing on the date of adoption. The Company does not currently apply hedge accounting to any of its risk management activities and thus does not expect the amendments to have any impact on its financial position, results of operations and cash flows upon adoption.

In October 2018, the FASB issued ASU No. 2018-16, an amendment to ASC 815, *Derivatives and Hedging*, which permits the use of the Overnight Index Swap rate based on the Secured Overnight Financing Rate as an additional acceptable U.S. benchmark interest rate for hedge accounting purposes. The guidance is effective for the Company beginning October 1, 2019, with early adoption permitted. The Company does not currently apply hedge accounting to any of its risk management activities and thus does not expect the amendments to have any impact on its financial position, results of operations and cash flows upon adoption.

Stock Compensation

In June 2018, the FASB issued ASU No. 2018-07, an amendment to ASC 718, *Compensation - Stock Compensation*, which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employees. The guidance is effective for the Company beginning October 1, 2019, with early adoption permitted. There was no impact to the Company's financial position, results of operations or cash flows upon adoption.

Fair Value

In August 2018, the FASB issued ASU No. 2018-13, an amendment to ASC 820, *Fair Value Measurement*, which removes, modifies and adds to certain disclosure requirements of fair value measurements. Disclosure requirements removed include the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, the policy for timing of transfers between levels and the valuation processes for Level 3 fair value measurements. Modifications include considerations around the requirement to disclose the timing of liquidation of an investee's assets and the date when restrictions from redemption might lapse. The additions include the requirement to disclose changes in unrealized gains and losses for the period in other comprehensive income for recurring Level 3 fair value measurements held and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. The guidance is effective for the Company beginning October 1, 2020, with early adoption permitted. Upon adoption, the amendments will be applied on a prospective or retrospective basis depending on the specific amendments' transition requirements. The Company is currently evaluating the amendments to understand the impact on its financial position, results of operations, cash flows and disclosures upon adoption and will apply the new guidance.

Compensation - Retirement Benefits

In August 2018, the FASB issued ASU No. 2018-14, an amendment to ASC 715, Compensation - Retirement Benefits, which removes disclosures that no longer are considered cost-beneficial, clarifies the specific requirements of certain disclosures and adds new disclosure requirements identified as relevant. The guidance is effective for the Company beginning October 1, 2021, with early adoption permitted. Upon adoption, the amendments will be applied on a retrospective basis. The Company is continuing to evaluate the amendment to fully understand the impact on the Company's disclosures upon adoption.

3. REVENUE

Revenue is recognized when a performance obligation is satisfied by transferring control of a product or service to a customer. Revenue is measured based on consideration specified in a contract with a customer using the output method of progress. The Company elected to apply the invoice practical expedient for recognizing revenue, whereby the amounts invoiced to customers represent the value to the customer and the Company's performance completion as of the invoice date. Therefore we do not disclose related unsatisfied performance obligations. The Company also elected the practical expedient to exclude from the transaction price all sales taxes that are assessed by a governmental authority and therefore presents sales tax net in operating revenues on the Consolidated Statements of Operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Below is a listing of performance obligations that arise from contracts with customers, along with details on the satisfaction of each performance obligation, the significant payment terms and the nature of the goods and services being transferred, by reporting segment and other business operations:

Revenue Recognized Over Time:

Segment	Performance Obligation	Description
Natural Gas Distribution	Natural gas utility sales	NJNG's performance obligation is to provide natural gas to residential, commercial and industrial customers as demanded, based on regulated tariff rates, which are established by the BPU. Revenues from the sale of natural gas are recognized in the period that gas is delivered and consumed by customers, including an estimate for quantities consumed but not billed during the period. Payment is due each month for the previous month's deliveries. Natural gas sales to individual customers are based on meter readings, which are performed on a systematic basis throughout the billing period. The unbilled revenue estimates are based on estimated customer usage by customer type, weather effects and the most current tariff rates. NJNG is entitled to be compensated for performance completed until service is terminated. Customers may elect to purchase the natural gas commodity from NJNG or may contract separately to purchase natural gas directly from third-party suppliers. As NJNG is acting as an agent on behalf of the third-party supplier, revenue is recorded for the delivery of natural gas to the customer.
Clean Energy Ventures	Commercial solar and wind electricity	•
		Revenue is recognized as invoiced and the payment is due each month for the previous month's services.
Clean Energy Ventures	Residential solar electricity	Clean Energy Ventures provides access to residential rooftop and ground-mount solar equipment to customers who then pay the Company a monthly fee. The performance obligation is to provide electricity to the customer based on generation from the underlying residential solar asset and is satisfied upon transfer of electricity generated.
		Revenue is derived from the contract terms and is recognized as invoiced, with the payment due each month for the previous month's services.
Energy Services	Wholesale natural gas services	The performance obligation of Energy Services is to provide the customer transportation, storage and asset management services on an as-needed basis. Energy Services generates revenue through management fees, demand charges, reservation fees and transportation charges centered around the buying and selling of the natural gas commodity, representing one series of distinct performance obligations.
		Revenue is recognized based upon the underlying natural gas quantities physically delivered and the customer obtaining control. Energy Services invoices customers on a monthly basis in line with the terms of the contract and based on the services provided. Payment is due each month for the previous month's invoiced services.
Home Services and Other	Service contracts	Home Services enters into service contracts with homeowners to provide maintenance and replacement services of applicable heating, cooling or ventilation equipment. All services provided relate to a distinct performance obligation which is to provide services for the specific equipment over the term of the contract.
		Revenue is recognized on a straight-line basis over the term of the contract and payment is due upon receipt of the invoice.
Revenue Reco	gnized at a Point in Ti	me:
Home Services and Other	Installations	Home Services installs appliances, including but not limited to, furnaces, air conditioning units, boilers and generators, for customers. The distinct performance obligation is the installation of the contracted appliance, which is satisfied at the point in time the item is installed.

The transaction price for each installation differs accordingly. Revenue is recognition at a point in time upon completion of the installation, which is when the customer is billed.

installed.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Disaggregated revenues from contracts with customers by product line and by reporting segment and other business operations during the fiscal year ended September 30, 2019 is as follows:

	R	egulated		Unregulated		
(Thousands)		tural Gas stribution	Clean Energy Ventures	Energy Services	Home Services and Other	Total
Natural gas utility sales	\$	680,151	_	_	— \$	680,151
Wholesale natural gas services		_	_	31,459	_	31,459
Service contracts		_	_	_	31,499	31,499
Installations and maintenance		_	_	_	19,403	19,403
Electricity sales		_	22,121	_	_	22,121
Eliminations ⁽¹⁾		_	_	_	(2,302)	(2,302)
Revenues from contracts with customers		680,151	22,121	31,459	48,600	782,331
Alternative revenue programs		10,364	_	_	_	10,364
Derivative Instruments		20,278	75,978	1,711,332	_	1,807,588
Eliminations ⁽¹⁾		_	_	(8,238)	_	(8,238)
Revenues out of scope		30,642	75,978	1,703,094	_	1,809,714
Total operating revenues	\$	710,793	98,099	1,734,553	48,600 \$	2,592,045

⁽¹⁾ Consists of transactions between subsidiaries that are eliminated in consolidation.

Disaggregated revenues from contracts with customers by customer type and by reporting segment and other business operations during the fiscal year ended September 30, 2019 is as follows:

	F	Regulated		Unregulated		
(Thousands)		ntural Gas stribution	Clean Energy Ventures	Energy Services	Home Services and Other	Total
Residential	\$	440,787	9,003	_	47,655 \$	497,445
Commercial and industrial		171,357	13,118	31,459	945	216,879
Firm transportation		61,370	_		_	61,370
Interruptible and off-tariff		6,637	_		_	6,637
Revenues out of scope		30,642	75,978	1,703,094	_	1,809,714
Total operating revenues	\$	710,793	98,099	1,734,553	48,600 \$	2,592,045

Customer Accounts Receivable/Credit Balances and Deposits

The timing of revenue recognition, customer billings and cash collections resulting in accounts receivables, billed and unbilled, and customers' credit balances and deposits on the Consolidated Balance Sheets during the fiscal year ended September 30, 2019 are as follows:

	•	Customers' Credit		
(Thousands)		Billed	Unbilled	Balances and Deposits
Balance as of October 1, 2018	\$	205,490 \$	7,199 \$	27,325
Decrease		(66,227)	(689)	(209)
Balance as of September 30, 2019	\$	139,263 \$	6,510 \$	27,116

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The following table provides information about receivables and revenue earned on contracts in progress in excess of billings, which are included within accounts receivable, billed and unbilled, and customers' credit balances and deposits, respectively, on the Consolidated Balance Sheets as of September 30, 2019:

(Thousands)	tural Gas stribution	Clean Energy Ventures	Energy Services	Home Services and Other	Total
Customer accounts receivable					
Billed	\$ 36,302	3,233	97,301	2,427	\$ 139,263
Unbilled	6,510	_	_	_	6,510
Customers' credit balances and deposits	(27,114)	_	_	(2)	(27,116)
Total	\$ 15,698	3,233	97,301	2,425	\$ 118,657

4. REGULATION

The EDECA is the legal framework for New Jersey's public utility and wholesale energy landscape. NJNG is required, pursuant to a written order by the BPU under EDECA, to open its residential markets to competition from third-party natural gas suppliers. Customers can choose the supplier of their natural gas commodity in NJNG's service territory.

As required by EDECA, NJNG's rates are segregated into two primary components: the commodity portion, which represents the wholesale cost of natural gas, including the cost for interstate pipeline capacity to transport the gas to NJNG's service territory; and the delivery portion, which represents the transportation of the commodity portion through NJNG's gas distribution system to the end-use customer. NJNG does not earn utility gross margin on the commodity portion of its natural gas sales. NJNG earns utility gross margin through the delivery of natural gas to its customers, regardless of whether it or a third-party supplier provides the wholesale natural gas commodity.

Under EDECA, the BPU is required to audit the state's energy utilities every two years. The primary purpose of the audit is to ensure that utilities and their affiliates offering unregulated retail services do not have an unfair competitive advantage over nonaffiliated providers of similar retail services. A combined competitive services and management audit of NJNG commenced in August 2013. A draft management audit report was accepted by the BPU on July 23, 2014, for public comment. To date, NJNG has implemented all audit recommendations with the approval of BPU staff and is waiting for final BPU approval.

NJNG is subject to cost-based regulation; therefore, it is permitted to recover authorized operating expenses and earn a reasonable return on its utility capital investments based on the BPU's approval. The impact of the ratemaking process and decisions authorized by the BPU allows NJNG to capitalize or defer certain costs that are expected to be recovered from its customers as regulatory assets, and to recognize certain obligations representing amounts that are probable future expenditures as regulatory liabilities in accordance with accounting guidance applicable to regulated operations.

NJNG's recovery of costs is facilitated through its base rates, BGSS and other regulatory tariff riders. NJNG is required to make an annual filing to the BPU by June 1 of each year for review of its BGSS, CIP and other programs and related rates. Annual rate changes are requested to be effective at the beginning of the following fiscal year. The current base rates include a weighted average cost of capital of 6.9 percent and a return on common equity of 9.75 percent. In addition, NJNG is permitted to request approval of certain rate or program changes. All rate and program changes are subject to proper notification and BPU review and approval.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Regulatory assets and liabilities included on the Consolidated Balance Sheets as of September 30, are composed of the following:

(Thousands)	2019	2018
Regulatory assets-current		
New Jersey Clean Energy Program	\$ 15,468	\$ 14,052
Underrecovered gas costs	9,506	4,137
Derivatives at fair value, net	4,526	108
Conservation Incentive Program	3,371	_
Total current regulatory assets	\$ 32,871	\$ 18,297
Regulatory assets-noncurrent		
Environmental remediation costs:		
Expended, net of recoveries	\$ 38,351	\$ 33,017
Liability for future expenditures	131,080	130,800
Deferred income taxes	19,631	17,225
Derivatives at fair value, net	486	_
SAVEGREEN	10,201	8,636
Postemployment and other benefit costs	212,461	136,716
Deferred storm damage costs	8,687	10,858
Cost of removal	65,660	22,339
Other noncurrent regulatory assets	10,080	9,001
Total noncurrent regulatory assets	\$ 496,637	\$ 368,592
Regulatory liability-current		
Conservation Incentive Program	\$ _	\$ 6,994
Derivatives at fair value, net	_	1,191
Total current regulatory liabilities	\$ _	\$ 8,185
Regulatory liabilities-noncurrent		
Tax Act impact (1)	\$ 200,417	\$ 205,410
New Jersey Clean Energy Program	197	1,902
Derivatives at fair value, net	_	123
Other noncurrent regulatory liabilities	1,821	1,704
Total noncurrent regulatory liabilities	\$ 202,435	\$ 209,139

⁽¹⁾ Reflects the re-measurement and subsequent amortization of NJNG's net deferred tax liabilities as a result of the change in federal tax rates enacted in the Tax Act.

Recovery of regulatory assets is subject to BPU approval, and therefore, if there are any changes in regulatory positions that indicate recovery is not probable, the related cost would be charged to income in the period of such determination.

On March 29, 2019, NJNG filed a base rate case with the BPU requesting a natural gas revenue increase of \$128.2 million, including a change in the Company's overall rate of return on rate base to 7.87 percent. NJNG is also seeking permission to request recovery for SRL in a future filing, upon completion of the project. On July 2, 2019, the Company filed an update with actual information through May 31, 2019, which reflected a revenue increase of \$129.8 million. On September 30, 2019, the Company filed a second update with actual information through August 31, 2019 which reflected a revenue increase of \$134.3 million.

On November 13, 2019, the BPU issued an order adopting a stipulation of settlement approving a \$62.2 million increase to base rates. This increase is predicated on a overall rate of return on rate base of 6.95 percent. These rates will be effective on November 15, 2019.

New Jersey Clean Energy Program

The NJCEP is a statewide program that encourages energy efficiency and renewable energy. Funding amounts are determined by the BPU's Office of Clean Energy and all New Jersey utilities are required to share in the annual funding obligation. The current NJCEP program is for the State of New Jersey's fiscal year ending June 2020. NJNG recovers the costs associated with its portion of the NJCEP obligation through its NJCEP rider, with interest.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Over and Underrecovered Gas Costs

NJNG recovers its cost of gas through the BGSS rate component of its customers' bills. NJNG's cost of gas includes the purchased cost of the natural gas commodity, fees paid to pipelines and storage facilities, adjustments as a result of BGSS incentive programs and hedging transactions. Overrecovered gas costs represent a regulatory liability that generally occurs when NJNG's BGSS rates are higher than actual costs and requests approval to be returned to customers including interest, when applicable, in accordance with NJNG's approved BGSS tariff. Conversely, underrecovered gas costs generally occur during periods when NJNG's BGSS rates are lower than actual costs, in which case NJNG records a regulatory asset and requests amounts to be recovered from customers in the future.

Derivatives

Derivatives are utilized by NJNG to manage the price risk associated with its natural gas purchasing activities and to participate in certain BGSS incentive programs. The gains and losses associated with NJNG's derivatives are recoverable through its BGSS, as noted above, without interest. See *Note 5. Derivative Instruments*.

Conservation Incentive Program

The CIP permits NJNG to recover utility gross margin variations related to customer usage resulting from customer conservation efforts and mitigates the impact of weather on its margin. Such utility gross margin variations are recovered in the year following the end of the CIP usage year, without interest, and are subject to additional conditions, including an earnings test, a revenue test and an evaluation of BGSS-related savings. This program has no expiration date.

Environmental Remediation Costs

NJNG is responsible for the cleanup of certain former gas manufacturing facilities. Actual expenditures are recovered from customers, with interest, over seven-year rolling periods, through a RAC rate rider. Recovery for NJNG's estimated future liability will be requested and/or recovered when actual expenditures are incurred. See *Note 14. Commitments and Contingent Liabilities*.

Deferred Income Taxes

Upon adoption of a 1993 provision of ASC 740, *Income Taxes*, NJNG recognized a transition adjustment and corresponding regulatory asset representing the difference between NJNG's existing deferred tax amounts compared with the deferred tax amounts calculated in accordance with the change in method prescribed by ASC 740. NJNG recovers the regulatory asset associated with these tax impacts through future base rates, without interest.

SAVEGREEN

NJNG administers certain programs that supplement the state's NJCEP and that allow NJNG to promote clean energy to its residential and commercial customers, as described further below. NJNG will recover related expenditures and a weighted average cost of capital on the unamortized balance through a tariff rider, without interest, as approved by the BPU, over a two- to 10-year period depending upon the specific program incentive.

Postemployment and Other Benefit Costs

Postemployment and Other Benefit Costs represents NJNG's underfunded postemployment benefit obligations, as well as a fiscal 2010 tax charge resulting from a change in the deductibility of federal subsidies associated with Medicare Part D, both of which are deferred as regulatory assets and are recoverable, without interest, in base rates. The BPU approved the recovery of the tax charge through NJNG's base rates effective October 2016 over a seven-year amortization period. See *Note 11. Employee Benefit Plans*.

Deferred Storm Damage Costs

Portions of NJNG's distribution system incurred significant damage as a result of Superstorm Sandy in October 2012. NJNG deferred the uninsured incremental O&M costs associated with its restoration efforts, which were approved for recovery by the BPU through NJNG's base rates, without interest, effective October 2016 over a seven-year amortization period.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Cost of Removal

NJNG accrues and collects for cost of removal in base rates on its utility property, without interest. These costs are recorded in accumulated depreciation for regulatory reporting purposes, and actual costs of removal, without interest, will be recovered in subsequent rates, pursuant to the BPU order. Consistent with GAAP, amounts recorded within accumulated depreciation for regulatory accounting purposes are reclassified out of accumulated depreciation to either a regulatory asset or a regulatory liability depending on whether actual cost of removal is still subject to collection or amounts overcollected will be refunded back to customers. NJNG's prior regulatory liability represented customer collections in excess of actual expenditures, which the Company returned to customers as a reduction to depreciation expense.

Other Regulatory Assets

Other regulatory assets consist primarily of deferred costs associated with certain components of NJNG's SBC, as discussed further in the regulatory proceedings section, and NJNG's compliance with federal- and state-mandated PIM provisions. NJNG's related costs to maintain the operational integrity of its distribution and transmission main are recoverable, without interest, subject to BPU review and approval. As of September 30, 2019, NJNG recorded \$2.5 million of PIM in other regulatory assets, which is being recovered through base rates over a seven-year amortization period effective October 2016.

The following is a description of certain regulatory proceedings during fiscal 2018 and 2019:

BGSS and CIP

BGSS rates are normally revised on an annual basis. In addition, to manage the fluctuations in wholesale natural gas costs, NJNG has the ability to make two interim filings during each fiscal year to increase residential and small commercial customer BGSS rates on a self-implementing and provisional basis. NJNG is also permitted to refund or credit back a portion of the commodity costs to customers at any time given five days' notice when the natural gas commodity costs decrease in comparison to amounts projected or to amounts previously collected from customers. Concurrent with the annual BGSS filing, NJNG files for an annual review of its CIP. NJNG's annual BGSS and CIP filings are summarized as follows:

- 2018 BGSS/CIP filing In April 2019, the BPU approved NJNG's annual petition on a final basis to maintain its BGSS rate for residential and small commercial customers and increase its balancing charge rate, resulting in a \$10.3 million increase to the annual revenues credited to BGSS, as well as changes to the CIP rates, which will result in a \$30.9 million annual recovery decrease effective October 2018.
- On December 28, 2018, NJNG notified the BPU that it will increase the BGSS rate, effective February 1, 2019, resulting in an estimated \$10.9 million increase to the revenues credited to BGSS from February through September 30, 2019.
- 2019 BGSS/CIP filing On September 11, 2019, the BPU provisionally approved NJNG's annual petition to modify its BGSS, balancing charge and CIP rates. The rate changes will result in a \$17.6 million decrease to the annual revenues credited to BGSS and a \$15.6 million annual increase related to its balancing charge, as well as changes to CIP rates, which will result in a \$10.6 million annual recovery increase, effective October 1, 2019.

BGSS Incentive Programs

NJNG is eligible to receive financial incentives for reducing BGSS costs through a series of utility gross margin-sharing programs that include off-system sales, capacity release and storage incentive programs. The Company is permitted to annually propose a process to evaluate and discuss alternative incentive programs, should performance of the existing incentives or market conditions warrant re-evaluation.

Energy Efficiency Programs

SAVEGREEN conducts home energy audits and provides various grants, incentives and financing alternatives, which are designed to encourage the installation of high efficiency heating and cooling equipment and other upgrades to promote energy efficiency to its residential and commercial customers while stimulating state and local economies through the creation of jobs. Depending on the specific initiative or approval, NJNG recovers costs associated with the programs over a three- to 10-year period through a tariff rider mechanism. As of September 30, 2019, the BPU approved total SAVEGREEN investments of approximately

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

\$354.3 million, including \$135 million that was approved in September 2018, for a continuation of existing EE programs and the implementation of new programs through December 2021. Since inception, \$169.1 million in grants, rebates and loans have been provided to customers.

SAVEGREEN investments and costs are filed with the BPU on an annual basis. NJNG's annual EE filings are summarized as follows:

- 2018 EE filing On December 18, 2018, the BPU approved a decrease in NJNG's EE recovery rate reflecting actual costs incurred through September 30, 2018, which resulted in an annual recovery of approximately \$8.8 million, effective January 1, 2019.
- 2019 EE filing On October 25, 2019, the BPU approved an increase in NJNG's EE recovery rate, which will result in an annual recovery of approximately \$11.3 million, effective November 1, 2019.

Societal Benefits Charge

The SBC is comprised of three primary riders that allow NJNG to recover costs associated with USF, which is a permanent statewide program for all natural gas and electric utilities for the benefit of income-eligible customers, MGP remediation and the NJCEP. NJNG has submitted the following filings to the BPU, which include a report of program expenditures incurred each program year:

- 2018 SBC filing In September 2018, the BPU approved NJNG's annual USF compliance filing to increase the statewide USF rate, which resulted in a \$1 million annual increase, effective October 1, 2018. In March 2019, the BPU approved NJNG's annual SBC application requesting recovery of remediation expenses incurred through June 30, 2018, an increase in the RAC of approximately \$1.4 million annually, and an increase to the NJCEP factor, which resulted in an annual increase of approximately \$1.9 million, effective April 1, 2019.
- 2019 SBC filing On June 24, 2019, NJNG filed its annual USF compliance filing proposing an increase to the statewide USF rate, which will result in the annual recovery increasing by \$1.2 million, effective October 1, 2019. On September 27, 2019, NJNG filed its annual SBC application requesting to recover remediation expenses including an increase in the RAC, of approximately \$1.4 million annually and an increase to the NJCEP factor, which will result in an annual increase of approximately \$3.3 million, to be effective April 1, 2020.

Infrastructure Programs

NJNG has significant annual capital expenditures associated with the management of its natural gas distribution and transmission system, including new utility plant for customer growth and its associated PIM and infrastructure programs. NJNG continues to implement BPU-approved infrastructure projects that are designed to enhance the reliability of NJNG's gas distribution system, including SAFE and NJ RISE.

SAFE/NJ RISE

The SAFE program replaces portions of NJNG's gas distribution unprotected steel, cast iron infrastructure and associated services to improve the safety and reliability of the gas distribution system. SAFE I was approved to invest up to \$130 million, exclusive of AFUDC, over a four-year period. SAFE II was approved to invest up to \$200 million, excluding AFUDC, over a five-year period. NJNG will recover approximately \$157.5 million through annual rate filings, with the remainder recovered through subsequent rate cases. As a condition of approval of the program, NJNG was required to file a base rate case no later than November 2019 and satisfied this requirement with its March 29, 2019 base rate case filing.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJ RISE consists of six capital investment projects estimated to cost \$102.5 million over a five-year period, excluding AFUDC, for gas distribution storm-hardening and mitigation projects, along with incremental depreciation expense. NJ RISE includes a weighted average cost of capital that ranges from 6.74 percent to 6.9 percent and a return on equity of 9.75 percent. Requests for recovery of future NJ RISE capital costs will occur in conjunction with SAFE II.

On September 17, 2018, the BPU approved NJNG's petition requesting a base rate increase of \$6.8 million annually for the recovery of SAFE II and NJ RISE capital investment costs related to the 12 months ending June 30, 2018, effective October 1, 2018. On September 27, 2019, the BPU approved NJNG's annual petition requesting a base rate increase of \$7.8 million, effective October 1, 2019.

Southern Reliability Link

The SRL is an approximately 30-mile, 30-inch transmission main designed to support improved system reliability and integrity in the southern portion of NJNG's service territory. All approvals required for the completion of the project have been received and construction began in December 2018.

Infrastructure Investment Program

On February 28, 2019, NJNG filed a petition with the BPU seeking authority to implement a five-year IIP. The IIP consists of two components, transmission and distribution investments and information technology replacement and enhancements. The total investment for the IIP is approximately \$507 million. Upon approval from the BPU, investments will be recovered through annual filings to adjust base rates.

The Tax Act

On December 22, 2017, the Tax Act was signed into law, which resulted in a reduction in the federal corporate tax rate. As a result, NJNG recorded a regulatory liability, which included the revaluation of its deferred income taxes and the accounting of the income tax effects on the revaluation.

On January 31, 2018, the BPU issued an Order which directed New Jersey utilities to submit filings to the BPU by March 2, 2018, to propose the prospective change in base rates as a result of the Tax Act to be effective April 1, 2018, the method to return to customers the overcollection of taxes in base rates from January 1, 2018, through March 31, 2018 and an outline of the method by which the excess deferred taxes would be returned to customers. The excess deferred taxes are primarily related to timing differences associated with utility plant depreciation and are subject to IRS normalization rules, which require amortization over the remaining life of the utility plant.

As a result of the changes associated with the Tax Act, NJNG recorded a decrease in its net deferred tax liability of \$228.4 million, which included \$164.3 million for the revaluation of its deferred income taxes and \$64.1 million for the accounting of the income tax effects on the revaluation of those deferred income taxes. These amounts were recorded as a regulatory liability on the Consolidated Balance Sheets. On March 1, 2018, NJNG submitted its required filing to the BPU proposing a \$19.7 million base rate reduction and customer refunds of approximately \$31 million, which is inclusive of state sales tax and interest at the Company's short-term debt rate as specified in the Company's last base rate case. On March 26, 2018, the BPU approved, on an interim basis, the \$19.7 million rate reduction, effective April 1, 2018. On May 22, 2018, the BPU approved final rates and customer refunds of the \$31 million. These credits were returned to customer accounts in June 2018. As of September 30, 2019, the regulatory liability included excess deferred income taxes of \$200.4 million, which requires amortization over the remaining life of the utility plant consistent with IRS normalization principles.

5. DERIVATIVE INSTRUMENTS

The Company is subject primarily to commodity price risk due to fluctuations in the market price of natural gas, SRECs and electricity. To manage this risk, the Company enters into a variety of derivative instruments including, but not limited to, futures contracts, physical forward contracts, financial options and swaps to economically hedge the commodity price risk associated with its existing and anticipated commitments to purchase and sell natural gas, SRECs and electricity. In addition, the Company is exposed to foreign currency and interest rate risk and may utilize foreign currency derivatives to hedge Canadian dollar denominated gas purchases and/or sales and interest rate derivatives to reduce exposure to fluctuations in interest rates. All of these types of contracts are accounted for as derivatives. Accordingly, all of the financial and certain of the Company's physical derivative instruments are recorded at fair value on the Consolidated Balance Sheets. For a more detailed discussion of the Company's fair value measurement policies and level disclosures associated with the Company's derivative instruments, see *Note 6. Fair Value*.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Energy Services

Energy Services chooses not to designate its financial commodity and physical forward commodity derivatives as accounting hedges or to elect NPNS. The changes in the fair value of these derivatives are recorded as a component of gas purchases or operating revenues, as appropriate for Energy Services, on the Consolidated Statements of Operations as unrealized gains or losses. For Energy Services at settlement, realized gains and losses on all financial derivative instruments are recognized as a component of gas purchases and realized gains and losses on all physical derivatives follow the presentation of the related unrealized gains and losses as a component of either gas purchases or operating revenues.

Energy Services also enters into natural gas transactions in Canada and, consequently, is exposed to fluctuations in the value of Canadian currency relative to the U.S. dollar. Energy Services may utilize foreign currency derivatives to lock in the exchange rates associated with natural gas transactions denominated in Canadian currency. The derivatives may include currency forwards, futures or swaps and are accounted for as derivatives. These derivatives are typically used to hedge demand fee payments on pipeline capacity, storage and gas purchase agreements.

As a result of Energy Services entering into transactions to borrow natural gas, commonly referred to as "park and loans," an embedded derivative is recognized relating to differences between the fair value of the amount borrowed and the fair value of the amount that will ultimately be repaid, based on changes in the forward price for natural gas prices at the borrowed location over the contract term. This embedded derivative is accounted for as a forward sale in the month in which the repayment of the borrowed gas is expected to occur, and is considered a derivative transaction that is recorded at fair value on the Consolidated Balance Sheets, with changes in value recognized in current-period earnings.

Expected production of SRECs is hedged through the use of forward and futures contracts. All contracts require the Company to physically deliver SRECs through the transfer of certificates as per contractual settlement schedules. Energy Services recognizes changes in the fair value of these derivatives as a component of operating revenues. Upon settlement of the contract, the related revenue is recognized when the SREC is transferred to the counterparty.

Natural Gas Distribution

Changes in fair value of NJNG's financial commodity derivatives are recorded as a component of regulatory assets or liabilities on the Consolidated Balance Sheets. The Company elects NPNS accounting treatment on all physical commodity contracts that NJNG entered into on or before December 31, 2015, and accounts for these contracts on an accrual basis. Accordingly, physical natural gas purchases are recognized in regulatory assets or liabilities on the Consolidated Balance Sheets when the contract settles and the natural gas is delivered. The average cost of natural gas is charged to expense in the current-period earnings based on the BGSS factor times the therm sales. Effective for contracts executed on or after January 1, 2016, NJNG no longer elects NPNS accounting treatment on all physical forward commodity contracts. However, since NPNS is a contract-by-contract election, where it makes sense to do so, NJNG can and may elect certain contracts to be normal. Because NJNG recovers these amounts through future BGSS rates as increases or decreases to the cost of natural gas in NJNG's tariff for gas service, the changes in fair value of these contracts are deferred as a component of regulatory assets or liabilities on the Consolidated Balance Sheets.

In June 2015, NJNG entered into a treasury lock transaction to fix a benchmark treasury rate of 3.26 percent associated with a \$125 million debt issuance that was finalized in May 2018. This debt issuance coincided with the maturity of NJNG's \$125 million, 5.6 percent notes that came due May 15, 2018. This treasury lock was settled on March 13, 2018, which coincided with the pricing of the new debt being issued. Settlement of the treasury lock resulted in a \$2.6 million loss, which is recorded as a component of regulatory assets on the Unaudited Condensed Consolidated Balance Sheets and will be amortized in earnings over the term of the \$125 million, 4.01 percent notes that were issued on May 11, 2018.

Clean Energy Ventures

The Company elects NPNS accounting treatment on PPA contracts that Clean Energy Ventures enters into that meet the definition of a derivative and accounts for the contract on an accrual basis. Accordingly, electricity sales are recognized in revenues throughout the term of the PPA as electricity is delivered. NPNS is a contract-by-contract election and where it makes sense to do so, the Company can and may elect certain contracts to be normal.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Home Services and Other

On January 26, 2018, NJR entered into a variable-for-fixed interest rate swap on its \$100 million variable rate term loan, which fixed the variable rate at 2.84 percent. The swap terminated on August 16, 2019, which coincided with the maturity of the debt. The change in the fair value and the settlement of the interest rate swap was recorded as a component of interest expense on the Consolidated Statements of Operations.

Fair Value of Derivatives

The following table reflects the fair value of the Company's derivative assets and liabilities recognized on the Consolidated Balance Sheets as of September 30:

		Fair Value									
			2019				2018				
(Thousands)	ands) Balance Sheet Location		Asset Derivatives								bility vatives
Derivatives not designated as hed	ging instruments:										
Natural Gas Distribution:											
Physical commodity contracts	Derivatives - current	\$	67	\$	245	\$	85	\$	192		
Financial commodity contracts	Derivatives - current		382		570		94		_		
Energy Services:											
Physical commodity contracts	Derivatives - current		6,847		27,540		7,667		18,158		
	Derivatives - noncurrent		1,710		12,641		3,930		11,316		
Financial commodity contracts	Derivatives - current		17,806		29,057		19,169		28,176		
	Derivatives - noncurrent		5,716		6,105		6,630		11,548		
Foreign currency contracts	Derivatives - current		1		211		_		126		
	Derivatives - noncurrent		_		75		_		118		
Home Services and Other:											
Interest rate contracts	Derivatives - current		_		_		381		_		
Total fair value of derivatives		\$	32,529	\$	76,444	\$ 3	37,956	\$	69,634		

Offsetting of Derivatives

The Company transacts under master netting arrangements or equivalent agreements that allow it to offset derivative assets and liabilities with the same counterparty. However, the Company's policy is to present its derivative assets and liabilities on a gross basis at the contract level unit of account on the Consolidated Balance Sheets.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The following table summarizes the reported gross amounts, the amounts that the Company has the right to offset but elects not to, financial collateral, as well as the net amounts the Company could present on the Consolidated Balance Sheets but elects not to.

Derivative assets: Energy Services Physical commodity contracts \$ 8,557 \$ (2,906) \$ (200)	\$ 5,45 3,870 \$ 9,32' \$ 55 \$ 37,27:
Derivative assets: Energy Services Physical commodity contracts \$ 8,557 \$ (2,906) \$ (200) Financial commodity contracts 23,522 (19,646) — Foreign currency contracts 1 (1) — Total Energy Services \$ 32,080 \$ (22,553) \$ (200) Natural Gas Distribution ** ** ** ** Physical commodity contracts \$ 467 \$ (9) \$ — ** Financial commodity contracts 382 (382) — ** Derivative liabilities: ** <td>\$ 9,32 \$ 56 \$ 56</td>	\$ 9,32 \$ 56 \$ 56
Energy Services \$ 8,557 \$ (2,906) \$ (200) Financial commodity contracts 23,522 (19,646) — Foreign currency contracts 1 (1) — Total Energy Services \$ 32,080 \$ (22,553) \$ (200) Natural Gas Distribution ** <t< td=""><td>\$ 9,32 \$ 56 \$ 56</td></t<>	\$ 9,32 \$ 56 \$ 56
Physical commodity contracts \$ 8,557 \$ (2,906) \$ (200) Financial commodity contracts 23,522 (19,646) — Foreign currency contracts 1 (1) — Total Energy Services \$ 32,080 \$ (22,553) \$ (200) Natural Gas Distribution ** <td>\$ 9,32 \$ 56 \$ 56</td>	\$ 9,32 \$ 56 \$ 56
Financial commodity contracts 23,522 (19,646) — Foreign currency contracts 1 (1) — Total Energy Services \$ 32,080 \$ (22,553) \$ (200) Natural Gas Distribution \$ 67 \$ (9) \$ — Financial commodity contracts 382 (382) — Total Natural Gas Distribution \$ 449 \$ (391) \$ — Derivative liabilities: Energy Services Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 9,32 \$ 56 \$ 56
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Natural Gas Distribution \$ 67 \$ (9) \$ — Physical commodity contracts 382 (382) — Financial commodity contracts 382 (391) \$ — Total Natural Gas Distribution \$ 449 \$ (391) \$ — Derivative liabilities: Energy Services Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 56 - \$ 56
Physical commodity contracts \$ 67 \$ (9) \$ — Financial commodity contracts 382 (382) — Total Natural Gas Distribution \$ 449 \$ (391) \$ — Derivative liabilities: Energy Services Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 59
Financial commodity contracts 382 (382) — Total Natural Gas Distribution \$ 449 \$ (391) \$ — Derivative liabilities: Energy Services Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 59
Total Natural Gas Distribution \$ 449 \$ (391) \$ — Derivative liabilities: Energy Services Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	
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Energy Services Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 37,27
Physical commodity contracts \$ 40,181 \$ (2,906) \$ — Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 37,27
Financial commodity contracts 35,162 (19,646) (15,516) Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	\$ 31,21.
Foreign currency contracts 286 (1) — Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	
Total Energy Services \$ 75,629 \$ (22,553) \$ (15,516)	20
	28:
Natural Gas Distribution	\$ 37,56
	0 22
Physical commodity contracts \$ 245 \$ (9) \$ —	\$ 23
Financial commodity contracts 570 (382) (188)	
Total Natural Gas Distribution \$ 815 \$ (391) \$ (188)	\$ 23
As of September 30, 2018:	
Derivative assets:	
Energy Services	¢ 7.45
Physical commodity contracts \$ 11,597 \$ (3,944) \$ (200)	\$ 7,45
Financial commodity contracts 25,799 (18,775) —	7,024
Total Energy Services \$ 37,396 \$ (22,719) \$ (200)	\$ 14,47
Natural Gas Distribution	Φ. 0
Physical commodity contracts \$ 85 \$ (3) \$ —	\$ 82
Financial commodity contracts 94 — (94)	
Total Natural Gas Distribution \$ 179 \$ (3) \$ (94)	\$ 82
Home Services and Other	
Interest rate contracts \$ 381 \$ — \$ —	\$ 38
Total Home Services and Other \$ 381 \$ — \$ —	\$ 38
Derivative liabilities:	
Energy Services	
Physical commodity contracts \$ 29,474 \$ (3,944) \$ —	\$ 25,530
Financial commodity contracts 39,724 (18,775) (20,949)	_
Foreign currency contracts 244 — —	24
Total Energy Services \$ 69,442 \$ (22,719) \$ (20,949)	\$ 25,77
Natural Gas Distribution	
Physical commodity contracts \$ 192 \$ (3) \$ —	\$ 189
Total Natural Gas Distribution \$ 192 \$ (3) \$ —	\$ 189

⁽¹⁾ Derivative assets and liabilities are presented on a gross basis on the balance sheet as the Company does not elect balance sheet offsetting under ASC 210-20.

⁽²⁾ Includes transactions with NAESB netting election, transactions held by FCMs with net margining and transactions with ISDA netting.

⁽³⁾ Financial collateral includes cash balances at FCMs, as well as cash received from or pledged to other counterparties.

⁽⁴⁾ Net amounts represent presentation of derivative assets and liabilities if the Company were to elect balance sheet offsetting under ASC 210-20.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Energy Services utilizes financial derivatives to economically hedge the gross margin associated with the purchase of physical gas to be used for storage injection and its subsequent sale at a later date. The gains (losses) on the financial transactions that are economic hedges of the cost of the purchased gas are recognized prior to the gains (losses) on the physical transaction, which are recognized in earnings when the natural gas is delivered. Therefore, mismatches between the timing of the recognition of realized gains (losses) on the financial derivative instruments and gains (losses) associated with the actual sale of the natural gas that is being economically hedged, along with fair value changes in derivative instruments, creates volatility in the results of Energy Services, although the Company's intended economic results relating to the entire transaction are unaffected.

The following table reflects the effect of derivative instruments on the Consolidated Statements of Operations as of September 30:

(Thousands)	Location of gain (loss) recognized in income on derivatives	Amount of gain (loss) recognized in income on derivatives					ized
Derivatives not designated as hedgin	g instruments:		2019	2018			2017
Energy Services:							
Physical commodity contracts	Operating revenues	\$	(5,732)	\$	(9,311)	\$	8,912
Physical commodity contracts	Gas purchases		(521)		(197)		(27,461)
Financial commodity contracts	Gas purchases		(643)		(24,622)		26,563
Foreign currency contracts	Gas purchases		(283)		(379)		41
Home Services and Other:							
Interest rate contracts	Interest expense		(233)		334		_
Total unrealized and realized (losses)	gains	\$	(7,412)	\$	(34,175)	\$	8,055

NJNG's derivative contracts are part of the Company's risk management activities that relate to its natural gas purchases, BGSS incentive programs and debt financing. These transactions are entered into pursuant to regulatory approval. At settlement, the resulting gains and/or losses are payable to or recoverable from utility customers and are deferred in regulatory assets or liabilities resulting in no impact to earnings. The following table reflects the gains (losses) associated with NJNG's derivative instruments as of September 30:

(Thousands)	2019	2018	2017
Natural Gas Distribution:			
Physical commodity contracts	\$ 5,926	\$ 1,232	\$ (12,303)
Financial commodity contracts	(7,700)	1,844	5,595
Interest rate contracts	_	8,467	14,606
Total unrealized and realized (losses) gains	\$ (1,774)	\$ 11,543	\$ 7,898

NJNG and Energy Services had the following outstanding long (short) derivatives as of September 30:

		Volume (Bcf)	
		2019	2018
Natural Gas Distribution	Futures	27.6	27.9
	Physical	11.6	23.1
Energy Services	Futures	(29.6)	(7.0)
	Physical	44.5	51.2

Not included in the previous table are Energy Services' net notional amount of foreign currency transactions of approximately \$6.2 million, the Company's interest rate swap, as previously discussed, and 796,000 SRECs at Energy Services that were open as of September 30, 2019.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Broker Margin

Futures exchanges have contract-specific margin requirements that require the posting of cash or cash equivalents relating to traded contracts. Margin requirements consist of initial margin that is posted upon the initiation of a position, maintenance margin that is usually expressed as a percent of initial margin, and variation margin that fluctuates based on the daily marked-to-market relative to maintenance margin requirements. The Company maintains separate broker margin accounts for the Natural Gas Distribution and Energy Services segments. The balances as of September 30, by segment, are as follows:

(Thousands)	Balance Sheet Location	2019	2018
Natural Gas Distribution	Restricted broker margin accounts	\$ 1,982 \$	2,038
Energy Services	Restricted broker margin accounts	\$ 71,741 \$	51,681

Wholesale Credit Risk

NJNG, Energy Services and Clean Energy Ventures are exposed to credit risk as a result of their sales/wholesale marketing activities. As a result of the inherent volatility in the prices of natural gas commodities, derivatives, SRECs, electricity and RECs, the market value of contractual positions with individual counterparties could exceed established credit limits or collateral provided by those counterparties. If a counterparty fails to perform the obligations under its contract (e.g., fails to deliver or pay for natural gas, SRECs, electricity or RECs), then the Company could sustain a loss.

The Company monitors and manages the credit risk of its wholesale operations through credit policies and procedures that management believes reduce overall credit risk. These policies include a review and evaluation of current and prospective counterparties' financial statements and/or credit ratings, daily monitoring of counterparties' credit limits and exposure, daily communication with traders regarding credit status and the use of credit mitigation measures, such as collateral requirements and netting agreements. Examples of collateral include letters of credit and cash received for either prepayment or margin deposit. Collateral may be requested due to the Company's election not to extend credit or because exposure exceeds defined thresholds. Most of the Company's wholesale marketing contracts contain standard netting provisions. These contracts include those governed by ISDA and the NAESB. The netting provisions refer to payment netting, whereby receivables and payables with the same counterparty are offset and the resulting net amount is paid to the party to which it is due.

Internally-rated exposure applies to counterparties that are not rated by Fitch or Moody's. In these cases, the counterparty's or guarantor's financial statements are reviewed, and similar methodologies and ratios used by Fitch and/or Moody's are applied to arrive at a substitute rating. Gross credit exposure is defined as the unrealized fair value of physical and financial derivative commodity contracts, plus any outstanding wholesale receivable for the value of natural gas delivered and/or financial derivative commodity contract that has settled for which payment has not yet been received.

The following is a summary of gross credit exposures grouped by investment and noninvestment grade counterparties, as of September 30, 2019. The amounts presented below have not been reduced by any collateral received or netting and exclude accounts receivable for NJNG retail natural gas sales and services and Clean Energy Ventures residential solar installations.

(Thousands)	Gross Credit Exposure
Investment grade	\$ 141,930
Noninvestment grade	17,997
Internally-rated investment grade	27,948
Internally-rated noninvestment grade	29,324
Total	\$ 217,199

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Conversely, certain of NJNG's and Energy Services' derivative instruments are linked to agreements containing provisions that would require cash collateral payments from the Company if certain events occur. These provisions vary based upon the terms in individual counterparty agreements and can result in cash payments if NJNG's credit rating were to fall below its current level. Specifically, most, but not all, of these additional payments will be triggered if NJNG's debt is downgraded by the major credit agencies, regardless of investment grade status. In addition, some of these agreements include threshold amounts that would result in additional collateral payments if the values of derivative liabilities were to exceed the maximum values provided for in relevant counterparty agreements. Other provisions include payment features that are not specifically linked to ratings, but are based on certain financial metrics.

Collateral amounts associated with any of these conditions are determined based on a sliding scale and are contingent upon the degree to which the Company's credit rating and/or financial metrics deteriorate, and the extent to which liability amounts exceed applicable threshold limits. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that were in a liability position on September 30, 2019 and 2018, is approximately \$186,000 and \$124,000, respectively, for which the Company had not posted collateral. If all thresholds related to the credit-risk-related contingent features underlying these agreements had been invoked on September 30, 2019, the Company would be required to post no additional amounts. If all thresholds related to the credit-risk-related contingent features underlying these agreements had been invoked on September 30, 2018, the Company would have been required to post an additional \$33,000 to its counterparties. These amounts differ from the respective net derivative liabilities reflected on the Consolidated Balance Sheets because the agreements also include clauses, commonly known as "Rights of Offset," that would permit the Company to offset its derivative assets against its derivative liabilities for determining additional collateral to be posted, as previously discussed.

6. FAIR VALUE

Fair Value of Assets and Liabilities

The fair value of cash and cash equivalents, accounts receivable, current loan receivables, accounts payable, commercial paper and borrowings under revolving credit facilities are estimated to equal their carrying amounts due to the short maturity of those instruments. Non-current loan receivables are recorded based on what the Company expects to receive, which approximates fair value. The Company regularly evaluates the credit quality and collection profile of its customers to approximate fair value.

As of September 30, the estimated fair value of long-term debt at NJNG and NJR, including current maturities, excluding capital leases, debt issuance costs and solar asset financing obligations, is as follows (1):

(Thousands)	2019	2018
NJNG		
Carrying value	\$ 892,845 \$	672,045
Fair market value	\$ 984,129 \$	669,162
NJR		
Carrying value	\$ 550,000 \$	500,000
Fair market value	\$ 584,735 \$	488,889

⁽¹⁾ See Note 9. Debt for a reconciliation to long-term and short-term debt.

The Company utilizes a discounted cash flow method to determine the fair value of its debt. Inputs include observable municipal and corporate yields, as appropriate, for the maturity of the specific issue and the Company's credit rating. As of September 30, 2019 and 2018, the Company disclosed its debt within Level 2 of the fair value hierarchy.

Fair Value Hierarchy

The Company applies fair value measurement guidance to its financial assets and liabilities, as appropriate, which include financial derivatives and physical commodity contracts qualifying as derivatives, available for sale securities and other financial assets and liabilities. In addition, authoritative accounting literature prescribes the use of a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value based on the source of the data used to develop the price inputs.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to inputs that are based on unobservable market data and includes the following:

- Level 1 Unadjusted quoted prices for identical assets or liabilities in active markets. The Company's Level 1 assets and liabilities include exchange traded natural gas futures and options contracts, listed equities and money market funds. Exchange traded futures and options contracts include all energy contracts traded on the NYMEX, CME and ICE that the Company refers to internally as basis swaps, fixed swaps, futures and financial options that are cleared through a FCM.
- Level 2 Other significant observable inputs, such as interest rates or price data, including both commodity and basis pricing that is observed either directly or indirectly from publications or pricing services. The Company's Level 2 assets and liabilities include over-the-counter physical forward commodity contracts and swap contracts, SREC forward sales or derivatives that are initially valued using observable quotes and are subsequently adjusted to include time value, credit risk or estimated transport pricing components for which no basis price is available. Level 2 financial derivatives consist of transactions with non-FCM counterparties (basis swaps, fixed swaps and/or options). Inputs are verifiable and do not require significant management judgment. For some physical commodity contracts, the Company utilizes transportation tariff rates that are publicly available and that it considers to be observable inputs that are equivalent to market data received from an independent source. There are no significant judgments or adjustments applied to the transportation tariff inputs and no market perspective is required. Even if the transportation tariff input were considered to be a "model," it would still be considered to be a Level 2 input as the data is:
 - widely accepted and public;
 - non-proprietary and sourced from an independent third party; and
 - observable and published.

These additional adjustments are generally not considered to be significant to the ultimate recognized values.

Level 3 Inputs derived from a significant amount of unobservable market data. These include the Company's best estimate of fair value and are derived primarily through the use of internal valuation methodologies.

Financial derivative portfolios of NJNG and Energy Services consist mainly of futures, options and swaps. The Company primarily uses the market approach and its policy is to use actively quoted market prices when available. The principal market for its derivative transactions is the natural gas wholesale market; therefore, the primary sources for its price inputs are CME, NYMEX and ICE. Energy Services uses Platts and Natural Gas Exchange for Canadian delivery points. However, Energy Services also engages in transactions that result in transporting natural gas to delivery points for which there is no actively quoted market price. In most instances, the transportation cost to the final delivery location is not significant to the overall valuation. If required, Energy Services' policy is to use the best information available to determine fair value based on internal pricing models, which would include estimates extrapolated from broker quotes or other pricing services.

The Company also has other financial assets that include listed equities, mutual funds and money market funds for which there are active exchange quotes available.

When the Company determines fair values, measurements are adjusted, as needed, for credit risk associated with its counterparties, as well as its own credit risk. The Company determines these adjustments by using historical default probabilities that correspond to the applicable S&P issuer ratings, while also taking into consideration collateral and netting arrangements that serve to mitigate risk.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Assets and liabilities measured at fair value on a recurring basis are summarized as follows:

	Active I	d Prices in Markets for ical Assets	Ob	icant Other servable Inputs	Unobs	ificant servable puts		
(Thousands)	(L	evel 1)		Level 2)		vel 3)		Total
As of September 30, 2019:				-				
Assets								
Physical commodity contracts	\$	_	\$	8,624	\$	_	\$	8,624
Financial commodity contracts		20,028		3,876		_		23,904
Financial commodity contracts - foreign exchange		_		1		_		1
Other (1)		1,706				_		1,706
Total assets at fair value	\$	21,734	\$	12,501	\$	_	\$	34,235
Liabilities								
Physical commodity contracts	\$	_	\$	40,426	\$	_	\$	40,426
Financial commodity contracts		35,732				_		35,732
Financial commodity contracts - foreign exchange				286		_		286
Total liabilities at fair value	\$	35,732	\$	40,712	\$	_	\$	76,444
As of September 30, 2018:								
Assets								
Physical commodity contracts	\$	—	\$	11,682	\$	—	\$	11,682
Financial commodity contracts		18,868		7,025		—		25,893
Interest rate contract		—		381		_		381
Available for sale equity securities		32,917				—		32,917
Other (1)		1,217		_				1,217
Total assets at fair value	\$	53,002	\$	19,088	\$		\$	72,090
Liabilities								
Physical commodity contracts	\$		\$	29,666	\$	—	\$	29,666
Financial commodity contracts		39,724				—		39,724
Financial commodity contracts - foreign exchange				244				244
Total liabilities at fair value	\$	39,724	\$	29,910	\$		\$	69,634
(1) X 1 1 1 1 (C 1							_	_

⁽¹⁾ Includes money market funds.

See *Note 5. Derivative Instruments* for additional details.

7. INVESTMENTS IN EQUITY INVESTEES

As of September 30, the Company's investments in equity method investees includes the following:

(Thousands)	2019	2018
Steckman Ridge (1)	\$ 114,428 \$	117,001
PennEast	85,840	73,865
Total	\$ 200,268 \$	190,866

⁽¹⁾ Includes loans with a total outstanding principal balance of \$70.4 million for both fiscal 2019 and 2018, which accrue interest at a variable rate that resets quarterly and are due October 1, 2023.

NJNG and Energy Services have entered into storage and park and loan agreements with Steckman Ridge. In addition, NJNG and Energy Services are each parties to a precedent capacity agreement with PennEast. See *Note 16. Related Party Transactions* for more information on these intercompany transactions.

The Company, through its subsidiary NJR Pipeline Company, is a 20 percent investor in PennEast, a partnership whose purpose is to construct and operate a 120-mile natural gas pipeline that will extend from northeast Pennsylvania to western New Jersey. PennEast received a Certificate of Public Convenience and Necessity for the project from FERC on January 19, 2018.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

On September 10, 2019, the United States Court of Appeals for the Third Circuit issued an order overturning the United States District Court for the District of New Jersey's order granting PennEast condemnation and immediate access in accordance with the Natural Gas Act to certain properties in which New Jersey holds an interest. The Petition for Panel Rehearing or Rehearing En Banc filed with the United States Court of Appeals for the Third Circuit was denied on November 5, 2019.

On October 8, 2019, the NJDEP issued a letter indicating that it deemed PennEast's freshwater wetlands permit application to be administratively incomplete and closed the matter without prejudice. On October 11, 2019, PennEast submitted a letter to the NJDEP objecting to its position that the freshwater wetlands permit application is administratively incomplete.

On November 14, 2019, PennEast announced that it will ask the Supreme Court of the United States to review the September 2019 decision by the United States Court of Appeals for the Third Circuit.

PennEast management remains committed to the pipeline project and is currently pursuing its appellate rights and development options to proceed with construction of the pipeline, the nature, timing and extent of which, including impacts to the timing, costs of construction and impacts to the in-service date, are in the process of being determined.

As a result of the recent adverse court rulings, the Company evaluated its investment for impairment and determined an impairment charge was not necessary. The Company estimated the fair value of its investment in PennEast using probability-weighted scenarios of discounted future cash flows. Management made significant estimates and assumptions related to development options and legal outcomes, construction costs, timing of capital investments and in-service dates, revenues and discount rates. Higher probabilities were assumed related to those scenarios where the project is completed. The discounted cash flow scenarios contemplated the impact of key assumptions of future court decisions and future management decisions and requires management to make significant estimates regarding the likelihood of various scenarios and assumptions. It is reasonably possible that future unfavorable developments, such as a reduced likelihood of success from development options and legal outcomes, estimated increases in construction costs, increases in the discount rate, or further significant delays, could result in an impairment of our equity method investment. Also, the use of alternate judgments and assumptions could result in a different calculation of fair value, which could ultimately result in the recognition of an impairment charge in the Consolidated Financial Statements.

8. EARNINGS PER SHARE

The following table presents the calculation of the Company's basic and diluted earnings per share for the fiscal years ended September 30:

(Thousands, except per share amounts)	2019	2018	2017
Net income, as reported	\$ 169,505	\$ 233,436	\$ 132,065
Basic earnings per share			
Weighted average shares of common stock outstanding-basic	89,242	87,689	86,321
Basic earnings per common share	\$1.90	\$2.66	\$1.53
Diluted earnings per share			
Weighted average shares of common stock outstanding-basic	89,242	87,689	86,321
Incremental shares (1)	374	626	823
Weighted average shares of common stock outstanding-diluted	89,616	88,315	87,144
Diluted earnings per common share (2)	\$1.89	\$2.64	\$1.52

⁽¹⁾ Incremental shares consist primarily of unvested stock awards and performance units.

9. DEBT

NJNG and NJR finance working capital requirements and capital expenditures through the issuance of various long-term debt and other financing arrangements, including unsecured credit and private placement debt shelf facilities. Amounts available under credit facilities are reduced by bank or commercial paper borrowings, as applicable, and any outstanding letters of credit.

⁽²⁾ There were no anti-dilutive shares excluded from the calculation of diluted earnings per share for fiscal 2019, 2018 and 2017.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Long-term Debt

The following table presents the long-term debt of the Company as of September 30:

Thousands)			2019	2018
NJNG				
First mortgag		Maturity date:		
3.00%	Series OO	August 1, 2041	46,500	46,500
3.15%	Series PP	April 15, 2028	50,000	50,000
3.58%	Series QQ	March 13, 2024	70,000	70,000
4.61%	Series RR	March 13, 2044	55,000	55,000
2.82%	Series SS	April 15, 2025	50,000	50,000
3.66%	Series TT	April 15, 2045	100,000	100,000
3.63%	Series UU	June 21, 2046	125,000	125,000
4.01%	Series VV	May 11, 2048	125,000	125,000
3.50%	Series WW	April 1, 2042	10,300	_
3.38%	Series XX	April 1, 2038	10,500	_
2.45%	Series YY	April 1, 2059	15,000	_
3.76%	Series ZZ	July 17, 2049	100,000	_
3.86%	Series AAA	July 17, 2059	85,000	_
2.75%	Series BBB (formally MM)	August 1, 2039	9,545	9,545
3.00%	Series CCC (formally NN)	August 1, 2043	41,000	41,000
Capital lease	obligation-buildings	June 1, 2021	5,637	8,74
	obligation-meters	Various dates	29,744	27,18
Less: Debt is:	Č		(9,027)	(6,51:
Less: Current	maturities of long-term debt		(10,420)	(9,502
	long-term debt		908,779	691,96
NJR				
3.25%	Unsecured senior notes	September 17, 2022	50,000	50,00
3.48%	Unsecured senior notes	November 7, 2024	100,000	100,000
3.20%	Unsecured senior notes	August 18, 2023	50,000	50,000
3.54%	Unsecured senior notes	August 18, 2026	100,000	100,000
3.96%	Unsecured senior notes	June 8, 2028	100,000	100,000
3.29%	Unsecured senior notes	July 17, 2029	150,000	
Variable	Term loan	August 16, 2019		100,000
Less: Debt is:			(2,004)	(1,130
	maturities of long-term debt			(100,000
	ong-term debt		547,996	398,864
Clean Energy V			211,922	270,00
	nancing obligation	Various dates	91,401	103,923
	maturities of long-term debt	, arrous autos	(10,999)	(14,13)
	Energy Ventures long-term debt		80,402	89,790
Total long-term			\$ 1,537,177 \$	

Annual long-term debt redemption requirements, excluding capital leases, debt issuance costs and solar asset financing obligations, as of September 30, are as follows:

(Thousands)	NJNG	NJR
2020	\$ — \$	_
2021	\$ — \$	_
2022	\$ — \$	50,000
2023	\$ — \$	50,000
2024	\$ 70,000 \$	100,000
Thereafter	\$ 822,845 \$	350,000

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJNG

First Mortgage Bonds

NJNG and Trustee entered into the Mortgage Indenture, dated September 1, 2014, which secures all of the outstanding First Mortgage Bonds issued by NJNG. The Mortgage Indenture provides a direct first mortgage lien upon substantially all of the operating properties and franchises of NJNG (other than excepted property, such as cash on hand, choses-in-action, securities, rent, natural gas meters and certain materials, supplies, appliances and vehicles), subject only to certain permitted encumbrances. The Mortgage Indenture contains provisions subjecting after-acquired property (other than excepted property and subject to pre-existing liens, if any, at the time of acquisition) to the lien thereof.

NJNG's Mortgage Indenture no longer contains a restriction on NJNG's ability to pay dividends. New Jersey Administrative Code 14:4-4.7 states that a public utility cannot issue dividends, without regulatory approval, if its equity to total capitalization ratio falls below 30 percent. As of September 30, 2019, NJNG's equity to total capitalization ratio is 56.3 percent and has the ability to issue up to \$1 billion of FMB under the terms of the Mortgage Indenture.

On April 18, 2019, NJNG completed the remarketing of three FMBs, in the amount of \$35.8 million, with a weighted average interest rate of 3.02 percent. The bonds have maturity dates ranging from April 2038 to April 2059. The bonds were previously purchased in lieu of redemption and were being held by the Company.

On July 17, 2019, NJNG entered into a Note Purchase Agreement, under which NJNG issued \$100 million of 3.76 percent senior notes due July 17, 2049 and \$85 million of 3.86 percent senior notes due July 17, 2059. The senior notes are secured by an equal principal amount of NJNG's FMBs issued under NJNG's Mortgage Indenture.

On August 1, 2019, NJNG completed a remarketing of three existing variable rate FMBs, with a total principal amount of \$97 million, which fixed the interest rates of the bonds. NJNG remarketed \$46.5 million at 3.00 percent due August 1, 2041, \$41 million at 3.00 percent due August 2043 and \$9.5 million at 2.75 percent due August 1, 2039. EDA Bonds are special, limited obligations of the EDA payable solely from payments made by NJNG pursuant to a Loan Agreement and are secured by the pledge of \$97 million principal amount of the FMB issued by the Company.

Sale-Leasebacks

NJNG has entered into a sale-leaseback for its headquarters building, which has a 25.5-year term that expires in June 2021, subject to an option by NJNG to renew the lease for additional five-year terms a maximum of four times. The present value of the agreement's minimum lease payments is reflected as both a capital lease asset and a capital lease obligation, which are included in utility plant and long-term debt, respectively, on the Consolidated Balance Sheets.

NJNG received \$9.9 million, \$7.8 million and \$9.6 million for fiscal 2019, 2018 and 2017, respectively, in connection with the sale-leaseback of its natural gas meters. NJNG records a capital lease obligation that is paid over the term of the lease and has the option to purchase the meters back at fair value upon expiration of the lease. During fiscal 2019, 2018 and 2017, NJNG exercised early purchase options with respect to meter leases by making final principal payments of \$1.1 million, \$2.2 million and \$2.4 million, respectively. NJNG continues to evaluate this sale-leaseback program based on current market conditions.

Contractual commitments for capital lease payments, as of the fiscal years ended September 30, are as follows:

(Thousands)	Lease	Payments
2020	\$	11,707
2021		6,603
2022		7,494
2023		3,995
2024		4,652
Thereafter		4,173
Subtotal		38,624
Less: Interest component		(3,243)
Total	\$	35,381

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJR

On July 17, 2019, NJR entered into a Note Purchase Agreement for \$150 million of 3.29 percent senior notes due on July 17, 2029. NJR issued \$50 million of these senior notes on July 17, 2019 and issued the remaining \$100 million of these senior notes on August 15, 2019.

On January 26, 2018, NJR entered into a variable-for-fixed interest rate swap on its \$100 million variable rate term loan, which fixed the variable rate at 2.84 percent. The swap terminated on August 16, 2019, which coincided with the maturity of the debt. NJR had no long-term variable-rate debt outstanding as of September 30, 2019.

Clean Energy Ventures

Clean Energy Ventures received proceeds of \$71.5 million and \$32.9 million in fiscal 2018 and 2017, respectively, in connection with the sale-leaseback of commercial solar assets. Clean Energy Ventures did not receive proceeds related to the sale-leaseback of commercial solar assets during fiscal 2019. Clean Energy Ventures enters into transactions to sell the commercial solar assets concurrent with agreements to lease the assets back over a period of six to 15 years. These sale-leasebacks are treated as financing obligations, which are typically secured by the renewable energy facility asset and its future cash flows from SREC and energy sales. ITCs and other tax benefits associated with these solar projects are transferred to the buyer. Clean Energy Ventures continues to operate the solar assets, including related expenses, and retain the revenue generated from SRECs and energy sales, and has the option to renew the lease or repurchase the assets sold at the end of the lease term.

Contractual commitments for solar sale-leaseback lease payments, as of the fiscal years ended September 30, are as follows:

(Thousands)	Lease Payments
2020	\$ 7,830
2021	7,803
2022	7,802
2023	7,878
2024	7,359
Thereafter	30,945
Subtotal	69,617
Less: Interest component	(22,971)
Total	\$ 46,646

Short-term Debt

A summary of NJR's and NJNG's short-term bank facilities as of September 30, are as follows:

(Thousands)	2019	2018
NJR		
Bank revolving credit facilities: (1)	\$ 425,000	\$ 425,000
Notes outstanding at end of period	\$ 25,450	\$ 87,950
Weighted average interest rate at end of period	3.04%	3.07%
Amount available at end of period (2)	\$ 394,800	\$ 322,144
NJNG		
Bank revolving credit facilities: (3)	\$ 250,000	\$ 250,000
Commercial paper outstanding at end of period	s —	\$ 64,000
Weighted average interest rate at end of period	<u>%</u>	2.18%
Amount available at end of period (4)	\$ 249,269	\$ 185,269

⁽¹⁾ Committed credit facilities, which require commitment fees of .075 percent on the unused amounts.

⁽²⁾ Letters of credit outstanding total \$4.8 million and \$14.9 million as of September 30, 2019 and 2018, respectively, which reduces amount available by the same amount.

⁽³⁾ Committed credit facilities, which require commitment fees of .075 percent on the unused amounts.

⁽⁴⁾ Letters of credit outstanding total \$731,000 as of September 30, 2019 and 2018, which reduces amount available by the same amount.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJR

On December 5, 2018, NJR entered into an Amended and Restated Credit Agreement governing a \$425 million NJR Credit Facility. The NJR Credit Facility expires on December 5, 2023, subject to two mutual options for a one-year extension beyond that date. The NJR Credit Facility permits the borrowing of revolving loans and swingline loans, as well as the issuance of letters of credit. The NJR Credit Facility also includes an accordion feature, which would allow NJR, in the absence of a default or event of default, to increase from time to time, with the existing or new lenders, the revolving credit commitments under the NJR Credit Facility in minimum increments of \$50 million increments up to a maximum of \$250 million. Certain of NJR's unregulated subsidiaries have guaranteed all of NJR's obligations under the NJR Credit Facility. The credit facility is used primarily to finance its share repurchases, to satisfy Energy Services' short-term liquidity needs and to finance, on an initial basis, unregulated investments.

On June 25, 2018, the \$425 million NJR Credit Facility was amended to permit liens and the disposition of assets relating to sale-leaseback or other similar tax equity financing arrangements of meter assets or of solar facilities. These transactions are permissible so long as NJR is in compliance with certain covenants both before and after such incurrence, and if no event of default may be caused by such sale-leaseback or similar arrangement.

In December 2018, NJR entered into a four-month, \$100 million revolving line of credit facility. This facility expired on April 18, 2019 and was not renewed. There were no amounts outstanding under this credit facility at expiration.

As of September 30, 2019, NJR had two letters of credit outstanding totaling \$4.8 million on behalf of Energy Services. These letters of credit reduce the amount available under NJR's committed credit facility by the same amount. NJR does not anticipate that these letters of credit will be drawn upon by the counterparties, and they will be renewed as necessary.

Energy Services' letters of credit are used for margin requirements for natural gas transactions, collateral and security deposit for retail gas sales and expire on dates ranging from December 2019 to September 2020.

Neither NJNG nor the results of its operations are obligated or pledged to support the NJR credit or debt shelf facilities.

NJNG

On December 5, 2018, NJNG entered into an Amended and Restated Credit Agreement governing a \$250 million, NJNG Credit Facility. The NJNG Credit Facility expires on December 5, 2023, subject to two mutual options for a one-year extension beyond that date. The NJNG Credit Facility permits the borrowing of revolving loans and swingline loans, as well as the issuance of letters of credit. The NJNG Credit Facility also includes an accordion feature, which would allow NJNG, in the absence of a default or event of default, to increase from time to time, with the existing or new lenders, the revolving credit commitments under the NJNG Credit Facility in minimum increments of \$50 million up to a maximum of \$100 million.

As of September 30, 2019, NJNG has two letters of credit outstanding for \$731,000. NJNG's letters of credit are used as collateral for remediation projects and expire in August 2020. These letters of credit reduce the amount available under NJNG's committed credit facility by the same amount. NJNG does not anticipate that these letters of credit will be drawn upon by the counterparty and they will be renewed as necessary.

10. STOCK-BASED COMPENSATION

In January 2017, the NJR 2017 Stock Award and Incentive Plan replaced the NJR 2007 Stock Award and Incentive Plan. Shares have been issued in the form of performance shares, restricted stock, deferred retention stock and unrestricted common stock to non-employee directors. As of September 30, 2019, 3,291,481 shares remain available for future issuance.

The following table summarizes all stock-based compensation expense recognized during the following fiscal years:

(Thousands)	2019	2018	2017
Stock-based compensation expense:			
Performance share awards	\$ 5,804	\$ 3,526	\$ 2,614
Restricted and non-restricted stock	2,492	2,191	1,732
Deferred retention stock	1,500	7,128	1,461
Compensation expense included in operation and maintenance expense	9,796	12,845	5,807
Income tax benefit (1)	(2,848)	(3,734)	(2,372)
Total, net of tax	\$ 6,948	\$ 9,111	\$ 3,435

(1) Excludes additional tax benefit related to delivered shares of \$1.3 million, \$3 million and \$1.3 million as of September 30, 2019, 2018 and 2017, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Performance Shares

In fiscal 2019, the Company granted to certain officers 36,392 performance shares, which are market condition awards that vest on September 30, 2021, subject to the Company meeting certain performance conditions. In fiscal 2019, the Company also granted to certain officers 63,870 performance shares, of which 33,844 vest on September 30, 2021 and 30,026 vest annually over a three-year period beginning on September 30, 2019, both of which are subject to the Company meeting certain performance conditions.

In fiscal 2018, the Company granted to certain officers 31,836 performance shares, which are market condition awards that vest on September 30, 2020, subject to the Company meeting certain performance conditions. In fiscal 2018, the Company also granted to certain officers 59,341 performance shares, of which 29,608 vest on September 30, 2020 and 29,733 vest annually over a three-year period beginning in September 30, 2018, both of which are subject to the Company meeting certain performance conditions.

In fiscal 2017, the Company granted to certain officers 44,576 performance shares, which are market condition awards that vested on September 30, 2019, subject to the Company meeting certain performance conditions. In fiscal 2017, the Company also granted to certain officers 51,931 performance shares, of which 25,806 vested in September 30, 2019 and 26,125 vest annually over a three-year period beginning in September 2017, both of which were subject to the Company meeting certain performance conditions. The vesting of these awards are shown in the table below.

There is approximately \$2.4 million of deferred compensation related to unvested performance shares that is expected to be recognized over the weighted average period of 1.7 years.

The following table summarizes the performance share activity under the stock award and incentive plans for the past three fiscal years:

	Shares (1)	Weighted Average Grant Date Fair Value	Total Fair Value of Vested Shares (in Thousands)
Non-vested and outstanding at September 30, 2016	179,916	\$27.47	-
Granted	96,507	\$33.57	_
Vested (2)	(95,407)	\$28.88	\$ 4,179
Cancelled/forfeited	(24,429)	\$29.14	_
Non-vested and outstanding at September 30, 2017	156,587	\$30.12	_
Granted	91,177	\$44.67	_
Vested (3)	(100,146)	\$29.49	\$ 4,714
Cancelled/forfeited	(2,442)	\$31.45	_
Non-vested and outstanding at September 30, 2018	145,176	\$39.67	<u>—</u>
Granted	100,262	\$47.98	_
Vested (4)	(103,009)	\$38.52	\$ 4,622
Cancelled/forfeited	(11,920)	\$44.34	_
Non-vested and outstanding at September 30, 2019	130,509	\$46.53	-

- (1) The number of common shares issued related to certain performance shares may range from zero to 150 percent of the number of shares shown in the table above based on the Company's achievement of performance goals.
- (2) As certified by the Company's Leadership and Compensation Committee on November 14, 2017, the number of common shares related to performance shares earned was 108.44 percent, or 39,595 shares, the number of common shares earned related to NFE performance was 119 percent or 36,498 shares, and the number of common shares earned related to Performance Based Restricted Stock was 100 percent or 28,223 shares. Each award earned excludes accumulated dividends. The number represented on this line is the target number of 100 percent.
- (3) As certified by the Company's Leadership and Compensation Committee on November 13, 2018, the number of common shares earned related to TSR performance was 99 percent or 38,660 shares, the number of common shares earned related to NFE performance was 121 percent or 39,694 shares, and the number of common shares earned related to Performance Based Restricted Stock was 100 percent or 36,998 shares. Each award earned excludes accumulated dividends. The number represented on this line is the target number of 100 percent.
- (4) As certified by the Company's Leadership and Compensation Committee on November 12, 2019, the number of common shares earned related to TSR performance was 119 percent or 43,641 shares, the number of common shares earned related to NFE performance was 117 percent or 26,413 shares and the number of common shares earned related to Performance Based Restricted Stock was 100 percent or 24,468 shares. Each award earned excludes accumulated dividends. The number represented on this line is the target number of 100 percent.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Company measures compensation expense related to performance shares based on the fair value of these awards at their date of grant. In accordance with ASC 718, *Compensation - Stock Compensation*, compensation expense for market condition grants are recognized for awards granted, and are not adjusted based on actual achievement of the performance goals. The Company estimated the fair value of these grants on the date of grant using a lattice model. Performance condition grants are initially fair valued at the Company's stock price on grant date, and are subsequently adjusted for actual achievement of the performance goals.

Restricted Stock

In fiscal 2019, the Company granted 29,222 shares of restricted stock that vest annually over a three-year period beginning October 15, 2019. In fiscal 2019, the Company also granted 6,062 shares of restricted stock that vest annually over a three-year period beginning April 2020. In fiscal 2018, the Company granted 27,949 shares of restricted stock that vest annually over a three-year period beginning in October 2018. In fiscal 2017, the Company granted 22,591 shares of restricted stock that vest annually over a three-year period beginning in October 2017. In fiscal 2017, the Company also granted 6,143 shares of restricted stock that vest annually over a three-year period beginning May 2018. There is approximately \$943,000 of deferred compensation related to unvested restricted stock shares that is expected to be recognized over the weighted average period of 1.9 years.

The following table summarizes the restricted stock activity under the stock award and incentive plans for the past three fiscal years:

	Shares	Weighted Average Grant Date Fair Value	Total Fair Value of Vested Shares (in Thousands)
Non-vested and outstanding at September 30, 2016	73,071	\$29.09	_
Granted	28,734	\$35.79	_
Vested	(38,752)	\$28.92	\$ 1,344
Cancelled/forfeited	(11,899)	\$31.56	_
Non-vested and outstanding at September 30, 2017	51,154	\$32.40	_
Granted	27,949	\$45.00	_
Vested	(33,815)	\$31.23	\$ 1,438
Cancelled/forfeited	(1,120)	\$33.54	_
Non-vested and outstanding at September 30, 2018	44,168	\$41.24	_
Granted	35,284	\$48.24	_
Vested	(20,748)	\$39.26	\$ 935
Cancelled/forfeited	(548)	\$42.96	_
Non-vested and outstanding at September 30, 2019	58,156	\$46.18	

Deferred Retention Stock

Deferred retention stock awards are granted upon approval by the Board of Directors, which generally occurs subsequent to the fiscal year end. Deferred retention stock awards vest immediately when granted, with shares delivered at a future date in accordance with the terms of the underlying agreements. The expense for these awards is recognized in the fiscal year in which services are rendered.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The following table summarizes the deferred retention stock award under the stock award and incentive plans for the past three fiscal years:

	Shares	Weighted Average Grant Date Fair Value	Total Fair Value of Vested Shares (in Thousands)
Outstanding at September 30, 2016	662,479	\$29.06	_
Granted/Vested	63,977	\$35.64	_
Delivered	(53,878)	\$23.11	\$ 1,774
Outstanding at September 30, 2017	672,578	\$29.54	
Granted/Vested	24,167	\$45.00	_
Delivered	(452,694)	\$29.42	\$ 19,581
Forfeited	(1,969)	\$35.56	
Outstanding at September 30, 2018	242,082	\$32.99	
Granted/Vested	167,407	\$47.95	_
Delivered	(158,733)	\$30.32	\$ 7,145
Forfeited	(7,195)	\$44.41	_
Outstanding at September 30, 2019	243,561	\$44.67	

Non-Employee Director Stock

Non-employee director compensation includes an annual January retainer that is awarded in stock. The shares vest immediately and are subsequently amortized to expense over a 12-month period. The following summarizes non-employee director share awards for the past three fiscal years:

	2019	2018	2017
Shares granted	26,165 (1)	26,524	27,972
Weighted average grant date fair value	\$44.80	\$39.85	\$35.59

^{(1) \$311,000} of expense remains as of September 30, 2019, to be recognized through December 31, 2019.

11. EMPLOYEE BENEFIT PLANS

Pension and Other Postemployment Benefit Plans

The Company has two trusteed, noncontributory defined benefit retirement plans covering eligible regular represented and non-represented employees with more than one year of service. Defined benefit plan benefits are based on years of service and average compensation during the highest 60 consecutive months of employment. The Company also provides postemployment medical and life insurance benefits to employees who meet certain eligibility requirements.

All represented employees of NJRHS hired on or after October 1, 2000, non-represented employees hired on or after October 1, 2009 and NJNG represented employees hired on or after January 1, 2012, are covered by an enhanced defined contribution plan instead of the defined benefit plan. Participation in the postemployment medical and life insurance plan was also frozen to new employees as of the same dates, with the exception of new NJRHS represented employees, for which benefits were frozen beginning April 3, 2012.

The Company maintains an unfunded nonqualified PEP that was established to provide employees with the full level of benefits as stated in the qualified plan without reductions due to various limitations imposed by the provisions of federal income tax laws and regulations. There were no plan assets in the nonqualified plan due to the nature of the plan.

In April 2018, the Company implemented a voluntary early retirement program open to certain eligible employees. As of September 30, 2018, pension and postemployment benefit costs related to the special termination benefits were \$4.2 million and other severance benefits were \$2.2 million. For the amounts incurred, NJNG recognized an expense of approximately \$5.1 million and Home Services and other recognized an expense of approximately \$1.3 million, as a component of O&M in the Consolidated Statements of Operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Company's funding policy for its pension plans is to contribute at least the minimum amount required by the Employee Retirement Income Security Act of 1974, as amended. In fiscal 2019 and 2018, the Company had no minimum funding requirements. The Company made no discretionary contributions to the pension plans in fiscal 2019 or 2018. The Company does not expect to be required to make additional contributions to fund the pension plans over the following two fiscal years based on current actuarial assumptions; however, funding requirements are uncertain and can depend significantly on changes in actuarial assumptions, returns on plan assets and changes in the demographics of eligible employees and covered dependents.

There are no federal requirements to pre-fund OPEB benefits. However, the Company is required to fund certain amounts due to regulatory agreements with the BPU. The Company contributed \$7.9 million and \$6.2 million, in fiscal 2019 and 2018, respectively, and estimates that it will contribute between \$5 million and \$10 million over each of the next five years. Additional contributions may be required based on market conditions and changes to assumptions.

The following summarizes the changes in the funded status of the plans and the related liabilities recognized on the Consolidated Balance Sheets as of September 30:

	Pension	(1)	OPER	3	
(Thousands)	2019	2018	2019	2018	
Change in Benefit Obligation					
Benefit obligation at beginning of year	\$ 298,575 \$	297,835 \$	196,785 \$	175,090	
Service cost	7,381	8,139	4,404	4,607	
Interest cost	12,173	10,493	8,324	6,365	
Plan participants' contributions (2)	43	45	210	161	
Special termination benefits (3)	_	3,730	_	490	
Actuarial loss (gain)	52,549	(12,846)	54,700	15,145	
Benefits paid, net of retiree subsidies received	(10,244)	(8,821)	(4,420)	(5,073)	
Benefit obligation at end of year	\$ 360,477 \$	298,575 \$	260,003 \$	196,785	
Change in plan assets					
Fair value of plan assets at beginning of year	\$ 279,410 \$	271,743 \$	77,980 \$	71,534	
Actual return on plan assets	19,194	16,306	2,499	5,284	
Employer contributions	231	137	7,926	6,222	
Benefits paid, net of plan participants' contributions (2)	(10,201)	(8,776)	(4,479)	(5,060)	
Fair value of plan assets at end of year	\$ 288,634 \$	279,410 \$	83,926 \$	77,980	
Funded status	\$ (71,843) \$	(19,165) \$	(176,077) \$	(118,805)	
Amounts recognized on Consolidated Balance Sheets					
Postemployment employee (liability)					
Current	\$ (603) \$	(294) \$	(800) \$	(669)	
Noncurrent	(71,240)	(18,871)	(175,277)	(118,136)	
Total	\$ (71,843) \$	(19,165) \$	(176,077) \$	(118,805)	

⁽¹⁾ Includes the Company's PEP.

The actuarial loss on the Company's pension is primarily due to a decrease in the discount rate used to measure the obligation. The actuarial loss related to the OPEB plans is primarily due to a decrease in the discount rate used to measure the obligation and an increase in expected retiree healthcare claims. The Company recognizes a liability for its underfunded benefit plans as required by ASC 715, *Compensation - Retirement Benefits*. The Company records the offset to regulatory assets for the portion of liability relating to NJNG and to accumulated other comprehensive income for the portion of the liability related to its unregulated operations.

⁽²⁾ Prior to July 1, 1998, employees were eligible to elect an additional participant contribution to enhance their benefits and contributions made during the periods were insignificant.

⁽³⁾ Related to the voluntary early retirement program offered during fiscal 2018, as previously discussed.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The following table summarizes the amounts recognized in regulatory assets and accumulated other comprehensive income as of September 30:

	1	Regulatory	Assets	A	Accumulate Compreho Income (1	ensive
	P	ension	OPEB	F	Pension	OPEB
Balance at September 30, 2017	\$	78,605 \$	60,460	\$	19,415 \$	4,967
Amounts arising during the period:						
Net actuarial (gain) loss		(6,090)	12,378		(3,422)	2,834
Amounts amortized to net periodic costs:						
Net actuarial (loss)		(6,177)	(4,464)		(1,359)	(196)
Prior service (cost) credit		(105)	311		(1)	54
Balance at September 30, 2018	\$	66,233 \$	68,685	\$	14,633 \$	7,659
Amounts arising during the period:						
Net actuarial loss		38,137	48,452		14,271	9,264
Amounts amortized to net periodic costs:						
Net actuarial (loss)		(4,662)	(5,820)		(1,103)	(648)
Prior service (cost) credit		(102)	312		_	53
Balance at September 30, 2019	\$	99,606 \$	111,629	\$	27,801 \$	16,328

The amounts in regulatory assets and accumulated other comprehensive income not yet recognized as components of net periodic benefit cost as of September 30 are:

			Regulato	ry	Assets			A	ccumula	tec	l Other C L		nprehensi)	ve	Income
	Pension OP			EF	3	Pension				OPEB			3		
(Thousands)	2019		2018		2019		2018		2019		2018		2019		2018
Net actuarial loss	\$ 99,139	\$	65,664	\$	112,109	\$	69,477	\$	27,801	\$	14,633	\$	16,367	\$	7,750
Prior service cost (credit)	467		569		(480)		(792)		_		_		(39)		(91)
Total	\$ 99,606	\$	66,233	\$	111,629	\$	68,685	\$	27,801	\$	14,633	\$	16,328	\$	7,659

To the extent the unrecognized amounts in accumulated other comprehensive income or regulatory assets exceed 10 percent of the greater of the benefit obligation or the fair value of plan assets, an amortized amount over the average expected future working lifetime of the active plan participants is recognized. Amounts included in regulatory assets and accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost in fiscal 2020 are as follows:

	F	Regulato	ry	Assets	A	ccumula Compre Income	ehe	ensive
(Thousands)	P	ension		OPEB	P	ension		OPEB
Net actuarial loss	\$	8,470	\$	10,055	\$	2,514	\$	1,407
Prior service cost (credit)		102		(182)		_		(15)
Total	\$	8,572	\$	9,873	\$	2,514	\$	1,392

The accumulated benefit obligation for the pension plans, including the PEP, exceeded the fair value of plan assets. The projected benefit and accumulated benefit obligations and the fair value of plan assets as of September 30, are as follows:

	Pension
(Thousands)	2019 2018
Projected benefit obligation	\$ 360,477 \$ 298,575
Accumulated benefit obligation	\$ 319,527 \$ 263,279
Fair value of plan assets	\$ 288,634 \$ 279,410

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The components of the net periodic cost for pension benefits, including the Company's PEP, and OPEB costs (principally health care and life insurance) for employees and covered dependents for fiscal years ended September 30, are as follows:

]	Pension			OPEB	
(Thousands)	2019	2018	2017	2019	2018	2017
Service cost	\$ 7,381 \$	8,139 \$	8,347 \$	4,404 \$	4,607 \$	4,380
Interest cost	12,173	10,493	9,771	8,324	6,365	5,545
Expected return on plan assets	(19,054)	(19,639)	(19,313)	(5,515)	(5,352)	(4,767)
Recognized actuarial loss	5,765	7,537	8,827	6,466	4,660	4,370
Prior service cost (credit) amortization	102	106	111	(365)	(365)	(365)
Net periodic benefit cost	\$ 6,367 \$	6,636 \$	7,743 \$	13,314 \$	9,915 \$	9,163
Special termination benefit	_	3,730	_	_	490	
Net periodic benefit cost recognized as expense	\$ 6,367 \$	10,366 \$	7,743 \$	13,314 \$	10,405 \$	9,163

Assumptions

The weighted average assumptions used to determine the Company's benefit costs during the fiscal years below and obligations as of September 30, are as follows:

		Pension			OPEB	
	2019	2018	2017	2019	2018	2017
Benefit costs:						
Discount rate	4.36/4.35% ⁽¹⁾	4.04/4.03% (1)	3.96/3.94% (1)	4.38/4.37% ⁽¹⁾	4.12/4.08% (1)	4.08/4.01% (1)
Expected asset return	7.00%	7.50%	7.75%	7.00%	7.50%	7.75%
Compensation increase	3.25/3.50% ⁽¹⁾	3.25/3.50% ⁽¹⁾	3.25/3.50% (1)	3.25/3.50 (1)	3.25/3.50% (1)	3.25/3.50% (1)
Obligations:						
Discount rate	3.37/3.35% ⁽¹⁾	4.36/4.35% (1)	4.03%	3.48/3.44% (1)	4.38/4.37% (1)	4.12/4.08% (1)
Compensation increase	3.00/3.50% ⁽¹⁾	3.25/3.50% (1)	3.25/3.50% (1)	3.00/3.50% ⁽¹⁾	3.25/3.50% (1)	3.25/3.50% (1)

⁽¹⁾ Percentages for represented and nonrepresented plans, respectively.

When measuring its projected benefit obligations, the Company uses an aggregate discount rate at which its obligation could be effectively settled. The Company determines a single weighted average discount rate based on a yield curve comprised of rates of return on a population of high quality debt issuances (AA- or better) whose cash flows (via coupons or maturities) match the timing and amount of its expected future benefit payments. The Company measures its service and interest costs using a disaggregated, or spot rate, approach. The Company applies the duration-specific spot rates from the full yield curve, as of the measurement date, to each year's future benefit payments, which aligns the timing of the plans' separate future cash flows to the corresponding spot rates on the yield curve.

Information relating to the assumed HCCTR used to determine expected OPEB benefits as of September 30, and the effect of a 1 percent change in the rate, are as follows:

(\$ in thousands)	2019	2018	2017
HCCTR	7.6%	7.9%	8.3%
Ultimate HCCTR	4.5%	4.5%	4.5%
Year ultimate HCCTR reached	2026	2024	2025
Effect of a 1 percentage point increase in the HCCTR on:			
Year-end benefit obligation	\$ 49,061	\$ 36,260	\$ 32,019
Total service and interest cost	\$ 2,923	\$ 2,482	\$ 2,468
Effect of a 1 percentage point decrease in the HCCTR on:			
Year-end benefit obligation	\$ (38,747)	\$ (28,743)	\$ (25,466)
Total service and interest costs	\$ (2,250)	\$ (1,937)	\$ (1,909)

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Company's investment objective is a long-term real rate of return on assets before permissible expenses that is approximately 5 percent greater than the assumed rate of inflation, as measured by the consumer price index. The expected long-term rate of return is based on the asset categories in which the Company invests and the current expectations and historical performance for these categories.

The mix and targeted allocation of the pension and OPEB plans' assets are as follows:

	2020	Asset	ts at
	Target	Septem	ber 30,
Asset Allocation	Allocation	2019	2018
U.S. equity securities	34%	37%	41%
International equity securities	17	17	19
Fixed income	38	42	37
Other assets	11	4	3
Total	100%	100%	100%

The Company adopted the revised mortality assumptions published by the Society of Actuaries for its pension and other postemployment benefit obligations, which reflected increased life expectancies in the United States. The adoption of the new mortality projection scale, MP-2018, did not materially impact the projected benefit obligation for the plans.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid during the following fiscal years:

(Thousands)	P	Pension	(OPEB
2020	\$	12,234	\$	6,267
2021	\$	12,758	\$	6,804
2022	\$	13,585	\$	7,589
2023	\$	14,405	\$	8,249
2024	\$	15,210	\$	8,910
2025 - 2029	\$	90,726	\$	55,025

The Company's OPEB plans provide prescription drug benefits that are actuarially equivalent to those provided by Medicare Part D. Therefore, under the Medicare Prescription Drug, Improvement and Modernization Act of 2003, the Company qualifies for federal subsidies.

The following estimated subsidy payments are expected to be paid during the following fiscal years:

	Estimated Sul	Estimated Subsidy				
(Thousands)	Payment	t				
2020	\$	261				
2021	\$	286				
2022	\$	314				
2023	\$	350				
2024	\$	387				
2025 - 2029	\$ 2	2,605				

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Pension and OPEB assets held in the master trust, measured at fair value, as of September 30, are summarized as follows:

(Thousands)	Activ	oted Prices in we Markets fo entical Assets (Level 1)		Total	Activ	oted Prices in we Markets for entical Assets (Level 1)	•	Total
As of September 30, 2019:		Pensi	on			OPE	В	
Assets				,				
Money market funds	\$	_	\$	_	\$	21	\$	21
Registered Investment Companies:								
Equity Funds:								
Large Cap Index		89,374		89,374		25,474		25,474
Extended Market Index		16,548		16,548		5,036		5,036
International Stock		49,929		49,929		14,564		14,564
Fixed Income Funds:								
Emerging Markets		15,794		15,794		4,764		4,764
Core Fixed Income		_		_		10,570		10,570
Opportunistic Income		_		_		6,365		6,365
Ultra Short Duration		_		_		6,340		6,340
High Yield Bond Fund		24,328		24,328		7,350		7,350
Long Duration Fund		80,041		80,041		_		_
Total assets at in the fair value hierarchy	\$	276,014		276,014	\$	80,484		80,484
Investments measured at net asset value								
Common collective trusts				12,620				3,442
Total assets at fair value			\$	288,634			\$	83,926

(Thousands)	Active Iden	oted Prices in ive Markets for entical Assets (Level 1)		Total	Quoted Prices in Active Markets for Identical Assets (Level 1)		Total
As of September 30, 2018:	Pension				OPEB		
Assets		-					
Money market funds	\$	8,207	\$	8,207	\$	2,273	\$ 2,273
Registered Investment Companies:							
Equity Funds:							
Large Cap Index		97,016		97,016		27,340	27,340
Extended Market Index		17,741		17,741		5,014	5,014
International Stock		53,516		53,516		14,874	14,874
Fixed Income Funds:							
Emerging Markets		11,754		11,754		3,264	3,264
Core Fixed Income		_		_		7,970	7,970
Opportunistic Income		_		_		4,798	4,798
Ultra Short Duration		_		_		4,830	4,830
High Yield Bond Fund		25,720		25,720		7,236	7,236
Long Duration Fund		64,039		64,039		_	_
Total assets at in the fair value hierarchy	\$	277,993		277,993	\$	77,599	77,599
Investments measured at net asset value							
Common collective trusts				1,417			381
Total assets at fair value			\$	279,410			\$ 77,980

The Plan had no Level 2 or Level 3 fair value measurements during fiscal 2019 and 2018, and there have been no changes in valuation methodologies as of September 30, 2019. The Plan held assets that are valued using net asset value as a practical expedient, which are excluded from the fair value hierarchy.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The following is a description of the valuation methodologies used for assets measured at fair value:

Money Market funds — Represents bank balances and money market funds that are valued based on the net asset value of shares held at year end.

Registered Investment Companies — Equity and fixed income funds valued at the net asset value of shares held by the plan at year end as reported on the active market on which the individual securities are traded.

Common collective trusts — The NAV for common collective trusts is provided by the trustee, and is used as a practical expedient to estimate fair value. The NAV is based on the value of the underlying assets owned by the fund less liabilities.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Defined Contribution Plan

The Company offers a Savings Plan to eligible employees. The Company matches 75 percent of participants' contributions up to 6 percent of base compensation. Represented NJRHS employees, non-represented employees hired on or after October 1, 2009, and NJNG represented employees hired on or after January 1, 2012, are eligible for an employer special contribution of between 4 and 5 percent of base compensation, depending on years of service, into the Savings Plan on their behalf. The amount expensed and contributed for the matching provision of the Savings Plan was \$3.9 million in fiscal 2019, \$3.9 million in fiscal 2017. The amount contributed for the employer special contribution of the Savings Plan was \$1.3 million in fiscal 2019, \$959,000 in fiscal 2018 and \$781,000 in fiscal 2017.

12. ASSET RETIREMENT OBLIGATIONS

The Company recognizes ARO when the legal obligation to retire an asset has been incurred and a reasonable estimate of fair value can be made. Accordingly, the Company recognizes ARO related to the costs associated with cutting and capping its main and service gas distribution pipelines of NJNG, which is required by New Jersey law when taking such gas distribution pipeline out of service. The Company also recognizes ARO related to Clean Energy Ventures' solar assets when there are decommissioning provisions in Clean Energy Ventures' lease agreements that require removal of the asset.

Accretion amounts associated with NJNG's ARO are recognized as part of its depreciation expense and the corresponding regulatory asset and liability will be shown gross on the Consolidated Balance Sheets. Accretion amounts associated with Clean Energy Ventures' ARO are recognized as a component of operations and maintenance expense on the Consolidated Statements of Operations.

The following is an analysis of the change in the Company's ARO for the fiscal years ended September 30:

(Thousands)	2019			201	8
		NJNG	NJRCEV	NJNG	NJRCEV
Balance at October 1	\$	25,640	\$ 3,048	\$ 24,825	6,595
Accretion		1,427	150	1,366	198
Additions		135	904	1,880	517
Revisions in estimated cash flows		_	_	(2,133)	_
Retirements		(258)	_	(298)	_
Reclassification to held for sale or sold		_	_	_	(4,262)
Balance at period end	\$	26,944	\$ 4,102	\$ 25,640	3,048

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Accretion for the next five years, for the fiscal years ended September 30, is estimated to be as follows:

	Estin	nated
(Thousands)	Accr	<u>etion</u>
2020	\$	1,669
2021		1,745
2022 2023		1,823
2023		1,908
2024		1,994
2024 Total	\$	9,139

13. INCOME TAXES

The income tax (benefit) provision from operations for the fiscal years ended September 30, consists of the following:

(Thousands)	2019	2018	2017
Current:			_
Federal	\$ 10,933 \$	(2,848) \$	(16,023)
State	3,530	4,563	2,470
Deferred:			
Federal	7,988	(40,785)	54,965
State	5,833	6,731	11,457
Investment/production tax credits, net	(66,035)	(21,446)	(34,526)
Income tax (benefit) provision	\$ (37,751) \$	(53,785) \$	18,343

As of September 30, the temporary differences, which give rise to deferred tax assets (liabilities), consist of the following:

(Thousands)	2019		2018
Deferred tax assets			
Investment tax credits (1)	\$ 156,153	\$	123,258
Federal net operating losses (2)	24,173		24,500
State net operating losses	25,302		34,754
Fair value of derivatives	9,673		8,411
Postemployment benefits	9,192		_
Incentive compensation	7,231		4,646
Amortization of intangibles	4,991		3,737
Conservation incentive plan	_		1,955
Other	3,105		8,213
Total deferred tax assets	\$ 239,820	\$	209,474
Deferred tax liabilities			
Property related items	\$ (379,673)	\$	(392,886)
Remediation costs	(10,720)		(9,229)
Equity investments	(21,730)		(31,956)
Underrecovered gas costs	(2,657)		(1,156)
Conservation incentive plan	(942)		_
Postemployment benefits	_		(353)
Other	(4,776)		(7,826)
Total deferred tax liabilities	\$ (420,498)	\$	(443,406)
Total net deferred tax liabilities	(190 (79)	•	(222 022)
Total her deferred tax habilities	\$ (180,678)	\$	(233,932)

⁽¹⁾ Includes \$2 million and \$2.2 million for NJNG for fiscal 2019 and 2018, respectively, which is being amortized over the life of the related assets, and \$154.2 million and \$121.1 million for Clean Energy Ventures for fiscal 2019 and 2018, respectively, which is ITC carryforward.

⁽²⁾ See discussion of federal net operating loss utilization in the *Other Tax Items* section of this note.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

A reconciliation of the U.S. federal statutory rate to the effective rate from operations for the fiscal years ended September 30, is as follows:

(Thousands)	2019	2018	2017
Statutory income tax expense	\$ 27,668	\$ 44,014	\$ 52,643
Change resulting from:			
Investment/production tax credits	(66,035)	(21,446)	(34,526)
Cost of removal of assets placed in service prior to 1981	(6,349)	(5,829)	(6,886)
AFUDC equity	(2,313)	(2,117)	(2,624)
State income taxes, net of federal benefit	7,707	7,092	8,222
Basis adjustment of solar assets due to ITC	6,500	1,080	4,256
Tax Act - utility excess deferred income taxes amortized (1)	(3,573)	(1,786)	_
Tax Act - nonutility excess deferred income taxes (1)	_	(59,627)	
Tax Act - utility excess deferred income taxes refunded to customers (1)	_	(14,323)	_
Other	(1,356)	(843)	(2,742)
Income tax (benefit) provision	\$ (37,751)	\$ (53,785)	\$ 18,343
Effective income tax rate (2) (3)	(28.7)%	(29.9)%	6 12.2%

- (1) For a more detailed description, see *The Tax Act* section of this note.
- (2) The U.S. federal statutory rate was 21 percent, 24.5 percent and 35 percent for fiscal 2019, 2018 and 2017, respectively.
- (3) The effective tax rate without the impact of the Tax Act would have been 12.4 percent for fiscal 2018.

The Company and one or more of its subsidiaries files or expects to file income and/or franchise tax returns in the U.S. Federal jurisdiction and in the states of Colorado, Connecticut, Delaware, Iowa, Kansas, Louisiana, Maryland, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, Utah, Virginia and the City of New York. The Company neither files in, nor believes it has a filing requirement in, any foreign jurisdictions other than Canada. Due to certain available tax treaty benefits, the Company incurs no tax liability in Canada.

The Company's federal income tax returns through fiscal 2014 have either been reviewed by the IRS, or the related statute of limitations has expired and all matters have been settled. Federal income tax returns for periods subsequent to fiscal 2014 are open to examination or are currently under examination by the IRS. For all periods subsequent to those ended September 30, 2015, the Company's state income tax returns are statutorily open to examination in all applicable states with the exception of Colorado, New Jersey and Texas. In Colorado, New Jersey and Texas, all periods subsequent to September 30, 2014 are statutorily open to examination.

In May 2019, the Company received a favorable ruling from the IRS regarding a change to its tax method of accounting for the capitalization of certain costs associated with self-constructed property placed in service during fiscal years prior to September 30, 2015. The self-constructed property to which these costs relate is considered qualified energy property as defined under the Internal Revenue Code. As such, the Company is eligible to claim a 30 percent ITC on the increase in the depreciable cost basis of the property through the filing of an amended tax return in the year of change. As a result of the favorable IRS ruling, the Company recorded a benefit from income taxes of approximately \$10 million from the additional ITC recognized, net of deferred taxes.

NJR evaluates its tax positions to determine the appropriate accounting and recognition of potential future obligations associated with unrecognized tax benefits. A tax benefit claimed, or expected to be claimed, on a tax return may be recognized if it is more likely than not that the position will be upheld upon examination by the applicable taxing authority. Interest and penalties related to unrecognized tax benefits, if any, are recognized within income tax expense and accrued interest, and penalties are recognized within other noncurrent liabilities on the Consolidated Balance Sheets.

As of September 30, 2019, the Company evaluated certain tax benefits that have been recorded in the financial statements and concluded that a portion of the tax benefits are uncertain at this time. As a result, the Company recorded a reserve that is included in accrued taxes on the Consolidated Balance Sheets. The tax benefits relate to fiscal tax years open to examination by the IRS and may be subject to subsequent adjustment. The reserve for uncertain tax benefits for the fiscal year ended September 30, is as follows:

(Thousands)	2	2019
Balance at October 1,	\$	_
Additions based on tax positions related to the current fiscal period		4,930
Balance at period end	\$	4,930

During fiscal 2018, there were no reserves associated with uncertain tax positions.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

Other Tax Items

As of September 30, 2019 and 2018, the Company has federal income tax net operating losses of approximately \$134 million and \$136.8 million, respectively. Federal net operating losses can generally can be carried back two years and forward 20 years and will begin to expire in fiscal 2036, with the remainder expiring by 2038. The Company expects to exercise its ability to carryback federal net operating losses to offset taxable income in prior periods.

For the net operating losses it expects to carryback, the Company estimated the portion considered refundable and recorded receivables of approximately \$22.8 million and \$23 million as of September 30, 2019 and 2018, respectively, as a component of other noncurrent assets on the Consolidated Balance Sheets. Upon filing amended federal income tax returns to carryback its remaining federal net operating losses totaling \$24.2 million, the Company will reduce its taxable income in those periods and recapture federal investment tax credits of the same amount that were previously utilized to offset taxable income.

In addition, as of September 30, 2019 and 2018, the Company has an ITC/PTC carryforward of approximately \$154.2 million and \$121.1 million, respectively, which each have a life of 20 years. When the Company carries back the federal net operating losses noted above, it expects to recapture investment tax credits totaling \$24.1 million. These recaptured tax credits are in addition to the \$154.2 million and will be carried forward to offset future taxable income. The Company expects to utilize this entire carryforward, which would begin to expire in fiscal 2034.

As of September 30, 2019 and 2018, the Company has state income tax net operating losses of approximately \$340.2 million and \$578.8 million, respectively. These state net operating losses have varying carry-forward periods dictated by the state in which they were incurred; these state carry-forward periods range from seven to 20 years and would begin to expire in fiscal 2021, with the majority expiring after 2035. The Company expects to utilize this entire carryforward, other than as described below.

On February 7, 2019, Clean Energy Ventures finalized the sale of its remaining wind assets. As a result of the sale, it is more likely than not that certain state net operating loss carryforwards will not be realizable prior to their expiration. As of September 30, 2019, the Company had a valuation allowance of \$4 million related to state net operating loss carryforwards in Montana, Iowa, Kansas and Pennsylvania as of September 30, 2019 and 2018. This is included as a component of other within the composition of deferred tax assets.

The Consolidated Appropriations Act extended the 30 percent ITC for solar property that is under construction on or before December 31, 2019. Projects placed in service after December 31, 2019, may also qualify for a 30 percent federal ITC if five percent or more of the total costs of a solar property are incurred before the end of the applicable year and there are continuous efforts to advance towards completion of the project, based on the IRS guidance around ITC safe harbor determination. The credit will decline to 26 percent for property under construction during 2020, and to 22 percent for property under construction during 2021. For any property that is under construction before 2022, but not placed in service before 2024, the ITC will be reduced to 10 percent.

The Tax Act

On December 22, 2017, the President signed into law the Tax Act. The law made several changes to the Internal Revenue Code of 1986, as amended, the most impactful to the Company of which was a reduction in the federal corporate income tax rate from 35 percent to 21 percent that became effective January 1, 2018. Since the Company's fiscal year end is September 30, it is required by the Internal Revenue Code to calculate a statutory rate based upon the federal tax rates in effect before and after the effective date of the change in the taxable year that includes the effective date. Accordingly, the Company applied a federal statutory tax rate of 24.5 percent during fiscal 2018 and as of October 1, 2018, used the enacted rate of 21 percent. As a result of the changes associated with the Tax Act during fiscal 2018, the Company recognized a tax benefit of \$59.6 million.

As a result of the changes associated with the Tax Act, NJNG recorded a decrease in its net deferred tax liability of \$228.4 million, which included \$164.3 million for the revaluation of its deferred income taxes and \$64.1 million for the accounting of the income tax effects on the revaluation of those deferred income taxes. These amounts were recorded as a regulatory liability on the Consolidated Balance Sheets. On May 22, 2018, the BPU approved a refund of \$31 million, which included approximately \$20.1 million of the initial revaluation of excess deferred income taxes, \$9 million for the overcollection of taxes from customers from January 1, 2018 through March 31, 2018, and interest on the overcollected taxes at the Company's short-term debt rate. These credits were returned to customer accounts in June 2018.

During fiscal 2018, NJNG credited approximately \$17 million to income tax (benefit) provision on the Consolidated Statements of Operations, which includes \$14.3 million attributable to the remeasurement of deferred income taxes, \$1.8 million for the amortization of excess deferred income taxes primarily related to timing differences associated with utility plant depreciation and \$880,000 related to the revaluation of deferred income taxes not included in base rates. As of September 30, 2019, the regulatory

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

liability included excess deferred income taxes of \$200.4 million, which requires amortization over the remaining life of the utility plant consistent with IRS normalization principles.

14. COMMITMENTS AND CONTINGENT LIABILITIES

Cash Commitments

NJNG has entered into long-term contracts, expiring at various dates through September 2035, for the supply, storage and transportation of natural gas. These contracts include annual fixed charges of approximately \$129.3 million at current contract rates and volumes, which are recoverable through BGSS.

For the purpose of securing storage and pipeline capacity, our Energy Services segment enters into storage and pipeline capacity contracts, which require the payment of certain demand charges by Energy Services to maintain the ability to access such natural gas storage or pipeline capacity, during a fixed time period, which generally ranges from one to 10 years. Demand charges are established by interstate storage and pipeline operators and are regulated by FERC. These demand charges represent commitments to pay storage providers or pipeline companies for the right to store and/or transport natural gas utilizing their respective assets.

Commitments as of September 30, 2019, for natural gas purchases and future demand fees for the next five fiscal year periods, are as follows:

(Thousands)	2020	2021	2022	2023	2024	T	hereafter
Energy Services:							
Natural gas purchases	\$ 266,931	\$ 18,809	\$ 	\$ _	\$ _	\$	_
Storage demand fees	26,043	15,247	11,378	6,804	1,650		935
Pipeline demand fees	78,194	65,875	52,492	28,933	12,963		8,853
Sub-total Energy Services	\$ 371,168	\$ 99,931	\$ 63,870	\$ 35,737	\$ 14,613	\$	9,788
NJNG:							
Natural gas purchases	\$ 20,616	\$ 30,884	\$ 31,775	\$ 33,060	\$ 34,652	\$	35,748
Storage demand fees	33,938	24,443	16,101	9,442	2,876		5,559
Pipeline demand fees	95,318	107,811	93,925	88,145	64,561		552,407
Sub-total NJNG	\$ 149,872	\$ 163,138	\$ 141,801	\$ 130,647	\$ 102,089	\$	593,714
Total	\$ 521,040	\$ 263,069	\$ 205,671	\$ 166,384	\$ 116,702	\$	603,502

As of September 30, 2019, the Company's future minimum lease payments under various operating leases will not be more than \$4.7 million annually for the next five years and \$54.4 million in the aggregate for all years thereafter.

Guarantees

As of September 30, 2019, there were NJR guarantees covering approximately \$339 million of Energy Services' natural gas purchases and demand fee commitments not yet reflected in accounts payable on the Consolidated Balance Sheets.

Legal Proceedings

Manufactured Gas Plant Remediation

NJNG is responsible for the remedial cleanup of certain former MGP sites, dating back to gas operations in the late 1800s and early 1900s, which contain contaminated residues from former gas manufacturing operations. NJNG is currently involved in administrative proceedings with the NJDEP, and participating in various studies and investigations by outside consultants, to determine the nature and extent of any such contaminated residues and to develop appropriate programs of remedial action, where warranted, under NJDEP regulations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

NJNG periodically, and at least annually, performs an environmental review of former MGP sites located in Atlantic Highlands, Berkeley, Long Branch, Manchester, Toms River, and Freehold, New Jersey, including a review of potential liability for investigation and remedial action. NJNG estimated at the time of the most recent review that total future expenditures at the former MGP sites for which it is responsible, including potential liabilities for natural resource damages that might be brought by the NJDEP for alleged injury to groundwater or other natural resources concerning these sites. At the MGP site in Freehold, New Jersey, as we have not yet completed the remedial investigation of the site, the total amount of potential costs of all remedial actions cannot be reasonably estimated at this time.

As of September 30, 2019, the estimated total future expenditures will range from approximately \$115.9 million to \$186.2 million. NJNG's estimate of these liabilities is based upon known facts, existing technology and enacted laws and regulations in place when the review was completed. Where it is probable that costs will be incurred, and the information is sufficient to establish a range of possible liability, NJNG accrues the most likely amount in the range. If no point within the range is more likely than the other, it is NJNG's policy to accrue the lower end of the range. Accordingly, NJNG recorded an MGP remediation liability and a corresponding regulatory asset of \$131.1 million on the Consolidated Balance Sheets, based on the most likely amount.

On September 27, 2019, NJNG filed its annual SBC application requesting to recover remediation expenses including an increase in the RAC of approximately \$1.4 million annually, to be effective April 1, 2020. The actual costs to be incurred by NJNG are dependent upon several factors, including final determination of remedial action, changing technologies and governmental regulations, the ultimate ability of other responsible parties to pay and insurance recoveries, if any.

In June 2019, NJNG initiated a preliminary assessment of a site in Aberdeen, New Jersey to determine prior ownership and if there were former MGP operations active at the location. The costs associated with preliminary assessment activities are considered immaterial for fiscal 2019 and are included as a component of NJNG's annual SBC application to recover remediation expenses. NJNG will continue to gather information to further refine and enhance its estimate of potential costs for this site as it becomes available.

NJNG recovers its remediation expenditures, including carrying costs, over rolling seven-year periods pursuant to a RAC approved by the BPU. On March 29, 2019, the BPU approved NJNG's annual SBC filing requesting an increase in the RAC, which increased the annual recovery from \$7.1 million to \$8.5 million, effective April 1, 2019. As of September 30, 2019, \$38.4 million of previously incurred remediation costs, net of recoveries from customers and insurance proceeds, are included in regulatory assets on the Consolidated Balance Sheets. NJNG will continue to seek recovery of MGP-related costs through the RAC. If any future regulatory position indicates that the recovery of such costs is not probable, the related non-recoverable costs would be charged to income in the period of such determination.

<u>General</u>

The Company is involved, and from time to time in the future may be involved, in a number of pending and threatened judicial, regulatory and arbitration proceedings relating to matters that arise in the ordinary course of business. In view of the inherent difficulty of predicting the outcome of litigation matters, particularly when such matters are in their early stages or where the claimants seek indeterminate damages, the Company cannot state with confidence what the eventual outcome of the pending litigation will be, what the timing of the ultimate resolution of these matters will be, or what the eventual loss, fines or penalties related to each pending matter will be, if any. In accordance with applicable accounting guidance, NJR establishes accruals for litigation for those matters that present loss contingencies as to which it is both probable that a loss will be incurred and the amount of such loss can be reasonably estimated. NJR also discloses contingent matters for which there is a reasonable possibility of a loss. Based upon currently available information, NJR believes that the results of litigation that is currently pending, taken together, will not have a materially adverse effect on the Company's financial condition, results of operations or cash flows. The actual results of resolving the pending litigation matters may be substantially higher than the amounts accrued.

The foregoing statements about NJR's litigation are based upon the Company's judgments, assumptions and estimates and are necessarily subjective and uncertain. The Company has a number of threatened and pending litigation matters at various stages. Certain of the Company's significant litigation is described below.

Stafford Township

In February 2015, a natural gas fire and explosion occurred in Stafford Township, New Jersey as a result of a natural gas leak emanating from an underground pipe. There were no fatalities, although several employees of NJNG were injured and several homes were damaged. NJNG notified its insurance carrier and believes that any costs associated with the incident, including attorneys' fees, property damage and other losses, will be substantially covered by insurance. As of September 30, 2019, all non-subrogated property damage claims and all of the personal injury claims asserted against the Company and co-defendants as well as all cross-claims have been settled and did not have a material impact on the Company's financial position or results from operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

15. REPORTING SEGMENT AND OTHER OPERATIONS DATA

The Company organizes its businesses based on a combination of factors, including its products and its regulatory environment. As a result, the Company manages its businesses through the following reporting segments and other operations: the Natural Gas Distribution segment consists of regulated energy and off-system, capacity and storage management operations; the Clean Energy Ventures segment consists of capital investments in clean energy projects; the Energy Services segment consists of unregulated wholesale and retail energy operations; the Midstream segment consists of the Company's investments in natural gas transportation and storage facilities; the Home Services and Other operations consist of heating, cooling and water appliance sales, installations and services, other investments and general corporate activities.

Information related to the Company's various reporting segments and other operations is detailed below:

(Thousands)				
Fiscal Years Ended September 30,	2019		2018	2017
Operating revenues				
Natural Gas Distribution				
External customers	\$ 710,793	\$	731,865	\$ 695,637
Clean Energy Ventures				
External customers	98,099		71,375	64,394
Energy Services				
External customers (1)	1,734,553		2,064,477	1,462,365
Intercompany	8,238		48,327	316
Subtotal	2,551,683		2,916,044	2,222,712
Home Services and Other				
External customers	48,600		47,392	46,221
Intercompany	2,302		2,665	3,370
Eliminations	(10,540))	(50,992)	(3,686)
Total	\$ 2,592,045	\$	2,915,109	\$ 2,268,617
Depreciation and amortization				
Natural Gas Distribution	\$ 57,980	\$	53,208	\$ 49,347
Clean Energy Ventures	32,997		31,877	31,834
Energy Services (2)	118		76	63
Midstream	6		6	6
Subtotal	91,101		85,167	81,250
Home Services and Other	914		780	798
Eliminations	(285)		(246)	(207)
Total	\$ 91,730	\$	85,701	\$ 81,841
Interest income (3)				
Natural Gas Distribution	\$ 994	\$	614	\$ 555
Energy Services	78		240	6
Midstream	4,000		3,374	2,195
Subtotal	5,072		4,228	2,756
Home Services and Other	1,942		1,476	590
Eliminations	(5,391)		(5,090)	(1,312)
Total	\$ 1,623	\$	614	\$ 2,034

⁽¹⁾ Includes sales to Canada for the Energy Services segment, which are immaterial.

⁽²⁾ The amortization of acquired wholesale energy contracts is excluded above and is included in gas purchases - nonutility on the Consolidated Statements of Operations.

⁽³⁾ Included in other income, net on the Consolidated Statements of Operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

(Thousands) Figure 1 Years Ended Sontomber 20		2019	2019	2017
Fiscal Years Ended September 30, Interest expense, net of capitalized interest		2019	2018	2017
Natural Gas Distribution	\$	26,134 \$	25,299 \$	25,818
Clean Energy Ventures	Ψ	14,846	18,320	16,263
Energy Services		5,205	3,945	2,747
Midstream		2,185	1,667	960
Subtotal		48,370	49,231	45,788
Home Services and Other		1,535	7	410
Eliminations		(2,823)	(2,952)	(1,312)
Total	\$	47,082 \$	46,286 \$	44,886
Income tax provision (benefit)	Ψ	π,σσ2 φ	10,200 ψ	11,000
Natural Gas Distribution	\$	9,434 \$	(1,910) \$	43,485
Clean Energy Ventures	Ψ	(48,921)	(79,932)	(31,161)
Energy Services		(1,573)	24,996	(4,015)
Midstream		2,254	(8,548)	5,820
Subtotal		(38,806)	(65,394)	14,129
Home Services and Other		1,428	11,944	3,857
Eliminations		(373)	(335)	357
Total	\$	(37,751) \$	(53,785) \$	18,343
Equity in earnings of affiliates	*	(-1,1-1)+	(==,,==)+	
Midstream	\$	15,832 \$	16,165 \$	17,797
Eliminations		(2,204)	(3,157)	(3,984)
Total	\$	13,628 \$	13,008 \$	13,813
Net financial earnings (loss)				,
Natural Gas Distribution	\$	78,062 \$	84,048 \$	86,930
Clean Energy Ventures		77,473	75,849	24,873
Energy Services		2,918	60,378	18,554
Midstream		14,689	24,367	12,857
Subtotal		173,142	244,642	143,214
Home Services and Other		1,911	(3,829)	6,811
Eliminations		(93)	(327)	(633)
Total	\$	174,960 \$	240,486 \$	149,392
Capital expenditures				
Natural Gas Distribution	\$	340,226 \$	254,523 \$	176,249
Clean Energy Ventures		157,828	123,421	149,400
Midstream		20,616	5,431	_
Subtotal		518,670	383,375	325,649
Home Services and Other		2,484	1,213	2,434
Total	\$	521,154 \$	384,588 \$	328,083
Investments in equity investees				
Midstream	\$	4,102 \$	16,151 \$	27,070
Total	\$	4,102 \$	16,151 \$	27,070

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

The Chief Executive Officer, who uses NFE as a measure of profit or loss in measuring the results of the Company's reporting segments and operations, is the chief operating decision maker of the Company. A reconciliation of consolidated NFE to consolidated net income is as follows:

(Thousands)	2019	2018	2017
Consolidated net financial earnings	\$ 174,960 \$	240,486 \$	149,392
Less:			
Unrealized loss (gain) on derivative instruments and related transactions	2,881	26,770	(11,241)
Tax effect	(711)	(4,512)	4,062
Effects of economic hedging related to natural gas inventory	4,309	(22,570)	38,470
Tax effect	(1,024)	7,362	(13,964)
Consolidated net income	\$ 169,505 \$	233,436 \$	132,065

The Company uses derivative instruments as economic hedges of purchases and sales of physical gas inventory. For GAAP purposes, these derivatives are recorded at fair value and related changes in fair value are included in reported earnings. Revenues and cost of gas related to physical gas flow are recognized when the gas is delivered to customers. Consequently, there is a mismatch in the timing of earnings recognition between the economic hedges and physical gas flows. Timing differences occur in two ways:

- Unrealized gains and losses on derivatives are recognized in reported earnings in periods prior to physical gas inventory flows; and
- Unrealized gains and losses of prior periods are reclassified as realized gains and losses when derivatives are settled in the same period as physical gas inventory movements occur.

NFE is a measure of the earnings based on eliminating these timing differences, to effectively match the earnings effects of the economic hedges with the physical sale of gas, SRECs and foreign currency contracts. Consequently, to reconcile between net income and NFE, current-period unrealized gains and losses on the derivatives are excluded from NFE as a reconciling item. Additionally, realized derivative gains and losses are also included in current-period net income. However, NFE includes only realized gains and losses related to natural gas sold out of inventory, effectively matching the full earnings effects of the derivatives with realized margins on physical gas flows. Included in the tax effects are current and deferred income tax expense corresponding with the non-GAAP measure. Also included in the tax effects during fiscal 2018, are the impacts of the Tax Act and resulting revaluation of the deferred income taxes that arose from derivative and hedging activity as measured under NFE. The revaluation caused the effective tax rate on reconciling items to differ from the statutory rate in effect for the year. The Company also calculates a quarterly tax adjustment based on an estimated annual effective tax rate for NFE purposes.

The Company's assets for the various reporting segments and business operations are detailed below:

(Thousands)	2019	2018	2017
Assets at end of period:			
Natural Gas Distribution	\$ 3,064,309	\$ 2,663,054	\$ 2,519,578
Clean Energy Ventures (1)	864,323	865,018	771,340
Energy Services	290,847	396,852	398,277
Midstream	240,955	242,069	232,806
Subtotal	4,460,434	4,166,993	3,922,001
Home Services and Other	104,411	114,732	114,801
Intercompany assets (2)	(191,860)	(138,061)	(108,295)
Total	\$ 4,372,985	\$ 4,143,664	\$ 3,928,507

⁽¹⁾ Includes assets held for sale of \$206.9 million for September 30, 2018.

⁽²⁾ Consists of transactions between subsidiaries that are eliminated and reclassified in consolidation.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

16. RELATED PARTY TRANSACTIONS

Effective April 1, 2010, NJNG entered into a 10-year agreement for 3 Bcf of firm storage capacity with Steckman Ridge. Under the terms of the agreement, NJNG incurs demand fees, at market rates, of approximately \$9.3 million annually, a portion of which is eliminated in consolidation. These fees are recoverable through NJNG's BGSS mechanism and are included in regulatory assets.

Energy Services may periodically enter into storage or park and loan agreements with its affiliated FERC-jurisdictional natural gas storage facility, Steckman Ridge. As of September 30, 2019, Energy Services has entered into transactions with Steckman Ridge for varying terms, all of which expire by October 31, 2020.

NJNG has entered into a 15-year transportation precedent agreement for committed capacity of 180,000 Dths per day and NJRES entered into a 5-year, 50,000 Dths per day transportation precedent agreement with PennEast, both to commence when PennEast is placed in service.

Demand fees, net of eliminations, associated with Steckman Ridge during the fiscal years ended September 30, are as follows:

_(Thousands)	2019	2018	2017
Natural Gas Distribution	\$ 5,814 \$	5,730 \$	5,590
Energy Services	2,134	2,775	2,750
Total	\$ 7,948 \$	8,505 \$	8,340

The following table summarizes demand fees payable to Steckman Ridge as of September 30:

(Thousands)	2019	2018
Natural Gas Distribution	\$ 775 \$	775
Energy Services	15	375
Total	\$ 790 \$	1,150

NJNG and Energy Services have entered into various asset management agreements, the effects of which are eliminated in consolidation. Under the terms of these agreements, NJNG releases certain transportation and storage contracts to Energy Services. NJNG retains the right to purchase market-priced gas or fixed-price storage gas from Energy Services. As of September 30, 2019, NJNG and Energy Services had four asset management agreements with expiration dates ranging from March 31, 2020 through October 31, 2021.

17. ACQUISITIONS AND DISPOSITIONS

Acquisitions

Adelphia

In October 2017, Adelphia, an indirect wholly owned subsidiary of NJR, entered into a Purchase and Sale Agreement with Talen pursuant to which Adelphia will acquire all of Talen's membership interests in IEC for a base purchase price of \$166 million. As additional consideration, Adelphia will pay Talen specified amounts of up to \$23 million contingent upon the achievement of certain regulatory approvals and binding natural gas capacity commitments. In November 2017, the Company made an initial payment of \$10 million towards the base purchase price, which is included in other noncurrent assets on the Consolidated Balance Sheets.

IEC owns an existing 84-mile pipeline in southeastern Pennsylvania. The transaction is expected to close following receipt of necessary permits and regulatory actions including those from the FERC and the Pennsylvania Public Utility Commission. Upon the closing, Adelphia will acquire IEC and, with it, IEC's existing pipeline, related assets and rights of way. Adelphia has also agreed to provide firm natural gas transportation service for ten years following the closing to two power generators owned by affiliates of Talen that are currently served by IEC.

Dispositions

Clean Energy Ventures

On June 1, 2018, Clean Energy Ventures completed the sale of its membership interest in its 9.7 MW wind farm in Two Dot, Montana to NorthWestern Energy for a total purchase price of \$18.5 million. The transaction generated a pre-tax gain of approximately \$951,000 which is recognized as a reduction to O&M on the Consolidated Statements of Operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA (Continued)

On February 7, 2019, Clean Energy Ventures finalized the sale of its remaining wind assets to a subsidiary of Skyline Renewables LLC for a total purchase price of \$208.6 million. The transaction generated a pre-tax gain of \$645,000, which was recognized as a reduction to O&M expense on the Consolidated Statements of Operations.

Energy Services

On February 28, 2018, NJR sold all of the issued and outstanding shares of capital stock of NJRRS, which was a component of the Energy Services segment. The Company received \$9.5 million in cash and a natural gas swap contract with a fair value of \$14.6 million, which was recorded in derivatives, at fair value on the Consolidated Balance Sheets. The sale generated a pre-tax gain of \$3.7 million, which was recognized as a reduction to O&M on the Consolidated Statements of Operations.

18. SUBSEQUENT EVENTS

Leaf River

On October 11, 2019, NJR Pipeline Company, an indirect wholly owned subsidiary of NJR, acquired 100 percent of the issued and outstanding limited liability company interests of Leaf River Energy Center LLC for \$367.5 million. The purchase price is subject to certain contractual conditions, including customary purchase price adjustments related to the amount of net working capital and transaction expenses. Leaf River Energy Center LLC owns and operates a 32.2 million Dth salt dome natural gas facility, located in southeastern Mississippi.

The Company evaluated the acquisition under the guidance of ASU 2017-01, *Clarifying the Definition of a Business* and concluded that the acquisition did not meet the definition of a business. Accordingly, the purchase will be accounted for as an asset acquisition as almost all of the relative fair value relates to the storage assets acquired.

Bridge Facility

On October 9, 2019, NJR entered into a \$350 million Bridge Facility, which was used primarily to finance the Leaf River acquisition. The Bridge Facility accrues interest at the LIBOR rate for a 1-month interest period plus 0.875 percent during the first 180 days, and 1.075 percent, after 180 days, which is dependent on the credit rating of NJNG from Fitch and Moody's. The occurrence of an event of default under the Bridge Facility could result in all loans and other obligations of NJR becoming immediately due and payable and the Bridge Facility being terminated. Loans under the Bridge Facility are required to be prepaid to the extent of new cash proceeds received upon the issuance of equity of NJR, the incurrence of indebtedness by NJR or its subsidiaries, the disposition of assets by NJR or its subsidiaries or other specified events, in each case subject to certain exceptions set forth in the Bridge Facility.

19. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

A summary of financial data for each quarter of fiscal 2019 and 2018 follows. Due to the seasonal nature of the Company's businesses, quarterly amounts vary significantly during the fiscal year. In the opinion of management, the information furnished reflects all adjustments necessary for a fair presentation of the results of the interim periods.

	First		Second		Third	Fourth
(Thousands, except per share data)	 Quarter	Quarter		Quarter		Quarter
2019						
Operating revenues	\$ 811,767	\$	866,255	\$	434,942 \$	479,081
Operating income (loss)	\$ 88,743	\$	77,001	\$	(4,019) \$	(7,790)
Net income (loss)	\$ 86,248	\$	73,573	\$	(8,402) \$	18,086
Earnings (loss) per share (1)						
Basic	\$0.97		\$0.83		\$(0.09)	\$0.20
Diluted	\$0.97		\$0.82		\$(0.09)	\$0.20
2018						
Operating revenues	\$ 705,305	\$	1,019,043	\$	543,435 \$	647,326
Operating income (loss) (2)	\$ 76,196	\$	178,744	\$	(36,715) \$	(18,343)
Net income (loss)	\$ 123,699	\$	140,266	\$	(14,274) \$	(16,255)
Earnings (loss) per share (1)						
Basic	\$1.42		\$1.60		\$(0.16)	\$(0.18)
Diluted	\$1.42		\$1.59		\$(0.16)	\$(0.18)

⁽¹⁾ The sum of quarterly amounts may not equal the annual amounts due to rounding.

⁽²⁾ Quarterly amounts have been reclassified to conform to the current period presentation due to the adoption of ASU No. 2017-07, an amendment to ASC 715, Compensation - Retirement Benefits. See Note 2. Summary of Significant Accounting Policies.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Under the supervision and with the participation of the Company's management, including the principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of the design and operation of its disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of the end of the period covered by this report. Based on this evaluation, the Company's principal executive officer and principal financial officer concluded that, as of end of the period covered by this report, the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

The report of management required under this *Item 9A* is contained in *Item 8* of this Form 10-K under the caption *Management's Report on Internal Control over Financial Reporting*.

Attestation Report of Registered Public Accounting Firm

The attestation report required under this *Item 9A* is contained in *Item 8* of this 10-K under the caption *Report of Independent Registered Public Accounting Firm*.

Changes in Internal Control over Financial Reporting

There has been no change in internal control over financial reporting (as such term is defined in Exchange Act Rule 13a-15(f)) that occurred during the quarter ended September 30, 2019, that has materially affected, or is reasonably likely to materially affect, internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item, including information concerning the Board of Directors of the Company, the members of the Company's Audit Committee, the Company's Audit Committee Financial Expert, compliance with Section 16(a) of the Exchange Act and shareowner proposals, is incorporated by reference to the Company's Proxy Statement for the 2020 Annual Meeting of Shareowners, which will be filed with the SEC pursuant to Regulation 14A within 120 days after September 30, 2019. The information regarding executive officers is included in this report as *Item 1* under the caption *Information About our Executive Officers* and incorporated herein by reference.

The Board of Directors has adopted the Code of Conduct, a code for all directors, officers and employees, as required by the New York Stock Exchange rules, and governing the chief executive officer and senior financial officers, in compliance with Sarbanes-Oxley and SEC regulations. Copies of the Code of Conduct are available free of charge on the Company's website at http://investor.njresources.com under the caption *Corporate Governance*. A printed copy of the Code of Conduct is available free of charge to any shareowner who requests it by contacting the Corporate Secretary at 1415 Wyckoff Road, Wall, New Jersey 07719. The Company will disclose any amendments to, or waivers from, a provision of the Code of Conduct that applies to the principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions that relate to any element of the Code of Conduct as defined in Item 406 of Regulation S-K by posting such information on the Company's website.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this Item is incorporated by reference from the Registrant's Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this Item is incorporated by reference from the Registrant's Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information required by this Item is incorporated by reference from the Registrant's Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item is incorporated by reference from the Registrant's Proxy Statement.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements.

All Financial Statements of the Registrant are filed as part of this report and included in *Item 8* of *Part II* of this Form 10-K.

- (a) 2. Financial Statement Schedules-See *Index to Financial Statement Schedules* in *Item 8*.
- (a) 3. Exhibits-See *Exhibit Index* on page 134.

INDEX TO FINANCIAL STATEMENT SCHEDULES

<u>Page</u>

Schedule II - Valuation and qualifying accounts and reserves for each of the three years in the period ended September 30,2019

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Schedules other than those listed above are omitted because they are either not required or are not applicable, or the required information is shown in the financial statements or notes thereto.

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS YEARS ENDED SEPTEMBER 30, 2019, 2018 and 2017

(Thousands)		ADDITIONS		
CLASSIFICATION	 SINNING LANCE	CHARGED TO EXPENSE	OTHER (1)	ENDING BALANCE
2019				
Allowance for doubtful accounts	\$ 5,704	2,387	(1,943) \$	6,148
2018				
Allowance for doubtful accounts	\$ 5,181	2,579	(2,056) \$	5,704
2017				
Allowance for doubtful accounts	\$ 4,865	2,023	(1,707) \$	5,181

⁽¹⁾ Uncollectible accounts written off, less recoveries and adjustments.

EXHIBIT INDEX

Exhibit Number	Exhibit Description
2.1	Purchase and Sale Agreement, dated as of October 27, 2017, by and between Talen Generation, LLC, and Adelphia Gateway, LLC (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, as filed on November 2, 2017)
2.2	Membership Interest Purchase Agreement, between NJR Clean Energy Ventures II Corporation and SRIV Partnership, LLC, dated as of November 21, 2018 (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, as filed on November 21, 2018)
2.3	Membership Interest Purchase Agreement, dated September 3, 2019, by and between Leaf River Energy Holdings, LLC and NJR Pipeline Company (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K, as filed on September 5 , 2019)
3.1	Restated Certificate of Incorporation of New Jersey Resources Corporation, as amended through March 3, 2015 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K, as filed on January 23, 2014, and Exhibit 3.1 to the Current Report on Form 8-K, as filed on March 3, 2015)
3.2	Bylaws of New Jersey Resources Corporation, as amended through July 9, 2019 (<u>incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K</u> , as filed on July 12, 2019)
4.1+	Description of Common Stock
4.2	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Annual Report on Form 10-K for the year ended September 30, 2013, as filed on November 25, 2013)
4.3	Amended and Restated Indenture of Mortgage, Deed of Trust and Security Agreement, dated as of September 1, 2014, between NJNG and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 99.3 to the Current Report on Form 8-K, as filed on September 30, 2014)
4.3(a)	36th Supplemental Indenture dated as of September 1, 2014, between NJNG and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 99.2 to the Current Report on Form 8-K, as filed on September 30, 2014)
4.3(b)	First Supplemental Indenture dated as of April 1, 2015 between NJNG and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Quarterly Report on Form 10-Q, as filed on May 7, 2015)
4.3(c)	Second Supplemental Indenture dated as of June 1, 2016, between New Jersey Natural Gas Company and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to Form 8-K as filed on June 22, 2016)
4.3(d)	Third Supplemental Indenture, dated as of May 1, 2018, by and between New Jersey Natural Gas Company and U.S. Bank National Association (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K, as filed on May 11, 2018)
4.3(e)	Fourth Supplemental Indenture, dated as of April 1, 2019, between NJNG and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.4 to the Quarterly Report on Form 10-Q, as filed on May 3, 2019)
4.3(f)	Fifth Supplemental Indenture, dated as of July 1, 2019, by and between New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K, as filed on July 17, 2019)
4.3(g)+	Sixth Supplemental Indenture, dated as of August 1, 2019, between NJNG and U.S. Bank National Association, as <u>Trustee</u>
4.4	\$75,000,000 Shelf Note Purchase Agreement, dated as of June 30, 2011, between New Jersey Resources Corporation and Prudential Investment Management, Inc. ("Prudential Facility") (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K as filed on July 6, 2011)
4.4(a)	First Amendment to the Prudential Facility, dated as of July 25, 2014, between the Company and Prudential Investment Management, Inc. (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K as filed on November 12, 2014)

Exhibit Number	Exhibit Description
4.4(b)	Second Amendment to the Prudential Facility, dated as of September 28, 2015, between the Company and Prudential Investment Management, Inc. (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K as filed on October 2, 2015)
4.5	\$125,000,000 Note Purchase Agreement, dated as of February 7, 2014, by and among New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.5 to the Quarterly Report on Form 10-Q, as filed on May 7, 2014)
4.6	Loan Agreement between New Jersey Economic Development Authority and New Jersey Natural Gas Company, dated as of August 1, 2011 (incorporated by reference to Exhibit 4.10 to the Annual Report on Form 10-K for the year ended September 30, 2011, as filed on November 23, 2011)
4.7+	First Amendment to the Loan Agreement, dated as of August 1, 2019, NJNG and New Jersey Economic Development Authority
4.8+	First Supplemental Indenture, dated as of August 1, 2019, between NJNG and U.S. Bank National Association, as <u>Trustee</u>
4.9	\$50,000,000 Note Purchase Agreement, dated as of February 8, 2013, by and among New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.12 to the Quarterly Report on Form 10-Q, as filed on May 3, 2013)
4.10	\$150,000,000 Note Purchase Agreement, dated as of February 12, 2015, by and among New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, as filed on February 17, 2015)
4.11	Note Purchase Agreement, dated as of March 22, 2016, among New Jersey Resources Corporation and each of the Purchasers listed in Schedule A thereto (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, as filed on March 25, 2016)
4.12	\$125,000,000 Note Purchase Agreement, dated as of June 21, 2016, by and among New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, as filed on June 22, 2016)
4.13	\$125,000,000 Note Purchase Agreement, dated as of May 11, 2018, by and among New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, as filed on May 11, 2018)
4.14	\$100,000,000 Note Purchase Agreement, dated as of June 8, 2018, by and among New Jersey Resources Corporation and the Purchasers party thereto (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, as filed on June 8, 2018)
4.15	Amended and Restated Indenture, dated as of April 1, 2019, between NJNG and New Jersey Economic Development Authority and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Quarterly Report on Form 10-Q, as filed on May 3, 2019)
4.16	Second Amendment to the Loan Agreement, dated as of April 1, 2019, NJNG and New Jersey Economic Development Authority (incorporated by reference to Exhibit 4.2 to the Quarterly Report on Form 10-Q, as filed on May 3, 2019)
4.17	Amended and Restated Continuing Disclosure Undertaking, dated as of April 18, 2019 (incorporated by reference to Exhibit 4.3 to the Quarterly Report on Form 10-Q, as filed on May 3, 2019)
4.18	\$150,000,000 Note Purchase Agreement, dated as of July 17, 2019, by and among New Jersey Resources Corporation and the Purchasers party thereto (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K, as filed on July 17, 2019)
4.19	\$185,000,000 Note Purchase Agreement, dated as of July 17, 2019, by and among New Jersey Natural Gas Company and the Purchasers party thereto (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K, as filed on July 17, 2019)
4.20+	Amended and Restated Continuing Disclosure Undertaking, dated as of August 22, 2019

Exhibit Number	Exhibit Description
10.1*	Amended and Restated Supplemental Executive Retirement Plan Agreement between the Company and Laurence M. Downes dated November 28, 2008 (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q, as filed on February 6, 2009)
10.2(a)*	Schedule of Supplemental Executive Retirement Plan Agreements for named executive officers (incorporated by reference to Exhibit 10.2(a) to the Annual Report on Form 10-K for the year ended September 30, 2010, as filed on November 24, 2010)
10.2(b)*	Form of Amendment to Supplemental Executive Retirement Plan Agreement between the Company and Named Executive Officer (for future use) (incorporated by reference to Exhibit 10.4(b) to the Quarterly Report on Form 10-Q, as filed on February 6, 2009)
10.3	Service Agreement for Rate Schedule SS-1 by and between NJNG and Texas Eastern Transmission Company, dated as of June 21, 1995 (incorporated by reference to Exhibit 10-5B to the Annual Report on Form 10-K for the year ended September 30, 1996, as filed on December 30, 1996)
10.4	Amended and Restated Lease Agreement between NJNG, as Lessee, and State Street Bank and Trust Company of Connecticut, National Association, as Lessor, for NJNG's Headquarters Building dated December 21, 1995 (incorporated by reference to Exhibit 10-7 to the Annual Report on Form 10-K for the year ended September 30, 1996, as filed on December 30, 1996)
10.5*	Summary of 2020 Non-Employee Director Compensation Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K as filed on September 16, 2019)
10.6*	Summary of Company's Non-Employee Director Compensation (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K as filed on November 19, 2018)
10.7*	The Company's 2007 Stock Award and Incentive Plan (as amended and restated January 1, 2009) (incorporated by reference to Exhibit 10.17 to the Quarterly Report on Form 10-Q, as filed on February 6, 2009)
10.8*	2007 Stock Award and Incentive Plan Form of Performance Share Units Agreement (TSR) (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q, as filed on February 8, 2017)
10.9*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Share Units Agreement - Total Shareholder Return (incorporated by reference to Exhibit 10.8 to the Quarterly Report on Form 10-Q, as filed on February 8, 2018)
10.10*	2007 Stock Award and Incentive Plan Form of Performance Share Units Agreement (NFE) (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q, as filed on February 8, 2017)
10.11*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Share Units Agreement - NFE (incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q, as filed on February 8, 2018)
10.12*	2007 Stock Award and Incentive Plan Form of Performance-Based Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q, as filed on February 8, 2017)
10.13*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Based Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.10 to the Quarterly Report on Form 10-Q, as filed on February 8, 2018)
10.14*	Form of Amendment of Deferred Stock Retention Award Agreement (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q, as filed on August 3, 2016)
10.15*	2007 Stock Award and Incentive Plan Form of Deferred Stock Retention Award Agreement (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q, as filed on February 8, 2017)
10.16*	New Jersey Resources Corporation Deferred Stock Retention Award Agreement (incorporated by reference to Exhibit 10.7 to the Quarterly Report on Form 10-Q, as filed on February 8, 2018)
10.17*	2007 Stock Award and Incentive Plan Form of Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q, as filed on February 8, 2017)

Exhibit Number	Exhibit Description			
10.18*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Restricted Stock Units Agreement (incorporated by reference to Exhibit 10.9 to the Quarterly Report on Form 10-Q, as filed on February 8, 2018)			
10.19*	The Company's 2017 Stock Award and Incentive Plan (incorporated by reference to Appendix A to the Proxy Statement for the 2017 Annual Meeting as filed on December 15, 2016)			
10.20*	New Jersey Resources Corporation Savings Equalization Plan (as amended and restated as of January 1, 2017) (incorporated by reference to Exhibit 10.21 to the Annual Report on Form 10-K as filed on November 21, 2017)			
10.21*	New Jersey Resources Corporation Pension Equalization Plan (incorporated by reference to Exhibit 10.28 to the Quarterly Report on Form 10-Q, as filed on February 6, 2009)			
10.22*	New Jersey Resources Corporation Directors' Deferred Compensation Plan (incorporated by reference to Exhibit 10.25 to the Quarterly Report on Form 10-Q, as filed on February 6, 2009)			
10.23*	New Jersey Resources Corporation Officers' Deferred Compensation Plan (incorporated by reference to Exhibit 10.26 to the Quarterly Report on Form 10-Q, as filed on February 6, 2009)			
10.24*	Form of Amended and Restated Employment Continuation Agreement between the Company and NJR Energy Services Company named executive officer (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K, as filed on December 16, 2015)			
10.25*	Form of Amended and Restated Employment Continuation Agreement between the Company and named executive officer (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, as filed on December 16, 2015)			
10.25(a)*	Schedule of Employee Continuation Agreements (incorporated by reference to Exhibit 10.24(a) to the Annual Report on Form 10-K for the year ended September 30, 2018, as filed on November 20, 2018)			
10.26	Limited Liability Company Agreement of Steckman Ridge GP, LLC, dated as of March 2, 2007 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q, as filed on May 3, 2007)			
10.27	Limited Partnership Agreement of Steckman Ridge, LP dated as of March 2, 2007 (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q, as filed on May 3, 2007)			
10.28	\$425,000,000 Amended and Restated Credit Agreement dated as of December 5, 2018, by and among NJR, the guarantors thereto, the lenders party thereto, PNC Bank, National Association, as Administrative Agent, JPMorgan Chase Bank, N.A., Wells Fargo Bank, National Association and U.S. Bank National Association, as Syndication Agents, and Bank of America, N.A., Mizuho Bank, Ltd. and TD Bank, N.A., as Documentation Agents (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, as filed on December 11, 2018)			
10.29	\$250,000,000 Amended and Restated Credit Agreement dated as of December 5, 2018, by and among NJNG, the lenders party thereto, PNC Bank, National Association, as Administrative Agent, JPMorgan Chase Bank, N.A., Wells Fargo Bank, National Association and U.S. Bank National Association, as Syndication Agents, and Bank of America, N.A., Mizuho Bank, Ltd. and TD Bank, N.A., as Documentation Agents (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K, as filed on December 11, 2018)			
10.30*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Share Units Agreement - NFE Fiscal Year 2019 (incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			
10.31*	New Jersey Resources Corporation Deferred Stock Retention Award Agreement Fiscal Year 2019 (incorporated by reference to Exhibit 10.7 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			
10.32*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Share Units Agreement - Total Shareholder Return Fiscal Year 2019 (incorporated by reference to Exhibit 10.8 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			
10.33*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Restricted Stock Units Agreement Fiscal Year 2019 (incorporated by reference to Exhibit 10.9 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			

Exhibit Number	Exhibit Description			
10.34*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Based Restricted Stock Units Agreement Fiscal Year 2019 (incorporated by reference to Exhibit 10.10 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			
10.35*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Share Units Agreement - NFE CEO Fiscal Year 2019 (incorporated by reference to Exhibit 10.11 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			
10.36*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Share Units Agreement - Total Shareholder Return CEO Fiscal Year 2019 (incorporated by reference to <u>Exhibit 10.12 to the Quarterly Report on Form 10-Q</u> , as filed on February 6, 2019)			
10.37*	New Jersey Resources Corporation 2017 Stock Award and Incentive Plan Performance Based Restricted Stock Units Agreement CEO Fiscal Year 2019 (incorporated by reference to Exhibit 10.13 to the Quarterly Report on Form 10-Q, as filed on February 6, 2019)			
10.38	\$350,000,000 Term Loan Credit Agreement, dated as of October 9, 2019, by and among New Jersey Resources Corporation and each of the Guarantors party thereto and the lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent and Wells Fargo Securities, LLC, as Sole Lead Arranger and Sole Bookrunner (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, as filed on October 11, 2019)			
21.1+	Subsidiaries of the Registrant			
23.1+	Consent of Independent Registered Public Accounting Firm			
31.1+	Certification of the Chief Executive Officer pursuant to section 302 of the Sarbanes-Oxley Act			
31.2+	Certification of the Chief Financial Officer pursuant to section 302 of the Sarbanes-Oxley Act			
32.1+ †	Certification of the Chief Executive Officer pursuant to section 906 of the Sarbanes-Oxley Act			
32.2+ †	Certification of the Chief Financial Officer pursuant to section 906 of the Sarbanes-Oxley Act			
101+	Interactive Data File {Annual Report on Form 10-K, for the fiscal year ended September 30, 2019, furnished in iXBRL (Inline eXtensible Business Reporting Language)}			
104+	Cover Page Interactive Data File included in Exhibit 101			

⁺ Filed herewith.

^{*} Denotes compensatory plans or arrangements or management contracts.

[†] This certificate accompanies this report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by NJR for purposes of Section 18 or any other provision of the Securities Exchange Act of 1934, as amended.

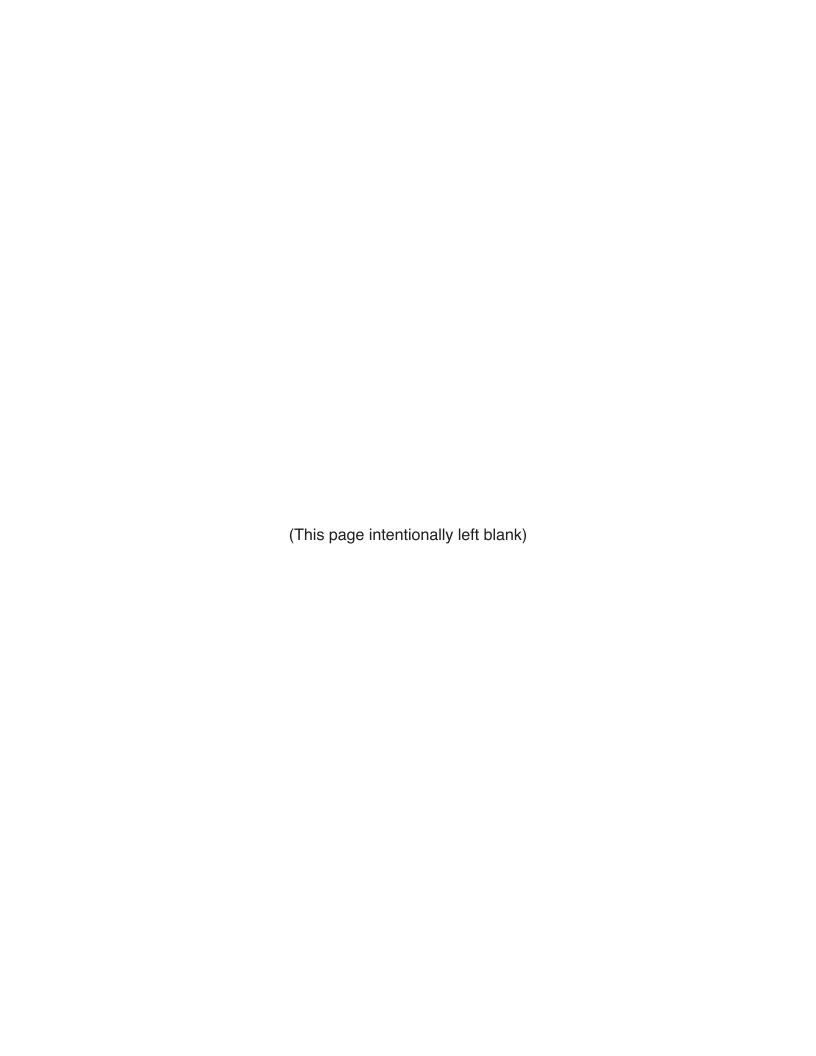
SIGNATURES

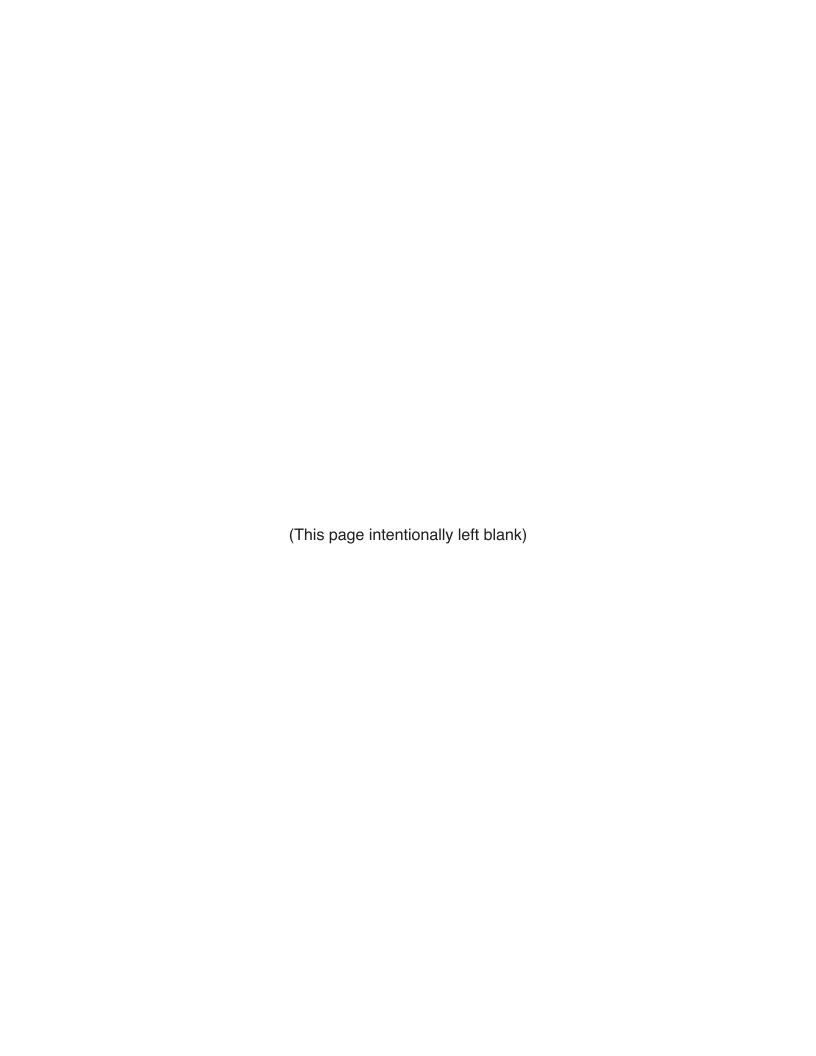
Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

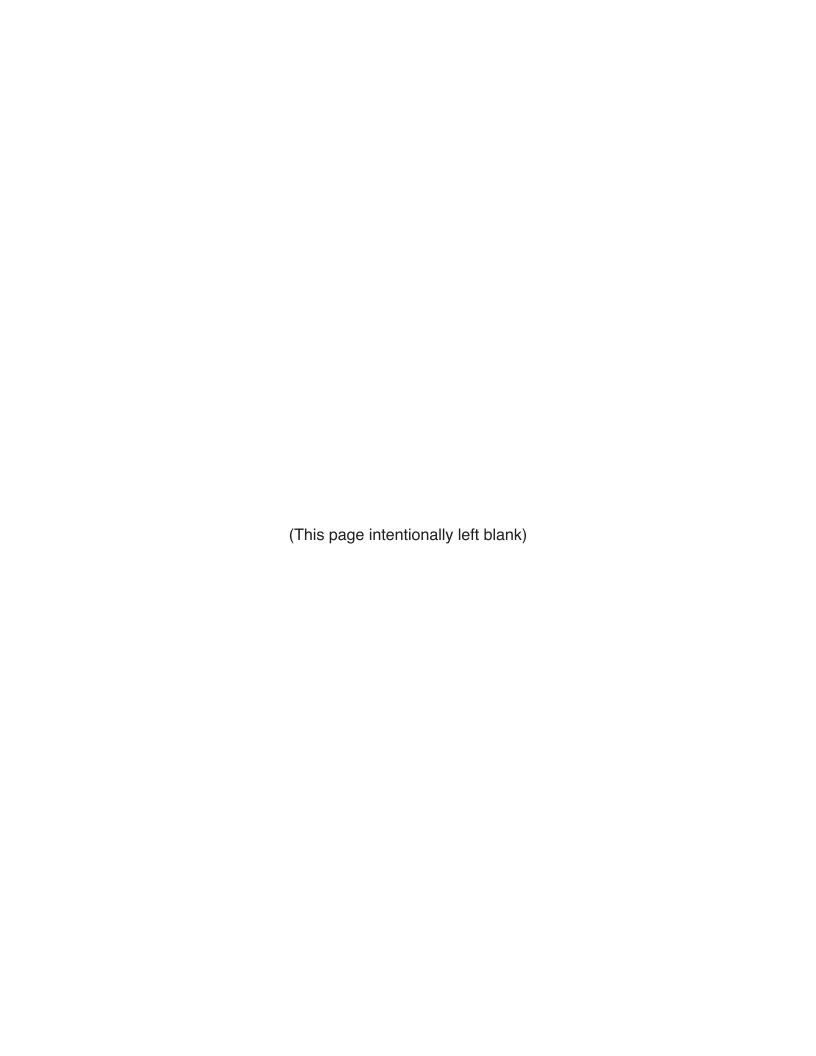
	NEW JERSEY RESOURCES CORPORATION (Registrant)	
Date: November 22, 2019	By:/s/ Patrick J. Migliaccio	
,	Patrick J. Migliaccio	
	Senior Vice President and	
	Chief Financial Officer	

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated:

persons on centur or the	registrant in the capacities and on the de	nes mareatea.	
November 22, 2019	/s/ Stephen D. Westhoven Stephen D. Westhoven President and Chief Executive Officer Director (Principal Executive Officer)	November 22, 2019	Patrick J. Migliaccio Patrick J. Migliaccio Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)
November 22, 2019	/s/ Laurence M. Downes Laurence M. Downes Chairman	November 22, 2019	/s/ Jane M. Kenny Jane M. Kenny Director
November 22, 2019	/s/ Gregory E. Aliff Gregory E. Aliff Director	November 22, 2019	/s/ Thomas C. O'Connor Thomas C. O'Connor Director
November 22, 2019	/s/ Donald L. Correll Donald L. Correll Director	November 22, 2019	/s/ J. Terry Strange J. Terry Strange Director
November 22, 2019	/s/ James H. DeGraffenreidt, Jr. James H. DeGraffenreidt, Jr. Director	November 22, 2019	/s/ Sharon C. Taylor Sharon C. Taylor Director
November 22, 2019	/s/ Robert B. Evans Robert B. Evans Director	November 22, 2019	/s/ David A. Trice David A. Trice Director
November 22, 2019	/s/ M. William Howard, Jr. M. William Howard, Jr. Director	November 22, 2019	/s/ George R. Zoffinger George R. Zoffinger Director







Shareowner Information

Annual Meeting

The Annual Shareowners Meeting will be held at 9:30 a.m. on January 22, 2020, at Eagle Oaks Golf and Country Club in Farmingdale, New Jersey. Please refer to your proxy statement for directions.

Stock Listing

The company's common stock is traded on the New York Stock Exchange under the ticker symbol NJR. The stock may also appear as NewJerRes or NJRsc in stock tables in many daily newspapers, business publications, financial web sites and search engines.

Investor and Media Information

Members of the financial community are invited to contact Dennis Puma, Director—Investor Relations, at 732-938-1229. Members of the media are invited to contact Michael Kinney, Director—Corporate Communications, at 732-938-1031. Correspondence can be sent to New Jersey Resources, 1415 Wyckoff Road, P.O. Box 1468, Wall, NJ 07719.

Stock Transfer Agent and Registrar

The Transfer Agent and Registrar for the company's common stock is Broadridge Corporate Issuer Solutions Inc. (Broadridge). Shareowners with questions about account activity should contact Broadridge investor relations representatives between 9 a.m. and 6 p.m. ET, Monday through Friday, by calling toll-free 800-817-3955.

General written inquiries and address changes may be sent to:

Broadridge Corporate Issuer Solutions P.O. Box 1342, Brentwood, NY 11717

or

For certified and overnight delivery:

Broadridge Corporate Issuer Solutions, ATTN: IWS 1155 Long Island Avenue, Edgewood, NY 11717

Shareowners can view their account information online at shareholder.broadridge.com/NJR.

New Jersey Resources Direct Stock Purchase and Dividend Reinvestment Plan

The New Jersey Resources Direct Stock Purchase and Dividend Reinvestment Plan, NJR Direct, provides a convenient and economical method for new eligible investors to make an initial investment in shares of common stock and for existing shareowners to invest in additional shares of common stock or reinvest all or some of their common stock cash dividends. This is neither an offer to sell nor a solicitation of an offer to buy securities. NJR Direct is administered by Broadridge.

As a participant in NJR Direct, you can:

- Conveniently purchase our common stock without incurring brokerage commissions or transaction/processing fees.
- Build your investment over time, starting with as little as \$100, up to a maximum of \$100,000 per calendar year.
- Increase your holdings in NJR by reinvesting all or some of your cash dividends in our common stock.

- Invest automatically with optional withdrawals from your bank account.
- Benefit from maintenance of shares of common stock in bookentry form and detailed record keeping and reporting, provided at no charge.
- Deposit common stock certificates registered in your name with the plan administrator into your plan account for safekeeping, at no cost
- Receive statements of your account following each reinvestment of dividends and each investment of an optional cash payment or payroll deduction amount, if any.
- Execute plan transactions online.

For additional information, please visit njresources.com, then "Shareholder Account Info" under "Investor Relations." Full details are contained in the NJR Direct prospectus, which may be obtained from Broadridge or the company.

Dividends

Dividends on NJR common stock are currently declared quarterly by the board of directors. Future dividends are dependent on a number of factors, including our earnings, financial condition, shareowner equity levels, our cash flow and business requirements, as determined by the board of directors. Shareowners of record receive their dividend checks from Broadridge, unless they have elected to reinvest their dividends through the Plan. The company offers direct deposit of dividends into shareowners' bank accounts so the funds are available the same day they are paid. Please contact Broadridge for details.

Request for Form 10-K and other Documents

The following documents may be obtained when available, without charge, upon written request to: Investor Relations, New Jersey Resources, 1415 Wyckoff Road, P.O. Box 1468, Wall, NJ 07719:

- Annual Report and Form 10-K
- Form 10-Q
- Form 8-K
- Quarterly Earnings News Release
- Audit Committee Charter
- Corporate Governance Guidelines
- Leadership Development and Compensation Committee Charter
- Nominating/Corporate Governance Committee Charter
- NJR Code of Conduct

These documents, as well as other filings made with the SEC, are also available through njresources.com.

Information in this Annual Report should not be considered a solicitation of the sale or purchase of securities.





1415 Wyckoff Road Post Office Box 1468 Wall, NJ 07719 732-938-1480 www.njresources.com