SAGE MANAGEMENT CONSULTANTS, LLC

MANAGEMENT AND AFFILIATE AUDITS

OF

ELIZABETHTOWN GAS COMPANY

FOR THE

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

FINAL REPORT
VOLUME I of II
REDACTED

May 20, 2025

SAGE
Management Consultants, LLC

REDACTED

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I. EXECUTIVE SUMMARY

A. INTRODUCTION

This is the final report of the SAGE Management Consultants, LLC (SAGE) Affiliate Transactions Audit and Management Audit of Elizabethtown Gas Company (ETG) for the New Jersey Board of Public Utilities (NJBPU).

SCOPE OF WORK

The scope of work consisted of an audit of ETG during the thirteen-year period from January 1, 2009, through December 31, 2021. The NJBPU Request for Proposals (RFP) set forth the areas to be audited in two phases. Phase one was a review of affiliate transactions, planning, operations, and maintenance practices and phase two was a comprehensive management audit. Both phases were conducted concurrently.

The areas set forth in the RFP included:

Phase One – Review of Affiliate Transactions, Planning, Operations, and Maintenance Practices

1. Procurement and Purchasing
2. Affiliate Relationships
3. Market Conditions
4. Recommendations and Review of Previous Audit
5. Affiliate Cost Allocation Methodologies
6. Other Reporting
7. Merger

Phase Two – Comprehensive Management Audit

1. Executive Management and Corporate Governance
2. Organizational Structure
3. Human Resources
4. Strategic Planning
5. Finance
6. Cash Management
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10. Distribution and Operations Management
11. Purchasing and Procurement of Goods, Services, and Bidding Processes
12. Clean Energy
13. Support Services
14. Contractor Performance
15. Remediation Costs

16. Cyber Risk Mitigation/Cyber Security

DOCUMENTS REVIEWED

In the course of this audit, the SAGE team requested and analyzed 1,328 documents covering all aspects of the Scope of Work.

INTERVIEWS CONDUCTED

The SAGE team conducted 137 interviews in the course of this audit. With the exception of an initial site visit to ETG, all interviews were conducted remotely, utilizing video conferencing.

ORGANIZATION OF THE REPORT

The final report is organized in two volumes as shown in the following table.

Report Organization

Chapter #	Chapter Title
Volume 1	
I	Executive Summary
Volume 2	
II	Procurement and Purchasing
III	Affiliate Relationships
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B. OVERVIEW

ELIZABETHTOWN GAS COMPANY

Elizabethtown Gas Company (ETG) is a regulated natural gas utility which distributes natural gas in seven counties in northern and central New Jersey. ETG is a subsidiary of SJI Utilities, Inc. (SJIU), which, in turn, is a subsidiary of South Jersey Industries, Inc. (SJI). SJIU and SJI are covered in separate sections below. ETG has no subsidiaries.

ETG is headquartered in Union, NJ and owns approximately 319 thousand meters, 231 thousand services, 3,273 miles of distribution pipeline, and 13 miles of transmission system mains. ETG has office and service buildings at six locations in its territory. A $34 million liquefied natural gas liquefaction, storage, and vaporization facility was undergoing a major upgrade at the end of 2021 at one of these locations. At the end of 2021, ETG had $1.8 billion in net utility plant.

SJI, through its wholly owned subsidiary SJIU, acquired the assets of ETG and Elkton Gas Company (ELK) from Pivotal Utility Holdings, Inc., a subsidiary of Southern Company Gas in 2018. ELK was subsequently sold on July 31, 2020. See Chapter VIII, Merger, for more information on SJI's acquisition of ETG.

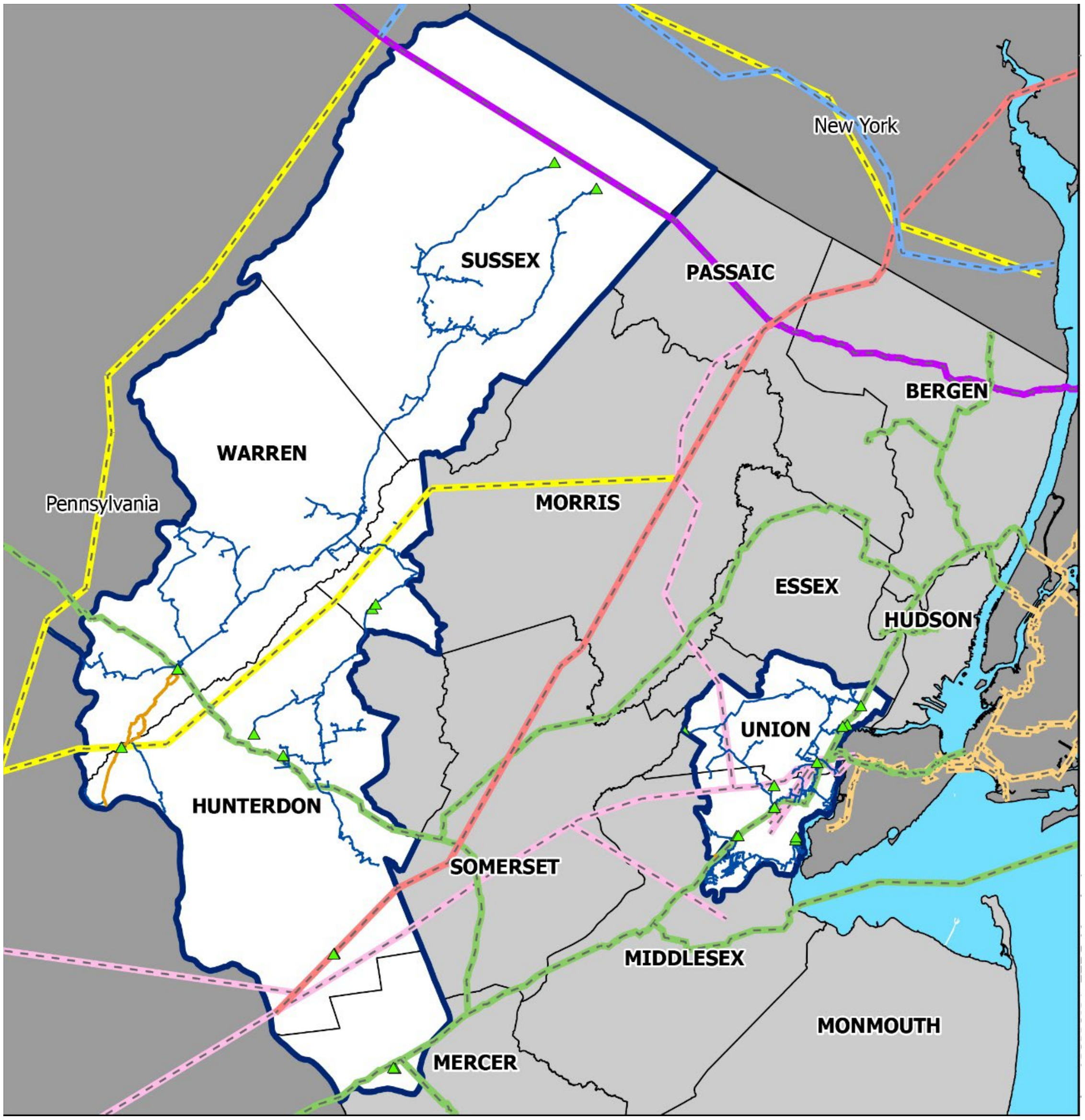
History

ETG was founded in 1855 to fuel 300 gaslights on the streets of Elizabeth, New Jersey with coal gas. In 1951, ETG converted to natural gas through connections with interstate pipelines. In 1969, NUI was founded with ETG becoming a part of that corporation. In 2004, ETG was acquired by AGL Resources, the nation's largest natural gas-only distribution company. In 2016, AGL Resources was acquired by Southern Company and renamed Southern Gas Company. In 2018, ETG was acquired by SJI.

Customers

ETG serves residential, business, and industrial customers, with a service territory that covers the northern part of New Jersey, including municipalities throughout Union, Middlesex, Sussex, Warren, Hunterdon, Morris and Mercer Counties. The ETG service territory is shown in the following exhibit.

ETG Service Territory



As of December 31, 2021, ETG served 305,464 total customers including 281,612 residential customers, 23,750 commercial customers, and 102 industrial customers. Only two of the industrial customers have interruptible service. It also has six cogeneration customers. Net additions in 2021 of residential and commercial/industrial customers amounted to 3,760 and 91, respectively. ETG serves northern New Jersey's diversified industrial base within its territory, which includes pharmaceutical, food and beverage, and transportation industries.

ETG's primary area of operations in central and northern NJ continues to grow in multifamily housing and gas infrastructure extensions to unserved areas. While ETG continues to partner with builders in the new construction sector with the view of increasing natural gas burner tips, ETG is also pursuing conversions throughout its service territory. As a result, customer additions for ETG grew approximately one percent in 2021. In 2021, consumers converting their homes and businesses from other heating fuels, such as electric, propane, or oil, represented approximately 42%, or 1,580, of the total new customer acquisitions for the year. The ETG customer saturation rate (potential customers with ETG service) is 64%.

Service Divisions

ETG has two non-contiguous divisions, Union and Northwest. The Union Division covers Union and Middlesex counties and serves 239,000 customers with 1,900 miles of distribution main. The Northwest Division covers Sussex, Warren, Morris, Hunterdon, and Mercer counties. It serves 70,000 customers with 1,400 miles of distribution main and 13 miles of transmission main.

Natural Gas Sales, Transportation, and Storage

ETG gas sales and transportation for 2021 amounted to 49.8 million decatherms (MMDths), of which 43.6 MMDths were firm sales and transportation and 6.2 MMDths were interruptible sales and transportation. The breakdown of firm sales and transportation includes 23.2 MMDths residential, 13.8 MMDths commercial, and 6.6 MMDths industrial. ETG does not have any off-system sales.

During 2021, ETG purchased and had delivered natural gas distribution of 32.5 MMDths. (ETG also transports and delivers gas bought by customers from third parties.) These deliveries were for on-system sales and for injections into storage. ETG's average cost per decatherm (Dth) of natural gas purchased and delivered in 2019, 2020, and 2021 was $4.33, $3.85, and $4.53, respectively. ETG purchased 33.4 MMDths from its affiliate, South Jersey Resources Group, LLC (SJRG) and had smaller purchases and sales transactions with 31 other suppliers. These transactions resulted in a net 0.9 MMDths of sales to producers, as ETG bought 33.4 MMDths from its affiliate and only 32.5 MMDths net.

ETG has direct connections to the interstate pipeline systems of Transco (eight), Columbia (three), Texas Eastern (five), and Tennessee Gas (two). ETG secures other long-term services from several inter-state pipelines (Eastern Gas, National Fuel, and Gulf South) that are not directly connected to ETG and are upstream of the Transco and Tetco systems. Services provided by Eastern Gas are utilized to deliver gas into either the Transco or Tetco systems for ultimate delivery to ETG. Services provided by National Fuel and Gulf South are utilized to deliver gas into the Transco system for ultimate delivery to ETG. ETG also secures third-party storage services from Stagecoach Gas Services and Stagecoach Pipeline & Storage Company.

Total ETG transportation contracts as of December 31, 2021, are 287,523 decatherms per day (Dths/d). These contracts have terms with various ending dates, ranging from October 31, 2022, through Oct 31, 2041.

Total ETG storage capacity under contract as of December 31, 2021, is 13.2 MMDths, with a total maximum daily withdrawal quantity (MDWQ) of 225,343 Dths. These contracts have terms with various ending dates, ranging from March 31, 2023, through September 30, 2029.

In 2021, ETG delivered 50.8 MMDths of natural gas and had 1.0 MMDths of lost and unaccounted for gas. This is two percent lost and unaccounted for gas.

ETG's historic maximum sendout occurred on January 6, 2018, with 459,309 Dths. The ETG design day sendout at 0 degree Fahrenheit is 643,808 Dths.

Gas Supplies

ETG had an asset management agreement (AMA) with its affiliate, SJRG, which extended through March 31, 2022. Under this agreement ETG released to SJRG and/or designated SJRG as agent for all firm transportation and storage contracts. SJRG is obligated to provide natural gas supply to meet demand requirements and optimize ETG's portfolio of natural gas transportation and storage contracts. SJRG pays a fixed fee and shares net margin generated through portfolio optimization.

Supplemental Gas Supplies

ETG operates a peaking facility, located in Elizabeth, NJ, where it stores and vaporizes liquefied natural gas (LNG) for injection into its distribution system. ETG's LNG facility has a storage capacity equivalent to 165,000 Dths of natural gas and has an installed capacity to vaporize up to 25,000 Dths of LNG per day for injection into its distribution system.

Peak-Day Supply

ETG plans for a winter season peak-day demand on the basis of an average daily temperature of 0 degrees Fahrenheit (F) or 65 heating degree days. Gas demand on such a design day for the 2021–2022 winter season is estimated to be 463,342 Dths for ETG (excluding industrial customers). ETG projects to have adequate supplies and interstate pipeline entitlements to meet design day requirements. ETG experienced its highest peak-day demand for calendar year 2021 on January 29th.

Employees

At the end of 2021, ETG had 402 regular full-time employees and no part-time or temporary employees. As of December 31, 2021, 233 employees were represented by a labor union at ETG. A collective bargaining agreement with the United Workers Union of America (UWUA) Local 424 that represents unionized ETG employees ran through November 2022. The labor agreements cover wage increases, health and welfare benefits, paid time off programs, and other benefits.

In addition, 68 employees voted to certify as a new bargaining unit effective November 23, 2021, for which SJI negotiated a new collective bargaining agreement in 2022.

Franchises

ETG holds nonexclusive franchises granted by municipalities in the areas which they serve. No other natural gas public utility presently serves the territory covered by the ETG's franchises. From 2009 through 2021, ETG added franchises in:

- Township of Alexandria
- Borough of Andover
- Borough of Branchville
- Green Township

- Township of Byram

Customer Choice Legislation

All residential natural gas customers in New Jersey can choose their natural gas commodity supplier under the terms of the *Electric Discount and Energy Competition Act of 1999.* This Act created the framework and necessary time schedules for the restructuring of the state's electric and natural gas utilities. The Act established unbundling, where redesigned utility rate structures allow natural gas and electric consumers to choose their energy supplier. It also established time frames for instituting competitive services for customer account functions and for determining whether basic gas supply services should become competitive. Customers purchasing natural gas from a provider other than the local utility (marketer) are charged for the gas costs by the marketer and charged for the transportation costs by the utility. The total number of customers in ETG's service territory purchasing natural gas from a marketer averaged 8,338, 9,179, and 8,519, during 2019, 2020, and 2021, respectively.

Recent Financial Results

The following exhibit summarizes the composition of ETG's operating revenues and utility margin for the last three years, each ending December 31.

ETG Operating Revenues and Utility Margin ($ 000, except degree days)

Utility Operating Revenues:	2019	2020	2021
Firm and Interruptible Sales			
Residential	$211,639	$229,188	$226,332
Commercial and Industrial	66,769	73,712	82,379
Firm and Interruptible Transportation -			
Residential	1,632	1,654	2,179
Commercial and Industrial	34,846	43,229	48,369
Other	10,242	1,610	765
Total Firm and Interruptible Revenues	$325,128	$349,393	$360,024
Less: Total Cost of Sales – Utility (Excluding Depreciation and Amortization)[1]	141,269	120,798	125,537
Less: Depreciation and Amortization[1]	29,051	56,772	69,778
Total GAAP Gross Margin	$154,808	$171,823	$164,709
Add: Depreciation and Amortization[1]	29,051	56,772	69,778
Less: Regulatory Rider Recoveries[2]	7,989	16,204	20,537
Utility Margin[3]	$175,870	$212,391	$213,950
Utility Margin:			
Residential	110,519	139,230	144,688
Commercial and Industrial	63,605	86,851	88,912
Regulatory Rider Mechanisms	1,746	(13,690)	(19,650)
Total Utility Margin[3]	$175,870	$212,391	$213,950
Annual Degree Days[4]	4,672	4,191	4,127

[1] Does not include amortization of debt issuance costs that are recorded as Interest Charges on the consolidated statements of income.
[2] Represents pass-through expenses for which there is a corresponding credit in operating revenues. Therefore, such recoveries have no impact on ETG's financial results.
[3] Utility Margin is a non-GAAP financial measure. The definition of Utility Margin is the same for each of the Utilities.
[4] Each day, each degree of average daily temperature below 65 degrees Fahrenheit is counted as one heating degree-day. Annual degree-days is the sum of the daily totals.

Revenues from the gas utility operations at ETG increased $10.6 million or 3.0% for the year ended December 31, 2021, compared to 2020. ETG utility margin increased $1.6 million or 0.7% for the year ended December 31, 2021, compared to 2020. These increases in revenues and utility margin are primarily due to customer growth and colder weather during the first quarter of 2021.

ETG had net cash provided by operating activities of $89 million in 2021 and $112 million in 2020. Gross additions to utility plant were $219 million in 2021 and $202 million in 2020.

Operations and Maintenance Expenses

The recent ETG trend in operations and maintenance (O&M) expenses is shown in the following table.

ETG Operations and Maintenance Expenses ($ million)

O&M Expenses	July to December 2018	2019	2020	2021	2019 to 2021 Average Annual Percent Increase
O&M Actual	50.7	74.0	79.0	79.2	3.5%
O&M Budget	N/A	71.6	76.4	81.4	6.8%
Budget Variance	N/A	2.4	-2.6	-2.2	
Budget Variance Percentage	N/A	3.3%	-3.4%	-2.7%	

The SJI financial plan projects ETG O&M expenses to increase to $86 million in 2022 and to $111 million in 2027. This would be an average annual increase of 6.7% from the 2021 actual O&M expense of $79.2 million.

Capital Expenditures

The recent trends in ETG capital expenditures (capex) are shown in the following exhibit.

ETG Capital Expenditures ($ million)

Capital Expenditure Category	July to December 2018	2019	2020	2021	2019 to 2021 Average Annual Percent Change
Infrastructure Investment Program and Related		29.9	84.2	85.6	93.1%
Other Transmission and Distribution Related	55.4	97.2	53.3	89.8	-3.8%
New Business and Related	14.6	30.2	35.0	43.9	22.7%
Information Technology	20.4	47.4	32.8	9.5	-40.0%
Facilities, Fleet, and Security	0	2.6	2.9	2.6	0.0%
Total Actual Capital Expenditures	90.4	207.4	208.2	231.3	5.8%
Budgeted Capital Expenditures	73.0	218.8	193.3	225.5	1.6%
Budget Variance	17.4	-11.4	14.9	5.8	
Budget Variance Percentage	23.8%	-5.0%	7.7%	2.6%	

Actual capital expenditures increased from $207.4 million in 2019 to $231.3 million in 2021, driven largely by increases in Infrastructure Investment Program spending.

Affiliate Payments

According to the ETG 2021 Annual Report to the NJBPU, ETG paid SJRG $149 million for gas supply, SJI $52 million for management service charges and invoices, and SJG $6 million for management service charges and invoices. There was no mention of payments to SJIU

The total SJI and SJIU charges to ETG are shown in the following exhibit.

SJI and SJIU Charges to ETG ($ million)

Entity	2019	2020	2021
SJI	55.6	41.2	47.3
SJIU	1.4 (last four months)	4.0	5.9
Total	**57.0**	**45.2**	**53.2**

Of the SJI charges to ETG, the following are the portions for the Management Service Fee:

- 2019 – $18.5 million
- 2020 – $14.1 million plus $1.3 million capitalized equals $15.4 million total
- 2021 – $18.5 million

As shown in the following exhibit, the Cost Allocation Manual percentage allocations from SJI and SJIU to ETG have increased in recent years. See Chapter VI, Affiliate Cost Allocation Methodologies, for more information on the Cost Allocation Manual and the Management Service Fee.

Cost Allocation Annual Percentage Allocations from SJI and SJIU to ETG

Entity	August to December 2019	January and February 2020	March to July 2020	August to December 2020	2021
SJI	30.41%	34.09%	34.93%	35.03%	39.35%
SJIU	35.02%	35.02%	37.72%	37.96%	42.17%

For more information on affiliate payments, see Chapter III, Affiliate Relationships, and Chapter VI, Affiliate Cost Allocation Methodologies.

Rate Base and Customer Growth

ETG expects its rate base to increase from $1.3 billion in 2021 to $1.8 billion in 2025. This is from a $1 billion capital expenditure plan during this period offset by approximately $500 million in depreciation expense.

ETG expects a compound annual customer growth rate of approximately 1.5% per year from 2021 to 2025.

Dividend Policy

In September 2018, the SJI board adopted the following dividend policies for SJI and SJIU:

> *SJI Dividend Policy*
>
> *SJI's goal is to provide shareholders with a secure, growing dividend that reflects the significant growth opportunities available at SJI and to gradually move SJI's dividend payout ratio to a range between 55% to 65%. When we reach the midpoint of that range, dividend growth will follow anticipated growth in economic earnings.*
>
> *SJIU Dividend Policy*
>
> *It is the intent of the Board of Directors of SJI Utilities, Inc. to achieve a dividend payout ratio which approximates that of its parent company, SJI. However, when declaring dividends, the Board will also take into consideration all the applicable requirements related to common equity balances of each of its regulated utilities and adjust dividends declared accordingly.*

SJI Affiliate Dividends

The following table shows the SJI affiliate dividends paid from 2009 through 2021.

SJI Dividends from Affiliates ($000)

Affiliate	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
SJG[1]	$10,002	$45,905	$12,664	$0	$0	$18,201	$40,764	$0	$20,000	$0	$0	$0	$0
ETG	*	*	*	*	*	*	*	*	*	$0	$0	$0	$0
SJRG	$0	$0	$0	$0	$0	$0	$0	$0	$58,210	$0	$0	$0	$0
SJESP	$0	$0	$0	$0	$0	$0	$0	$0	$6,374	$0	$0	$0	$0
SJEX	$0	$0	$0	$0	$0	$0	$0	$0	$4,397	$0	$0	$0	$0
SJI	$36,426	$40,478	$44,975	$50,942	$57,679	$63,869	$70,158	$82,380	$87,308	$94,756	$106,938	$114,643	$133,336
[1]South Jersey Gas, *ETG owned by Southern Company													

ETG has not paid dividends to SJI from the 2018 acquisition through 2021. Further, there were no affiliate royalty payments for 2009–2021.

Rate Cases

In November 2019, the NJBPU approved the settlement of ETG's rate case petition, resulting in an increase to base rate revenues of $34.0 million with new rates in effect November 15, 2019. The Order also provides for an after-tax rate of return of approximately 6.5%, with a return on equity of approximately 9.6% and a common equity component of approximately 51.5%.

In December 2021, ETG filed a petition with the NJBPU requesting a base rate revenue increase, which was updated in February 2022 to a requested increase of $72.9 million, primarily to obtain a return on new capital investments made by ETG since the settlement of its last base rate case in 2019.

Periodic Rate Mechanisms

ETG's tariff includes several rate mechanisms, including:

- Infrastructure Investment Program (IIP)
- Basic Gas Supply Service (BGSS)
- Weather Normalization Clause (WNC)
- Conservation Incentive Program (CIP)
- Energy Efficiency Program (EEP)
- Societal Benefits Clause (SBC)

The current effective rate mechanisms reflected in ETG's tariff, and regulatory actions regarding each for the preceding three years, are described below (filings and petitions described below were still pending at the end of 2021, unless otherwise indicated). The approvals for the BGSS and the clauses under the SBC discussed below do not impact ETG's earnings. They represent changes in the cash requirements of ETG corresponding to cost changes and/or previous over/under recoveries from ratepayers associated with each respective mechanism.

Infrastructure Investment Program – Consistent with approval of the ETG/ELK Acquisition, SJI was required to develop a plan, in concert with the NJBPU and the New Jersey Division of Rate Counsel, to address the replacement of ETG's aging infrastructure. In October 2018, ETG filed an IIP petition with the NJBPU pursuant to rules adopted by the NJBPU in December 2017 pertaining to utility infrastructure investments. The IIP petition sought authority to recover the costs associated with ETG's initial investment of approximately $518.0 million from 2019–2023 to, among other things, replace its cast-iron and low-pressure main and related services. The IIP petition included a request for timely recovery of ETG's investment on a semi-annual basis through a separate rate mechanism.

In June 2019, the NJBPU approved a $300.0 million IIP effective July 1, 2019. The Order authorized the recovery of costs associated with ETG's investments of approximately $300.0 million between 2019–2024 to replace its cast-iron and bare steel vintage main and related services. The Order provides for annual recovery of ETG's investments through a separate rate mechanism.

In April 2020, ETG submitted its annual filing, pursuant to the June 2019 NJBPU approval of the IIP. In July 2020, ETG submitted an updated filing, reflecting rider rates to increase annual revenues by $6.8 million to reflect the roll-in of $63.3 million of IIP investments for the period July 2019 through June 2020. The NJBPU issued an Order in September 2020 approving the updated IIP rates effective October 1, 2020.

In April 2021, ETG submitted its annual filing, pursuant to the June 2019 NJBPU approval of the IIP. In July 2021, ETG submitted an updated filing, reflecting rider rates to increase annual revenues by $7.1 million to reflect the roll-in of $64.0 million of IIP investments for the period July 2020 through June 2021. The NJBPU issued an Order in September 2021 approving the updated IIP rates effective October 1, 2021.

Basic Gas Supply Service Clause – Following are recent actions regarding the BGSS.

- March 2020 – The NJBPU approved ETG's annual BGSS filing in May 2019 to maintain its current BGSS-P rate. As ETG requested to maintain its current rate there was no corresponding increase or decrease in gas cost recoveries requested. This was approved on a provisional basis effective October 1, 2019, and final rates were approved, effective April 1, 2020, with no changes.

- June 2020 – ETG submitted its annual BGSS filing. During discovery, ETG updated the rate for a revised request of a $21.1 million decrease in revenues. The NJBPU issued an Order in September 2020 approving the revised rate decrease on a provisional basis effective October 1, 2020, and final rates were approved, effective July 1, 2021, with no changes.
- June 2021 – ETG submitted its annual BGSS filing. In August 2021, ETG updated the requested rate for a revised $11.3 million increase in revenues. The NJBPU issued an Order in November 2021 approving the revised rate increase on a provisional basis, effective December 1, 2021. In addition, as allowed under the BGSS clause, in November 2021, ETG issued a notice to the NJBPU of ETG's intent to self-implement a BGSS rate adjustment representing an additional five percent increase of the monthly bill of a typical residential customer, effective December 2021, for a total increase of $19.1 million in revenues.

Weather Normalization Clause – The WNC rate allowed ETG to implement surcharges or credits during the months of October through May to compensate for weather-related changes in customer usage from the previous winter period:

- 2019–2020 WNC filing – In September 2019, the NJBPU approved a $7.8 million decrease in revenues to return a net revenue excess of $1.6 million primarily due to colder than normal weather, effective November 1, 2019. The NJBPU approved a slightly lower final rate effective April 1, 2020.
- 2020–2021 WNC filing – In September 2020, the NJBPU approved a $7.1 million increase in revenues to an annual revenue of $5.5 million to recover a deficiency from warmer than normal weather, effective October 1, 2020. This rate was approved by the NJBPU as final on February 17, 2021.
- 2021–2022 WNC filing – In September 2021, the NJBPU approved an annual revenue increase of $5.5 million to recover a deficiency balance associated with the period ending May 31, 2021, due to warmer than normal weather. This rate was approved by the NJBPU on a provisional basis effective October 1, 2021. The WNC calculation ended May 31, 2021, and was replaced by the Conservation Incentive Program (CIP) effective July 1, 2021.

Conservation Incentive Program – ETG had a Weather Normalization Clause (WNC) which was discussed above. The WNC was designed to recover or refund balances associated with differences between actual and normal weather during the preceding winter periods. The effective winter period of the WNC was defined as October through May. The calculation of WNC ended May 31, 2021, and in 2021, the NJBPU approved the adoption of the CIP for ETG. Starting July 1, 2021, and for the six months ended December 31, 2021, ETG's net income was increased by $2.9 million due to the CIP.

In April 2021, the NJBPU approved the implementation of ETG's CIP. Each CIP year begins on July 1 and ends on June 30 of the subsequent year, with the first year effective July 1, 2021. The CIP, which is discussed below, replaces the WNC.

As a result of the WNC, ETG's net income was increased through May 2021 and for 2020 by $2.2 million and $10.2 million, respectively, primarily due to warmer than average weather for the applicable months during the respective winter periods. In 2019, WNC reduced ETG's net income by $5.9 million, primarily due to colder than average weather for the applicable months in the 2019 winter period.

Earnings accrued and payments received under the CIP are limited to a level that will not cause ETG's return on equity to exceed 9.6% (excluding earnings from certain sale transactions and certain other tariff clauses.) CIP recoveries are limited by the annualized savings attained from reducing gas supply and storage assets.

Energy Efficiency Program –ETG has authorization from the NJBPU to offer its EEP through June 30, 2024, at a total budget of approximately $83.4 million, which allows ETG to recover incremental operating and maintenance expenses and earn a return of, and return on, program investments over a ten-year amortization period. From 2019 through 2021, the following changes occurred related to the recovery of costs and the allowed return on prior investments associated with EEPs:

- January 2019 – ETG entered into a stipulation with Board Staff and the New Jersey Division of Rate Counsel extending its EEP through February 29, 2020, at a total budget of approximately $3.0 million. The BPU approved the stipulation in February 2019.
- April 2019 – The NJBPU approved a revenue increase of $1.3 million associated with ETG’s annual EEP rate adjustment filing, effective May 1, 2019.
- July 2019 – ETG filed its annual EEP rate adjustment petition, requesting a $1.0 million increase in revenues to continue recovering the costs of, and the allowed return on, investments associated with its EEP. In the first quarter of 2020, the final rate was approved by the NJBPU, effective April 1, 2020. The final rate reflected a $0.9 million increase in revenues.
- In February 2020, the NJBPU approved ETG's stipulation with the NJBPU and the New Jersey Division of Rate Counsel extending its EEP through June 2020 under the previously approved budget and from July 2020 through December 2021 at a total budget of approximately $4.2 million.
- In July 2020, ETG filed its annual EEP rate adjustment petition, requesting a $0.2 million decrease in revenues related to the recovery of costs of, and the allowed return on, investments associated with its EEPs. In June 2021, the NJBPU approved the stipulation to resolve ETG's annual EEP filing, effective July 1, 2021. The final rate reflected a $0.5 million decrease in revenues.
- In September 2020, ETG filed for a new EEP program to expand its EEPs for three years and also proposed to establish a CIP, similar to SJG’s CIP, which eliminates the link between usage and margin and includes a weather component. In April 2021, the NJBPU approved the stipulation for ETG's new EEP program to expand its EEPs for three years effective July 1, 2021, authorizing a total budget of $83.4 million which would initially increase annual revenues by $2.8 million. This new EEP program replaces the one previously in effect. In April 2021, the NJBPU also approved the stipulation to establish a CIP effective July 1, 2021.

- In July 2021, ETG filed its annual EEP rate adjustment petition for its legacy EEP programs, requesting a $1.6 million decrease in revenues related to the recovery of costs of, and the allowed return on, investments associated with its EEPs.

Societal Benefits Charges – The SBC allows ETG to recover costs related to several NJBPU-mandated programs, including the Remediation Adjustment Clause (RAC), the Clean Energy Program (CEP) and the Universal Service Fund (USF) and Lifeline Credit and Tenants Assistance (LL) programs.

The RAC recovers environmental remediation costs of former manufactured gas plants resulting in a regulatory asset for the costs that have been incurred but not yet recovered in rates:

- May 2019 – The NJBPU approved ETG's annual RAC filing with the NJBPU, with a $6.9 million increase in RAC recoveries, effective June 1, 2019.
- March 2020 – The NJBPU approved ETG's annual RAC rate adjustment petition, requesting a $6.0 million increase in revenues, effective April 1, 2020.
- March 2021 – The NJBPU approved ETG's annual RAC rate adjustment petition, with a $3.2 million decrease in revenues, effective April 1, 2021.
- November 2021 – The NJBPU approved ETG's annual RAC rate adjustment petition on a provisional basis, with a $7.9 million decrease in revenues, effective December 1, 2021.

The CEP recovers costs associated with ETG's energy efficiency and renewable energy programs required under the New Jersey Clean Energy Program (NJCEP). From July 2018 through June 2021, the NJBPU approved annual NJCEP funding levels of $344.7 million for which ETG's annual responsibility during the timeframe ranged from $10.6 million to $11.5 million:

- 2019–2020 CEP filing – In September 2019, the NJBPU approved a $0.1 million decrease in revenues, effective November 1, 2019.
- 2020–2021 CEP filing – In September 2020, the NJBPU approved a $3.2 million increase in revenues effective October 1, 2020.
- 2021–2022 CEP filing – In September 2021, the NJBPU approved, on a provisional basis, a $0.2 million decrease in revenues effective October 1, 2021.

The USF and LL are statewide programs through which funds are collected from customers of all New Jersey electric and gas utilities. Annually, the NJBPU approves a statewide budget for these programs. From 2019–2021, ETG's annual responsibility was between $5.4 million and $9.0 million.

For more information on ETG, please see Chapter X, Organizational Structure.

SJI UTILITIES

SJIU was created in 2018 as a holding company for its regulated natural gas utility businesses, SJG and the newly acquired ETG and ELK. ELK was sold in July 2020. The scale of SJG and ETG is shown in the following exhibit.

ETG and SJG Comparison

Customer Count	ETG	SJG	ETG as a Percent of SJG
Residential	285,747	370,693	77%
Commercial	23,578	25,985	91%
Industrial	101	412	25%
Total Count	309,426	397,090	78%
Territory Specifications	**ETG**	**SJG**	**ETG as a Percent of SJG**
Square Miles of Territory	1,431	2,500	57%
Distribution Miles	3,277	6,684	49%
Transmission Miles	13	146	9%
Municipalities Served	90	113	80%
Counties Served	7	7	100%

SJG has 59.4 customers per mile of distribution and ETG has 94.4 customers per mile. Despite its less densely populated Northwest division, ETG has a denser service territory than SJG. ETG has 78% of the number of customers as SJG.

For more information on SJIU, see Chapter X, Organizational Structure.

SOUTH JERSEY INDUSTRIES, INC.

SJI is the parent holding company for SJIU, which, in turn, is the sub-parent holding company of ETG. SJI is also the ultimate holding company for all non-utility subsidiaries.

History

From the SJI website:

> *Over the past century, SJI has remained committed to providing safe, reliable, affordable energy, ensuring the safety of our employees, customers and the communities we serve, while also delivering value to our stakeholders and being stewards of the environment. SJI traces its roots back to 1910 when Atlantic City Gas and Water Company merged with Atlantic City Gas Company. As the resort town grew, so did the need for natural gas and the company that supplied it. This was the first in a series of acquisitions throughout Atlantic, Camden, Cumberland, Gloucester, and Salem counties that eventually led to the creation of SJI's subsidiary, South Jersey Gas in 1947.*
>
> *The South Jersey Gas (SJG) headquarters originated in Atlantic City. During the 1950s, SJG continued to acquire smaller gas companies, building its territory in Cumberland and Salem counties. SJG purchased its Cape May county division in 1983 from New Jersey Natural Gas.*

> *In 1969, SJG's board of directors and management decided to diversify into business lines that SJG could not participate in as a regulated utility. Thus, SJI was incorporated as a holding company with SJG as its primary subsidiary.*
>
> *In 1970, SJI built a new corporate headquarters in Folsom and over the next three decades bought and sold several non-utility subsidiary companies. In the mid-1980s, SJI created South Jersey Energy to participate in retail commodity sales opportunities created by deregulation of the natural gas industry. At the end of the 1990s, SJI revised its strategic direction from being a diversified holding company to one focused on energy and energy services. With SJG as a foundation and South Jersey Energy as a viable non-regulated business, SJI began expanding the non-regulated side of its energy business, forming South Jersey Resources Group (SJRG) in 1996 to provide natural gas storage, peaking services and transportation capacity for wholesale customers.*
>
> *In 2008, SJRG entered into a lease agreement with an exploration and production company to develop deep mineral rights on property in the Marcellus Shale. In 2018, SJI became one of the larger natural gas providers in New Jersey with the acquisition of Elizabethtown Gas from Southern Gas Company, furthering the company's commitment to safety, operational excellence, and an outstanding customer experience.*
>
> *That same year [2018], SJI created SJI Utilities, a holding company for its, regulated natural gas utility businesses - South Jersey Gas and Elizabethtown Gas – allowing SJI to best align talent and resources in support of a consistent strategy across our regulated utility operations.*

SJI, a New Jersey corporation, was formed in 1969 for the purpose of owning and holding all of the outstanding common stock of SJG, a public utility, and acquiring and developing non-utility lines of business. It acquired ETG in 2018 and established SJIU as the holding company for SJG and ETG.

Corporate Structure

SJI is composed of 77 subsidiaries and jointly owned legal entities. SJG and ETG are the only NJBPU regulated entities. SJG is a regulated natural gas utility which distributes natural gas in the seven southernmost counties of New Jersey. The remaining 75 subsidiary and jointly owned entities are sub-holding companies and are not regulated by the NJBPU.

SJI provides a variety of non-NJBPU regulated energy-related products and services, primarily through the following wholly owned subsidiaries:

- South Jersey Energy Company (SJE) acquires and markets electricity to retail end users.
- South Jersey Resources Group, LLC (SJRG) markets natural gas storage, commodity, and transportation assets along with fuel management services on a wholesale basis in the mid-Atlantic, Appalachian, and southern states.
- South Jersey Exploration, LLC (SJEX) owns oil, gas, and mineral rights in the Marcellus Shale region of Pennsylvania.

- Marina Energy, LLC (Marina) develops and operates on-site energy-related projects. Marina includes the Catamaran Renewables, LLC (Catamaran) joint venture that was entered into for the purpose of developing, owning, and operating renewable energy projects, and supporting SJI's commitment to clean energy initiatives. Catamaran owns Annadale Community Clean Energy Projects, LLC (Annadale) and Bronx Midco, LLC (Annadale), operators of fuel cell projects in New York, in which Marina, through Catamaran, owns 93% and 92%, respectively. Catamaran also owns a solar generation site in Massachusetts, in which Marina, through Catamaran, owns 90%. Marina owns, directly and through wholly owned subsidiaries, solar energy projects at rooftop generation sites in New Jersey, including projects that were acquired in 2020 and 2021.
- South Jersey Energy Service Plus, LLC (SJESP) receives commissions on appliance service contracts from a third party.
- SJI Midstream, LLC (Midstream) invests in infrastructure and other midstream projects, including the PennEast project for which development ceased in September 2021.
- SJI Renewable Energy Ventures, LLC, which holds the SJI equity interest in REV LNG, LLC (REV).
- SJI RNG Devco, LLC, which includes the SJI renewable natural gas development rights and costs incurred in order to develop certain dairy farms.
- SJI Energy Investments, LLC (SJEI) provides energy procurement and cost reduction services. The significant wholly owned subsidiaries of SJEI include:
  - Applied Energy Partners, LLC (AEP), an aggregator, broker, and consultant in the retail energy markets that matches end users with suppliers for the procurement of natural gas and electricity.
  - EnerConnex, LLC (EnerConnex), an aggregator, broker, and consultant in the retail and wholesale energy markets that matches end users with suppliers for the procurement of natural gas and electricity. On August 7, 2020, SJEI acquired the remaining 75% of EnerConnex, of which SJEI previously held a 25% interest.

2019–2021 Acquisitions

Catamaran and a third party formed Bronx Midco, of which Catamaran owns 99%. On June 9, 2021, Bronx Midco purchased a fuel cell project totaling five megawatts (MW) in Bronx, New York that is in the process of being constructed. Marina, through its ownership in Catamaran, has a 92% ownership interest in Bronx Midco. The total expected cost of the fuel cell project is $60.1 million, of which the partners have paid $28.7 million as of December 31, 2021. Of this total, Marina invested $26.4 million as of December 31, 2021.

In 2021, Catamaran completed its acquisition of a solar project in Massachusetts, of which Marina has a 90% ownership interest. In 2021 and 2020, SJI, through its wholly owned subsidiary Marina, acquired solar energy projects along with entities owning newly operational rooftop solar-generation sites. The total consideration paid for these acquisitions in each year was not significant.

On August 7, 2020, SJI, through its wholly owned subsidiary SJEI, completed its acquisition of the remaining 75% of EnerConnex for a total consideration of $7.5 million. Prior to this transaction, SJEI had a 25% interest in EnerConnex.

On August 12, 2020, SJI, through its wholly owned subsidiary Marina, formed the Catamaran joint venture with a third party partner. On the same date, Catamaran purchased 100% ownership in Annadale, an entity that has constructed two fuel cell projects totaling 7.5 MW in Staten Island, New York. These fuel cell projects became operational in December 2020. Marina invested $80.2 million in Annadale as part of this $86.2 million acquisition.

On December 23, 2020, SJI completed its acquisition of a 35% interest in REV for total consideration of $10.5 million. As part of the transaction, SJI also acquired REV's renewable natural gas development rights in certain dairy farms for total consideration of $10.0 million. In 2021 and 2020, SJI has also provided $62.6 million and $19.3 million, respectively, in capital contribution loans to REV. These transactions are consistent with SJI's commitment to decarbonization, as REV specializes in the development, production, and transportation of renewable natural gas (RNG), liquefied natural gas, and compressed natural gas. Over the last few years, REV has become one of the country’s leading developers of RNG projects through capturing, cleaning, and converting bio-methane to RNG. Among its service offerings, REV acquires the rights to build anaerobic digesters on dairy farms to produce RNG for injection into natural gas pipelines. SJI's investment in REV includes an interest in RNG projects, a developing pipeline of RNG projects, as well as certain energy infrastructure assets associated with transporting and supplying RNG to market.

On August 31, 2019, SJI, through its wholly owned subsidiary SJEI, completed its acquisition of AEP for $4.0 million in total consideration.

2019–2021 Divestitures

On February 18, 2020, the Company sold Marina Thermal Facility (MTF) and ACB Energy Partners for a final sales price of $97.0 million, including working capital.

On July 31, 2020, the Company sold ELK for a total consideration of approximately $15.6 million. The working capital settlement for this sale was finalized in 2021 and was not material.

During 2020 and 2019, Marina sold solar energy projects for a total consideration of $7.2 million and $24.3 million, respectively. These sales were the final solar energy projects that were sold in a series of agreements, beginning in 2018, whereby Marina agreed to sell its then-existing portfolio of solar energy projects.

South Jersey Energy Company

Due to the liquidity in the market, SJE primarily purchases delivered electric in the day-ahead and real-time markets through regional transmission organizations.

South Jersey Resources Group

SJRG holds various firm transportation agreements with National Fuel, Transco, Dominion, Columbia, Tennessee, and Tetco. Total transportation under contract is

423,030 Dths/d. These contracts have terms with various ending dates, ranging from September 30, 2022, through March 31, 2043.

SJRG holds multiple storage service agreements, primarily with Transco (for storage service at Transco's WSS facility) and National Fuel. Total storage capacity under contract is approximately 4.6 MMDths. The contracts have terms with various ending dates, ranging from October 31, 2022, through March 31, 2023. SJRG's intention is to renew or extend these transportation and storage service agreements before they expire.

SJRG has entered into several long-term natural gas supply agreements to purchase 526,400 Dths/d, depending on production levels, for terms ranging from five to eleven years at index-based prices.

Operating Segments of Business

Accounting Standards Codification (ASC) 280*, Segment Reporting*, establishes standards for reporting information about operating segments and requires that a public business enterprise report financial and descriptive information about its reportable operating segments. Operating segments are defined as components of an enterprise for which separate financial information is available that is regularly evaluated by the Chief Operating Decision Maker (CODM) in deciding how to allocate resources and in assessing performance.

Beginning with the first quarter of 2021, SJI management reporting (specifically around the nonutility businesses) changed, primarily due to recent acquisitions and new product lines entered into. These were primarily within the fuel cell, solar, RNG, and retail businesses.

As a result of these changes in its businesses, SJI realigned its operating segments. The realigned segments reflect the financial information regularly evaluated by the CODM, which for SJI is the Chief Executive Officer.

The operating segments are as follows:

- SJG utility operations consist primarily of natural gas distribution to residential, commercial, and industrial customers in southern New Jersey.
- ETG utility operations consist primarily of natural gas distribution to residential, commercial, and industrial customers in northern and central New Jersey.
- ELK utility operations consist of natural gas distribution to residential, commercial, and industrial customers in Maryland. On July 31, 2020, SJI sold ELK to a third-party buyer.
- Wholesale energy operations include the activities of SJRG and SJEX.
- Retail services operations include the activities of SJE, SJESP and SJEI, as well as equity interest in Millennium.
- Renewables consist of:
  - The Catamaran joint venture, which owns Annadale and Bronx Midco, along with a solar project in Massachusetts.
  - Solar-generation sites located in New Jersey, and three legacy solar projects, one of which was sold during the first quarter of 2020.

- MTF and ACB, which were sold in the first quarter of 2020.
- Decarbonization consists of:
  - SJI Renewables Energy Ventures, LLC, which includes an equity interest in REV, which is included in Equity in (Loss) Earnings of Affiliated Companies on the consolidated statements of income.
  - SJI RNG Devco, LLC, which includes costs incurred to develop renewable natural gas operations at certain dairy farms along with the related development rights acquired in 2020.
- Midstream invests in infrastructure and other midstream projects, including an investment in PennEast for which development ceased in September 2021.
- The Corporate and Services segment includes costs related to financing, acquisitions and divestitures, and other unallocated costs.
- Intersegment represents intercompany transactions among the above SJI consolidated entities.

There have been no SJI non-utility projects in the ETG territory with interconnections with the ETG system and none are planned.

Reportable Segments

SJI groups its utility businesses under its wholly owned subsidiary SJIU. This group consists of the gas utility operations of SJG and ETG and, until its sale, ELK. SJI groups its non-utility operations into separate categories:

- Energy Management includes wholesale energy operations and retail services.
- Energy Production includes renewables and decarbonization
- Midstream
- Corporate and Services
- Intersegment Sales

Information about SJI's operations in different reportable operating segments is presented in the exhibit below. All prior periods were revised to conform to the new segment alignment noted above.

SJI Segment Information ($ 000)

	SJG	ETG	ELK	SJI Utilities	Energy Management	Energy Production	Midstream	Corporate and Services	Intersegment Sales	Total
2021										
Operating Revenue	618,426	360,024	-	978,450	1,011,827	24,038		59,480	(81,799)	1,991,996
Operating Income	199,214	95,509	-	294,723	50,244	4,449	-	(296)		349,120
Utilities Percent of Operating Income										84.4%
2020										
Operating Revenue	571,787	349,392	4,793	925,972	609,841	15,617		54,422	(64,469)	1,541,383
Operating Income	171,235	89,638	372	261,245	30,716	(5,602)	(467)	(3,670)		282,222
Utilities Percent of Operating Income										92.6%
2019										
Operating Revenue	569,226	325,133	7,949	902,308	690,938	48,748		43,901	(57,269)	1,628,626
Operating Income	147,494	69,315	721	217,530	(2,325)	(4,248)	(154)	(9,598)		201,205
Utilities Percent of Operating Income										108.1%

Utility operating income as a percent of total income decreased from 108.1% in 2019 to 92.6% in 2020 to 84.4% in 2021 as the Energy Management segment increased its profitability.

Seasonal Aspects – Utility Companies

The utilities experience seasonal fluctuations in sales when selling natural gas for heating purposes. The utilities meet these seasonal fluctuations in demand from firm customers by buying and storing gas during the summer months, and by drawing from storage and purchasing supplemental supplies during the heating season. As a result of this seasonality, the utilities' revenues and net income are significantly higher during the first and fourth quarters than during the second and third quarters of the year.

Seasonal Aspects – Non-Utility Companies

Among SJI's non-utility activities, wholesale (including fuel supply management) has seasonal patterns similar to the utilities. Activities such as energy services do not follow seasonal patterns. Other activities, such as retail electric marketing, can have seasonal earnings patterns that are different from the utilities. The first and fourth quarters, however, remain the periods when most of SJI's revenue and net income is produced.

Environmental, Government Regulation, and Other Regulatory Matters

SJI is subject to numerous regulations related to safety standards, building and zoning requirements, labor and employment, discrimination, anti-bribery/anti-corruption, data privacy, and income taxes. In addition, the utilities are subject to the jurisdiction of the NJBPU with respect to a wide range of matters such as base rates and regulatory rider rates, the issuance of securities, safety, adequacy of service, the sufficiency of natural gas supply, environmental issues and compliance with affiliate standards.

Properties

As of December 31, 2021, SJI's utility plant had a gross book value of approximately $5.7 billion and net book value, after accumulated depreciation, of approximately $4.7 billion. In 2021, SJI spent approximately $532.0 million on capital expenditures for utility plant and nonutility property, plant, and equipment, and there were retirements of property having an aggregate gross book cost of approximately $80.5 million.

Virtually all of the utilities' transmission pipelines, distribution mains, and service connections are under streets or highways or on the property of others. The transmission and distribution systems are maintained under franchises, permits or rights-of-way, many of which are perpetual. The properties of SJG and ETG (other than property specifically excluded) are subject to liens of mortgage under which their respective first mortgage bonds are outstanding.

Nonutility property and equipment have a net book value of approximately $205.1 million and consists mostly of fuel cell and solar assets, ongoing construction of renewable natural gas facilities, and equipment at dairy farms, along with miscellaneous equipment and vehicles.

Utility Revenue

ETG bills customers at rates approved by the NJBPU. The NJBPU allows the ETG to recover gas costs in rates through the BGSS price structure. ETG defers over/under recoveries of gas costs and includes them in subsequent adjustments to the BGSS rate. These adjustments result in over/under recoveries of gas costs being included in rates during future periods. As a result of these deferrals, utility revenue recognition does not directly translate to profitability. While ETG realizes profits on gas sales during the month of providing the utility service, significant shifts in revenue recognition may result from the various recovery clauses approved by the BPU. This revenue recognition process does not shift earnings between periods, as these clauses only provide for cost recovery on a dollar-for-dollar basis.

ETG’s unbilled revenue for natural gas is estimated each month based on monthly deliveries into the system; unaccounted for natural gas based on historical results; customer-specific use factors, when available; actual temperatures during the period; and applicable customer rates.

For ETG, unrealized gains and losses on energy-related derivative instruments are recorded in Regulatory Assets or Regulatory Liabilities on the consolidated balance sheet of SJI until they become realized, in which case they are recognized in operating revenues.

PennEast

Despite the favorable outcomes from the Supreme Court, PennEast continued to experience regulatory and legal challenges resulting in continued delays preventing the commencement of construction and commercial operation of the project. As a result, SJI evaluated its investment in PennEast for an other-than-temporary impairment as of June 30, 2021. The impairment assessment used a discounted cash flow income approach, including consideration of the severity and duration of any decline in fair value of the investment in the project. Significant estimates and assumptions included development options and the likelihoods of success of such options, potential regulatory and legal outcomes, construction costs, timing of in-service dates, revenues (including forecasted volumes and rates), and discount rates. SJI estimated the fair value of its investment in PennEast using probability weighted scenarios assigned to discounted future cash flows. Based on this analysis, in the second quarter of 2021, SJI recognized an other-than-temporary impairment charge of $87.4 million, which is recorded in Equity in (Losses) Earnings from Affiliates in the consolidated statements of income for the year ended December 31, 2021.

In September 2021, the PennEast partners, following extensive evaluation and discussion, determined that further development of the project was no longer supported, and thus all further development of the project has ceased. Given that construction of the pipeline will not continue, SJI re-evaluated its investment for an additional other-than temporary impairment. It was determined that no additional impairment was needed as the current value of the investment represented the best estimate of the salvage value of the remaining assets of the project. It is possible that future developments could impact the fair value and could result in the recognition of additional impairment charges.

Energenic

Energenic has cogeneration, long-lived assets related to a project that is not operational. Marina has notes and related interest receivable related to Energenic; such notes are secured by these cogeneration assets for energy service projects.

Energenic reviewed these cogeneration assets for impairment as of December 31, 2021, as it was determined that future development of a project to utilize these assets is no longer probable, and thus the net book value of these assets may exceed their fair market value. The impairment assessment was performed in accordance with ASC 360, *Property, Plant and Equipment,* and included consideration of development opportunities for the assets as well as receiving a third-party price quote for similar assets. As a result of the impairment test performed, Energenic recorded an impairment charge of $12.7 million, of which Marina recorded its 50% equity interest, or $6.4 million, which was recorded in Equity in (Losses) Earnings of Affiliated Companies on the consolidated statements of income. This loss reduced the Notes Receivable – Affiliate balance on the consolidated balance sheets as the investment in the Energenic affiliate had been reduced to zero as a result of previous losses.

As a result of the impairment charge taken by Energenic, Marina evaluated the realizability of its remaining recorded interests in Energenic, which include notes receivable and related accrued interest, and determined that these interests were no longer realizable above the amount of Marina's share in the fair market value of Energenic's cogeneration assets. As a result, SJI recognized an other-than-temporary impairment charge of $9.1 million. Of this amount, $6.4 million was recorded in Other Income and Expense related to the write off of interest accrued on the notes receivable (which decreased Accounts Receivable on the consolidated balance sheets), and $2.7 million was recorded in Equity in (Losses) Earnings of Affiliated Companies (which decreased Notes Receivable – Affiliate on the consolidated balance sheets).

Competition

ETG’s franchises are non-exclusive. Currently, no other utility provides retail gas distribution services within the territories, and ETG does not expect any other utilities to do so in the foreseeable future because of the extensive investment required for utility plant and related costs. ETG competes with oil, propane, and electricity suppliers for residential, commercial, and industrial users; with alternative fuel source providers (wind, solar, and fuel cells) based on price, convenience, and environmental factors; and with other marketers/brokers in the selling of wholesale natural gas services. The market for natural gas commodity sales is subject to competition due to deregulation.

SJRG competes in the wholesale natural gas market against a wide array of competitors on a cost competitive, term of service, and reliability basis. SJRG has been a reliable energy provider in this arena for more than 20 years.

Marina competes with other companies that develop and operate similar types of on-site energy production. Marina also faces competition from customers' preferences for alternative technologies for energy production, as well as those customers that address their energy needs internally.

Results of Operations

SJI groups its utility businesses under its wholly owned subsidiary SJIU. This group consists of the gas utility operations of SJG and ETG and, until its sale, ELK. SJI groups its nonutility operations into separate categories: Energy Management, Energy Production, Midstream, and Corporate and Services. Energy Management includes wholesale energy operations and retail services. Energy Production includes renewables and decarbonization.

SJI's net income for 2021 decreased $68.5 million to $88.6 million compared to 2020. SJI's income from continuing operations for 2021 decreased $68.8 million to $88.5 million compared to 2020. The significant drivers for the overall changes were as follows (all numbers in the points below are presented after-tax):

- The income contribution from Midstream decreased $89.9 million to a loss of $85.7 million compared with 2020, primarily due to an other-than-temporary impairment charge on the Company's equity method investment in PennEast recorded in 2021 and the development of the PennEast project no longer being supported.
- The income contribution from the renewables operating segment decreased $22.3 million to a loss of $7.5 million compared with 2020, primarily due to Marina’s share of a loss, recorded through Equity in (Losses) Earnings of Affiliated Companies, of an impairment charge recorded by Energenic, as well as an other-than-temporary impairment charge recognized by Marina related to the realizability of the outstanding notes receivable, including accrued interest, related to Energenic. Partially offsetting these items was the results from the Annadale fuel cell project, which was placed into service during the fourth quarter of 2020.
- The income contribution from the wholesale energy operations segment increased $11.7 million to $37.3 million, primarily due to the change in unrealized gains and losses on forward financial contracts due to price volatility, along with higher

margins from daily energy trading activities and from colder weather experienced in the first and second quarters of 2021.

- Within the Corporate and Services segment, SJI incurred $8.2 million in costs in 2020 that did not recur in 2021 that were related to the termination of interest rate swaps during the fourth quarter of 2020.
- The income contribution from the gas utility operations at ETG increased $3.0 million to $50.7 million compared with the same period in 2020, primarily due to a gain recorded from a uniform transitional utility assessment (UTUA) settlement agreement with the New Jersey Division of Taxation, partially offset with higher operations and depreciation expenses.

A significant portion of the volatility in operating results is due to the impact of the accounting methods associated with SJI's derivative activities. SJI uses derivatives to limit its exposure to market risk on transactions to buy, sell, transport, and store natural gas and to buy and sell retail electricity. SJI also uses derivatives to limit its exposure to increasing interest rates on variable-rate debt.

The types of transactions that typically cause the most significant volatility in operating results are as follows:

- SJRG purchases and holds natural gas in storage and maintains capacity on interstate pipelines to earn profit margins in the future. SJRG utilizes derivatives to mitigate price risk in order to substantially lock in the profit margin that will ultimately be realized. However, both gas stored in inventory and in pipeline capacity are not considered derivatives and are not subject to fair value accounting. Conversely, the derivatives used to reduce the risk associated with a change in the value of inventory and pipeline capacity are accounted for at fair value, with changes in fair value recorded in operating results in the period of change. As a result, earnings are subject to volatility as the market price of derivatives changes, even when the underlying hedged value of inventory and pipeline capacity are unchanged. Additionally, volatility in earnings is created when realized gains and losses on derivatives used to mitigate commodity price risk on expected future purchases of gas injected into storage are recognized in earnings when the derivatives settle, but the cost of the related gas in storage is not recognized in earnings until the period of withdrawal. This volatility can be significant from period to period. Over time, gains or losses on the sale of gas in storage, as well as use of capacity, will be offset by losses or gains on the derivatives, resulting in the realization of the profit margin expected when the transactions were initiated.
- SJE uses forward contracts to mitigate commodity price risk on fixed price electric contracts with customers. In accordance with GAAP, the forward contracts are recorded at fair value, with changes in fair value recorded in earnings in the period of change. Several related customer contracts are not considered derivatives and, therefore, are not recorded in earnings until the electricity is delivered. As a result, earnings are subject to volatility as the market price of the forward contracts changes, even when the underlying hedged value of the customer contract is unchanged. Over time, gains or losses on the sale of the fixed price electric under

contract will be offset by losses or gains on the forward contracts, resulting in the realization of the profit margin expected when the transactions were initiated. These contracts outstanding as of December 31, 2021, were not material.

C. EXECUTIVE SUMMARY FINDINGS

I-1. ETG has received multiple recent awards.

ETG has received the following recent awards:

- Number one in Customer Satisfaction with residential natural gas service in the East among midsize utilities for eight years in a row.
- Easiest to do Business With for three years in a row.
- Utility Customer Champion for three years in a row.
- Most Trusted Brand in 2021.
- Environmental Champion in 2020.
- American Gas Association Industry Leader Accident Prevention Award for two years in a row.

I-2. The number of ETG services and meters has steadily increased while the amount of natural gas delivered has declined.

The following exhibit shows the trends in services, meters, and natural gas delivered in two periods, the period before SJI acquired ETG and the period after. 2018 is excluded because ownership of ETG was half prior ownership and half SJI ownership that year.

ETG Services, Meters, and Gas Delivered

Factor	2009	2017	Average Annual Percent Change 2009–2017	2019	2021	Average Annual Percent Change 2019–2021
Number of Services at the End of the Year	217,832	227,343	0.5%	229,886	230,955	0.2%
Regular Meters in Use	274,976	292,444	0.8%	297,313	316,762	3.3%
Decatherms of Gas Delivered (million)	63.3	51.2	-2.4%	52.0	50.8	-1.2%

From 2009 to 2021, the number of services increased from 217,832 to 230,955, a 6% total increase or 0.5 % average annual increase. The number of regular meters in use increased from 274,976 to 316,762, a 15.1% total increase or 1.25% average annual increase. However, the decatherms of natural gas delivered declined from 63.3 MMDths to 50.8 MMDths over the same 12-year period. This is a total decline of 19.7%, or a 1.6% average annual decrease.

I-3. ETG performance metric trends have generally improved since the acquisition by SJI.

ETG was acquired by SJI in July 2018. The following exhibit shows select ETG performance metric trends from 2018 through 2021.

ETG Performance Metric Trends

Factor	2018	2019	2020	2021
System Safety	**Actual**	**Actual**	**Actual**	**Actual**
Emergency Leak Response Less than 60 Minutes	96.7%	98.4%	98.9%	98.6%
Percent Cast Iron and Bare Steel Pipe	14.8%	11.9%	10.4%	8.6%
Reportable BPU/PHMSA Incidents	10	10	4	6
Damage Prevention Excavation Damages per 1,000 Tickets	N/A	2.63	2.88	2.28
Leaks per Mile	0.57	0.39	0.35	0.32
Grade 2 Above/Below Ground Leak Backlog	473	338	375	378
Employee Safety				
Employee Safety – Days Away, Restricted or Transferred Rate	0.95	1.12	0.49	0.48
OSHA Recordable Work Injuries	5	7	5	2
Preventable Motor Vehicle Accidents	14	11	3	4
Driver Safety Scorecard Score	N/A	N/A	95.3%	98.43%
Financials				
Operations and Maintenance Expense	$41.1M	$80.7M	$84.9M	$84.0M
Capital Investments - Total	$90.4M	$207.4M	$208.2M	$231.3M
Capital Investments - IIP	N/A	$27.2M	$78.5M	$76.4M
Economic Earnings	$5.8M	$34.9M	$47.7M	$42.9M
Utility Arrearages Greater than 90 Days	N/A	N/A	$13.1M	$15.7M
Net Income	$5.8M	$34.9M	$47.7M	$42.9M
Customer Service				
BPU Service Level	70%	87%	77%	84%
BPU Complaints	309	289	138	114
New Business Margins	$1.6M	$4.7M	$4.4M	$6.5M
Customer Satisfaction	738	759	772	772
Percent of Calls Answered within 30 seconds	69.70%	86.80%	76.60%	83.50%

System Safety and Integrity

ETG system safety and integrity improved from 2018 to 2021.

- Emergency Leak Response Less than 60 Minutes has improved from less than 98% to over 98%.

- Percent Cast Iron and Bare Steel Pipe, the types of pipe that are most prone to leaking, have been reduced by 42%.
- Reportable (serious) BPU/PHMSA Incidents were reduced from ten to six.
- Damage Prevention Excavation Damages per 1,000 Tickets (pipeline hits can cause leaks and fires or explosions) decreased from 2.63 to 2.28.
- Leaks per Mile were reduced from .57 to .32.
- Grade 2 Above/Below Ground Leak Backlog was reduced from 473 to 378.

Employee Safety

ETG employee safety improved from 2018 to 2021.

- Employee Safety – Days Away, Restricted, or Transferred Rate was reduced from .95 to .48.
- OSHA Recordable Work Injuries were reduced from five to two.
- Preventable Motor Vehicle Accidents were reduced from 14 to 4.
- The new Driver Safety Scorecard metric improved from 95.3% in 2020 to 98.4% in 2021.

Financial

The financial metrics for 2018 are only for the six months SJI owned ETG. ETG financial performance mostly improved from 2018 to 2021.

- Operations and Maintenance Expense increased from $80.7 million in 2019 to $84.0 million in 2021.
- Capital Investments – Total increased from $207.4 million in 2019 to $232.3 million in 2021.
- Capital Investments – Infrastructure Investment Program increased from $27.2 million in 2019 to $76.4 million in 2021.
- Economic Earnings increased from $34.9 million in 2019 to $42.9 million in 2021.
- Utility Arrearages Greater than 90 Days increased from $13.1 million in 2020 to $15.7 million in 2021.
- Net Income increased from $34.9 million in 2019 to $42.9 million in 2021.

Customer

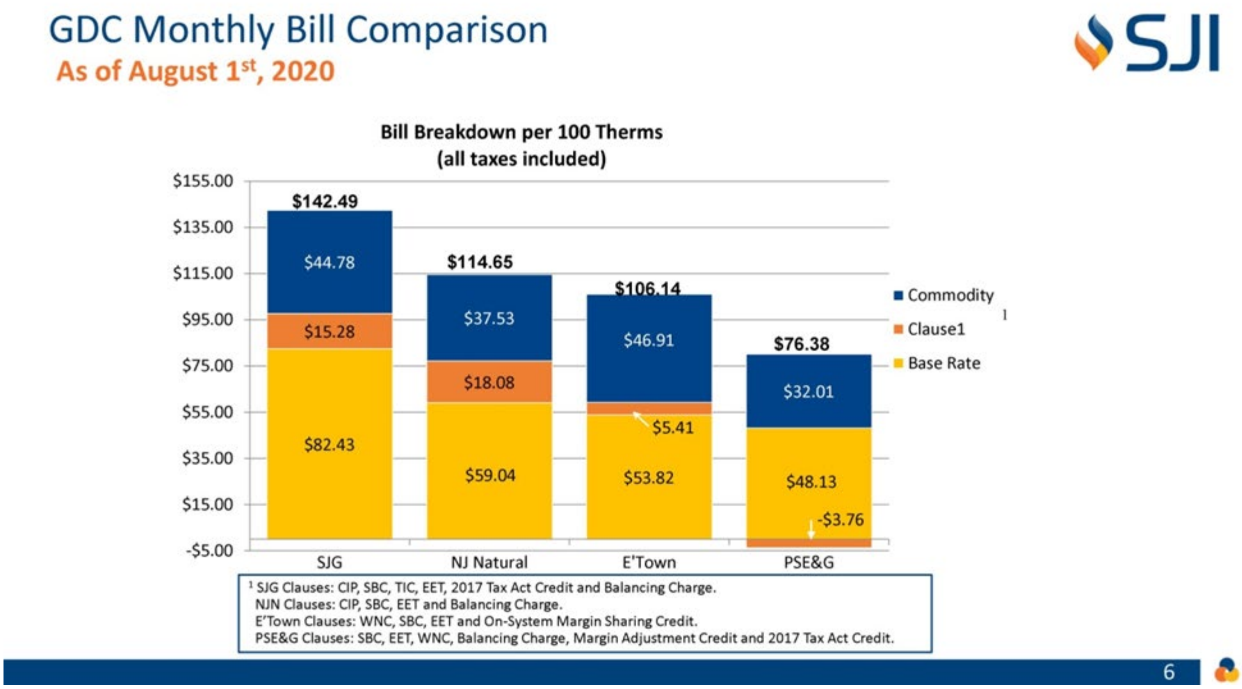
Customer service metrics improved from 2018 to 2021.

- The BPU Service level increased from 70% in 2018 to 84% in 2021.
- BPU Complaints decreased from 309 in 2018 to 114 in 2021.
- The Customer Satisfaction score improved from 738 in 2018 to 772 in 2021.
- The Percent of Calls Answered within 30 Seconds improved from 69.7% in 2018 to 83.5% in 2021.

I-4. As of August 1, 2020, ETG’s monthly bills were lower than SJG’s and New Jersey Natural Gas’s but higher than Public Service Electric and Gas’s.

The following exhibit shows a monthly bill comparison among New Jersey natural gas local distribution (LDC) companies as of August 1, 2020, for 100 therms.

NJ LDC Monthly Bill Comparison



LDC Bill Comparison by Category

Category	SJG	NJ Natural	ETG	PSE&G
Base Rate	$82.43	$59.04	$53.82	$48.13
Clauses	$15.28	$18.08	$5.41	-$3.76
Commodity	$44.78	$37.53	$46.91	$32.01
Total Bill	$142.49	$114.65	$106.14	$76.38

ETG’s monthly bill was 25.5% lower than SJG’s and 7.4% lower than NJ Natural’s, but 39.0% higher than PSE&G’s.

I-5. ETG revenues and expenses decreased under the prior ownership but have increased under SJI ownership.

The following exhibit shows the trends in gas operating revenues, total utility operating expenses, and net utility operating income in two periods, the period before SJI acquired ETG and the period after. 2018 is excluded because ownership of ETG was half prior ownership and half SJI ownership that year.

ETG Revenues, Expenses, and Income ($million)

Factor	2009	2017	Average Annual Percent Change 2009–2017	2019	2021	Average Annual Percent Change 2019–2021
Gas Operating Revenues	$453.2	$307.6	-4.0%	$325.1	$360.0	5.4%
Total Utility Operating Expenses	$423.8	$257.7	-4.9%	$264.2	$284.1	3.8%
Net Utility Operating Income	$29.4	$50.0	8.8%	$61.0	$75.9	12.2%
Net Utility Operating Income as a Percent of Gas Operating Revenues	6.5%	16.3%	18.8%	18.8%	21.1%	6.2%

Under the prior ownership, revenues and expenses declined by 4.0% and 4.9% per year, respectively, while net income increased 18.8% per year due to expenses declining faster than revenues. Under SJI ownership, revenues and expenses increased at 5.4% and 3.8% respectively and net income increased 12.2% per year as revenues increased faster than expenses. Over the 12-year period, net income as a percent of revenues steadily increased from 6.5% in 2009 to 21.1% in 2021.

ETG operations and maintenance (O&M) expenses have been increasing since the SJI acquisition as shown in the following exhibit.

ETG Operations and Maintenance Expenses ($000)

Category	2019	2020	2021	2021 Percent of Total
Payroll Expense	$37,972.94	$37,430.26	$41,327.70	52%
Allocated Corporate Costs	$12,656.56	$19,538.81	$22,593.23	29%
Insurance expense	$2,118.26	$2,202.77	$2,480.67	3%
Travel and Entertainment	$142.22	$166.95	$238.21	0%
Pension Benefits	$1,755.94	$2,900.18	$2,075.77	3%
Rent and Lease Expense	$406.24	$308.79	$212.83	0%
Postage and Shipping Expense	$42.00	$25.24	$5.26	0%
Recruiting Expense	$ -	$1.44	$3.86	0%
Permit Fees	$390.00	$74.44	$33.38	0%
Membership Dues & Subscriptions	$315.82	$124.69	$87.73	0%
Materials and Supplies	$1,737.07	$1,836.98	$2,231.59	3%
Development and Training	$132.16	$80.95	$130.94	0%
Advertising Expense	$410.31	$714.69	$1,035.07	1%
Storage	$14.93	$ -	$ -	0%
Bank Service Charges	$718.42	$1,005.88	$1,412.10	2%
General & Administrative Expense	$2,315.20	$5,218.45	$6,488.05	8%
Miscellaneous Operating Expense	$937.22	$800.60	$688.50	1%
Outside Services	$17,507.95	$12,100.75	$10,559.94	13%
Amortization of Regulatory Assets	$260.70	$317.28	$83.65	0%
Customer Account Expense	$3,191.56	$3,184.80	$2,369.60	3%
Charitable Contributions	$198.45	$387.78	$452.66	1%
Capitalized Corporate Costs	$ (9,232.58)	$ (9,395.66)	$ (15,356.87)	-19%
Total Actual Expenditures	**$73,991.37**	**$79,026.07**	**$79,153.85**	**100%**
Total Budget	$71,623.39	$76,422.80	$81,382.32	
Budget Variance	-3.3%	-3.4%	2.7%	

Total actual O&M expenses increased from $74.0 million in 2019 to $79.2 million in 2023, an average annual increase of 3.5%.

I-6. The number of ETG employees has increased faster under SJI ownership than under prior ownership.

The following exhibit shows the trends in ETG and SJIU employees at year end in two periods, the period before SJI acquired ETG and the period after. 2018 is included because SJI owned ETG at the end of the year.

ETG and SJIU Employees

Factor	2009	2017	Average Annual Percent Change 2009–2017	2018	2021	Average Annual Percent Change 2018–2021
ETG Total Employees	315	322	0.3%	347	402	5.3%
SJIU Employees	N/A	N/A	N/A	N/A	69	N/A

From 2009 to 2017, the number of ETG employees increased from 315 to 322, or 0.3% per year. From 2018 to 2021, under SJI ownership, the number of ETG employees increased by 55 from 347 to 402, an average annual increase of 5.3%.

Under the merger stipulation, ETG is required to maintain at least 330 employees and SJI/SJIU was required to add 30 new New Jersey-based employees. Both ETG and SJIU have exceeded those requirements by large margins, 72 employees over the requirement for ETG and 39 over the requirement for SJIU.

I-7. Annual expenditures on ETG utility plant have increased dramatically from 2009 to 2021.

The following exhibit shows the trends in ETG total and net utility plant and additions to utility plant in two periods, the period before SJI acquired ETG and the period after. 2018 is excluded because ownership of ETG was half prior ownership and half SJI ownership that year.

ETG Utility Plant ($million)

Factor	2009	2017	Average Annual Percent Change 2009–2017	2019	2021	Average Annual Percent Change 2019–2021
Total Utility Plant	$899.2	$1,438.4	7.5%	$1,655.2	$2,069.4	12.5%
Net Utility Plant	$630.8	$1,113.4	9.6%	$1,465.2	$1,750.6	9.7%
Expenditures on/Gross Additions to Utility Plant	$50.2	$154.6	26.0%	$212.0	$218.5	1.5%
Net Utility Plant as a Percent of Gross Utility Plant	70.2%	77.4%	1.3%	88.5%	84.6%	

From 2009 to 2021, annual expenditures on utility plant increased from $50.2 million to $218.5 million, a total increase of 335% or 28% per year. During that time, net utility plant as a percent of total utility plant increased from 70.2% to 84.6% as plant expenditures exceeded depreciation expense. This is an indicator that the utility plant has been substantially modernized over that period.

I-8. ETG payments to SJI and SJIU affiliates for utility and administrative services are substantially higher than the previous ownership.

The following exhibit shows the trends in ETG affiliate payments for utility and management services in two periods, the period before SJI acquired ETG and the period after. 2018 is excluded because ownership of ETG was half prior ownership and half SJI ownership that year.

ETG Affiliate Payments ($million)

Factor	2009	2017	Average Annual Percent Change 2009–2017	2019	2021	Average Annual Percent Change 2019–2021
AGL Services Company Allocated O&M Costs	20.9	19.7	-0.7%			
SJG Direct Charges				0.1	0.0	-50%
SJIU Management Service Fee				2.3	5.8	76.1%
SJIU Direct Charges				.2	.5	75.0%
SJI Management Service Fee				10.6	$19.0	39.6%
SJI Direct Charges				2.1	$3.9	42.9%
Total SJG, SJIU, and SJI charges to ETG				15.3	9.22	45.4%

From 2009 through 2017, ETG paid AGL Services Company an average of $20 million per year in allocated O&M costs. In 2021, ETG paid SJIU and SJI $29.2 million.

In addition to the payments to SJIU and SJI, ETG also paid SJRG $153 million for gas and gas supply services in 2021.

I-9. ETG residential rates have increased faster under SJI ownership than under the previous ownership.

The time period scope of this audit is from 2009 through 2021. SJI acquired ETG in July of 2018. Therefore, there are two ownership periods, before SJI and after SJI. The following exhibit shows the total residential bill by major component for the two ownership periods, the first is when SJI did not own ETG, the nine-year period from beginning of 2009 through the beginning of 2018. SJI acquired ETG in the middle of 2018, so ETG was under the management of two different companies for that year. 2018 is therefore left out of the analysis. The second period is from the beginning of 2019 through the end of 2021, the three-year period for which SJI owned ETG for the full years. An average annual percent change is calculated for both of the periods.

ETG Total Residential Bill for 100 Therms of Natural Gas per Month

Charge	Beginning of 2009	Beginning of 2018	Average Annual Percent Change 2009–2018	Beginning of 2019	End of 2021	Average Annual Percent Change 2019–2021
Base Rate	$37.81	$48.06		$44.44	$53.82	
Clauses	$5.54	$3.87		$3.97	$10.85	
Commodity	$128.01	$45.40		$42.37	$47.98	
Total Bill	**$171.36**	**$97.33**	**-4.80%**	**$90.78**	**$112.65**	**8.03%**

The total residential bill for 100 therms decreased by an average of 4.80% per year for the pre-SJI ownership period and increased by an average of 8.03% per year for the SJI ownership period. However, for fairness and clarity, it is important to consider each bill component separately.

The most controllable rate component by ETG, SJIU, and SJI is the base rate. The base rate recovers O&M expenses and the return on the rate base. The rate base is adjusted in each rate case by the capital additions less depreciation. However, in January 2014, the Energy Efficiency Program (EEP) accelerated cost recovery clause was initiated and in October 2020, the Infrastructure Investment Program (IIP) accelerated cost recovery clause was initiated. These two clauses recover capital investments separately from base rate cases. Therefore, to compare base rates over extended periods, the EEP and IIP clause charges must be added to the base rate to get an equivalent comparison over time. The following exhibit compares the total equivalent base rate for the two ownership periods.

ETG Base Rate plus Accelerated Recovery Clauses

Charge	Beginning of 2009	Beginning of 2018	Average Annual Percent Change 2009–2018	Beginning of 2019	End of 2021	Average Annual Percent Change 2019–2021
Base Rate	$37.8100	$48.0600	3.0%	$44.4400	$53.8200	10.6%
IIP	$0.0000	$0.0000		$0.0000	$0.0427	
EEP	$0.0000	($0.0007)		$0.0020	$0.0125	
Total	**$37.8100**	**$48.0593**	**3.01%**	**$44.4420**	**$53.8752**	**7.08%**

The total equivalent base rate increased at an annual average rate of 3.01% during the pre-SJI ownership period and at 7.08% during the SJI ownership period.

The clauses other than the accelerated recovery clauses are set by various regulatory processes and are largely out of ETG's control. They are shown in the following exhibit.

Clauses other than the Accelerated Recovery Clauses

Charge	Beginning of 2009	Beginning of 2018	Average Annual Percent Change 2009–2018	Beginning of 2019	End of 2021	Average Annual Percent Change 2019–2021
Total Clauses	$0.0554	$0.0387		$0.0397	$0.1085	
Less IIP	-$0.0000	-$0.0000		-$0.0000	-$0.0427	
Less EEP	-$0.0000	+$0.0007		-$0.0020	-$0.0125	
Total	**$0.0554**	**$0.0394**	**-3.21%**	**$0.0377**	**$0.0533**	**13.79%**

The clauses other than the accelerated recovery clauses decreased at a 3.21% average annual rate pre-SJI ownership and increased at a 13.79% rate during the SJI ownership period.

The BGGS commodity rate is largely dependent on the overall natural gas market but ETG, through SJIU Gas Supply and the SJRG Asset Management Agreement, can affect it. The following exhibit shows the commodity rate and total commodity cost for the two ownership periods.

ETG Total Residential Bill for 100 Therms of Natural Gas per Month

Charge	Beginning of 2009	Beginning of 2018	Average Annual Percent Change 2009–2018	Beginning of 2019	End of 2021	Average Annual Percent Change 2019–2021
Commodity Rate	$1.2801	$.4540	-7.17%	$.4237	$.4798	4.41%
Commodity	$128.01	$45.40	-7.17%	$42.37	$47.98	4.41%

The natural gas commodity cost decreased at an average annual rate of 7.17% during the pre-SJI ownership period and increased at an average annual rate of 4.41% during the SJI ownership period.

All components of the ETG residential bill increased faster during the SJI ownership period than the pre-SJI ownership period. The component most controllable by ETG, SJIU, and SJI, the equivalent base rate, increased over twice as fast under SJI ownership, going from 3.1% per year under prior ownership to 7.08% per year under SJI ownership.

D. EXECUTIVE SUMMARY RECOMMENDATION

I-1. Reduce future ETG rate increases and utility bills by containing ETG, SJIU, and SJI operating costs, controlling gas commodity costs, and slowing capital expenditures. (See Findings I-4, I-5, I-6, I-7, I-8, and I-9)

The typical residential ETG bill for the base rate and the accelerated recovery clauses, the most controllable parts of the total bill by ETG, increased faster at seven percent per year under SJI ownership than the three percent per year under the previous ownership. Additions to utility plant, utility operating expenses, net operating income, the number of employees, and affiliate payments also increased at higher rates.

However, the ETG system has been substantially modernized during the audit period. ETG has been investing over $200 million per year in utility plant and net plant as a percentage of gross plant has increased from 70% in 2009 to 85% in 2021. This indicates that ETG has a newer, more reliable, gas distribution system which should cost less to operate and maintain. In addition, operational performance has improved, which should contain costs. As examples:

- Leaks, and therefore leak repairs, have decreased.
- There are fewer third party excavation damages, and therefore fewer damage repairs.
- There are fewer employee and vehicle accidents, and therefore fewer investigations, less workers compensation payments, and fewer vehicle repairs.
- There are fewer customer complaints, and therefore fewer escalations and resolutions.

The balance of this report includes multiple recommendations on ways to contain or reduce costs as shown in the following table:

Recommendations Concerning Cost Reduction or Containment

Rec. #	Recommendation
II. Procurement and Purchasing	
II-8	Implement a process for price discovery in order to make more prudent gas purchases.
II-12	ETG should cut in half its purchases of Peaking Services.
II-13	ETG should pay closer attention to balancing on its system.
II-14	ETG should strive to limit purchases in the daily market to 25% of its daily requirements.
II-15	Negotiate more favorable gas-supply relationships.
II-16	Take advantage of the flexibility associated with futures.
II-17	ETG would benefit from the use of a specific option strategy called a Collar.
II-18	ETG should improve the intelligence gathering associated with financial hedges with emphasis on NYMEX futures.

Rec. #	Recommendation
II-19	The RMC should convene for the purpose of addressing the RMP policies and procedures.
II-20	The RMP should be revised to allow more flexibility, from a time perspective, to purchase financial instruments.
VI. Affiliate Cost Methodologies	
VI-1	Explore the potential use of standard costing techniques in setting transfer prices between affiliates or, alternatively, analyze and justify the cause of the increase in costs allocated by SJI to ETG relative to changes in ETG's operating expenses since its acquisition.
VII. Other Reporting	
VII-2	SJI should analyze the increase in ESG costs allocated to ETG from September 2018 through March 2022 to ensure the increase was valid.
VIII. Merger	
VIII-1	Complete the integration and harmonization of ETG and SJG operations and information systems.
IX. Executive Management and Corporate Governance	
IX-6	Develop and implement a formal capital project prioritization scheme.
X. Organizational Structure	
X-1	Eliminate the SJIU organization level, elevate the consolidated ETG and SJG utility operating functions in the SJI organization structure, restructure the SJI CEO direct reports, and assign the SJI CEO to the ETG board of directors.
XII. Strategic Planning	
XII-1	Develop and implement a separate SJIU strategic plan that covers ETG and SJG and emphasizes O&M cost containment, customers, workforce, and optimizing the pace of capital expenditures to accommodate growth and ensure system safety at the least cost.
XVIII. Distribution and Operations Management	
XVIII-9	ETG should develop and implement guidelines for the replacement of vehicles within their fleet.
XVIII-12	The field office should make greater collection efforts prior to sending employees to knock on doors.
XVIII-13	ETG should promote budget billing in order to avoid the bill collection process.
XVIII-16	ETG should add more Construction Contractors to their short list.
XIX. Purchasing and Procurement of Goods, Services, and Bidding Processes	
XIX-4	ETG should review the outsourcing relationship with MRC and determine whether there are ways to improve the quality of service and reduce costs.

Rec. #	Recommendation
XIX-5	Check the NJBPU's website for information that might be helpful in establishing performance standards and ideas on other ways to improve the cost/quality relationship of outsourcing.
XXI. Support Services	
XXI-1	Expedite Insurance Department mechanization to further streamline current processes and reduce insurance administration costs.
XXI-2	Explore commercial off-the-shelf options for a Claims Management System, and other "user-friendly" software that may be suitable for accelerating Insurance Program systemization.
XXI-4	Do not charge ETG for any portion of the professional liability errors and omissions insurance premium for attorney employees who do not practice law for SJI.
XXI-5	Accelerate implementation of the Facilities Work Management System to realize potential productivity improvements and ongoing expense savings.
XXI-6	Establish clear-cut evaluative criteria for future Facilities scenarios which afford significant cost savings in view of evolving office use and space requirements.
XXI-7	Perform a comparative analysis to ascertain if the economies derived from its relationship with MRC Global provide a minimum cost solution.
XXI-8	Explore alternative scenarios for materials supply once the current contract with MRC Global terminates and strive to reduce the cost of construction materials supply and inventory management accordingly.
XXI-9	Hone Fleet Management policies and procedures utilizing enhanced fleet management software.
XXI-10	Fully integrate ETG and SJG fleets to the greatest extent practical.
XXI-12	The mix of IT personnel and contractors should be subject to a cost benefit evaluation for on-going operations.
XXII. Contractor Performance	
XXII-3	Exact further cost savings from the systemization process.
XXIII. Remediation Costs	
XXIII-4	ETG should comprehensively review all remediation charges.

E. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Following is a summary of all the 279 findings and 102 recommendations in this report organized by chapter and section along with the page number on which the complete recommendation may be found.

Summary of Findings and Recommendations –

Findings		Recommendations		Rec. Pg. No.
VOLUME I				
Chapter I. Executive Summary				
I–1	ETG has received multiple recent awards.			
I–2	The number of ETG services and meters has steadily increased while the amount of natural gas delivered has declined.			
I–3	ETG performance metric trends have generally improved since the acquisition by SJI.			
I–4	As of August 1, 2020, ETG's monthly bills were lower than SJG's and New Jersey Natural Gas's but higher than Public Service Electric and Gas's.	I–1	Reduce future ETG rate increases and utility bills by containing ETG, SJIU, and SJI operating costs, controlling gas commodity costs, and slowing capital expenditures. (Findings I–4, I–5, I–6, I–7, I–8, and I–9)	37
I–5	ETG revenues and expenses decreased under the prior ownership but have increased under SJI ownership.			
I–6	The number of ETG employees has increased faster under SJI ownership than under prior ownership.			
I–7	Annual expenditures on ETG utility plant have increased dramatically from 2009 to 2021.			
I–8	ETG payments to SJI and SJIU affiliates for utility and administrative services are substantially higher than with the previous ownership.			

Findings		Recommendations		Rec. Pg. No.
I–9	ETG residential rates have increased faster under SJI ownership than under the previous ownership.			
VOLUME II				
Chapter II. Procurement and Purchasing				
II–1	ETG Security has quickly implemented or improved its security practices.			
II–2	SJI and ETG have a formal, current, and appropriate Physical Security Plan.			
II–3	Security is not involved in the response to ETG alarms.			
II–4	There is no Security Operations Center.	II–1	Implement a Security Operations Center. (See Finding II–4)	68
II–5	Gas Controllers are not required to have any specific background.	II–2	Improve background requirements for gas controllers. (See Finding II–5)	68
II–6	At certain times from mid-July 2018 through 2021 the Gas Control Center was not manned by more than one Gas Controller.			
II–7	ETG's Gas Control is understaffed.	II–3	Increase the number of gas controllers. (See Finding II–7)	68
II–8	Labor cost for Gas Control may be excessive and could be better managed.	II–4	Develop different work shifts and a plan for retirement of gas controllers. (See Findings II–8 and II–9)	69
II–9	Succession Planning for Gas Controllers is not evident.			
II–10	On-system ETG's LNG's capabilities should be increased to accommodate an increased level of withdrawals.	II–5	ETG should expedite the capital investment to increase the vaporization of the LNG facility as much as possible. (See Finding II–10)	69

Findings		Recommendations		Rec. Pg. No.
II–11	The New York Keyspan situation has the potential to create further demand for the available peaking supplies in the Northeast.	II–6	ETG and the NJBPU should support in every way possible new pipeline expansion and construction that feeds the northeast. (See Findings II–11 and II–13)	69
II–12	ETG has several firm transportation interstate pipeline contracts with evergreen provisions.	II–7	ETG should attempt to convert its firm interstate pipeline transportation contracts with evergreen provisions to a fixed term through the year 2030. (See Finding II–12)	70
II–13	The NJBPU Investigated the level of upstream capacity available to meet the demand in their state for the next five years.			
II–14	Risk Management performs meticulous and comprehensive credit reviews on suppliers.			
II–15	ETG has the necessary pricing tools in place to facilitate gas procurement and monitoring of its asset managers.			
II–16	The contracting process is comprehensive, accurate, and state-of-the-art.			
II–17	The ENDUR system captures trades, credit, and settlements to update the ledger, providing a full solution for limits, monitoring, market, and credit risk management.			
II–18	ETG has dependable transportation and storage bundled with transportation that enables the movement of gas supply to its city gates on the coldest days.			

Findings		Recommendations		Rec. Pg. No.
II–19	The AMA stipulates that all capacity releases must be subject to recall provisions.			
II–20	ETG determines the logical use of their assets.			
II–21	ETG is in compliance with FERC regulations associated with the AMA structure.			
II–22	ETG has dependable and sufficient transportation that enables the movement of gas supply from the production areas to its city gates on the coldest days.			
II–23	The contracting process is a strength and is comprehensive, accurate, and meticulous.			
II–24	ETG has the necessary pricing tools in place to facilitate gas procurement.	II–8	Implement a process for price discovery in order to make more prudent gas purchases. (See Findings II–24 and II–25)	70
II–25	The ENDUR system delivers web services with connectivity to external data sources, including pricing sources such as GD, IF, and NYMEX.			
II–26	ENDUR, as currently configured, has weak physical gas commodity management capabilities.	II–9	ENDUR should be enhanced or a new computer system purchased to better track physical natural gas. (See Finding II–26)	70
II–27	ETG did not enter fixed volume contracts.	II–10	It is essential that ETG contract for gas volumes to attach to FTS agreements at their receipt points. (See Finding II–27)	70
II–28	ETG did not enter fixed price contracts.	II–11	ETG should follow the RMP and commit to a unit price for the purchase of physical gas. (See Findings II–28 and II–31)	71

Findings		Recommendations		Rec. Pg. No.
II–29	ETG purchased excess Peaking Services not required to serve its customers.	II–12	ETG should cut in half its purchases of Peaking Services. (See Finding II–29)	71
II–30	ETG was accessed penalties by interstate pipelines during the period of this audit.	II–13	ETG should pay closer attention to balancing on its system. (See Finding II–30)	71
II–31	Base load volumes were not purchased in accordance with the RMP.			
II–32	ETG ignored RMP purchasing policy and therefore spent a great deal more money than it would have if it followed the policy.	II–14	ETG should strive to limit purchases in the daily market to 25% of its daily requirements. (See Finding II–32)	72
II–33	The confirmation process is standard in the gas industry and appears efficient and effective.			
II–34	Reports are generated regularly and provided to Gas Control to notify them of confirmed expected volumes.			
II–35	The AMA structure resulted in excess cost for ETG.	II–15	Negotiate more favorable gas-supply relationships. (See Finding II–35)	72
II–36	ETG enters into financial hedges and discretionary/non-discretionary financial requirements as authorized by RMP.			
II–37	ETG does not take advantage of the flexibility available to the owner of a futures contract.	II–16	Take advantage of the flexibility associated with futures. (See Finding II–37)	72
II–38	ETG does not enter into Basis financial instruments.	II –17	ETG would benefit from the use of a specific option strategy called a Collar. (See Finding II–39)	73

Findings		Recommendations		Rec. Pg. No.
II–39	ETG does not enter into Options financial instruments.	II–18	ETG should improve the intelligence gathering associated with financial hedges with emphasis on NYMEX futures. (See Finding II–40 and II–42)	74
II–40	ETG's financial hedges suffered substantial losses during the period of this audit.	II–19	The RMC should convene for the purpose of addressing the RMP policies and procedures. (See Finding II–40)	75
II–41	ETG's purchasing strategy for financial hedges is flawed and should be revised.	II –20	The RMP should be revised to allow more flexibility, from a time perspective, to purchase financial instruments. (See Finding II–41)	76
II–42	ETG should investigate other resources similar to Planalytics.			
Chapter III. Affiliate Relationships				
III–1	Contracts and agreements concerning affiliate transactions meet federal and state requirements.			
III–2	Contracts and agreements to purchase goods and services from affiliates were not procured through competitive processes.			
III–3	ETG's internal control structure can be strengthened to better ensure compliance with affiliate relationship requirements.	III–1	SJI's Internal Audit Plan should include audits related to affiliate relations and transactions (See Finding III–3)	90
III–4	There is no evidence that correspondence between directors and officers violated affiliate relationships and fair competition standards.			

Findings		Recommendations		Rec. Pg. No.
III–5	ETG provided incorrect information concerning affiliate transactions to the NJBPU when filing its 2018–2021 annual reports.	III–2	Procedures should be developed to ensure complete and accurate reporting of affiliate transactions. (See Finding III–5)	91
Chapter IV. Market Conditions				
IV–1	ETG's excess transportation and storage assets was approximately 25% of ETG's total annual portfolio effective January 2013 through December 2021.			
IV–2	AMA transactions conformed to required FERC orders.			
IV–3	It has not been determined if the excess capacity was used to make sales within the state of New Jersey.			
IV–4	ETG has sufficient interstate pipeline firm capacity to serve the current load purchasing directly from ETG assuming no changes in current market conditions.			
IV–5	ETG has several firm transportation interstate pipeline contracts with evergreen provisions.	IV–1	ETG should attempt to convert its firm interstate pipeline transportation contracts with evergreen provisions to a fixed term through the year 2030. (See Findings IV–5 and IV–6)	111
IV–6	ETG, as the supplier of last resort, for both current and historic firm transportation capacity, depends on some level of peaking services on design days.	IV–2	All steps that could lead to the permitting and construction of incremental interstate pipeline capacity should be implemented. (See Findings IV–6, IV–7, and IV–8)	111

Findings		Recommendations		Rec. Pg. No.
IV–7	Natural gas takeaway capacity intended for delivery to Northeast states, has been cancelled.	IV–3	Take all measures possible to reinstate projects denied out of the Marcellus and Utica Shale formations that were cancelled. (See Findings IV–6, IV–7, and IV–8)	111
IV–8	ETG may require additional capacity to support growth.			
Chapter V. Recommendations and Review of Previous Audit				
None				
Chapter VI. Affiliate Cost Allocation Methodologies				
VI–1	The accounting and allocation procedures for separating costs of inter-company transactions of ETG from affiliates are performed in a consistent and equitable manner.			
VI–2	Allocations of joint/common costs between ETG, SJI, and their affiliates during the period of this audit are consistent and accurately reflect the documented and reported methodology.			
VI–3	The potential for cross-subsidization is minimized by effective time reporting policies and procedures and comprehensive training.			
VI–4	Affiliate charges and cost allocation methodologies among ETG, SJI, and their affiliates comply with applicable legal, regulatory, and contractual requirements.			

Findings		Recommendations		Rec. Pg. No.
VI–5	The capital costs and expenses allocated to ETG in the three years following the acquisition of ETG increased by 74%.	VI–1	Explore the potential use of standard costing techniques in setting transfer prices between affiliates or, alternatively, analyze and justify the cause of the increase in costs allocated by SJI to ETG relative to changes in ETG's operating expenses since its acquisition. (See Finding VI–5)	170
		VI–2	The data for the exhibit "Cost Allocation Manual Charges for ETG 2019–2021" should be updated with the full year actual results for 2019 to provide a more accurate presentation of the increase in allocated costs to ETG. (See Finding VI–5)	171
Chapter VII. Other Reporting				
VII–1	The process for filing NJ state and federal reports, other than standard financial reports, is detailed and well documented and provides adequate assurance that data will be collected, processed, and reported accurately.			
VII–2	ETG management, along with senior executives from SJI and the operating utilities, is involved in designing and developing the ESG Report and in reviewing and approving its contents.			
VII–3	There were no penalties for late, incomplete, or incorrect filings during 2009 through 2021.			

Findings		Recommendations		Rec. Pg. No.
VII–4	The SJI Environment Team works with an external firm to assist with the collection and evaluation of ESG environmental data.			
VII–5	The ESG group is developing a peer group to assist in comparative analysis of SJI's ESG performance with other companies.	VII–1	Finalize the development of a proxy peer group and conduct a comparative analysis of SJI's performance to others in the group. (See Finding VII–5)	179
VII–6	ESG reporting expenses are comprised of labor and external legal fees paid by SJI.			
VII–7	The running rate of manpower and other costs associated with ESG reporting was about $310,000 to $340,000 in the most recent reporting years (2020–2021).			
VII–8	A portion of ESG expenses is allocated to ratepayers.			
VII–9	Allocated costs to ETG increased at a combined percentage of 19.4% whereas total O&M expenses declined by 2.0%.	VII–2	SJI should analyze the increase in ESG costs allocated to ETG from September 2018 through March 2022 to ensure the increase was valid. (See Finding VII–9)	179
VII–10	[Redacted]			
VII–11	Annual Employee Surveys show generally positive results.	VII–3	Explore ways to improve employee engagement, with an emphasis on areas that received lower scores on the employee survey (See Finding VII–11).	179

Findings		Recommendations		Rec. Pg. No.
Chapter VIII. Merger				
VIII–1	There was no formal ETG merger plan, just an SJI, SJIU, and SJG reorganization and a Transition Services Agreement to allow a transition of ETG information systems and operations from Southern Company Gas Services to SJI and SJIU.			
VIII–2	SJI tracks the status of each of SJI's and ETG's acquisition commitments under the BPU Decision and Order Approving Stipulation and reports compliance with each one.			
VIII–3	No synergies were projected from the SJI acquisition of ETG, and none were found; however, SJI asserts multiple benefits from the acquisition.			
VIII–4	The number of ETG employees has increased since the merger.			
VIII–5	The organizational transition integration of ETG and SJG into SJIU is substantially complete; however, the operations and information systems have not been completely integrated and harmonized.	VIII–1	Complete the integration and harmonization of ETG and SJG operations and information systems. (See Finding VIII–5)	188
Chapter IX. Executive Management and Corporate Governance				
IX–1	SJI uses independent consulting companies for advice on executive compensation and benefits.			

Findings		Recommendations		Rec. Pg. No.
IX–2	A benchmark panel of comparable companies was utilized in determining executive compensation.			
IX–3	SJI ranked near the bottom half of its peer group on comparative company data.	IX–1	SJI should consider modifying its Peer Group to improve comparability. (See Findings IX–3 and IX–4)	220
IX–4	The Compensation Committee uses the peer group median as a reference point.			
IX–5	The executive compensation program is guided by goals and principles typical for utility companies.			
IX–6	The 2021 SJI, SJIU, and ETG Boards of Directors were well qualified.			
IX–7	The SJI Board of Directors Chairman and SJI Chief Executive Officer titles are separated.			
IX–8	The Board of Directors and senior management are able to anticipate and respond to strategic issues on an ongoing basis and ensure that the ETG ratepayers are insulated from financial harm.			
IX–9	ETG's and SJIU's senior management are largely insulated from the SJI non-utility subsidiaries and are free to focus on ETG performance and the best interests of its ratepayers.			

Findings		Recommendations		Rec. Pg. No.
IX–10	The 2021 SJI Board of Directors committee structures were conventional and largely appropriate; however, the Executive Committee did not meet from 2018 through 2021.	IX–2	Disband the Executive Committee and formally assign its duties to the Strategy and Finance Committee. (See Finding IX–10)	220
IX–11	There were no relevant SJI or ETG board lawsuits from 2018 through 2021.			
IX–12	Through 2021, all SJI Board of Director Members were in compliance with their continuing education requirements.			
IX–13	SJI maintains a current set of corporate governance documents.			
IX–14	The Board Governance Committee, working with the Corporate Secretary, makes continuous improvements to Board governance.			
IX–15	The SJI CEO did not serve on the SJI Strategy and Finance Committee or on the SJIU, SJG, and ETG boards of directors.	IX–3	Assign the SJI CEO to the SJI Board Strategy and Finance Committee and the SJIU and ETG boards of directors. (See Finding IX–15)	220
IX–16	SJI is in compliance with Sarbanes-Oxley Section 301 requirements regarding audit committees.			
IX–17	SJI could better demonstrate its commitment to SOX 301 compliance by establishing an Audit Committee budget.			

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Findings		Recommendations		Rec. Pg. No.
IX–18	SJI is in compliance with Sox 302, 404, and 906 requirements regarding corporate responsibility for financial reporting and the assessment of internal controls.	IX–4	SJI should consider establishing an annual budget for the Audit Committee. (See Finding IX–18)	220
IX–19	SJI established appropriate whistleblower protections to support compliance with Sarbanes-Oxley Section 806.			
IX–20	ETG's auditors are independent per the rules of the Public Company Accounting Oversight Board (PCAOB) and the Security and the Exchange Commission (SEC).			
IX–21	ETG, SJIU, and SJI have many recent and relevant benchmarking and best practices studies but there is no SJI benchmarking and best practices program.	IX–5	Develop a formal SJI, SJIU, and ETG benchmarking and best practices program to have a benchmark reference for each KPI at least every three years and a best practices study for each major function at least every five years. (See Finding IX–21)	220
IX–22	SJI, SJIU, and ETG do not have a formal capital project prioritization scheme.	IX–6	Develop and implement a formal capital project prioritization scheme. (See Finding IX–22)	221
IX–23	SJI has a Chief Compliance Officer and a formal compliance program; however, it does not have a Chief Ethics Officer and a formal ethics program.	IX–7	Appoint a SJI Chief Ethics Officer and develop an ethics program modeled on the compliance program. (See Finding IX–23)	221

Findings		Recommendations		Rec. Pg. No.
Chapter X. Organizational Structure				
X–1	The ETG President only directly supervises the field operations personnel; however, multiple SJIU and some SJI functions have employees collocated with ETG at the ETG headquarters, which is a good practice.			
X–2	ETG has current succession plans for all positions from supervisor through director.			
X–3	SJI is primarily in the natural gas local distribution company business.	X–1	Eliminate the SJIU organization level, elevate the consolidated ETG and SJG utility operating functions in the SJI organization structure, restructure the SJI CEO direct reports, and assign the SJI CEO to the ETG board of directors. (See Findings X–3 through X–10)	248
X–4	SJI has an overly complicated organization structure for two relatively small LDCs and some non-utility operations.			
X–5	Although SJI's principal business is regulated local distribution utility operating companies, the utility operating functions are located several levels down in the organization structure.			
X–6	The SJI CEO does not serve on the SJIU or ETG boards of directors.			
X–7	The SJI staff functions' principal clients are the SJG and ETG utilities.			

Findings		Recommendations		Rec. Pg. No.
X–8	The SJIU entity and intermediate staff level is unnecessary.			
X–9	Many SJI and SJIU spans of control are too narrow which results in unnecessary positions and levels of organization.	X–2	Increase the minimum span of control to reduce the number of executive, management, and supervisory positions; this will result in fewer positions and organizational levels (See Finding X–9)	249
X–10	ETG can manage its own portfolio and realize a better return on its excess assets than 39%.			
X–11	SJI has established an appropriate system of internal control.			
X–12	SJI addresses inherently challenging and complex issues of “risk management” in a rational and proactive manner.			
Chapter XI. Human Resources				
XI–1	ETG’s compensation and benefits packages are appropriate for a regulated utility.			
XI–2	The Performance Management Process (PMP) is effectively used to help determine non-union employee compensation.			
XI–3	Training is comprehensive and decentralized.	XI–1	All training efforts should be coordinated in the HR Department. (See Finding XI–3)	271
XI–4	Training records are not maintained in a central database.	XI–2	Training records should be centralized and automated. (See Finding XI–4)	271
XI–5	There are no significant labor issues at ETG.			

Findings	Recommendations	Rec. Pg. No.
XI–6 Labor relations at ETG appear to be managed effectively.		
XI–7 There are adequate systems and applications tracking employee productivity and utilization.		
XI–8 The HR Information System provides the necessary access to ETG's personnel information.		
XI–9 There are effective affirmative action and equal employment opportunity policies, procedures, and practices in place at ETG.		
XI–10 SJI actively supports diversity in its workplace.		
XI–11 The percentage of the ETG workforce that are minorities has increased over the past five years.		
Chapter XII. Strategic Planning		
XII–1 The SJI strategic plan for ETG is focused on capital expenditures and rate cases, which is not optimal for ratepayers.	XII–1 Develop and implement a separate SJIU strategic plan that covers ETG and SJG and emphasizes O&M cost containment, customers, workforce, and optimizing the pace of capital expenditures to accommodate growth and ensure system safety at the least cost. (See Finding XII–1)	279
XII–2 The SJI website mission and values are not the same as the more elaborate One SJI statements.	XII–2 Settle on one consistent statement of the SJI mission, vision, and values. (See Finding XII–2)	279
XII–3 The goals and objectives for SJI utility and non-utility businesses are generally compatible.		

Findings	Recommendations	Rec. Pg. No.
XII–4 The 2020 strategic plan was updated in 2021 in a different format for an external audience and did not include the five-year financial plan.	XII–3 Refresh the SJI strategic and financial plan in a reasonably consistent format and the recommended SJIU strategic plan every year. (See Finding XII-4)	280
XII–5 SJIU and ETG management are focused on the utilities; the SJI CEO is focused on non-utility businesses.		
Chapter XIII. Finance		
XIII–1 No adverse effects resulted from the financing of ETG, SJI, or affiliates.		
XIII–2 Affiliate interrelationships between ETG and its affiliates have not adversely affected the financial performance of ETG.		
XIII–3 SJI's financing activities did not impact ETG's creditworthiness as it pertained to short-term borrowing.		
XIII–4 No real or perceived encumbrances or negative effects from business diversification impacted ETG.		
XIII–5 SJI's investment decisions have not negatively impacted ETG.		
XIII–6 SJI's method for determining and allocating consolidated income taxes is fair.		
XIII–7 ETG was not allocated any federal income tax expense in 2018–2021.		
XIII–8 Internal Audit operations conform to industry standards.		

Findings	Recommendations	Rec. Pg. No.
XIII–9 External quality assessment reviews of Internal Audit are performed by a firm with an existing relationship with Internal Audit.	XIII–1 SJI should contract for QAR services with an organization that has no other relationship with SJI. (See Finding XIII–9)	299
Chapter XIV. Cash Management		
XIV–1 The cash forecasting process is reasonable and provides a reasonable basis for estimating financial needs and managing debt.		
XIV–2 ETG cash is not intermingled with SJI and affiliate cash.		
XIV–3 Funds generated from depreciation have not been used for non-utility purposes since the acquisition. Information is not available for the period prior to the acquisition.		
XIV–4 Neither SJI nor its affiliates have made use of ETG's generated income.		
XIV–5 There has been no quantified or potential impact of write-offs by ETG, SJI, and their affiliates on ETG.		
XIV–6 Diversifying activities have not had an effect on ETG's cost of capital.		
XIV–7 ETG's cost of capital appeared reasonable for the 2018–2021 period. Information was not available for prior years.		

Findings	Recommendations	Rec. Pg. No.
Chapter XV. Accounting and Property Records		
XV–1 Accounting and property records functions are performed appropriately for utility operations.		
XV–2 Payroll functions are performed appropriately.		
XV–3 The Budget process is reasonable and appropriate.		
XV–4 Work order and property recordkeeping are appropriate for a gas utility.		
Chapter XVI. Customer Service		
XVI–1 Meter reading has become more efficient from 2016 through 2021.		
XVI–2 Meter reading percentages have exceeded NJBPU goals.		
XVI–3 There was an increase in Meter Reading Estimates.		
XVI–4 ETG has an effective and efficient billing system.		
XVI–5 Corporate procedures governing the customer billing functions are lacking.	XVI–1 Develop formal corporate procedures for the Billing function. (See Finding XVI–5)	340
XVI–6 The average revenue collected per Field Collector has been significant over the past eight years.		
XVI–7 Billing metrics have been consistently good.		
XVI–8 The percentage of calls answered within 30 seconds has shown recent improvement.		
XVI–9 ETG's Abandoned Call Rate consistently exceeded goals.		

Findings		Recommendations		Rec. Pg. No.
XVI–10	ETG achieved its customer service appointments goal most years.			
XVI–11	The number of customer complaints has declined since ETG was acquired by SJI.			
XVI–12	The number of escalated complaints to the NJBPU has remained low.			
XVI–13	There is no backup for ETG's Customer Care Center.	XVI–2	Establish an agreement with a reliable customer service entity to provide backup as required for the ETG Customer Care Center. (See Finding XVI–13)	341
XVI–14	The performance of the outside collection agency exceeds requirements.	XVI-3	ETG's Customer Service functions should be benchmarked against Peer Companies (See Finding XVI-15)	341
Chapter XVII. External Relations				
XVII–1	External Affairs has well-developed mission, goals, and initiatives statements.			
XVII–2	External Affairs communicates well within SJI.			
XVII–3	External Affairs prepares a comprehensive annual SJI External Communications Strategy.			
XVII–4	External Affairs has a current list of New Jersey media outlets in the ETG territory and maintains relationships with them for public relations purposes.			

Findings		Recommendations		Rec. Pg. No.
XVII–5	External Affairs prepares a SJI Utilities Pipeline Safety Communication Plan in compliance with the American Petroleum Institute Recommended Practice 1162.			
XVII–6	ETG, through the program well-coordinated by External Affairs, exceeded its charitable giving commitment in 2021.			
XVII–7	The SJIU Marketing function develops and implements a Marketing Strategy for ETG each year.			
XVII–8	SJI formed the External Affairs, Marketing, and Internal Communications Committee for the informal coordination of SJI messaging; however, it has no charter and no meeting minutes are kept.	XVII–1	Formalize the External Affairs, Marketing and Internal Communications Committee with a charter, designated chair, and meeting minutes. (See Finding XVII–8)	350
XVII–9	External Affairs has a role in SJI brand management but the SJIU Marketing function maintains the Brand Book.	XVII–2	Clarify the SJI brand management responsibilities. (See Finding XVII–9)	350
Chapter XVIII. Distribution and Operations Management				
XVIII–1	The GIS is innovative and intelligent and will provide advanced development and pioneering technical abilities in the future.			

Findings		Recommendations		Rec. Pg. No.
XVIII–2	GIS is currently not able to assist the marketing function for natural gas conversion.	XVIII–1	ETG should investigate sources of data that would reveal alternative fuel burned within ETG's footprint on a per household and per business basis. (See Finding XVIII–2)	416
XVIII–3	The Technical Training Center has a PIXAR simulator. It does not have a driving simulator.	XVIII–2	ETG should invest in a driving simulator for the Technical Training Center. (See Finding XVIII–3)	417
XVIII–4	Transmission and distribution system integrity is favorable.			
XVIII–5	There are a significant number of tickets that were not completed by the expected due date.			
XVIII–6	Not all excavation mark-out tickets were properly marked and completed.	XVIII–3	Independent contractors should be compelled to provide trained staff that can perform their duties with accuracy. (See Finding XVIII–6)	417
XVIII–7	A certain number of audits must be performed in order to demonstrate a credible sampling of the locator's work.	XVIII–4	The number of mark-out audits performed by ETG on an annual basis must be increased substantially. (See Finding XVIII–7)	417
XVIII–8	Both ETG and the Utiliquest Locate Contractor are responsible for inaccurate tickets.	XVIII–5	ETG staff members performing locate audits should be held to the same standard that locate contractors are held to. (See Finding XVIII–8)	418
XVIII–9	Measures are in place to ensure that the locate contractor performs and delivers acceptable work.	XVIII–6	Locate contractors should be replaced when their work product is of poor quality. (See Finding XVIII–9)	418

Findings		Recommendations		Rec. Pg. No.
XVIII–10	Actual meters tested and meter samplings are satisfactory and are within the standards required by regulation.			
XVIII–11	Meters to be replaced are removed on schedule within a satisfactory timeline.			
XVIII–12	In recent years, ETG has experienced more incidents of grade 1 leaks in both of ETG's divisions.			
XVIII–13	ETG experienced an overall reduction of both Grade 2 and Grade 3 below ground and above ground leak balances.			
XVIII–14	ETG experienced an overall reduction in emergency and non-emergency callouts between 2017 and 2021.			
XVIII–15	ETG's Utility Services Fleet Management group has one employee eligible to take early retirement in two years, and ETG anticipates that this employee will retire early.	XVIII–7	ETG should add one new mechanic now in anticipation of retirement in the Fleet Management Group. (See Finding XVIII–15)	418
XVIII–16	It is expected that all five mechanics will retire within the next ten years with one retiring in five years.	XVIII–8	ETG should add new mechanics two years prior to every anticipated retirement in the Fleet Management Group. (See Finding XVIII–16)	418
XVIII–17	There are no guidelines in place that determine when a fleet vehicle should be replaced.	XVIII–9	ETG should develop and implement guidelines for the replacement of vehicles within their fleet. (See Finding XVIII–17)	418

Findings		Recommendations		Rec. Pg. No.
XVIII–18	ETG's collection staff does not have the ability to accept credit cards.	XVIII–10	ETG should equip their bill collectors with the ability to accept credit cards and print receipts. (See Finding XVIII–18)	419
XVIII–19	ETG's collection staff has to manually build the route for collection staff to go knock on doors for collection purposes.	XVIII–11	The field office should acquire access to GIS with route mapping functions to support the collections process. (See Finding XVIII–19)	419
XVIII–20	The collection effort is not efficient. Other collection techniques and processes should be implemented prior to sending staff members to knock on doors.	XVIII–12	The field office should make greater collection efforts prior to sending employees to knock on doors. (See Finding XVIII–20)	419
		XVIII–13	ETG should promote budget billing in order to avoid the bill collection process. (See Finding XVIII–20)	420
XVIII–21	There is no automated process to flag individual segments of pipe that indicate a concentration of leaks.	XVIII–14	GIS should be enhanced to provide a track and trace automated process. (See Finding XVIII–21)	420
XVIII–22	Further acceleration of the 184-mile replacement of cast iron pipe is not possible because of the lead time required to obtain permits from local authorities.			
XVIII–23	The extraordinary reliance on construction contractors is reasonable and should remain in place through 2026.	XVIII–15	Reliance on independent construction contractors, as contrasted with doing some or most of the work in-house should be subject to ongoing analysis by ETG. (See Finding XVIII–23)	421

Findings		Recommendations		Rec. Pg. No.
XVIII–24	ETG uses a relatively small number of construction and pipeline contractors in its geographic territory.	XVIII–16	ETG should add more Construction Contractors to their short list. (See Finding XVIII–24)	421
XVIII–25	ETG requires contractors who apply to have familiarity or an established physical presence within the respective utility service territory.			
Chapter XIX. Purchasing and Procurement of Goods, Services, and Bidding Processes				
XIX–1	SJI is in broad compliance with the New Jersey Supplier Diversity Development Council's directive on conducting business with minority owned businesses.	XIX–1	Establish a task team to address ways to support the efforts of the Senior Business Analyst to increase the number of diverse suppliers identified and qualified. (See Finding XIX–1)	432
XIX–2	The South Jersey Industries Utilities, Inc. (SJIU) companies operate under a unique outsourcing program that provides significant benefits over what either ETG or SJG could obtain on their own without MRC.	XIX–2	Explore the pros and cons of establishing a set-aside for minority businesses similar to the practice used under Federal procurements. (See Finding XIX–1)	432
XIX–3	SJI follows a thorough process for pricing, vendor selection, and the awarding of contracts.	XIX–3	Expand the company's commitment to the best practices promoted by the SDDC. (See Finding XIX–1)	432
XIX–4	An internal audit of the procurement process concluded that internal controls over processing transactions were adequate.	XIX–4	ETG should review the outsourcing relationship with MRC and determine whether there are ways to improve the quality of service and reduce costs. (See Finding XIX–2)	433

Findings		Recommendations		Rec. Pg. No.
XIX–5	SJI provides extensive training opportunities for procurement professionals.	XIX-5	Update the internal audit of the procurement process to resolve the questions raised in the audit of 2020. (See Findings XIX-3 and XIX-4)	433
XIX–6	Seven of the ten staff in Procurement have more than ten years' and up to 37 years' experience in procurement, but only one has been with SJI more than four years.			
XIX–7	SJI/ETG conduct value analysis to ensure the best value is received in procurements.	XIX–6	Check the NJBPU's website for information that might be helpful in establishing performance standards and ideas on other ways to improve the cost/quality relationship of outsourcing. (See Finding XIX–7)	433
XIX–8	SJI may be able to add performance indicators for SJI's outsourcing through MRC.			
XIX–9	ETG's procurement processes and the criteria used to select vendors providing services to ETG are satisfactory and serve the best interests of ratepayers.	XIX–7	Solicit advice from the company's legal counsel, the NJBPU, and the Attorney General for the State of New Jersey on the implications of the Supreme Court's recent decision on affirmative action in college admissions and how it may impact the company's DEI and minority vendor program (See Finding XIX–9).	434

Findings		Recommendations	Rec. Pg. No.
XIX–10	During the course of the audit, the United States Supreme Court issued a landmark ruling that restricted the use of race-based criteria in college admissions that may have implications for corporate DEI and minority vendor programs.		
Chapter XX. Clean Energy			
XX–1	The ETG Clean Energy Program offers a comprehensive suite of initiatives to raise customer awareness of energy use, together with product offerings as incentives for customers to reduce gas consumption.		
XX–2	The Clean Energy program budget is formulated in a rigorous fashion, by means of a "bottoms up" approach, whereby forecasts are made at detailed levels of granularity and "rolled up" to develop a composite perspective.		
XX–3	The formative stages of the Clean Energy Program appear promising, and considerations are being given to longer-term prospects.		

Findings		Recommendations		Rec. Pg. No.
XX–4	The process required for ETG's rebate allowance and verification is inherently complex.	XX–1	Streamline the end-to-end process for Clean Energy rebate allowance and verification. which appears unwieldy and complex. Consider formulation of a "rebate systems approach" to rationalize the process, consistent with rebate value (high, medium, low). (See Finding XX–4)	441
XX–5	Unregulated businesses that afford reductions in greenhouse gases are being pursued in conjunction with the Clean Energy Program.	XX–2	Ensure that provisions are in place to preclude cross subsidy between regulated and deregulated clean energy endeavors. (See Finding XX–5)	442
Chapter XXI. Support Services				
XXI–1	The ETG Insurance Department effectively fulfills the Company's Insurance and Claims requirements.	XXI–1	Expedite Insurance Department mechanization to further streamline current processes and reduce insurance administration costs. (See Finding XXI–1)	492
XXI–2	ETG is well supported by the SJI Legal Department.	XXI–2	Explore commercial off-the-shelf options for a Claims Management System, and other "user-friendly" software that may be suitable for accelerating Insurance Program systemization. (See Finding XXI–1)	492
XXI–3	The Legal Department has appropriate key performance indicators.			
XXI–4	The Legal Department has recent, relevant benchmarking information.			

Findings		Recommendations	Rec. Pg. No.
XXI–5	SJI outside counsel expenditures and the Legal Department charges to ETG for outside counsel have been decreasing.		
XXI–6	The SJI Legal Department utilizes the good practices of having master engagement letters with each outside counsel, outside counsel guidelines, and matter-specific statements of work for each outside counsel assignment.		
XXI–7	The Legal Department has an active compliance program.		
XXI–8	The ETG lawsuits brought before the NJBPU from 2009 through 2021 have all been resolved.		
XXI–9	ETG has personal injury and motor vehicle lawsuits typical of a local distribution company.		
XXI–10	SJI has an admirable pro bono legal support initiative.		
XXI–11	Legal Department Management Service Fee charges to ETG have been decreasing but the Corporate Secretary charges have been increasing.		

Findings		Recommendations		Rec. Pg. No.
XXI–12	The Regulatory Affairs Counsel position is not part of the General Counsel's office and the Regulatory Affairs use of outside counsel is not integrated into the General Counsel's good management practices for outside counsel.	XXI–3	Transfer the Regulatory Affairs Counsel to the General Counsel's office and require that Rates and Regulatory Affairs follow all General Counsel policies and procedures for legal work. (Finding XXI–12)	492
XXI–13	SJI employs 17 licensed and insured attorneys but it is reported that only nine practice law on behalf of SJI.	XXI–4	Do not charge ETG for any portion of the professional liability errors and omissions insurance premium for attorney employees who do not practice law for SJI. (See Findings XXI–12 and XXI–13)	493
XXI–14	SJI pays for the errors and omissions insurance for employee attorneys who do not practice law for SJI; this does not benefit ETG.			
XXI–15	Wide-ranging future facilities scenarios are being explored which take into consideration unprecedented changes in office use and space requirements.	XXI–5	Accelerate implementation of the Facilities Work Management System to realize potential productivity improvements and ongoing expense savings. (See Finding XXI–15)	493
XXI–16	Currently, Facilities-related work requests and capital projects are tracked manually through e-mail communication, spreadsheets, and the Facilities Department "SharePoint" site.	XXI–6	Establish clear-cut evaluative criteria for future Facilities scenarios which afford significant cost savings in view of evolving office use and space requirements. (See Finding XXI–16)	493

Findings		Recommendations		Rec. Pg. No.
XXI–17	The Procurement Department has an effective structure for purchasing materials and services on behalf of ETG's operations organizations; however, the Company is reliant on a single entity for mission-critical resources.	XXI–7	Perform a comparative analysis to ascertain if the economies derived from its relationship with MRC Global provide a minimum cost solution. (See Finding XXI–17)	493
		XXI–8	Explore alternative scenarios for materials supply once the current contract with MRC Global terminates and strive to reduce the cost of construction materials supply and inventory management accordingly. (See Finding XXI–17)	493
XXI–18	Full integration of ETG's and SJG's fleets is being pursued, which is anticipated to afford significant reductions in vehicle unit costs.	XXI–9	Hone? Fleet Management policies and procedures utilizing enhanced fleet management software. (See Finding XXI–18)	494
XXI–19	ETG Vehicle Fleet's end-to-end average operating cost of 70 cents per mile in 2021 was approximately 41 percent of the Fleet Industry average of $1.70 cents per mile.			
XXI–20	The near-term prospects of leveraging capability to provide CNG vehicles and operations are not promising, absent an adequate fleet make up and fueling station infrastructure.			

Findings		Recommendations		Rec. Pg. No.
XXI–21	Fleet management software upgrades are being acquired which could further systematize fleet operations and provide for cost and unit costs for operations benchmarking.	XXI–10	Fully integrate ETG and SJG fleets to the greatest extent practical. (See Finding XXI–21)	494
XXI–22	ETG has 17% of the assessed value of its Real Estate assets in retired plant sites and vacant properties.	XXI–11	Develop a Real Estate Plan that delineates each property's status and an appropriate scenario for future use or development. (See Finding XXI–22)	494
XXI–23	The SJI IT Department has been reorganized in the last few years.			
XXI–24	The IT Department relies heavily on contractors.	XXI–12	The mix of IT personnel and contractors should be subject to a cost benefit evaluation for on-going operations. (See Finding XXI–24).	494
XXI–25	SJI uses an outside vendor to provide contractors.			
XXI–26	Outside vendors provide back-up support for SJI's IT functions.			
XXI–27	SJI's business units initiate IT capital budget requests.			
XXI–28	Access to SJI systems is appropriately controlled by IT.			
XXI–29	Business cases are utilized to quantify, justify, and prioritize proposed capital IT projects.			
XXI–30	SJI's Information Security Policies are comprehensive and appropriate.			

Findings		Recommendations		Rec. Pg. No.
XXI–31	Comprehensive Records Management systems and capabilities have been established. Except for historic paper records, records are intertwined with Operations Systems.	XXI–13	Develop a comprehensive record indexing process that facilitates records access and ensures that all record-keeping requirements are fulfilled. (See Finding XXI–31)	494
XXI–32	The Security Organization has a multifaceted Security Plan that addresses current and future challenges in a comprehensive manner.	XXI–14	Perform a complete analysis of Security Operations Center and implement the preferred scenario, mindful of future technological challenges. (See Finding XXI–32)	494
XXI–33	Issues related to a Security Operations Center have yet to be resolved.			
Chapter XXII. Contractor Performance				
XXII–1	ETG's method of reviewing the effectiveness of its contracted service to comply with its obligation to locate and temporarily mark its underground gas lines in accordance with the requirements of the NJ One Call Law is appropriate.			
XXII–2	ETG does not perform random field audits, however, rigorous daily field audits and inspections are performed, which in conjunction with the comprehensive record-keeping system makes such audits unnecessary.			
XXII–3	Procedures for reviewing the accuracy and detail of mark-outs are appropriate and fulfill requirements.			

Findings		Recommendations		Rec. Pg. No.
XXII–4	Audits have not been performed at contractor's facilities.	XXII–1	Ascertain benefits of a contractor site visitation program to further assess contractor qualifications. (See Finding XXII–4)	505
XXII–5	ETG has established processes for determining the need to modify procedures when deficiencies affecting overall performance are discovered.			
XXII–6	ETG has effective procedures for inspecting the work of contractors it has engaged to install new and replacement lines and services.			
XXII–7	ETG's process for reviewing the performance of its contracted services in installing new and replacement lines and services is comprehensive.			
XXII–8	ETG assesses procedures, percentages, and areas of jobs that are inspected daily.			
XXII–9	ETG's has appropriate procedures for inspecting the work of contractors that have been engaged to install new and replacement lines and services.	XXII–2	Leverage the information database to further enhance operations capabilities and efficiencies. (See Finding XXII–9)	505
XXII–10	Inspection forms used to assess contactor work enable comprehensive evaluation of end-to-end contractor performance.	XXII–3	Exact further cost savings from the systemization process. (See Finding XXII–9)	505

Findings		Recommendations		Rec. Pg. No.
XXII–11	ETG is comfortable with the mix of Contractor Crews and its employees in implementing its Construction Program.	XXII–4	Aggressively explore ETG Construction Versus Contractor Construction Cost Tradeoffs. (See Finding XXII–11)	505
Chapter XXIII. Remediation Costs				
XXIII–1	Total Remediation Program costs are estimated to be $204.4 million, of which $121.2 million (59.3%) have been incurred, with estimated additional costs of $83.3 million (40.7%) to be incurred in the future.	XXIII–1	SJG should aggressively pursue implementation of outstanding Remediation program obligations that have been subsumed with the acquisition of ETG. (See Finding XXIII–1)	511
XXIII–2	ETG has processed approximately $114 million in total remediation program costs or 94% of the 121 million costs that were incurred. Approximately $93.4 million, or 82.1%, of the $114 million costs, which were processed, has been recovered, leaving approximately $20.6 million or 18% in unrecovered costs.	XXIII–2	ETG should provide increased clarity regarding reimbursement mechanisms. (See Finding XXIII–2)	511
XXIII–3	Comprehensive assessments of ETG's remediation projects have been made on a site-by-site basis.	XXIII–3	ETG should aggressively pursue recovery of outstanding remediation costs. (See Finding XXII–2)	511
XXIII–4	Outside contractors have been employed in virtually all facets of remediation work.	XXIII–4	ETG should comprehensively review all remediation charges. (See Finding XXIII–4)	511

Findings		Recommendations		Rec. Pg. No.
XXIII–5	ETG has formal procedures to determine the reasonableness of the estimates of environmental remediation liabilities.	XXIII–5	Internal Audit should audit remediation expenses annually. (See Finding XXIII–5)	511
XXIII–6	ETG and the New Jersey Department of Environmental Protection effectively resolved several substantive issues during calendar years 2009–2021.			
Chapter XXIV. Cyber Risk Mitigation/Cyber Security				
XXIIV–1	SJI's cyber security organization structure is appropriate for identifying and responding to cyber threats.			
XXIIV–2	SJI's overall approach to cyber risk mitigation and overall cyber security is reasonable for a utility company.			
XXIIV–3	SJI's risk assessment concerning cyber security is effective.			
XXIIV–4	Cyber security campaigns and training promote awareness within the SJI workforce.			
XXIIV–5	Although the recruitment of experienced cyber security personnel has been effective, there are two important open positions that should be filled.	XXIIV–1	Fill the vacant cyber security positions (see Finding XXIV–5).	527

Findings		Recommendations		Rec. Pg. No.
XXIIV–6	The training of employees related to cyber security identification, mitigation, and response has been effective.	XXIIV–2	Records of Cyber Security Training should be maintained in a centralized training database controlled by Human Resources (see Finding XXIV–6).	527
XXIIV–7	There are sufficient cyber security controls concerning third-party vendors, contractors, and consultants.			
XXIIV–8	SJI cooperates with the appropriate regulatory, industry, and technology entities concerning cyber security and cyber risk mitigation.			
XXIIV–9	SJI continues to comply with the NJBPU cyber order.			
XXIIV–10	Findings from cyber security audits are improving.			