

SAGE MANAGEMENT CONSULTANTS, LLC

MANAGEMENT AND AFFILIATE AUDITS

OF

SOUTH JERSEY GAS COMPANY

FOR THE

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES



FINAL REPORT
VOLUME I of II

September 27, 2022

SAGE

Management Consultants, LLC

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1. EXECUTIVE SUMMARY

A. INTRODUCTION AND OVERVIEW

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

SCOPE OF WORK

The scope of work consisted of an audit of SJG during the seven-year period from January 1, 2013, through December 31, 2019. The NJBPU Request for Proposals (RFP) set forth the areas to be audited in two phases. Phase one was an audit of the affiliated transactions of SJG and its affiliates, including South Jersey Industries (SJI). Phase two consisted of a comprehensive management audit of SJG. 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. Payroll Reporting
7. Other Reporting
8. 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
7. Accounting and Property Records
8. Customer Service
9. External Relations
10. Distribution and Operations Management
11. Clean Energy
12. Support Services
13. Contractor Performance

14. Remediation Costs

15. Cyber Risk Mitigation/Cyber Security

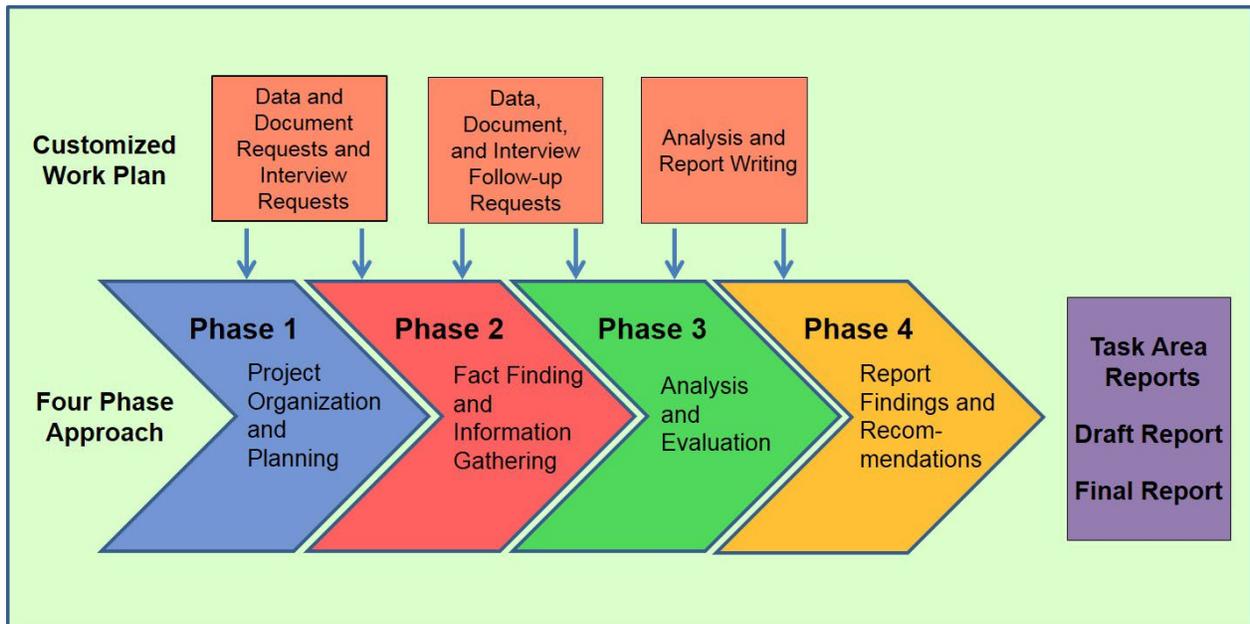
APPROACH

SAGE utilized a well-developed Four Phase Approach that has been proven on numerous regulatory affiliate and management audits and reviews. It was applied to the affiliate audit, management audit, and operational and financial performance review simultaneously for maximum efficiency. The SAGE approach consists of the following phases.

1. Project Organization and Planning
2. Fact Finding and Information Gathering
3. Analysis and Evaluation
4. Report Findings and Recommendations

This is illustrated in the following exhibit.

SAGE Four Phase Approach



SAGE METHODOLOGIES

SAGE utilized our proprietary Affiliate Relationships and Transactions audit methodology to guide the Affiliated Transactions Audit and our proprietary Planning, Process, and Performance Management audit methodology to guide the Comprehensive Management Audit. The review of each task area followed the appropriate methodology using the same four phases of the SAGE approach. Lead Consultants, in conjunction with the Project Manager, issued document requests; conducted interviews; analyzed the information collected; performed special studies; developed findings and recommendations; and wrote task reports detailing the background, findings, and recommendations for each task area.

DOCUMENTS REVIEWED

In the course of this audit, the SAGE team requested and analyzed 1,079 documents covering all aspects of the Scope of Work.

INTERVIEWS CONDUCTED

The SAGE team conducted 127 interviews in the course of this audit. Due to the Covid pandemic and New Jersey State Health considerations, 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	RFP Paragraph
Volume 1		
1	Executive Summary	N/A
Volume 2		
2	Executive Management	3.2.1
3	Organizational Structure	3.2.2
4	Strategic Planning	3.2.4
5	Merger	3.1.8
6	Distribution and Operational Management	3.2.10
7	Customer Service	3.2.8
8	Affiliate Relationships	3.1.2
9	Affiliate Cost Allocation Methodologies	3.1.5
10	Procurement and Purchasing	3.1.1
11	Market Conditions	3.1.3
12	Human Resources	3.2.3
13	Finance	3.2.5
14	Cash Management	3.2.6
15	Accounting and Property Records	3.2.7
16	Payroll Reporting	3.1.6
17	Other Reporting	3.1.7
18	Cyber Risk Mitigation/Cyber Security	3.2.15
19	Support Service	3.2.12
20	External Relations	3.2.9
21	Contractor Performance	3.2.13
22	Remediation Costs	3.2.14
23	Clean Energy	3.2.11
24	Recommendations and Review of Previous Audit	3.1.4

B. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Following is a summary of all the 234 findings and 104 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.
Chapter 2. Executive Management and Corporate Governance		
2-1 SJG total Operations and Maintenance Expenditures have increased substantially over the last six years.	2-1 SJG should increase scrutiny of operations and maintenance costs and capital expenditures with an emphasis on containing costs that increase SJG's rates to bring them more into alignment with the other New Jersey LDCs. (See Findings 2-1, 2-2, 2-3, 2-4, and 2-5)	45
2-2 SJG capital expenditures have increased substantially over the last six years.		
2-3 SJI and SJIU charges to SJG more than doubled from 2013 to 2019.		
2-4 SJG residential rates are higher than the other NJ natural gas local distribution companies.		
2-5 Some SJG rate components have increased substantially from 2013 through 2019 but were offset by a decrease in natural gas prices.		
2-6 SJI has limited its peer selection to only financial criteria: comparable revenue, total assets, and market capitalization.	2-2 Expand the types of criteria for selection of a peer group to include operational criteria for a more robust market analysis. (See Finding 2-6)	45

Findings		Recommendations	Rec. Pg. No.
2-7	The AIP has four cash incentive category components, but the financial component is unreasonably weighted at a relatively high 70%.	2-3 Revise the AIP weightings to reduce the financial measure to less than 70% and increase the other three measures of customer, safety, and strategy to more than 30%. (See Finding 2-7)	45
2-8	Employees at the Director-title level participate in the Long-Term Incentive Plan (LTIP), but they generally do not have meaningful visible influence over the SJI stock performance relative to the peer group's performance, unlike Executive Officers and other senior officers.	2-4 Consider modifying the LTIP compensation program for employee Directors to provide more managerial influence over performance targets. (See Finding 2-8)	45
2-9	SJI stock ownership requirements for the CEO and NEOs are not as robust as they could be.	2-5 Consider raising stock share ownership requirements from five times to six times base salary for the CEO and from two times to three times base salary for the NEOs. (See Finding 2-9)	45
2-10	Executive Officers and Non-Executive Officers are not required to buy company stock shares upon appointment to their positions to satisfy the corporate ownership requirements.	2-6 Consider modifying the stock share ownership requirements for Executives and NEOs to provide added incentives that require increased dollars at risk. (See Finding 2-10)	46
2-11	The SJI Board membership is well-balanced in terms of education and experience relevant to SJI and SJG.		
2-12	The SJI Board has a complete set of governance documents posted for public review.		

Findings		Recommendations	Rec. Pg. No.
2-13	The Board is diligent about following its governance program and in overseeing SJI and its subsidiaries, including SJG.		
2-14	There are no material lawsuits that relate to Board of Directors or executive management governance.		
2-15	SJI does not have a formal, written Executive Succession Plan.	2-7 Develop a formal, written executive succession plan and share it with the Board. (See Finding 2-15)	46
2-16	There have been no Board of Directors Executive Committee meetings since 2013.	2-8 Disband the Executive Committee and formally assign its duties to the Strategy and Finance Committee. (See Finding 2-16)	46
2-17	The SJI CEO does not serve on the SJI Strategy and Finance Committee or on the SJIU, SJG, and ETG boards of directors.	2-9 Put the SJI CEO on the SJI Board Strategy and Finance Committee and the SJIU, ETG, and SJG boards of directors. (See Finding 2-17)	46
2-18	Excluding the Executive Committee, there are only 23 committee memberships and the Board could staff the committees with fewer members.	2-10 Consider reducing the number of board members to eight independent directors and the SJI CEO. (See Finding 2-18)	46
2-19	The SJI Board members can meet their stock SJI stock ownership requirements without personal investment.	2-11 Consider adjusting the Board member compensation package to require personal purchases of SJI stock. (See Finding 2I-19)	46
2-20	South Jersey Gas is audited by an independent, experienced, creditable outside audit firm.		
2-21	SJG is in compliance with the NYSE requirements and the Sarbanes-Oxley Act.		

Findings		Recommendations	Rec. Pg. No.
2-22	SJI, SJIU, and SJG have a well-developed, modern corporate performance management system.		
2-23	SJI, SJIU, and SJG have an active benchmarking program.		
2-24	The mission language of affordability is not fully reflected in the SJG goals, targets, and KPIs.	2-12 Ensure that the SJG goals and KPIs fully reflect the mission. (See Finding 2-24)	47
2-25	The new Collective Ambition statement complicates the corporate performance management system.	2-13 Clarify and simplify the current mission and values statement and the new Collective Ambitions statement. (See Finding 2-25)	47
2-26	The current practice of having separate monthly performance reviews for SJG and ETG can be streamlined.	2-14 Consolidate the two monthly performance review meetings for SJG and ETG into one run by the SJIU President. (See Finding 2-26)	47
Chapter 3. Organizational Structure			
3-1	SJI is primarily in the natural gas local distribution company business.	3-1 Eliminate the SJIU organization level, elevate the consolidated SJG and ETG operating functions in the SJI organization structure and restructure the SJI CEO direct reports. (See Findings 3-1, 3-2, 3-3, 3-4, 3-5, and 3-6)	63
3-2	Although SJI's principal business is regulated local distribution operating companies, the utility operating functions are located several levels down in the organization structure.	3-2 Dissolve the SJIU legal entity. (See Findings 3-1, 3-2, 3-3, 3-4, 3-5, and 3-6)	64

Findings		Recommendations		Rec. Pg. No.
3-3	The SJI staff functions' principal clients are the SJG and ETG utilities.	3-3	Delete the SJG President as a separate position and name the SJI CEO as the SJG President. (See Findings 3-1, 3-2, 3-3, 3-4, 3-5, and 3-6)	64
3-4	The SJIU entity and intermediate staff level is unnecessary.			
3-5	There is no need for a separate SJG President position or separate SJG and ETG Operations and Customer Experience functions.			
3-6	The personnel in the top level SJI organization structure have diverse backgrounds but have no engineering background and limited regulated utility operating experience.			
3-7	The SJI Senior Vice President, Vice President, and Director position titles appear to be applied inconsistently.	3-4	Rationalize the Senior Vice President, Vice President, and Director position titles within SJI, SJIU, and SJG. (See Finding 3-7)	64
3-8	The number of utility employees has recently decreased, which jeopardizes utility core competencies.	3-5	Find ways to economically increase the number of employees in core utility functions and decrease the reliance on contractors. (See Findings 3-8, 3-9, and 3-10)	64
3-9	While the use of contractors is common in utilities for non-core functions and workload peak shaving, SJI, SJIU, and SJG are utilizing contractors for core functions and base load utility work, which also jeopardizes utility core competencies.			

Findings		Recommendations	Rec. Pg. No.
3-10	Because most SJG design engineering work is contracted, there are fewer degreed engineer employee positions which causes additional core competency concerns and a lack of internal candidates for promotions.		
Chapter 4. Strategic Planning			
4-1	The strategic planning process is typical for a small, investor-owned utility.		
4-2	The strategic plan is simple and straightforward, easy to understand, and is appropriate for a small, investor-owned utility.		
4-3	[Redacted]		
4-4	[Redacted]		
4-5	The strategic plan sets capital expenditure targets; that is, capital expenditure targets are set from the top-down rather accumulated from the bottom up.	4-1 Revise the strategic planning process to include annual rolling five-year, bottom-up SJG capital expenditure plans designed to accommodate customer growth and ensure system integrity. (See Finding 4-5)	69
Chapter 5. Merger			
5-1	There was no formal ETG merger plan, just an SJI and SJIU reorganization and a Transition Services Agreement to allow an ETG information systems transition.		

Findings		Recommendations	Rec. Pg. No.
5-2	SJI consolidated most ETG functions with SJG functions under the SJI and SJIU organization structures which achieves concentration of expertise and potential economies of scale.		
5-3	No synergies were forecast from the merger.		
5-4	The acquisition had a minimal impact on ETG employees.		
Chapter 6. Distribution and Operational Management			
6-1	Transmission and distribution system integrity and safety are good and getting better.	6-1 Refocus capital expenditures on achieving specific system integrity safety objectives and accommodating new customers. (See Findings 6-1, 6-6, and 6-7)	110
6-2	Performance management for SJG Operations is well-developed.		
6-3	SJIU Quality Assurance and SJG Operations Support have a rapidly developing Quality Assurance program that benefits SJG.		
6-4	The Technical Training program is innovative.		
6-5	SJG employee safety is improving.		
6-6	Capital expenditures for transmission and distribution have increased at a high rate from 2013 through 2019 and are projected to continue to increase.		
6-7	Much of the problem distribution system plant has been replaced or renewed.		

Findings		Recommendations	Rec. Pg. No.
6-8	Transmission and distribution operations and maintenance expenditures increased at a high rate from 2013 through 2018 but decreased in 2019 and are projected to decrease going forward as the system continues to be modernized.		
6-9	There is a good chance that the additional planned system reliability and integrity capital expenditures will produce diminishing returns.		
6-10	There are possible benefits of concentration of expertise and economies of scale if SJG Operations were consolidated with ETG Operations.	6-2 Study the costs and benefits of consolidating SJG and ETG Operations. (See Finding 6-10)	110
6-11	SJG Operations spans of control are too narrow in several cases.	6-3 Increase the spans of control for Operations directors and managers to six to ten. (See Finding 6-11)	110
6-12	SJG Operations units report generally good support from shared services.		
Chapter 7. Customer Service			
7-1	The number of consecutive estimated meter readings has seen significant reductions from 2015 through 2019, decreasing by 54%.		
7-2	Annual payments to Millennium have been primarily driven by SJG's strong growth in customer additions.		
7-3	The metric "Percent Residential and Commercial Meters Read" has been generally improving and exceeding the goal of 95% since in 2016.		

Findings		Recommendations		Rec. Pg. No.
7-4	The billing function lacks formal corporate procedures which impedes improvement opportunities.	7-1	Develop formal corporate procedures for the Billing function. (See Finding 7-4)	135
7-5	Billing-related metrics have shown recent improvements.			
7-6	SJG has not been achieving its goal for Escalated BPU Complaints per 1000 Customers.	7-2	Continue to analyze and manage the root causes of Escalated complaints and develop achievable goals by complaint types. (See Finding 7-6)	136
7-7	SJG has significantly improved its percent of calls answered within 30 seconds.			
7-8	Call abandonment rates have reduced from a high in 2015.			
7-9	The Customer Experience department has been improving its email response and analytic capabilities as email contacts increased significantly.			
7-10	Historical comparable metrics show that SJG call center operations underperformed relative to ETG, often by a significant performance gap.	7-3	Consolidate the management of SJG and ETG call center operations and implement the best practices and systems for both utilities. (See Finding 7-10)	136
7-11	SJG's collections agency does not meet contract service levels requirements.	7-4	Separate the recovery of inactive receivables into residential and commercial groupings so that the collection agency contract performance can be enforced. (See Finding 7-11)	136
7-12	In-house call center collections and field collections have increased.			

Findings		Recommendations	Rec. Pg. No.
7-13	Bad debt and write-offs have reduced significantly in recent years.		
7-14	The in-house collection representatives are given appropriate and comprehensive feedback as part of the collections process.		
7-15	The revenue protection function is adequately supported by the Customer Contact and Billing System; and efforts are underway to automate the analysis of a key report.		
7-16	The New Business Analysis tool allows for the over-estimation of future revenues from new residential customer construction projects. If they do not materialize, SJG can recover the revenue losses from the existing customer base.	7-5 SJG should modify its New Business Analysis tool and process so that the model can be run for residential construction phases rather than full build. (See Finding 7-16)	136
7-17	SJG has been remarkably successful in adding new residential customers.	7-6 SJG should collect refundable deposits or contributions for future new business residential construction phases. (See Finding 7-16)	137
7-18	The 2020 and 2021 goals for the Customer Experience department do not incorporate call center performance metrics, such as percent calls answered within 30 seconds.	7-7 Modify the Customer Experience department's Balanced Scorecard and goal setting process to include call center operations performance metrics. (See Finding 7-19)	137
7-19	The SJG Customer Experience department acted to improve relations and communications with the BPU Customer Assistance staff.		

Findings		Recommendations	Rec. Pg. No.
Chapter 8. Affiliate Relationships			
8-1	The amount and type of SJG's purchases of goods or services from affiliates appear to be reasonable.		
8-2	SJG provides goods and services to an excessively large group of affiliates.	8-1 SJG should limit their affiliate transactions to operational requirements. (See Finding 8-2)	160
8-3	Contracts and Agreements concerning affiliate transactions meet federal and state requirements.		
8-4	Systems and functions are in place to help ensure that affiliate transactions are conducted at the lowest possible cost and maximum benefit to the ratepayer.		
8-5	Responsibility for the Cost Allocation Manual (CAM) and affiliate relations and transactions rests with various work groups or sub-departments within the Accounting Department.	8-2 Affiliate relations and transactions should be the responsibility of one sub-department within the Accounting Department. (See Findings 8-5, 8-6, 8-7, and 8-8)	160
8-6	The CAM has not been reviewed and updated on a regular basis.	8-3 The CAM should be reviewed and updated on a regular basis. (See Finding 8-6)	160
8-7	The Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements Compliance Plan (Compliance Plan) has not been updated on an annual basis.	8-4 The Affiliate Relations, Fair Competition and Accounting Standards, and Related Reporting Requirements Compliance Plan (Compliance Plan) should be updated on an annual basis. (See Finding 8-7)	161
8-8	Contracts and agreements do not cover all affiliate transactions.	8-5 Contracts and agreements should be developed to cover all transactions between SJG and its affiliates. (See Finding 8-8)	161

Findings		Recommendations		Rec. Pg. No.
8-9	There have been no specific internal audits of affiliate relations and transactions.	8-6	SJI's Internal Audit Plan should include audits related to affiliate relations and transactions. (See Finding 8-9)	161
8-10	There are no Sarbanes-Oxley (SOX) controls specifically addressing affiliate relations and transactions.	8-7	SOX controls should be added to address affiliate relations and transactions. (See Finding 8-10)	161
Chapter 9. Affiliate Cost Allocation Methodologies				
9-1	The accounting and allocation procedures for separating costs of inter-company transactions of SJG from affiliates are performed in a consistent and equitable manner.			
9-2	Allocations of joint/common costs between SJG, SJI, and their affiliates during the seven-year period of this audit are consistent and accurately reflect the documented and reported methodology.			
9-3	The potential for cross-subsidization is minimized by effective time reporting policies and procedures.			
9-4	Affiliate charges and cost allocation methodologies among SJG, SJI, and their affiliates comply with applicable legal, regulatory, and contractual requirements.			
9-5	The AMA buy-back volumes called on by SJG at their city gate were purchased at market index prices.			

Findings		Recommendations	Rec. Pg. No.
9-6	The AMA dollars paid for the assignment of firm transportation by SJRG are lower than expected for the 90,000 Dths per day.		
9-7	OSS sales by SJG to SJRG were priced at market rates.		
9-8	SJG made OSS sales to SJRG for periods greater than thirty days.	9-1 SJG should not make non-recallable transportation capacity commitments for city gate capacity for more than a few days at a time during the winter period of November through the following March. (See Finding 9-8)	177
9-9	SJG purchased in the Gas Daily Market from many suppliers including their affiliates.		
Chapter 10. Procurement and Purchasing			
10-1	SJG Security has quickly implemented or improved its security practices.		
10-2	SJI and SJG have a formal, current, and appropriate Physical Security Plan.		
10-3	Security is not involved in the response to SJG alarms.		
10-4	There is no Security operations center.	10-1 Implement a Security Operations Center. (See Finding 10-4)	230

Findings	Recommendations	Rec. Pg. No.
10-5 Differences between confirmed volumes, performed by the Procurement Group, and measured volumes from the pipelines, monitored by the Gas Control Group, are not compensated for by the pipelines. Instead, those differences are booked to the "Lost & Unaccounted For" account.	10-2 Initiate Operational Balancing Agreements or some other balancing mechanism between SJG and Transco and SJG and TCO. (See Finding 10-5)	230
10-6 SJG pays for supplies based on the volumes confirmed by the Gas Transportation Group without knowing if they received all the supplies or not.	10-3 Develop a Gas Supply Audit Process. (See Finding 10-6)	231
10-7 The Gas Control Center is not manned at certain times by more than one Gas Controller.	10-4 Increase the number of Gas Controllers. (See Finding X107)	231
10-8 Gas Controllers are not required to have any specific background.	10-5 Improve background requirements for Gas Controllers. (See Finding 10-8)	231
10-9 Labor Cost for Gas Control may be excessive.	10-6 Develop different work shifts and a plan for retirement of Gas Controllers. (Findings 10-9 and 10-10)	231
10-10 Succession Planning for Gas Controllers is not evident.		
10-11 The administration and management of the larger category of customers that migrated to a TPS are treated in much the same way as other LDCs treat similar customers on their systems.		

Findings	Recommendations	Rec. Pg. No.
10-12 The features of the SJG CHOICE Program have the foundation and many similarities to CHOICE programs offered by other LDCs.		
10-13 There is active competition within SJG's geographic footprint.		
10-14 The gas forecasting process is comprehensive and considered relevant aspects to provide accurate results in a pre-Covid-19 environment.	10-7 SJG should perform short-term load forecasts to monitor future gas consumption as the impact of the Covid-19 pandemic diminishes. (See Finding 10-14)	232
10-15 SJG has dependable transportation that enables the movement of gas supply from the production areas to its city gates on the coldest days.		
10-16 SJG performs meticulous and comprehensive credit reviews on suppliers.		
10-17 SJG did not fill all of its storage facilities to the maximum in any given year from 2013 through 2019.	10-8 SJG should fill all of its storage facilities to the 97–98% level effective November 1st of each year. (See Finding 10-17)	232
10-18 SJG did not withdraw all of its storage gas and left a balance at the end of March of every year.	10-9 SJG should withdraw all its gas from storage, if possible, but at a minimum, obligate itself to leave less than five percent in storage on the accounts with season limitations. (See Finding 10-18)	233
10-19 SJG's Transco ESS storage account had little activity over the past seven years.	10-10 The ESS Transco storage account should be used to its best potential every winter period. SJG should use this account to displace flowing gas on days where prices are elevated. (See Finding 10-19)	233

Findings	Recommendations	Rec. Pg. No.
10-20 SJG released 1,246,751 or 36% of its total firm storage capacity on Columbia.	10-11 SJG should not release storage capacity. (See Finding 10-20)	233
10-21 SJG has the necessary pricing tools in place to facilitate gas procurement.		
10-22 The contracting process is comprehensive, accurate, and meticulous.		
10-23 The RFP process is satisfactory. SJG understands the elements necessary to include in the RFP, and they understand how to evaluate the responses.		
10-24 The ENDUR system delivers web services with connectivity to external data sources, including pricing sources such as GD, IF, and NYMEX.		
10-25 The ENDUR system captures trades, credit, and settlements to update the ledger, providing a full solution for limits, monitoring, market, and credit risk management.		
10-26 ENDUR, as currently configured, has weak physical gas commodity management capabilities.	10-12 The ENDUR system should connect with external data sources that provide current pipeline capacities, the current available gas volumes per pipeline receipt point, daily pipeline notifications posted on pipeline Bulletin Boards, and current imbalances. (See Finding 10-26)	234

Findings	Recommendations	Rec. Pg. No.
10-27 SJG did not enter fixed volume supply contracts that feed their transportation agreements.	10-13 SJG should always ensure that contractual obligations are in place with suppliers to deliver the base load of their volumetric load on a monthly basis. (See Finding 10-27)	234
10-28 SJG did not enter fixed price contracts.	10-14 SJG's base load of gas should include fixed price contracts for a portion of their load. Fixed price contracts should be independent contracts and not be comingled with a blended contract. (See Findings 10-28 and 10-29)	234
10-29 Base load volumes were not purchased at first-of-the-month prices.		
10-30 SJG ignored RMP purchasing policy and therefore spent a great deal more money than if it had followed the policy.	10-15 Exceptions to the monthly purchase plan, as it relates to strong bearish prices in a near month, should only be made through approval by the RMC. (See Finding 10-30)	236
10-31 SJG used a diverse group of suppliers.	10-16 SJG should issue RFPs for all of its base load gas using the purchasing strategy outlined in Recommendation 10-14. (See Finding 10-31)	237
10-32 SJG has the tools in place to make pricing decisions for future months.	10-17 SJG should create an inhouse database of historic pricing for the past ten years organized (1) by point-of-sale and (2) by month. (See Finding 10-32)	237
10-33 The RMC is responsible for establishing a framework for measuring and monitoring all gas transactions.	10-18 The RMC should establish a general framework for measuring and monitoring both financial and physical natural gas transactions. (See Finding 10-33)	237

Findings	Recommendations	Rec. Pg. No.
	10-19 The RMC should rejuvenate and reinforce non-compliance for employee misconduct, including management, with last and final warnings followed by suspension as the punishment for non-compliance. (See Finding 10-33)	238
10-34 The RMC did not fulfill its responsibility concerning the physical supply procurement function.	10-20 The Internal Audit Department investigation process should confirm that SJG's physical gas purchasing plan is in accordance with the RMP. (See Findings 10-34 and 10-35)	238
10-35 There have been no internal or outside audits that addressed the purchase and sale of physical natural gas.		
10-36 Gas is scheduled in accordance with pipeline guidelines.		
10-37 The confirmation process is standard in the gas industry and appears efficient and effective.		
10-38 Reports are generated regularly and provided to Gas Control to notify them of confirmed expected volumes.	10-21 SJG should determine if improvements or alterations can be made to the report structure to better enable Gas Control to compare confirmed volumes to the actual measurement of gas received from the pipelines. (See Finding 10-38)	238
10-39 SJG paid for firm capacity transportation to Transco without receiving the full benefit.	10-22 Interstate pipelines should be held accountable for non-performance related to firm capacity transportation. (See Finding 10-39)	238

Findings	Recommendations	Rec. Pg. No.
10-40 SJG sells a portion of its excess capacity transportation bundled with gas commodity at delivery points daily.		
10-41 SJG sells a portion of its excess capacity transportation bundled with gas commodity at delivery points for longer periods (i.e., for one full month and for the periods of April through October and November through the end of the following March).	10-23 SJG should not make non-recallable transportation capacity commitments for more than a few days at a time during the winter period - November through the following March. (See Finding 10-41)	239
10-42 SJG does not take advantage of the flexibilities available to the owner of a futures contract.	10-24 SJG should consider taking advantage of the flexibilities associated with futures by selling when an opportunity exists to take profits and buying back in at a later date. (See Finding 10-42)	240
10-43 SJG does not enter into Basis financial instruments.		
10-44 SJG does not enter into Options financial instruments.	10-25 SJG should take advantage of the specific option strategy called a Collar. (See Finding 10-44)	240
10-45 There is major risk associated with price swaps as a financial hedging tool for an LDC.	10-26 SJG should consider reducing the amount of gas covered with price swaps. (See finding 10-45)	240
10-46 SJG should investigate other resources similar to Planalytics.	10-27 SJG should improve the intelligence gathering associated with price swaps and futures. (See Finding 10-46)	241
10-47 SJG followed the guidance and policies set forth in the RMP as it related to financial instruments.	10-28 The RMP should be revised to allow more flexibility, from a time perspective, to purchase financial instruments. (See Finding 10-47)	242

Findings		Recommendations		Rec. Pg. No.
Chapter 11. Market Conditions				
11-1	Capacity Release followed the rules and regulations set forth by FERC.	11-1	SJG should continue to use the AMA vehicle available to it. (See Findings 11-2 and 11-3)	259
11-2	AMA transactions conformed to FERC Order No. 712, 712 (a), and 712 (b).	11-2	The Off-System-Sales mechanism should not permit transactions for more than a few days at a time. (See Finding 11-4)	259
11-3	SJG's AMAs yielded 75% or 80% of the annual reservation charge paid by SJG to the pipelines.	11-3	SJG should release transportation capacity from the supply area to the city gate for residential types that qualify for SJG's CHOICE program. (See Findings 11-5, 11-6, and 11-7)	260
11-4	SJG sold directly to wholesale and retail customers outside its service territory and sold to TPSs who were serving within SJG's footprint.	11-4	SJG should not release firm storage capacity for residential types that qualify for SJG's CHOICE program. (See Finding 11-6)	260
11-5	End-use customers who migrated to a TPS are paying distribution transportation to SJG.	11-5	A mix of firm transportation capacity based on price should be released to the TPS. (See Finding 11-6)	261
11-6	Currently SJG does not assign any firm assets to TPSs for the purpose of serving residential loads.	11-6	The assignment of firm transportation should be non-recallable for a minimum of one year at maximum tariff rates. (See Finding 11-6)	261
11-7	SJG has ample transportation capacity to support the CHOICE programs.	11-7	All legs of firm transportation should be assigned to serve the CHOICE program for twelve-month periods at a time. (See Finding 11-6)	261
11-8	SJG missed an opportunity to earn maximum capacity release revenues on the CHOICE volumes over the past seven years of this audit.	11-8	Should a TPS default on its obligations to serve customers, the firm assigned capacity should revert to SJG. (See Finding 11-6)	262

Findings		Recommendations		Rec. Pg. No.
11-9	Transportation capacity assignments to support CHOICE programs will cause additional administration by SJG.	11-9	SJG should craft a program to streamline tasks for TPSs that serve CHOICE customers. (See Finding 11-6)	262
Chapter 12. Human Resources				
12-1	The two Communications Specialists reporting to HR have split responsibilities between HR and External Relations.	12-1	Transfer the two Communications Specialists to the External Affairs department and transfer their employee relations responsibilities to existing or new hired HR employees. (See Finding 12-1)	279
12-2	HR lacks a centralized capability for maintenance of certification and licensing requirements.	12-2	Develop the system capability to centrally track the certification and licensing requirements for specific jobs to ensure that certificates and licenses are kept current by the employee. (See Finding 12-2)	280
12-3	Company-wide training is not coordinated by HR.	12-3	Centralize the coordination of company-wide training within HR. (See Finding 12-3)	280
12-4	SJG recognizes the need to implement a management succession process and planning for managers below the level of Executive officers.	12-4	Reassess and develop a management succession planning process for management levels below Executive officers. (See Finding 12-4)	280
12-5	The organizational spans of control are often well below the expected span of control range for a utility of its size and complexity.	12-5	Restructure targeted organizational groups to increase spans of control to at least an average of six employees per supervisor. (See Finding 12-5)	280

Findings		Recommendations	Rec. Pg. No.
12-6	SJI continues to develop and update job descriptions as part of the implementation of the Job Architecture process.	12-6 Ensure that job descriptions are current for all positions, that they provide a clear and consistent understanding for the employee and supervisor, and that they meet standards for common good practices. (See Finding 12-6)	280
12-7	SJI has taken steps to improve employee communications.		
12-8	The number of union grievances has remained relatively low and consistent over a several-year period.		
12-9	SJG employee ethnicity annual data through 2019 is insufficient to assess affirmative action progress.	12-7 Establish annual goals and targets to track and improve Diversity and Inclusion performance. (See Finding 12-9)	281
12-10	HR Objectives, Measures, and Targets lack quantified performance measures against which to measure progress.	12-8 Establish quantified performance measures for the SVP and Chief Human Resources Officer. (See Finding 12-10)	281
Chapter 13. Finance			
13-1	There were no adverse effects as a result of the financing undertaken by SJG, SJI, and all affiliates.		
13-2	Affiliate interrelationships between SJG and its affiliates have not adversely affected the financial performance of SJG.		
13-3	SJI's affiliate activities have had a minor dilatory effect on SJG's credit ratings.		

Findings	Recommendations	Rec. Pg. No.
13-4 The debt management policies of SJG, SJI, and its affiliates have not produced any real or perceived encumbrances of SJG's utility assets.		
13-5 SJI's business diversification has not harmed or produced any significant negative effects on SJG.		
13-6 The methods used by SJG and its affiliates to determine and allocate consolidated income taxes is reasonable as long as not used for ratemaking purposes.		
13-7 The Internal Audit function is effective in ensuring that the policies and procedures governing the operations of SJG and its affiliates are adequate and complied with.		
13-8 There have been no audits of the Cost Allocation Manual.	13-1 The annual Internal Audit Plan should include periodic audits of the CAM and the cost allocations governed by the CAM. (See Finding 13-8)	297
Chapter 14. Cash Management		
14-1 SJG's Cash Forecasting Process is reasonable and provides accurate estimates to manage operations.		
14-2 SJG's cash is not intermingled with cash of its parent and other affiliates.		
14-3 Funds generated by SJG's depreciation charges were not used for non-utility or non-SJG purposes, and dividend payouts did not adversely affect its financial performance.		

Findings	Recommendations	Rec. Pg. No.
14-4 SJG's write-offs of bad debt was not unusual for a gas utility and did not have a negative impact on SJG.		
14-5 Diversification activities of SJI do not adversely affect SJG's cost of capital.		
14-6 SJG's cost of capital is comparable to industry averages.		
Chapter 15. Accounting and Property Records		
15-1 The processing, recording, authorization, and accountability of accounting functions related to SJG transactions are appropriate for utility operations.		
15-2 Budget reporting, tracking, analysis, and revision are performed in an effective and efficient manner.		
15-3 Work order procedures are efficient and property records are maintained in a fair and equitable manner.		
Chapter 16. Payroll Reporting		
16-1 Tax payments have been made in a timely manner, and there have been no penalties assessed for the payroll function.		
16-2 Payroll reports submitted appear to be accurate.		
16-3 Internal controls concerning the payroll function appear to be adequate.		

Findings	Recommendations	Rec. Pg. No.
16-4 The payroll automated system is relatively new, contains all the necessary features of a modern payroll system, and had been adequately tested before implementation.		
Chapter 17. Other Reporting		
17-1 Internal controls are adequate to ensure accuracy and timeliness in filing New Jersey and Federal Government reports.		
Chapter 18. Cyber Risk Mitigation/Cyber Security		
18-1 The organization structure and governance of SJG's cyber security function is appropriate for identifying and responding to cyber threats.		
18-2 SJG's overall approach to addressing cyber security issues is reasonable.		
18-3 Risk assessment and mitigation plans appear to be effective and reasonable.		
18-4 SJG has taken reasonable steps to promote broad awareness of the importance of cyber security.		
18-5 Cyber security training is substantial and available for employees and contractors.	18-1 Records of Cyber Security Training should be maintained in a centralized training data base controlled by Human Resources (see Finding 18-5).	342
18-6 SJG receives information and coordinates response with appropriate outside entities.		
18-7 SJG complies with the NJBPU cyber order.		

Findings		Recommendations	Rec. Pg. No.
18-8	Findings of audits or reviews of SJG and SJI cyber security preparedness and response are positive.		
Chapter 19. Support Services			
19-1	SJI's insurance broker contract does not include a Service Level Agreement or any performance metrics.	19-1 Negotiate the next insurance broker contract to include a Service Level Agreement. (See Finding 19-1)	383
19-2	The insurance broker evaluation form and process is highly subjective, except for two timeliness factors.	19-2 Modify the insurance broker evaluation form and process, establish quantifiable metrics with a focus on cost-effectiveness and quality performance, and include a Service Level Agreement in the broker contract. (See Finding 19-2)	383
19-3	Not all SJG-related internal legal services are provided by the Office of General Counsel.	19-3 Coordinate all internal legal services and in-house counsel through the Office of General Counsel. (See Finding 19-3)	383
19-4	Outside counsel is procured by departments other than the Office of General Counsel.	19-4 Coordinate all external legal services through the Office of General Counsel. (See Finding 19-4)	383
19-5	With the changes after the pandemic, it may be possible to consolidate SJI and SJG headquarters.	19-5 Study the possibility of consolidating the SJI and utility headquarters personnel into one headquarters site. (See Finding 19-5)	384
19-6	Facilities Management has a number of energy and water conservation programs.		
19-7	Facilities Management does not have an automated system for managing facilities work.	19-6 Consider using the Utility Operations GIS, asset records, work management, and scheduling systems for facilities. (See Finding 19-7)	384

Findings	Recommendations	Rec. Pg. No.
19-8 SJI has made good progress in developing the systems contracting function in the last three years, but more is needed.	19-7 Establish a high level SJI supply chain function focused on contracting, purchasing, and materials management. (See Findings 19-8, 19-9, 19-10, and 19-11)	384
19-9 There is no SJI Supply Chain Manager position.		
19-10 SJI does not have a policy on rebidding systems contracts.	19-8 Develop and implement a policy and procedure on rebidding contracts. (See Finding 19-10)	384
19-11 SJI has a formal vendor qualification process but does not have a formal vendor evaluation program.	19-8 Expedite the development and implementation of a formal vendor evaluation program. (See Finding 19-11)	384
19-12 SJG has made progress in increasing its purchases from diverse suppliers.	19-10 Implement inventory management. (See Finding 19-12)	385
19-13 There is no inventory management function within SJI.		
19-14 There is no audit of the materials contractor's proformas that determine the "Return on Sale" refund each year.	19-11 Audit the materials contractor's proformas. (See Finding 19-14)	385
19-15 The SJI fleet management function is underdeveloped.	19-12 Accelerate the development of the fleet management function. (See Finding 19-15)	385
19-16 SJI has a strong initiative in promoting CNG vehicles.		
19-17 The SJI Information Technology Department is organized to deliver services to SJG in an effective manner.		

Findings	Recommendations	Rec. Pg. No.
19-18 SJG's and SJI's business units are appropriately involved in the development and modification of new business and operating systems.		
19-18 The selection of a financial ERP for SJG was based on a reasonably thorough process.		
19-20 A significant portion of information technology work is performed by contractors.	19-13 SJI should evaluate its use of IT contractors to determine the appropriate mix of contractor and in-house personnel for day-to-day activities (Refer to Finding 19-20).	385
19-21 HR recently improved records management by converting its records from paper to digital format.		
19-22 While a relatively new function, Security has quickly implemented or enhanced good security practices.	19-14 Consider establishing a Security Operations Center. (See Findings 19-22 and 19-25)	386
19-23 SJG has had relatively few serious security incidents in the last three years.		
19-24 SJG does not have a formal program to establish and maintain relationships with state and local law enforcement agencies.	19-15 Working with Security, Government Relations, and the Division operating personnel, develop and implement a formal program to establish and maintain relationships with state and local law enforcement agencies. (See Finding 19-24)	386
19-25 There is no Security Operations Center.		
Chapter 20. External Relations		
20-1 There is no formal External Affairs working group.	20-1 Establish an External Affairs interest group. (See Finding 20-1)	390

Findings		Recommendations		Rec. Pg. No.
20-2	There is no official brand manager for SJI and SJG.	20-2	Establish a formal brand management function. (See Finding 20-2)	390
20-3	The social media function is divided between External and Internal Communications.	20-3	Establish a social media function in External Communications. (See Finding 20-3)	390
Chapter 21. Contractor Performance				
21-1	The current line locate contract has appropriate documents.			
21-2	SJG, through the SJIU Standards Department, has comprehensive line location standards which are reviewed annually and updated as necessary.			
21-3	SJG has typical line location contractor field audit procedures.			
21-4	In addition to providing for the State required mark-outs of SJG facilities, SJG has a proactive and adaptive damage prevention program.			
21-5	The effectiveness of the SJG damage prevention program is improving; however, the number of third-party damages is too high.	21-1	Continue to enhance the damage prevention program. (See Finding 21-5)	398
21-6	SJG has a well-developed process for managing its construction contractors.			
21-7	The SJG Construction manual includes a detailed definition of Construction Inspector job responsibilities.			
21-8	SJG inspection forms are typical for the industry.			

Findings	Recommendations	Rec. Pg. No.
Chapter 22. Remediation Costs		
22-1 EAD has a well-developed process for managing SJG remediation projects and costs.	None. However, the management of remediation projects will benefit from the recommendations for Accounting and Materials Management made in other chapters of this report.	399
22-2 The internal controls and flow of information ensure that all gas remediation costs are properly recorded and controlled.		
22-3 The only reported example of SJG's negotiation with the Department of Environmental Protection (DEP) was successful.		
22-4 The use of outside contractors and the methods of selecting outside contractors for environmental remediation work are reasonable but can be improved.		
Chapter 23. Clean Energy		
23-1 The SJG EE programs are projected to produce substantial energy savings, reduced emissions, and increased jobs.		
Chapter 24. Recommendations and Review of Previous Audit		
24-1 SJG reported implementation of all 85 of the recommendations ordered for implementation.		
24-2 Some of the recommendations from the prior audit have continued viability; however, most have been implemented or are no longer relevant.		