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November 19, 2020

Electronic Filing
Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 3rd Fl, Ste 314
P.O. Box 350
Trenton, NJ 08625-0350

Re: IN THE MATTER OF THE PETITION OF SOUTH JERSEY GAS COMPANY TO IMPLEMENT AN INFRASTRUCTURE INVESTMENT PROGRAM ("IIP") AND ASSOCIATED RECOVERY MECHANISM PURSUANT TO N.J.S.A. 48:2-21 AND N.J.A.C. 14:3-2A
BPU Docket No._____

Dear Secretary Camacho-Welch:

Enclosed please find a Petition and supporting documents of South Jersey Gas Company which have been filed electronically today through the Board's e-filing program. Due to the pandemic, and in accordance with the New Jersey Board of Public Utilities ("BPU") March 19, 2020 and May 20, 2020 Orders issued in BPU Docket No. EO20030254, hard copies are not being submitted, but can be provided at a later time, as needed.

If you have any questions, please feel free to contact me directly.

Respectfully submitted,

Deborah M. Franco

DMF:caj
Enclosures

cc: Stacy Peterson (via electronic mail)
Stefanie Brand (vie electronic mail)
Felicia Thomas-Friel (via electronic mail)
Terel Klein (via electronic mail)

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF SOUTH JERSEY GAS COMPANY TO IMPLEMENT AN INFRASTRUCTURE INVESTMENT PROGRAM ("IIP") AND ASSOCIATED RECOVERY MECHANISM PURSUANT TO *N.J.S.A.* 48:2-21 AND *N.J.A.C.* 14:3-2A	:	**BPU DOCKET NO. _____**
		CASE SUMMARY

South Jersey Gas Company ("South Jersey" or the "Company") files this Petition with the New Jersey Board of Public Utilities ("Board") seeking authorization to implement an infrastructure investment program ("IIP" or "Program"), and related cost recovery mechanism pursuant to *N.J.S.A.* 48:2-21 and *N.J.A.C.* 14:3-2A.

South Jersey is ever cognizant of its obligation to ensure the safety of its natural gas system and the overall service provided to its customers. While South Jersey has been making considerable investments to modernize its natural gas system for a number of years, a significant portion of the Company's legacy distribution system is still comprised of aging, at risk pipe. As these aging systems are replaced through an orderly, cost-effective program like the proposed IIP, South Jersey's customers, the communities it serves, and the State as a whole will receive immediate and tangible benefits.

Through its proposed IIP, South Jersey proposes a five-year program to modernize and enhance the safety and reliability of its gas distribution system by replacing its vintage, at-risk facilities. These facilities include the replacement of 825 miles of vintage, at-risk coated steel main installed prior to the 49 CFR 192 code adoption (pre-code) and vintage plastic mains in SJG's distribution system and the installation of 43,500 excess flow valves on new service lines. The projected total expenditures associated with the IIP total approximately $742.5 million, excluding Allowance for Funds Used During Construction, and the cost of an independent IIP monitor, all of which is to be recovered under the proposed IIP Rider over the five-year IIP.

As a whole, the proposed IIP will enhance the safety, reliability and resiliency of SJG's distribution system, promote critically necessary economic relief and employment growth in New Jersey to help the State recover from the financial impacts of the COVID-19 pandemic and provide environmental benefits consistent with the State's sustainability goals and the January 27, 2020 Energy Master Plan. At the same time, South Jersey is not proposing a rate change at this time and therefore, there is no immediate rate impact associated with this Petition.

South Jersey proposes an IIP rider to its Tariff that will enable the Company to obtain necessary and timely recovery of its IIP associated costs. The rates to be established under the rider will be determined in future proceedings before the Board.

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF SOUTH JERSEY GAS COMPANY TO IMPLEMENT AN INFRASTRUCTURE INVESTMENT PROGRAM ("IIP") AND ASSOCIATED RECOVERY MECHANISM PURSUANT TO *N.J.S.A.* 48:2-21 AND *N.J.A.C.* 14:3-2A	:	**VERIFIED PETITION** **BPU DOCKET NO. _____**

TO THE HONORABLE BOARD OF PUBLIC UTILITIES:

Petitioner, South Jersey Gas Company ("South Jersey," "Petitioner," or "Company"), a public utility corporation of the State of New Jersey, with its principal office at One South Jersey Place, Atlantic City, New Jersey, hereby petitions the Board of Public Utilities ("BPU" or "Board") for authorization to implement an Infrastructure Investment Program ("IIP" or "Program") and associated cost recovery mechanism, Rider "B," pursuant to *N.J.S.A.* 48:2-21 and *N.J.A.C.* 14:3-2A.1 *et seq.* and any other provision deemed applicable by the Board. By this Petition, SJG is seeking authority for a (5) five-year, $742.5 million IIP to commence on June 1, 2021.

The work to be undertaken in connection with the proposed IIP includes the replacement of a significant portion of the Company's aging and most leak prone mains and services consisting of aging, at-risk coated steel main installed prior to the 49 CFR 192 code adoption (pre-code) and vintage, at-risk plastic mains in SJG's distribution system and the installation of excess flow valves on new service lines.

South Jersey respectfully submits that as a whole, the proposed IIP will enhance the safety, reliability and resiliency of SJG's distribution system, promote critically necessary economic relief and employment growth in New Jersey to help the State recover from the financial impacts of the COVID-19 pandemic and provide environmental benefits consistent with the State's sustainability goals and the January 27, 2020 Energy Master Plan ("EMP"). At the same time, the proposed IIP

allows for an immediate recognition of these safety, economic stimulus and sustainability benefits, but has no current rate impact on customers. This Petition is not seeking a rate increase at this time and the Company would not seek to implement rates associated with the IIP until 2022.

As addressed herein, the Company expects to complete the remaining work associated with all existing accelerated infrastructure programs in the first half 2021. Therefore, the proposed IIP will provide an important economic stimulus for New Jersey and in particular the Company's contractors and related vendors who will benefit from the job creation/maintenance and related financial benefits resulting from the continuation of the accelerated infrastructure work proposed by the IIP. Again, while the proposed IIP affords considerable benefits to the New Jersey economy, it does so without resulting in a rate increase at this time.

In support of the requested relief, Petitioner states as follows:

I. INTRODUCTION

1. South Jersey is engaged in the sale, transmission and distribution of natural gas to approximately 402,000 customers located within its service territory, located in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem Counties.

2. The Company operates a network of 6,692.3 miles of pipelines, consisting of 146.3 miles of transmission pipelines, and 6,551 miles of distribution mains. The Company also owns and operates 315,475 service lines.

3. The Company is subject to regulation by the Board for the purpose of assuring safe, adequate and proper natural gas service pursuant to *N.J.S.A.* 48:2-23. In furtherance of its responsibilities, South Jersey must maintain its public utility infrastructure, including the property, plant, facilities and equipment that comprise South Jersey's natural gas distribution and transmission system in such condition as to enable the provision of such service.

4. South Jersey is subject to regulation by the Board for purposes of setting its retail rates to assure safe, adequate and proper natural gas service pursuant to *N.J.S.A.* 48:2-21, *et seq.*

II. BACKGROUND

A. The IIP Regulations and the EMP

5. On January 16, 2018, the Board promulgated the IIP Regulations, encouraging utilities to implement infrastructure investment programs like South Jersey's proposed IIP. The IIP Regulations are codified at *N.J.A.C.* 14:3-2A.1 *et seq.* The IIP Regulations were adopted by the BPU to (1) allow a utility to accelerate its investment to construct, install, or remediate utility plant and facilities related to enhanced reliability, resiliency, and/or safety to provide safe and adequate service, and (2) to provide a rate recovery mechanism that encourages and supports necessary investments. Thus, the IIP Regulations and related programs were intended to create a financial incentive for utilities to accelerate the level of investment needed to promote the timely rehabilitation and replacement of certain non-revenue producing components that enhance reliability, resiliency, and/or safety. As set forth below, the enactment of the IIP Regulations was a recognition that these rules would promote sustained economic growth in New Jersey, which is particularly vital to the financial recovery of New Jersey given the impacts of the COVID-19 pandemic. As reflected in this filing, the proposed IIP will bolster the New Jersey economy with the anticipated creation/continuation of almost 1,200 jobs. Thus, the proposed IIP will provide much needed economic stimulus at this critical time.

6. The IIP Regulations explain their purpose:

> (a) This subchapter establishes a regulatory mechanism concerning an Infrastructure Investment Program, which will allow a utility to accelerate its investment in the construction, installation, and rehabilitation of certain nonrevenue producing utility plant and facilities that enhance safety, reliability, and/or resiliency. Through an Infrastructure Investment

> Program approved by the Board, a utility may obtain accelerated recovery of qualifying investments....
>
> (b) The purpose of an Infrastructure Investment Program is to provide a rate recovery mechanism that encourages and supports necessary accelerated construction, installation, and rehabilitation of certain utility plants and equipment. As set forth in this subchapter, such investment would occur in a systematic and sustained way to advance construction, installation, and rehabilitation of utility infrastructure needed for a continued system safety, reliability, and resiliency, and sustained economic growth in the State of New Jersey. [N.J.A.C. 14:3-2A.1]

7. In the impact statements concerning its IIP rule proposal, the Board noted that "planned" investments improve service reliability and resiliency at costs many multiples lower than the costs of emergency replacements following service outages. 49 N.J.R. 2489(a), 2490 (Social Impact Statement). The Board also noted that systematic utility investment, via an infrastructure investment program, will promote sustained economic growth in New Jersey, and should generate additional jobs. *Id.* (Economic Impact Statement/Jobs Impact Statement). SJG's proposed IIP will benefit SJG's customers and the State of New Jersey and comply with and further the purposes of the Board's IIP Regulations.

8. Exhibit A attached to this Petition, and made part hereof, sets forth the location in this filing of all the Minimum Filing Requirements required by the Board's IIP Regulations.

9. The EMP outlined a number of clean energy strategies vital to economic development and environmental sustainability in New Jersey. One such strategy is a requirement for the prioritization of the replacement by New Jersey gas utilities of leak prone facilities. See EMP at 14, 189 and 192. As the EMP indicates (at 192), eliminating methane leaks from New Jersey's gas pipeline system is crucial to meeting the 80x50 greenhouse gas emissions reductions and mitigating methane leak related safety concerns. The EMP (at 7, 189 and 192) specifically indicates that gas utilities are instructed to file pipeline repair/replacement plans with the Board.

The proposed IIP is consistent with that directive and will help facilitate the economic development and environmental objectives contained in the EMP.

10. New Jersey's utilities play a crucial role in both improving the State's economic condition and making investments that help further the environmental goals of the State. Based on the current needs of the State for enhanced economic development needed to mitigate the financial impacts of the COVID-19 pandemic and reduced greenhouse emissions, South Jersey has determined that it is reasonable and prudent to implement the proposed IIP. South Jersey believes that its IIP will promote environmentally beneficial economic development and job growth in the State while also enhancing the reliability, safety and integrity of the Company's distribution system. Accordingly, Petitioner requests that the Board approve on an expedited basis the proposed IIP and associated cost recovery mechanism, as set forth in proposed Rider "B" to the Company's tariff.

A. <u>South Jersey's Prior Infrastructure Program Success</u>

11. In recent years, the Company has actively pursued efforts to accelerate the modernization of its distribution infrastructure. South Jersey has been able to accelerate the replacement of a significant portion of its cast iron and unprotected bare steel inventory through its CIRT programs. First approved by the Board in 2009, CIRT was implemented to stimulate the State's economy by accelerating planned infrastructure projects. Based upon the success of CIRT I, the Board subsequently approved the implementation of "CIRT II," in March 2011 and the Modification and Extension of CIRT II, commonly referred to as "CIRT III," in May 2012. CIRT II and CIRT III were dedicated entirely to the replacement of cast iron and unprotected bare steel mains and services. Under these programs, South Jersey replaced approximately 200 miles of cast

iron and unprotected bare steel main and approximately 8,200 bare steel services under CIRT I, II, and III.

12. On February 20, 2013, the Board approved South Jersey's ("AIRP I") pursuant to an Order issued in Docket No. GO12070670 ("AIRP I Order"). The AIRP I was approved as a four (4) year program commencing on January 1, 2013 and continuing until December 31, 2016. Pursuant to the AIRP I Order, the Company was authorized to invest $35.3 million per year, excluding AFUDC, for four (4) years, for a total of $141.2 million, to replace unprotected bare steel and cast iron mains and services.

13. On February 29, 2016, the Board approved South Jersey's ("AIRP II") pursuant to an Order issued in Docket No. GR16020175 ("AIRP II Stipulation"). The AIRP II was approved as a five (5) year program commencing on October 1, 2016 and continuing until June 1, 2021. Pursuant to the AIRP II Order, the Company was authorized to invest $302.5 million, excluding AFUDC.

14. As noted above, the Company expects to fully complete the remaining AIRP II work in the first quarter of 2021, which is well ahead of the original projected completion date of September, 2021.[1] Therefore, as noted above, the IIP proposed by this filing provides an important economic stimulus for New Jersey and the Company's contractors and related vendors who will benefit from much needed job creation. As explained below, the Company expects the proposed

[1] The BPU Order approving the AIRP II Stipulation contemplated a roll-in of AIRP II expenditures in January, 2022 because the expectation was that the program would be completed in September, 2021. The Company respectfully submits that since the Company now expects to complete the AIRP II work much earlier than anticipated, it would be appropriate for the Company to file a Petition on or before April 30, 2021 seeking authority to recover the final in service AIRP II investments effective October 1, 2021. Such a filing, which the Company would submit in a separate proceeding, is consistent with the schedule associated with the cost recovery of in service investments for years 1 through 4 of the AIRP II.

program to create/maintain almost 1,200 jobs in New Jersey. These benefits, and others, are explained further below

15. On August 20, 2014, in Docket Nos. AX13030197 and GO13090814, the Board approved the Company's original Storm Hardening and Reliability Program ("SHARP I") as a three (3) year program commencing on July 1, 2014 and continuing until June 30, 2017 (the "SHARP I Order"). Pursuant to the SHARP I Order, the Company was authorized to invest approximately $34.5 million per year, plus or minus 15 percent, excluding AFUDC, for a total of $103.5 million, to replace low pressure mains and associated services with high pressure mains and associated services, eliminate 52 regulator stations, and install Excess Flow Valves in the coastal regions.

16. On May 22, 2018, in Docket No. GO17111130, the Board approved the Company's Storm Hardening and Reliability Program ("SHARP II") as a three (3) year program commencing June 1, 2018 and continuing until June 30, 2021 ("SHARP II Stipulation"). Pursuant to the SHARP II order, the Company was authorized to invest approximately $100.25 million or $33.4 million per year, plus or minus 15 percent, (the "Program Cost Cap"), excluding AFUDC. The SHARP II Stipulation provided that SHARP II would include the Company's proposed pipeline looping projects, including the Absecon Island Loop Project, Ocean City Loop Project, and Brigantine Bridge Project, and installation of approximately 20,000 Excess Flow Values ("EFVs") in coastal areas ("SHARP II Investments"). The Company expects to complete this work by June, 2021.

III. SJG PROPOSED IIP

A. Proposed IIP Projects

17. Under the proposed IIP, SJG will invest $742.5 million, excluding AFUDC and Independent Monitor expenses, over a five-year period to commence on June 1, 2021. The

Company will include IIP non-construction expenditures, such as planning and engineering of IIP projects incurred as of June 1, 2021 in revenue requirements associated with IIP projects for the first year of the program. The work to be undertaken consists of vintage and leak prone mains and services replacements and EFV installations. Specifically, this work will consist of the replacement of approximately 825 miles of the Company's aging and most leak prone mains and services in its distribution system, which includes vintage, at-risk coated steel main installed prior to the 49 CFR 192 code adoption (pre-code) and vintage, at-risk plastic mains, along with the installation of 43,500 excess flow valves on new service lines. The projects associated with the work in this category are detailed further in the Direct Testimony of Brent W. Schomber. In accordance with *N.J.A.C.* 14:3-2A.5, attached to and made a part of Mr. Schomber's testimony is an engineering evaluation identifying the projects, along with quantitative and qualitative benefits.

18. The initiatives included in the IIP are significant in scale and scope and, therefore, flexibility in budgeting the IIP is appropriate. Accordingly, consistent with the provisions of *N.J.A.C.* 14:3-2A.4(f), year-to-year variations in the IIP annual budget of up to 10 percent should be permitted, provided that the total IIP budget is not exceeded. To the extent that year-to-year variations in the IIP budget exceed the 10 percent variation level, South Jersey would seek Board approval of any amount in excess of 10 percent.

B. <u>Proposed Baseline Capital Spending Levels</u>

19. In accordance with the IIP Regulations, South Jersey is proposing two annual baseline capital spending level amounts over the IIP period. First, in accordance with *N.J.A.C.* 14:3-2A.2(c) the Company is committing to capital expenditures on projects similar to those proposed in the IIP equal to an average of $14.85 million per year, or a total of $74.25 million from June 2021 through May 2026, which is equal to 10 percent of the total program budget. As

discussed by Company witness Schomber, these capital expenditures will consist of investments in projects similar to the IIP projects, meaning projects consisting of the replacement of pre-code coated steel and vintage plastic main. These capital expenditures will be made in the normal course of business and will be recovered in future base rate proceedings. These expenditures will not be recovered via the cost recovery mechanism proposed in this Petition, which is consistent with *N.J.A.C.* 14:3-2A.2(c).

20. Second, in accordance with *N.J.A.C.* 14:3-2A.3(a), the Company is proposing annual baseline capital spending levels equal to an average annual amount of $86.9 million per IIP year or $434.5 million over the five-year IIP investment period beginning on the effective date of the IIP. This annual baseline capital spending level amount was established using a 5-year historical average of base capital expenditures adjusted to exclude certain unique or non-recurring capital expenditures not appropriate to include in the baseline, as set forth on Schedule BWS-3 to the testimony of Mr. Schomber. The proposed annual baseline capital spending amount is consistent with *N.J.A.C.* 14:3-2A.3(b), which requires the utility to provide appropriate data to justify its proposed annual baseline spending levels, which may include historical capital expenditure budgets, projected capital expenditure budgets, depreciation expense, and/or any other data relevant to the utility's proposed baseline spending level. *N.J.A.C.* 14:3-2A.3(c) provides that the Board may consider such data, including depreciation expenses, in establishing annual baseline spending levels. Consistent with *N.J.A.C.* 14:3-2A.3(a), the annual baseline spending levels will only be recovered via base rates.

21. The Company's projected capital expenditure budgets are based and contingent upon approval of this proposed Program. Access to capital markets and the ability to fund sustained capital investments is more readily achieved with an approved Program.

C. Proposed Cost Recovery

22. South Jersey proposes to recover costs of the IIP through a proposed Rider "B" to its Tariff for Gas, which will permit recovery of revenue requirements associated with the IIP based on actual plant in-service for six-month periods pursuant to *N.J.A.C.* 14:3-2A.6(a).

23. As detailed in the Direct Testimony of Nicole C. Gatyas, an Associate Rate Analyst at South Jersey, South Jersey proposes to make semi-annual rate adjustment filings during the five-year Program, with rate adjustments effective approximately sixty (60) days after each filing.

24. Consistent with the IIP regulations, South Jersey proposes to file semi-annually when eligible in-service amounts exceed ten (10) percent of the total proposed program spending. Therefore, based on the proposed capital expenditure forecast, the first rate adjustment filing will not occur until January 1, 2022 based on actual plant in-service through November 30, 2021 with a rate effective date of March 1, 2022. Therefore, there would be no rate adjustment or customer bill impacts from the Program until March 1, 2022.

25. Assuming approval of the Program on or prior to June 1, 2021, the proposed IIP investments are scheduled to be completed by May 31, 2026, except for certain residual close-out work that may occur following the conclusion of the Program. As such, the Company proposes a rate adjustment filing no later than January 1, 2027 to reflect all residual costs to close out the IIP projects. Given the nature of the work, the residual filing may be less than 10 percent of total program spending.

26. South Jersey proposes that the costs to be included in rates will include: depreciation expense providing for the recovery of the invested capital over its useful book life and; a return on the net investment, which will be calculated as the gross investment, plus AFUDC and Monitor expenses, less depreciation expense and deferred income taxes. The return on this

net investment will be calculated utilizing the Weighted Average Cost of Capital ("WACC") approved in the Company's most recent base rate case (Docket No. GR 20030243). The WACC is 6.9% (6.418% after-tax), which is based on a return on equity ("ROE") of 9.60 percent and an equity component of 54 percent. Any change in the WACC authorized by the Board in a subsequent base rate case will be reflected in the subsequent monthly revenue requirement calculations.

27. BPU Staff and Rate Counsel will have an opportunity to review each filing to ensure that the revenue requirements and proposed rates are calculated in accordance with the BPU Order approving the Plan. The actual prudence of the Company's IIP expenditures will be reviewed as part of South Jersey's subsequent base rate case(s). The Company proposes that it will file a base rate case no later than five years after the anticipated commencement of work for the IIP.

28. In addition, the IIP will be subject to an earnings test on ROE. Consistent with the IIP regulations, if the Company exceeds the allowed ROE from the utility's last base rate case by fifty (50) basis points or more for the most recent twelve (12) month period, the pending rate adjustment shall not be allowed for the applicable filing period. *See N.J.A.C.* 14:3-2A.6(i). Details regarding application of the earnings test are set forth in the Direct Testimony of Nicole C. Gatyas, submitted herewith.

D. <u>IIP Rate Impact</u>

29. The revenue requirement and customer bill impacts associated with each rate adjustment will be set forth in each of the Company's semi-annual filings. As noted above, the first rate adjustment associated with the IIP will not take place until March 1, 2022.

30. Based upon the proposed program spending, it is estimated that the rate increase to the average residential heating customer using 100-therms in a month will be approximately $2.26, or 1.6%, at the time of the first base rate adjustment on March 1, 2022. These modest impacts, which will not occur until 2022, will afford substantial benefits to customers and the State in the form of enhancements to safety and reliability, economic development and environmental sustainability.

31. Because the first rate change will not occur until March 1, 2022, no public comment hearings are required. Nevertheless, South Jersey is providing a proposed form of public notice of filing and public hearings, including the proposed incremental rates and bill impacts attributable to the proposed implementation of the Program, attached hereto as Exhibit B.

E. Proposed IIP Reporting

32. South Jersey proposes to provide Board Staff and Rate Counsel with semi-annual status reports detailing the following in accordance with *N.J.A.C.* 14:3-2A.5(e): (i) forecasted and actual costs of the Program by major category; (ii) estimated total quantity of work completed under the Program by major category; (iii) estimated completion dates for the Program and each major category; (iv) anticipated changes to Program projects, if any; (v) actual capital expenditures made by South Jersey in the normal course of business on similar projects; and (vi) any other performance metrics required by the Board.

F. Monitoring

33. In accordance with *N.J.A.C.* 14:3-2A.5(c)(2), the Company is proposing that it retain an independent monitor to review and report on the following information: (i) the effectiveness of the IIP investments in meeting project objectives; (ii) the cost-effectiveness and efficiency of investments; (iii) the appropriateness of cost assignments; and (iv) any other

information required by the Board. The Company is proposing that independent monitor expenses be capitalized and recovered in the IIP cost recovery mechanism. Such expenses will be in addition to the $742.5 million total IIP budget to be recovered through the IIP cost recovery mechanism.

IV. PROGRAM BENEFITS/NEED

34. The proposed IIP will produce benefits for the Company's customers, South Jersey's gas distribution and transmission system, the environment and the economy. The job growth (discussed below) that will be generated as a result of the proposed IIP will be particularly helpful as the State recovers from the financial impacts of the COVID-19 pandemic and the AIRP and SHARP II programs conclude (as discussed above).

35. Customers will benefit from a safer, more modern system that accommodates newer technologies and appliances. The replacement of mains and services will enhance the safety and reliability of the Company's gas distribution system through the use of more modern materials and construction. The IIP will also result in an accelerated reduction of greenhouse gas emissions from legacy facilities, consistent with the State's decarbonization and sustainability goals.

36. Moreover, South Jersey's customers and the State will benefit from the efficiencies of cost-effective construction under the Program. The replacement of aging mains on the Company's system is consistent with and supports the Board's longstanding approach to proactively address aging infrastructure for New Jersey utilities. The systematic, long-term approach taken by the Company in the IIP allows the Company to take advantage of economies of scale, reduced municipal disruption, and more efficient work flow.

37. South Jersey also anticipates that implementation of the proposed IIP will support economic development and enhanced employment opportunities in New Jersey. In the Board's Job Impact statement to the IIP rule proposal, it cited a Rutgers University study that reported for

every $1 million of utility infrastructure project spending, a total of 6.5 to 7.9 full year jobs are created in New Jersey. 49 *N.J.R.* 2489, at 2490. As discussed by Company witness Schomber, based upon this study, the Company anticipates that the IIP will support the employment of almost 1,200 full time jobs per year.

38. These positive benefits, among others that will be realized through implementation of the IIP, more than justify the Company's need for the Program and the associated cost recovery mechanism. At a time when lenders, rating agencies and even investors are especially sensitive to risk, the recovery mechanism proposed in this Petition creates a much higher degree of certainty regarding the Company's ability to produce the earnings and cash flows necessary to support the increased levels of capital spending. Attempting to significantly increase capital investment, or maintain prior levels of investments, by utilizing just the traditional base rate case model would not provide the certainty that the proposed recovery mechanism provides, even if the timing between filing base rate cases was accelerated.

V. DIRECT TESTIMONY AND PROCEDURAL MATTERS

39. Attached to this Petition in support of the requests made herein are the following Direct Testimony exhibits:

Exhibit P-1: Direct Testimony of Brent W. Schomber, Vice President Operations

Exhibit P-2: Direct Testimony of Nicole C. Gatyas, Associate Rate Analyst

40. Given the need for infrastructure investment included in the Program, and the high priority that the State places on such investment and the continued safe, adequate and reliable operation of natural gas distribution systems, it is important for South Jersey to receive Board approval for the Program in time to begin planning for, designing and making the capital investments described herein for a program commencing June 1, 2021. As noted above, this start

date also dovetails with the conclusion of the AIRP II and SHARP II programs and will help to facilitate continued vitally necessary job creation and economic growth in New Jersey, without resulting in any rate impacts at this time. Therefore, the Company respectfully requests that the Board retain this matter and utilize a schedule similar to the following procedural schedule:

Petition and Direct Testimony Filed	November 19, 2020
Prehearing Conference	December 11, 2020
Complete all Discovery on South Jersey Filing	January 29, 2021
Non-Petitioner Direct Testimony Due	February 12, 2021
Complete all Discovery on Non-Petitioner Testimony	March 3, 2021
Rebuttal Testimony – All Parties	March 12, 2021
Discovery Requests on Rebuttal Testimony	March 19, 2021
Settlement Conferences	March 22, 2021
Hearings	March 26, 2021
Initial Briefs	April 23, 2021
Reply Briefs	April 30, 2021
BPU Decision and Order	May 2021

41. South Jersey has served notice and a copy of this Petition upon Stefanie Brand, Esq., Director, Division of the Ratepayer Advocate, 140 E. Front Street, P.O. Box 003, Trenton, New Jersey 08625. Due to the pandemic, South Jersey is suspending the submission of a hard copy and hereby files via electronic mail only per Board Order in Docket No. EO20030254 dated March 9, 2020 and May 20, 2020.

V. CONCLUSION AND REQUEST FOR RELIEF

For the foregoing reasons, and the reasons set forth in the Direct Testimony attached to this Petition, South Jersey respectfully requests that the Board issue an Order or Orders as follows:

1. Finding that the IIP is in the public interest, is reasonable and is prudent;

2. Approving the IIP, as set forth herein and in the attached Direct Testimony and Schedules, for a period of five (5) years commencing June 1, 2021 with authorized investments of $742.5 million, excluding AFUDC and Monitor expenses;

3. Approving the IIP cost recovery mechanism, as proposed herein and detailed in the attached Direct Testimony and Schedules; and

4. Granting such other relief as the Board deems just, reasonable, and necessary.

Respectfully submitted,

SOUTH JERSEY GAS COMPANY

_____

Deborah M. Franco, Esq.
SJI Utilities, Inc.
Vice President, Rates, Regulatory & Sustainability

Date: November 19, 2020

VERIFICATION

STATE OF NEW JERSEY)
) ss:
COUNTY OF ATLANTIC)

I, Deborah M. Franco, being duly sworn according to law, upon his oath, deposes and says:

1. I am a Vice President of Rates, Regulatory, Sustainability for the Petitioner in the foregoing Petition and I am authorized to make this Affidavit on behalf of the Petitioner.

2. The statements made in the foregoing Petition and exhibits, and schedules submitted therewith correctly portray the information set forth therein, to the best of my knowledge, information and belief.

Deborah M. Franco
Vice President of Rates, Regulatory, Sustainability

Sworn to and subscribed to
before me this 19th day of
November, 2020.

Notary Public

CAROLYN A. JACOBS

NOTARY PUBLIC OF NEW JERSEY

My Commission Expires October 28, 2023

South Jersey Gas Company Minimum Filing Requirements	
Minimum Filing Requirement	**Location in Filing**
14:3-2 A.2 Project Eligibility	
a) The projects within an Infrastructure Investment Program shall be: 1. Related to safety, reliability, and/or resiliency; 2. Non-revenue producing; 3. Specifically identified by the utility within its petition in support of an Infrastructure Investment Program; and 4. Approved by the Board for inclusion in an Infrastructure Investment Program, in response to the utility's petition.	Petition, paras. 17, 18 B. Schomber Testimony, pages 2, 3, 7 – 12 Schedule BWS-4
b) Projects within an Infrastructure Investment Program may include: 1. The replacement of gas utilization pressure cast iron mains with elevated pressure mains and associated services; 2. The replacement of mains and services that are identified as high risk in a gas utility's Distribution Integrity Management Plan; 3. The installation of gas excess flow valves where existing gas service line replacements require them, excluding excess flow valves installed upon customer request pursuant to 49 CFR 192.383; 4. Electric distribution automation investments, including, but not limited to, supervisory control and data acquisition equipment, cybersecurity investments, relays, reclosers, voltage and reactive power control, communications networks, and distribution management system integration; 5. The installation of break-predictive water sensors and wastewater sensors to curtail combined sewer overflows; and 6. Other projects deemed appropriate by the Board.	Petition, paras. 17, 18 B. Schomber Testimony, pages 2, 3, 7 – 12 Schedule BWS-4
c) A utility shall maintain its capital expenditures on projects similar to those proposed within the utility's Infrastructure Investment Program. These capital expenditures shall amount to at least 10 percent of any approved Infrastructure Investment Program. These capital expenditures shall be made in the normal course of business and recovered in a base rate proceeding and shall not be subject to the recovery mechanism set forth in N.J.A.C. 14:3-2A.6.	Petition, para. 19 B. Schomber Testimony, page 19

Minimum Filing Requirement	Location in Filing
14:3-2A.3 Annual baseline spending levels	
a) A utility seeking to establish an Infrastructure Investment Program shall, within its petition, propose annual baseline spending levels to be maintained by the utility throughout the length of the proposed Infrastructure Investment Program. These expenditures shall be recovered by the utility in the normal course within the utility's next base rate case.	Petition, para. 20 B.Schomber Testimony, pages 19 - 20 Schedule BWS-3
b) In proposing annual baseline spending levels, the utility shall provide appropriate data to justify the proposed annual baseline spending levels, which may include historical capital expenditure budgets, projected capital expenditure budgets, depreciation expenses, and/or any other data relevant to the utility's proposed baseline spending level.	Petition, para. 20 B.Schomber testimony, page 20 Schedule BWS-2 Schedule BWS-3
14:3-2A.4 Infrastructure Investment Program length and limitations	
a) A utility may petition the Board for approval of an Infrastructure Investment Program extending for a period of five years or less.	Petition, page 1, 16 B.Schomber testimony, page 2, 3 and throughout Schedule NCG-1
e) Allowance for Funds Used During Construction (AFUDC) shall be permitted under an Infrastructure Investment Program, but a utility shall not utilize AFUDC once Infrastructure Investment Program facilities are placed in service.	N.Gatyas testimony, pages 6-7
(f) Year-to-year variations in an Infrastructure Investment Program's approved annual budget of up to 10 percent shall be permitted, provided that the total Program budget is not exceeded. Variations in excess of 10 percent shall require Board approval.	Petition, para 18 B.Schomber testimony, pages 3 -4
14:3-2A.5 Infrastructure Investment Program minimum filing and reporting requirements	
b) A utility requesting approval of an Infrastructure Investment Program shall include within its petition:	
1. Projected annual capital expenditure budgets for a five-year period, identified by major categories of expenditures;	Schedule BWS-1
2. Actual annual capital expenditures for the previous five years, identified by major categories of expenditures;	Schedule BWS-2
3. An engineering evaluation and report identifying the specific projects to be included in the proposed Infrastructure Investment Program, with descriptions of project objectives, including the specific expected resilience benefits, detailed cost estimates, in service dates, and any applicable cost-benefit analysis for each project;	ScheduleBWS-4
4. An Infrastructure Investment Program budget setting forth annual budget expenditures;	Schedules BWS-1
5. A proposal addressing when the utility intends to file its next base rate case, consistent with N.J.A.C. 14:3-2A.6(f);	Petition, para. 11 N.Gatyas Testimony, pages 10-11
6. Proposed annual baseline spending levels, consistent with N.J.A.C. 14:3-2A.3(a) and (b);	Petition, paras. 19-20 B.Schomber Testimony, pages 19-20 Schedules BWS-3
7. The maximum dollar amount, in aggregate, the utility Seeks to recover through the Infrastructure Investment Program; and	Schedule NCG-1
8. The estimated rate impact of the proposed Infrastructure Investment Program on customers.	Schedule NCG-1

(d) Before the Board approves an Infrastructure Investment Program, the Board shall conduct a public hearing. Notice of the public hearing shall contain the maximum dollar amount the utility seeks to recover through its Infrastructure Investment Program and the utility's estimated rate impact.	Exhibit B

Minimum Filing Requirement	**Location in Filing**
14:3-2A.6 Infrastructure Investment Program expenditure recovery	
a) A utility may file for annual or semi-annual rate recovery for facilities constructed and placed in service under an Infrastructure Investment Program. "In service" means when a project approved for inclusion in an Infrastructure Investment Program is functioning in its intended purpose, is in use (that is, not under construction) and useful (that is, actively helping the utility provide efficient service).	Petition, paras. 23, 24, 29 N.Gatyas Testimony, pages 7, 10 Schedule NCG-1
b) Each filing made by a utility seeking accelerated recovery under an Infrastructure Investment Program shall seek recovery, at a minimum, of at least 10 percent of overall Infrastructure Investment Program expenditures.	Petition, para. 24 N.Gatyas Testimony, page 7
c) A utility's expenditures made prior to the Board's approval of an Infrastructure Investment Program shall not be eligible for accelerated recovery.	N.Gatyas Testimony, page 6
d) Rates approved by the Board for recovery of expenditures under an Infrastructure Investment Program shall be accelerated, and recovered through a separate clause of the utility's Board-approved tariff.	N.Gatyas Testimony, page 4 Schedule NCG-6
e) Rates approved by the Board for recovery of expenditures under an Infrastructure Investment Program shall be provisional, subject to refund and interest. Prudence of Infrastructure Investment Program expenditures shall be determined in the utility's next base rate case.	N.Gatyas Testimony, pages 10-11
f) A utility shall file its next base rate case not later than five years after the Board's approval of the Infrastructure Investment Program, although the Board, in its discretion, may require a utility to file its next base rate case within a shorter period.	Petition, para. 11 N.Gatyas Testimony, pages 10-11
g) A utility may continue to file for accelerated recoveries during the approved Infrastructure Investment Program period notwithstanding the filing of the utility's next base rate case.	N. Gatyas Testimony, pages 10, 11
h) An earnings test shall be required, where Return on Equity (ROE) shall be determined based on the actual net income of the utility for the most recent 12-month period divided by the average of the beginning and ending common equity balances for the corresponding period.	N. Gatyas Testimony, pages 9, 10
i) For any Infrastructure Investment Program approved by the Board, if the calculated ROE exceeds the allowed ROE from the utility's last base rate case by 50 basis points or more, accelerated recovery shall not be allowed for the applicable filing period.	N. Gatyas Testimony, pages 9, 10

Exhibit B

South Jersey Gas Company
Notice of Public Hearings

TO OUR CUSTOMERS:

On November 19, 2020, South Jersey Gas Company ("Company" or "South Jersey") filed a petition with the New Jersey Board of Public Utilities ("Board" or "BPU") in BPU Docket No. GR18101197 seeking approval of a safety, modernization and reliability program and a related rider to the Company's Tariff – Infrastructure Investment Program Tariff – to permit South Jersey to recover the costs of the proposed program (collectively the program and proposed Tariff rider will be referred to as "IIP").

South Jersey has facilities on its system that were installed prior to calendar year 1900. South Jersey is seeking Board approval to implement the IIP over a five-year period to modernize and enhance the reliability and safety of parts of its gas distribution system by replacing its vintage, at-risk facilities. These facilities include the replacement of 825 miles of vintage, at-risk coated steel main installed prior to the 49 CFR 192 code adoption (pre-code) and vintage plastic mains in SJG's distribution system and the installation of 43,500 excess flow valves on new service lines. The total expenditures associated with the IIP are projected to approximate $742.5 million, excluding Allowance for Funds Used During Construction ("AFUDC") and the costs associated with an independent IIP monitor, which is the maximum amount the Company may recovery through the IIP.

In conjunction with the implementation of the IIP, South Jersey is seeking Board approval to implement a Tariff rider that will enable it to recover, on a provisional basis, certain costs incurred in connection with the IIP beyond the test period of the Company's next base rate case, which is required to be filed no later than April 2026. South Jersey proposes to make semi-annual IIP filings to recover IIP investments placed in service during the five-year program period that is proposed to commence on June 1, 2021 and remain in effect for five years after the start of program which is currently prosed to last until May 31, 2026. The IIP rider rate would be assessed to all of the Company's firm customers under Service Classifications RSG, GSG, GSG-LV, CTS, LVS, EGS, EGS-LV, NGV, YLS and SLS.

South Jersey is not seeking to increase rates to recover IIP costs at this time. Nonetheless, South Jersey forecasts that the initial IIP rate increase is anticipated to take effect March 1, 2022 would be designed to recover $8.0 million of IIP costs through a proposed rider rate. This rate would increase the semi-annual bill of a residential heating customer using 1,000 therms by $22.62 or 1.6% as compared to an estimated total annual bill of $1,443.03.

Based on current projections and assuming implementation of the IIP as proposed by the Company, the subsequent estimated incremental IIP rider rates and their impact on a residential customer using 1,000 therms semi-annual are estimated as follows:

Effective Date	IIP Incremental Residential Rate Per Therm	Annual Incremental Increase	Incremental % Change
03/01/22	$0.022615	$22.62	1.6%
09/01/22	$0.022630	$22.63	1.5%
03/01/23	$0.022644	$22.64	1.5%
09/01/23	$0.022630	$22.63	1.5%
03/01/24	$0.022644	$22.64	1.5%
09/01/24	$0.022630	$22.63	1.5%
03/01/25	$0.022644	$22.64	1.4%

09/01/25	$0.022630	$22.63	1.4%
03/01/26	$0.022644	$22.64	1.4%
09/01/26	$0.022658	$22.66	1.4%

These rates are only estimates. The actual proposed rates would be subject to BPU approval and could be higher or lower depending on the Board's final determination and the date on which such rates are made effective.

The Board has the statutory authority to establish South Jersey's rates at levels it finds just and reasonable as well as to establish the effective date of such rates. Therefore, the BPU may establish the rates at levels and/or an effective date other than those proposed by South Jersey.

PLEASE TAKE FURTHER NOTICE that due to the COVID-19 pandemic, a telephonic public hearing will be conducted on the following dates and times so that members of the public may present their views on the Company's filing.

Date: TBD

Public Hearing Times: 4:30 pm and 5:30 pm

Dial In: TBD

Conference ID: ## ### ### followed by #

The Company's filing may be viewed on the South Jersey Gas website at www.southjerseygas.com/About-South-Jersey-Gas/Regulatory-Compliance-Tariff-Information.aspx.

Representatives of the Company, Board Staff and Rate Counsel will participate in the telephonic public hearing. Members of the public are invited to participate by utilizing the Dial In and Conference ID set forth above, and may express their views on this filing. Such comments will be made part of the final record of the proceeding to be considered by the Board. The Board is also accepting written and emailed comments. Although both will be given equal consideration, the preferred method of transmittal is via email to ensure timely receipt while the Board continues to work remotely due to the COVID-19 pandemic. Written comments may be submitted to the Board Secretary, Aida Camacho, at the Board of Public Utilities, 44 South Clinton Avenue, 9th Floor, P.O. Box 350, Trenton, NJ 08625-0350. Email comments should be submitted to: board.secretary@bpu.nj.gov. Please include the name of the petition and the docket number when submitting comments. Written and emailed comments will be provided the same weight as statements made at the hearings.

Hearings will continue, if necessary, on such additional dates and at such locations as the Board may designate, to ensure that all interested persons are heard.

SOUTH JERSEY GAS COMPANY

By: Melissa Orsen, President and Chief Operations Officer

EXHIBIT P-1

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

I/M/O THE PETITION OF SOUTH JERSEY GAS COMPANY TO IMPLEMENT AN INFRASTRUCTURE INVESTMENT PROGRAM ("IIP") AND ASSOCIATED RECOVERY MECHANISM PURSUANT TO *N.J.S.A.* 48:2-21 AND *N.J.A.C.* 14:3-2A

DIRECT TESTIMONY

OF

BRENT W. SCHOMBER

VICE PRESIDENT, OPERATIONS
SOUTH JERSEY GAS COMPANY

ON BEHALF OF

SOUTH JERSEY GAS COMPANY

NOVEMBER
2020

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, AFFILIATION AND BUSINESS ADDRESS.

A. My name is Brent W. Schomber, and my business address is 1 South Jersey Place, Atlantic City, NJ 08401. I am Vice President of Operations for South Jersey Gas ("SJG" or the "Company").

Q. PLEASE DESCRIBE YOUR PROFESSIONAL RESPONSIBILITIES.

A. As Vice President of Operations, I am responsible for providing leadership and direction for all operational activities including, but not limited to, construction, asset, utility, and engineering operations. I also have responsibility for the capital spending program and operations of South Jersey Gas Company ("SJG" or "the Company").

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I am a 1998 graduate of Rowan University with a Bachelor of Science degree in Criminal Justice. I began my career in 1998 with Utility Line Services, a subcontractor for SJG, where I worked in the field until 2001 and then in management from 2001 to 2007. I was then employed by SJG in 2007 and have held various management positions of increasing responsibility as follows: SJG Construction Supervisor from 2007 to 2009, SJG Manager from 2009 to 2012, SJG General Manager of Construction from 2012 to 2015, SJG Director of Construction from 2015 to 2017 and SJG Sr. Director of Construction from 2017 to 2018. In November 2018, I became Vice President SJIU, Construction and Shared Services and was recently promoted to my current position of Vice President, Operations, for SJG in December 2019.

I am a member of the American Gas Association and currently serve on the Construction Operations Committee. I am also a member of the Northeast Gas Association and currently serve on the Operations Committee.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support SJG's proposal to establish an Infrastructure Investment Program ("IIP" or "Program") that will allow the Company to continue to modernize and enhance the reliability, resiliency and safety of its gas distribution system over a five-year period and obtain timely recovery of the costs associated with implementation of the Program. Specifically, I will address the following:

- Overview of the proposed IIP;
- History of SJG's previous accelerated infrastructure programs;
- SJG's proposal to accelerate the replacement of certain types of vintage, at-risk facilities in its service territory including its most leak prone mains and services;
- SJG's Distribution Integrity Management Plan ("DIMP");
- the associated estimated costs;
- baseline spending; and
- the need for the IIP and associated benefits.

II. <u>IIP PROPOSAL</u>

Q. PLEASE PROVIDE AN OVERVIEW OF THE COMPANY'S PROPOSED IIP.

A. With the IIP, the Company proposes to invest an estimated $742.5 million, excluding Allowance for Funds Used During Construction ("AFUDC") and Independent Monitor

expenses, over a five-year period to replace approximately 825 miles of vintage, at-risk coated steel main installed prior to the 49 CFR 192 code adoption (pre-code) and vintage, at-risk plastic mains and approximately 43,500 customer services, and to install approximately 43,500 excess flow valves ("EFVs") on new service lines. The proposed IIP will proceed over an initial period of five years commencing on June 1, 2021. The work to be undertaken in connection with the IIP involves safety, reliability and resiliency projects that are non-revenue producing. A description of the scope of work associated with the proposed IIP is addressed in the Engineering Evaluation contained in Schedule BWS-4 that accompanies my testimony.

As required by the IIP regulations, a utility must define and propose baseline spending that represents ongoing capital investments for IIP-like projects the Company plans to make each year that may be recovered through a traditional base rate case. As such, the Company proposes an IIP baseline spending of an average of $14.85 million per year, or a total of $74.25 million from June 2021 through May 2026, as discussed in further detail below.

Additionally, a utility must define and propose an overall baseline of capital expenditures that represent total Company capital investments, excluding IIP and IIP baseline projects, that may be recovered through a traditional base rate case. In this case, the Company proposes capital baseline spending of an average of $86.9 million per year or a total of $434.4 million from January 2021 through December 2025, as discussed in further detail below.

Q. HOW IS THE COMPANY PROPOSING TO TREAT BUDGET VARIATIONS?

A. The initiatives included in the IIP are significant in scale and scope and, therefore, flexibility in budgeting the IIP is appropriate. Consistent with the IIP regulations, year-to-year variations in the IIP annual budget of up to 10 percent shall be permitted, provided that the total IIP budget is not exceeded. To the extent that year-to-year variations in the IIP budget exceed the 10 percent variation level, South Jersey would seek Board approval of any amount in excess of 10 percent

III. HISTORY AND POLICY

Q. PLEASE PROVIDE A HISTORICAL OVERVIEW OF THE VARIOUS BOARD APPROVED SJG ACCELERATED INFRASTRUCTURE REPLACEMENT PROGRAMS.

A. SJG maintains and upgrades its infrastructure to ensure that it can continuously provide safe, adequate and proper service to its customers. To that end, the Board has recognized the prudence and need to accelerate the replacement of aging and leak prone materials in approving a number of accelerated infrastructure programs throughout the State since 2009, including SJG's Capital Investment Recovery Tracker ("CIRT"), AIRP, AIRP II and SJG's Storm Hardening and Reliability Programs ("SHARP I" and "SHARP II").

Q. PLEASE PROVIDE AN OVERVIEW OF THE CIRT.

A. The Company's CIRT Program and related extensions were dedicated entirely to the replacement of cast iron and unprotected bare steel mains and services. SJG replaced approximately 200 miles of cast iron and unprotected bare steel main and

approximately 8,200 bare steel services under CIRT I, II, and III, which concluded in 2012.

Q. PLEASE PROVIDE AN OVERVIEW OF THE AIRP.

A. SJG's AIRP was initially approved by the Board on February 20, 2013 in Docket No. GO12070670. The AIRP was approved as a four-year program pursuant to which South Jersey was permitted to invest $35.3 million annually in the replacement of cast iron and/or unprotected bare steel mains and services. The Company fully utilized the authorized AIRP expenditure budget as of August 31, 2016.

On October 31, 2016, in Docket No. GR16020175, the Board issued an order authorizing the Company to extend the AIRP through the implementation of the AIRP II. The AIRP II was approved as a five-year program permitting SJG to invest up to $302.5 million, excluding AFUDC and Independent Monitor expenses. This investment enabled the Company to replace 550 miles of vintage, at-risk facilities over the five-year term of the program. In addition, the Company agreed to a stipulated base replacement amount of no less than 30 miles per year, or 150 miles over the five-year term of the program, which is not recoverable through the AIRP II, but is considered base capital to be recovered in future base rate cases.

Q. PLEASE PROVIDE A SUMMARY OF THE WORK COMPLETED UNDER THE AIRP II TO DATE.

A. Through Year 4 of the AIRP II program, which concluded on July 30, 2020, the Company has replaced approximately 398 miles of main and 20,875 services. The Company projects that an additional 72 miles of main and 2,275 services will be

completed during Year 5 of the program. The Company expects to fully complete the remaining AIRP II work in the first quarter of 2021, well ahead of the original projected completion date of September, 2021. Therefore, the IIP proposed by this filing will provide important economic stimulus for New Jersey, and in particular the Company's contractors and related vendors who will benefit from much needed jobs and related financial benefits resulting from the continuation of the Company's accelerated infrastructure work. As explained below, the Company expects the proposed program to create almost 1,200 jobs in New Jersey. These benefits, and others, are explained further below.

Q. HOW MUCH CAST IRON AND BARE STEEL INFRASTRUCTURE WILL REMAIN UPON CONCLUSION OF THE AIRP II PROGRAM?

A. Upon completion of the AIRP II program the Company will have replaced all of its cast iron infrastructure and all but a small inventory of bare steel facilities. This remaining bare steel will be completed outside of the AIRP II Program as soon as possible once the existing moratorium on roadway construction expires.

Q. PLEASE PROVIDE AN OVERVIEW OF THE SHARP.

A. On August 20, 2014, in Docket Nos. AX13030197 and GO13090814, the Board approved the Company's original Storm Hardening and Reliability Program ("SHARP I") as a three (3) year program commencing on July 1, 2014 and continuing until June 30, 2017 (the "SHARP I Order"). Pursuant to the SHARP I Order, the Company was authorized to invest approximately $34.5 million per year, plus or minus 15%, excluding AFUDC and Independent Monitor expenses, for a total of $103.5 million,

to replace low pressure mains and associated services with high pressure mains and associated services, eliminate 52 regulator stations, and install EFVs in the coastal regions. The SHARP I work was completed in June 2017.

On May 22, 2018, in Docket No. GO17111130, the Board approved the Company's SHARP II as a three (3) year program commencing June 1, 2018 and continuing until June 30, 2021. Under the SHARP II, the Company is authorized to invest approximately $100.25 million or $33.4 million per year, plus or minus 15%, excluding AFUDC and Independent Monitor expenses. The SHARP II Stipulation provided that SHARP II would include the Company's proposed pipeline looping projects, including Absecon Island Loop Project, Ocean City Loop Project, and Brigantine Bridge Project, and installation of approximately 20,000 EFVs in coastal areas. The work completed through October 31, 2020 under SHARP II includes installation of approximately 8,400 EFVs, completion of Absecon Island, substantial construction progress on the Ocean City Loop, and award of the Brigantine Bridge Project. The Company anticipates completing all SHARP II work by June 30, 2021 as planned. As with AIRP II, given the anticipated completion of the SHARP II work, the proposed SJG IIP will help promote job growth and related economic stimulus at a time when New Jersey particularly needs it.

Q. IS THE PROPOSED IIP CONSISTENT WITH FEDERAL AND STATE POLICIES?

A. Yes. The proposed IIP is consistent with the safety and reliability goals identified in various Federal and State policies. Pipelines are regulated by both Federal and State agencies. The United States Department of Transportation ("DOT") is responsible for

overseeing pipeline safety at the Federal level. The Pipeline and Hazardous Materials Safety Administration ("PHMSA"), a branch of DOT, establishes many of the regulations that apply to natural gas transmission and distribution systems. In New Jersey, the BPU administers pipeline safety requirements. Both State and Federal regulators have consistently indicated their support for the accelerated replacement of aging gas distribution infrastructure. For example, in 2011 the former Secretary of Transportation announced a Pipeline Safety Action Plan that included a call to accelerate the replacement of aging pipeline infrastructure.

With this "Call to Action" the then Secretary recommended that pipeline operators and other affected parties conduct a comprehensive review of their pipeline facilities and accelerate their repair and replacement efforts. In addition, PHMSA requires all gas distribution system operators to develop and implement a Distribution Infrastructure Management Plan ("DIMP"). A DIMP requires all operators to adopt risk-based approaches to managing the integrity of their facilities. In addition, on April 21, 2015, the White House released a New Agenda to Modernize Energy Infrastructure in the Quadrennial Energy Review and called for programs to accelerate pipeline replacement in natural gas distribution systems. The proposed IIP is also consistent with the most recent New Jersey Energy Master Plan which outlines a number of clean energy strategies vital to economic development and environmental sustainability in New Jersey, including the prioritization of the replacement by New Jersey gas utilities of leak prone pipelines. Finally, the BPU's Infrastructure Investment and Recovery regulations encourage utilities to construct, install or remediate utility plant and facilities to enhance reliability, resiliency and safety. The Board's regulations also recognize that accelerated investments in utility infrastructure help to promote

sustained economic growth in the State, which again, is particularly important at this time.

IV. DISTRIBUTION INFRASTRUCTURE INVENTORY

Q. PLEASE DESCRIBE THE MATERIALS THAT MAKE UP SOUTH JERSEY GAS'S CURRENT DISTRIBUTION SYSTEM.

A. South Jersey Gas currently provides natural gas service to approximately 402,000 customers within its service territory of approximately 2,500 square miles, which includes all or portions of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem counties. As of December 31, 2019, the Company operates a network of 146.4 miles of transmission pipelines, 6,684 miles of distribution mains, and 322,000 service lines that total 5,732 miles in length. As previously discussed, since 2009, SJG has made significant progress in retiring and replacing its vintage and leak prone infrastructure, primarily bare steel and cast iron, under numerous accelerated programs. As such, SJG's distribution system is currently composed of unprotected bare steel, protected coated steel, and plastic mains. It is currently anticipated that the unprotected bare steel will be eliminated as part of the AIRP II Program with the exception of a very small inventory due to moratorium restrictions.

The chart set forth below provides a breakdown of the Company's total inventory of distribution mains and services as of December 31, 2019.

Description	Unprotected Bare Steel	Cathodically Protected Coated Steel	Plastic	System Totals
Miles of Main	83	1,614	4,987	6,684
No. of Services	42,278	23,430	256,292	322,000

From a reliability perspective, certain portions of the Company's coated steel facilities – those installed prior to the adoption of the federal pipeline safety regulations set forth in Title 49, Part 192 of the Code of Federal Registers ("CFR") and plastic facilities – those composed of Aldyl-A plastic – are more leak prone than other facilities.

Q. PLEASE DESCRIBE THE POTENTIAL IMPACTS OF AGING MATERIALS ON SOUTH JERSEY GAS'S DISTRIBUTION SYSTEM.

A. As noted above, the 707.9 miles of coated steel main installed prior to the adoption of the Title 49 CFR 192 code (pre-code) and 1,952.9 miles of Aldyl-A main that exists in South Jersey Gas's distribution system are prone to leaks. Of the 1,952.9 miles of Aldyl-A main, 17.2 miles are pre-code. These types of main represent a current and future concern for South Jersey Gas. The leak rate for the pre-code coated steel main is 0.617 leaks per mile, while the leak rate for Aldyl-A main is 0.234 leaks per mile.[1] In comparison, the overall leaks per mile of all post-code coated steel main and all Aldyl-A main regardless of year of installation is 0.174 leaks per mile. In other words, when comparing it to the overall leak rate of mains, pre-code coated steel and Aldyl-A mains are leaking at significantly higher rates than the distribution main average.

[1] Moreover, the leak rate for pre-code Aldyl-A main is 2.446 leaks per mile. Meaning that the pre-code Aldyl-A mains are leaking at a rate 14.06 times greater than the distribution main average.

Q. PLEASE DESCRIBE IN MORE DETAIL THE ISSUES ASSOCIATED WITH THE IDENTIFIED VINTAGE PIPE MATERIALS.

A. Pre-code coated steel pipe was constructed in a manner that does not align with current standards. This means that there is a high likelihood of pipe coating holidays being found on vintage field applied coatings and more specifically vintage field applied girth weld coatings. These areas are a source of concern because holidays generate the possibility of a higher leak rate based on empirical data.

Also, pre-code coated steel pipe will corrode and develop leaks over time. Specifically, steel pipe deteriorates due to contact with moisture present in the soil. The rate of corrosion varies depending on a number of characteristics of the soil, including moisture and acidity ("pH"). Uncontrolled corrosion will ultimately result in numerous, relatively small gas leaks.

Initially, a leak from a pre-code coated steel pipe starts as a pinhole leak. Over time metal loss will increase in size and location, allowing more gas to escape, eventually resulting in numerous relatively small gas leaks. Eventually, these small leaks multiply and can grow to the point where they threaten the integrity of the pipe. In general, the deterioration of pre-code coated steel accelerates as it ages.

Vintage plastic pipe: Some of the early products found in systems have an oxidized inner surface that predisposes the inner surface to initiate cracks faster when certain stresses are applied. The resulting shortened crack initiation time leads to dramatically reduced overall pipeline longevity through a predominant failure mechanism known as slow crack growth. This unpredictable failure mode can have catastrophic consequences and was the cause of an incident involving multiple fatalities in Puerto Rico in 1996. Incidents in California led to the California Public Utilities

Commission identifying Aldyl-A Polyethylene ("PE") pipes as a major potential hazard that is not manageable by leak surveying. Additionally, the DOT has issued various PHMSA advisory bulletins about this vintage plastic pipe.

Q. WHAT IS THE GREATEST RISK TO THE CONTINUED SAFE OPERATION OF THE COMPANY'S DISTRIBUTION SYSTEM, AND WHAT IS YOUR RECOMMENDATION TO ADDRESS THIS RISK?

A. As stated in the Company's DIMP, the greatest risks to the Company's distribution system are related to pre-code coated steel and vintage plastic piping systems. A successful leak management program will help mitigate these risks, but the most prudent and cost-effective way to address these risks is to continue the accelerated replacement of the most leak prone pipe due to these elements.

The accelerated replacement of this high-risk inventory on a prioritized, risk ranked basis, of legacy piping materials will provide important safety benefits to the customers and communities served by SJG. The acceleration of these replacements over a five-year period will allow the Company to achieve critical cost savings from a broad and proactive approach to infrastructure upgrades on a system-wide basis. Please refer to Schedule BWS-4 for a description of the main and service replacements proposed under the IIP.

Q. IN ADDITION TO REPLACING VINTAGE, AT-RISK MAIN AND ASSOCIATED SERVICES, WILL THE COMPANY ALSO BE INSTALLING EFVS?

A. Yes, the Company will install EFVs on all service lines encountered within the scope of any main renewal project. All steel services will be renewed with an EFV installed at the main. Any plastic services encountered will either be tested and tied to the new main or renewed in their entirety; each with an EFV located at the main. This is consistent with the Company's practices on main renewal projects and further protects the service line from third party damage and significant weather events. As indicated earlier in my testimony, the proposed IIP includes the installation of approximately 43,500 EFVs.

V. INTEGRITY MANAGEMENT PROGRAMS

Q. WHAT DO THE PIM REGULATIONS REQUIRE WITH RESPECT TO THE DIMP PLAN?

A. The regulations mandate that a risk-based approach to distribution main and service integrity management plans be prepared by each operator. While the regulations prescribe a specific framework for documenting operating practices and procedures into a plan, the regulations provide significant operator flexibility to satisfy the requirements. At a minimum, each distribution pipeline operator's DIMP plan must address the seven major elements described below. South Jersey's DIMP plan documents the Company's risk-based approach to integrity management according to the required elements as follows:

(1) **Knowledge.** **"**Knowledge" entails the documentation of information pertaining to system design, materials, operating characteristics and environmental factors. SJG's DIMP plan references data contained in the Company's Field Book geographic information system, including leak and asset management and the corrosion control records system. The combination of these tools allows South Jersey to maintain, store, report and analyze critical data related to its distribution infrastructure.

(2) **Identify threats.** Threat identification determines broad issues that may affect the safe operation of the distribution system. Potential threats include the categories of potential operational hazards established by PHMSA. SJG relies on both internal and external data sources to identify threats. Internal data sources include various design and operating records contained in the systems noted previously. External data sources include industry-wide data, and data related to soil conditions or prepared by independent researchers.

(3) **Evaluate and rank risks.** The process of evaluating and ranking risks determines the relative importance of all identified risks. This process takes into consideration both the likelihood of an occurrence and the consequences of such occurrence. SJG relies on standard industry analyses, such as population densities in specific areas, to evaluate consequences of failure and ranks risks accordingly.

(4) **Identify and implement measures to address risks.** This element included in SJG's DIMP plan documents measures taken to reduce risk of failure. Programs at SJG that address risks include leak management, damage prevention, corrosion control, public awareness and operator qualification programs. Specific actions include prevention, detection, repair, rehabilitation, and/or replacement and

upgrade, depending on the risk-based probability of an occurrence and consequences of the specific integrity threat.

(5) **Measure performance, monitor results, and evaluate effectiveness.** Monitoring and measurement activities allow SJG to evaluate the effectiveness of actions implemented by the Company to address risks. SJG measures performance from a variety of information including the collection of data on leak causes and leaks repaired or eliminated. This data is reported and communicated within SJG for evaluating trends and to provide input for future planning purposes.

(6) **Periodic evaluation and improvement.** Periodic evaluations establish a definitive feedback loop for the overall distribution integrity management processes. Additionally, as knowledge concerning the distribution system or information on potential threats is gained, elements of the DIMP plan or required actions may be revised to take into account the impact of the enhanced understanding as it impacts SJG's integrity management activities.

(7) **Report results.** Reporting on integrity management actions and results provides information to SJG's internal management, and further satisfies Federal and State mandated reporting requirements.

Q. WHAT ARE THE TOP RISKS IDENTIFIED IN SOUTH JERSEY GAS'S DIMP?

A. The top risks identified in SJG's DIMP are 1) Corrosion on Mains, 2) Corrosion on Services, 3) Equipment Repairs on Services, 4) Excavation Damages on Services, and 5) Pipe, Weld, or Joint Failure on Services.

Q. HOW WILL SJG PRIORITIZE THE REPLACEMENT PROJECTS TO BE COMPLETED UNDER THE IIP?

A. SJG will continue to utilize its DIMP as the foundation for prioritizing projects that will be undertaken through the IIP. The Company will employ the following considerations to identify replacement projects as part of the IIP, which include the DIMP and other factors:

- Prioritization of selected facilities for safety and reliability – DIMP;
- Incorporation of the latest technologies for system design and materials;
- Undertaking environmentally friendly construction where applicable;
- Assessment of the impact on customers and communities;
- Leveraging existing embedded system components instead of replacing them,
- Maximizing the retire/install ratio;
- Coordinating work with other Company programs; and
- Coordinating work with programs by other utilities and with municipal paving projects, where applicable.

Q. HOW WILL THE IIP BENEFIT THE COMPANY'S LEAK MANAGEMENT PROGRAM?

A. Currently South Jersey Gas's leak management and asset protection programs emphasize preventive and mitigative activities through our operating procedures. These include the following elements:

- mobile, walking, and business district leak surveys
- patrolling for excavation activities
- inspection of exposed pipe and facilities

- preventive maintenance
- repair, rehabilitation and replacement of compromised infrastructure
- excavation damage prevention programs
- emergency response

Replacement of South Jersey Gas's vintage at-risk infrastructure will reduce leaks on mains and enable the Company to avoid greater costs associated with unplanned replacements of leaking main.

As we continue to significantly reduce the amount of vintage at-risk pipe through replacement, the Company anticipates a decline in costs associated with the monitoring, identifying, and repairing of leaks. Additionally, greenhouse gas emissions will be reduced significantly as legacy pipe is replaced.

VI. COST ESTIMATE

Q. HOW DID THE COMPANY DEVELOP ITS COST ESTIMATE FOR IIP?

A. The Company projects that under the IIP it will invest approximately $742.5 million, excluding AFUDC and Independent Monitor expenses, to achieve its intended goals. This bottom-up cost estimate was developed by considering the quantity of assets that have been identified as in need of replacement, the estimated miles of main the Company will replace each year, contractor unit pricing, and material costs. This investment amount is proposed to be spread over a five-year period based on the Company's experience, knowledge and expectations surrounding contractor resources, the ability to procure materials, forecasted capital spending and the Company's ability to invest its available capital in a prudent and safe manner under the program.

Q. WHAT RESOURCES ARE REQUIRED TO SUCCESSFULLY IMPLEMENT THE PROGRAM?

A. The Company will require a mix of external and internal resources to effectively implement the proposed Program. The Company will utilize outside contractors for the majority of the planned replacement work under the Program. The Company already has a significant amount of these resources to implement the Program, but is currently evaluating the need for additional engineers, project managers, analysts and financial staff to fully implement the Program.

Q. WILL A MULTI-YEAR REPLACEMENT PROGRAM ENABLE THE COMPANY TO DEPLOY ITS INVESTMENT CAPITAL MORE EFFICIENTLY?

A. Yes. Implementing a multi-year program will allow SJG to address larger sections of pipe within a single construction project, which in turn can lead to lower costs per mile as the costs of engineering and construction mobilization efforts are spread over a larger project. Additionally, over time, the Program will reduce the number of unplanned replacements, which have substantially higher costs per mile than planned replacements. As a result, the percentage of replacements that are unplanned should decrease, enhancing the efficient use of capital to address reliability risks associated with aging infrastructure.

The implementation of a new multi-year program – particularly in the period following the completion of AIRP II and SHARP II programs – also offers important opportunities for outside contractors to plan more effectively to meet future work requirements. The increased level of work will require contractors to add/maintain

construction jobs, acquire additional equipment and support necessary operator qualifications. Board approval of the Company's five-year Program will allow SJG to make a longer commitment to contractors, which has the potential to translate into lower costs for SJG and a more productive work effort, providing benefits to the New Jersey economy.

VII. BASELINE SPENDING

Q. WHAT ARE THE COMPANY'S PROPOSED COMMITMENTS TO BASELINE SPENDING THAT UNDERLINE ITS IIP FILING?

A. Consistent with the Board's regulations, the Company is proposing two baseline spending commitments. Such commitments reflect the Company's agreement to invest at certain levels but seek the recovery of the costs of the baseline investments in a future base rate case rather than through the cost recovery mechanism proposed in this case. The Company's two baseline spending commitments are as follows:

(i) over the five-year period of the IIP, the Company will spend at least $74.25 million on the same types of projects as are proposed to be included in the IIP, an amount equal to ten percent of the capital expenditures reflected in the IIP; and

(ii) over the same five-year term, the Company will invest capital in its system in an amount equal to an annual average of $86.9 million or $434.5 million over the life of the program.

Q. WHAT IS THE BASIS FOR THE COMPANY'S PROPOSED IIP BASELINE SPENDING LEVEL?

A. Consistent with the IIP Regulations, the Company proposes IIP baseline spending levels in an amount that is at least 10 percent of the total program capital expenditures, to be recovered through a future base rate case. These capital expenditures will be on work similar to that proposed to be recovered under the IIP, meaning projects consisting of the replacement of pre-code coated steel and vintage plastic main.

Q. WHAT IS THE BASIS FOR THE COMPANY'S SECOND PROPOSED CAPITAL BASELINE SPENDING LEVEL?

A. The Company's proposal is based on the actual average total Company capital expenditures for the past five years. These amounts exclude Board approved accelerated infrastructure replacement programs, such as the AIRP, AIRP II and Storm Hardening and Reliability Programs (SHARP & SHARP II), as well as their associated base spending requirements. It also excludes certain non-recurring or distinct projects specific to that historical 5-year period. Please see Schedule BWS-2 for a summary of the Company's historical 5-year capital expenditures and Schedule BWS-3 for the derivation of the proposed annual baseline capital spending level of $86.9 million.

VIII. <u>REPORTING</u>

Q. DOES THE COMPANY INTEND TO PROVIDE REGULAR REPORTS TO THE BOARD CONCERNING ITS PROGRESS?

A. Yes. In accordance with *N.J.A.C.* 14:3-2A.5(e), SJG will file annual status reports with the Board and the Division of Rate Counsel for project management and oversight

purposes. The reports will provide the following information, at a minimum: (i) forecasted and actual costs of the Program by major category; (ii) estimated total quantity of work completed under the Program by major category; (iii) estimated completion dates for the Program and each major category; (iv) anticipated changes to Program projects, if any; (v) actual capital expenditures made by the utility in the normal course of business on similar projects, identified by major category; and (vi) any other performance metrics required by the Board.

IX. MINIMUM FILING REQUIREMENTS

Q. ARE THERE ANY SCHEDULES PROVIDED WITH YOUR TESTIMONY?

A. The following schedules are attached herein to address certain minimum filing requirements ("MFRs") in accordance with *N.J.A.C.* 14:3-2A.5(b).

- Schedule BWS-1: Projected Company annual capital expenditure budgets identified by major category for the six year period 2021-2026 including annual IIP budget expenditures;
- Schedule BWS-2: Actual Company annual capital expenditures for the previous five years and current year, identified by major category;
- Schedule BWS-3: Proposed annual baseline spending level; and
- Schedule BWS-4: Engineering Evaluation

IX. PROGRAM BENEFITS

Q. PLEASE DESCRIBE THE BENEFITS ASSOCIATED WITH THE PROPOSED IIP.

A. As a whole, the proposed IIP will enhance the safety, reliability and resiliency of SJG's distribution and transmission system, promote much needed economic relief and employment growth in New Jersey to help the State recover from the financial impacts of the COVID-19 pandemic and provide environmental benefits consistent with the State's sustainability goals and the EMP. As noted above, the work associated with the Company's AIRP II and SHARP II programs are scheduled to be completed in 2021 and therefore, the proposed IIP will allow for the continuation of accelerated infrastructure replacement work, to the benefit of the New Jersey economy and particularly the South Jersey contractors who work on these projects.

Q. HOW MANY JOBS DOES THE COMPANY ANTICPATE WILL BE CREATED AS A RESULT OF THE PROPOSED IIP?

A. Rutgers University reports that for every $1 million of utility infrastructure project spending, a total of 7.9 full-year jobs are created in New Jersey, assuming key materials are manufactured in New Jersey. Applying this methodology, the proposed IIP would generate/maintain almost 1,200 jobs in New Jersey.

Q. PLEASE DESCRIBE THE BENEFITS TO CUSTOMERS AND THE GENERAL PUBLIC ASSOCIATED WITH THE PROPOSED IIP.

A. The proposed IIP will result in a safer, more resilient and more reliable distribution system. The benefits of replacing aging infrastructure are clear and compelling. First,

if approved, the IIP will enable SJG to retire portions of the Company's pipe inventory that are more susceptible to leaks over the five-year period. Any leak increases the potential for an incident and leads to higher operating costs associated with leak management. An added benefit to this leak elimination is that greenhouse gas emissions will be reduced significantly as legacy pipe is replaced.

Second, in addition to the elimination of a significant source of leaks, the proposed IIP would replace the existing at-risk vintage facilities with state-of-the-art materials that would provide reliability advantages. These advantages include the ability to more readily isolate and shut off a smaller area of main when damage occurs, minimizing the impact to customers.

Third, the replacement of aging infrastructure will support the Industry's GIS tracking and traceability initiative. This support will mean that the mains are more precisely mapped resulting in more accurate markouts which will in turn eliminate unnecessary third-party damages to the distribution infrastructure.

Lastly, the proactive distribution main replacement work will allow the Company to avoid impacts to other capital investments related to road reconstruction work that could entail road moratoriums and the disturbance of such roadways when responding to emergent leaks.

Q. WHAT BENEFITS, IF ANY, WILL CUSTOMERS REALIZE AS A RESULT OF THE PROPOSED EFV INSTALLATIONS?

A. The installation of EFVs is mandated by the Pipeline Integrity, Protection, Enforcement and Safety Act of 2006, and its implementing regulations. By way of background, EFVs installed at the connection between the service line and the

distribution main automatically cut off gas flow that exceeds a preset rate of flow. As a result, EFVs eliminate the potentially hazardous condition that may occur when gas escapes from customer facilities within the premises or Company facilities outside the premises resulting in gas build-up at the walls of the home or business.

The proposed Program includes installation of approximately 43,500 EFVs that will enable automatic shut-off in the event of a service line failure, reducing the potential risk for the Company's customers.

Q. HOW WILL CUSTOMERS AND COMMUNITIES BENEFIT FROM THE BOARD'S APPROVAL OF THE IIP?

A. In addition to the safety and reliability benefits discussed earlier, cost savings associated with approaching the work in a multi-year, planned program will continue to yield lower costs for infrastructure replacement, which will be reflected in future customer prices.

Also a reduction in the frequency of leaks and the need for repair work will free up Company resources, improve customer satisfaction and reduce negative customer impacts. The Company will have a more proactive approach as opposed to a reactive approach. This means that the impacts will be related to planned work as mentioned above instead of emergent work at the time of leak discovery. This planned work allows the local communities to understand the intent of the work and limits the disruptions within those communities due to road closures or service interruptions.

Lastly, this planned work will lead to a closer relationship with local government bodies to limit road opening permit denials and encourage closer cooperation on similar program work.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Schedule BWS-1

South Jersey Gas Company
Forecast Capex
CY2021-2026

Category	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
New Business Mains	$18,962,856	$20,611,999	$20,921,179	$21,234,997	$21,553,522	$21,876,825
New Business Services	$27,459,110	$28,108,961	$28,530,595	$28,958,554	$29,392,932	$29,833,826
Special Meter Installations	$2,196,701	$2,219,766	$2,253,063	$2,286,859	$2,321,161	$2,355,979
Replacement Mains	$206,232	$206,232	$206,232	$206,232	$206,232	$206,232
Replacement Services	$3,386,967	$3,384,486	$3,384,486	$3,384,486	$3,384,486	$3,384,486
Replacement Services Program	$0	$0	$0	$0	$0	$0
Leak Clamping	$5,223,663	$5,221,915	$5,221,915	$5,221,915	$5,221,915	$5,221,915
Purch Misc Tools & Equip	$207,260	$207,260	$207,260	$207,260	$207,260	$207,260
Improvement Mains	$709,371	$708,936	$708,936	$708,936	$708,936	$708,936
Cathodic Protection	$3,071,110	$3,071,110	$3,071,110	$3,071,110	$3,071,110	$3,071,110
CD&O & Engineering	$23,766,462	$24,089,384	$24,261,911	$24,437,027	$24,614,769	$24,795,177
IT Blankets	$483,689	$948,750	$948,750	$948,750	$948,750	$948,750
Facility and Fleet Blankets	$6,032,047	$4,638,305	$4,638,305	$4,638,305	$4,638,305	$4,638,305
Division Specials	$13,870,706	$5,631,017	$0	$0	$0	$0
Engineering Specials	$61,832,522	$50,759,188	$83,333,260	$192,124,260	$142,159,940	$53,123,078
IT Specials	$8,915,078	$4,263,363	$21,170,000	$860,000	$1,870,000	$1,870,000
Facility and Fleet Specials	$2,523,011	$3,223,740	$3,223,740	$3,223,740	$3,223,740	$3,223,740
RNG	$684,426	$29,316,000	$23,430,000	$8,408,000	$0	$0
SJG Smart Meters	$0	$33,984,275	$50,015,000	$24,130,000	$24,130,000	$24,130,000
SHARP	$2,977,058	$0				
SHARP II EFV Compliance	$0	$0	$0	$0		
AIRP	$7,005,493	$0				
AIRP Compliance	$17,157,875	$0	$0	$0		
IIP *	$85,387,500	$148,500,000	$148,500,000	$148,500,000	$148,500,000	$63,112,500
IIP Base 10% of IIP	$8,538,750	$14,850,000	$14,850,000	$14,850,000	$14,850,000	$6,311,250
IIP Monitor	$87,500	$150,000	$150,000	$150,000	$150,000	$62,500
Total	**$300,685,387**	**$384,094,687**	**$439,025,742**	**$487,550,431**	**$431,153,058**	**$249,081,869**

* Start date June 1, 2021 Excludes AFUDC and Monitor expenses.

South Jersey Gas Company
Actual Capex
CY2015-2020

						Actual / Forecast
Category	**2015 Actual**	**2016 Actual**	**2017 Actual**	**2018 Actual**	**2019 Actual**	**9+3 2020**
New Business Mains	$17,682,532	$11,904,247	$12,885,220	$15,424,847	$18,630,789	$13,422,925
New Business Services	$20,815,547	$20,803,491	$24,467,180	$24,449,819	$27,400,070	$21,905,120
Special Meter Installations	$6,473,728	$566,167	$525,330	$449,809	$670,299	$987,885
Replacement Mains	$5,813,333	$14,004,699	$2,897,673	$0	$0	$0
Replacement Services	$6,657,715	$10,273,850	$4,181,493	$2,470,909	$2,340,155	$3,354,510
Replacement Services Program	$1,211,204	$1,298,596	$1,205,609	$0	$6,499	$0
Leak Clamping	$7,735,052	$7,353,122	$5,164,632	$5,780,550	$5,443,724	$5,506,331
Purch Misc Tools & Equip	$79,883	$173,923	$145,397	$146,022	$122,377	$197,208
Improvement Mains	$613,206	$672,961	$783,378	$527,761	$487,605	$742,382
Cathodic Protection	$1,723,856	$1,527,872	$1,595,265	$1,917,395	$2,147,885	$2,564,758
CD&O & Engineering	$11,325,882	$18,827,075	$15,480,199	$14,467,302	$21,125,007	$21,446,570
IT Blankets	$248,016	$491,501	$447,608	$629,653	$560,563	$354,743
Facility and Fleet Blankets	$1,978,451	$2,293,301	$3,837,857	$1,400,145	$1,477,423	$4,015,589
Division Specials	$1,938,900	$7,337,712	$4,381,036	$2,270,096	$2,205,123	$1,748,548
Engineering Specials	$36,918,410	$26,515,321	$34,893,576	$42,327,102	$31,232,870	$43,362,062
IT Specials	$24,495,215	$5,134,770	$7,410,750	$5,904,160	$5,986,795	$10,408,810
Facility and Fleet Specials	$4,667,295	$12,156,341	$15,916,559	$40,751,622	$5,744,977	$18,085,633
SHARP	$32,163,247	$39,439,436	$15,209,163	$6,683,853	$43,777,488	$27,957,901
SHARP II EFV Compliance	$0	$0	$0	$0	$81,064	$8,178,277
AIRP	$39,431,539	$38,991,216	$80,801,814	$66,360,059	$67,099,540	$55,491,362
AIRP Compliance	$0	$1,112,994	$26,732,136	$24,639,155	$30,388,278	$29,850,933
Total	**$221,973,011**	**$220,878,595**	**$258,961,875**	**$256,600,259**	**$266,928,531**	**$269,581,547**

Schedule BWS-3

South Jersey Gas Company
Baseline Capex 5 Year Average

Actual / Forecast

Category	9+3 2020	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
New Business Mains	$13,422,925	$18,962,856	$20,611,999	$19,015,790	$19,301,027
New Business Services	$21,905,120	$27,459,110	$28,108,961	$25,864,005	$26,251,965
Special Meter Installations	$987,885	$2,196,701	$2,219,766	$2,255,163	$2,288,990
Replacement Mains	$0	$206,232	$206,232	$0	$0
Replacement Services	$3,354,510	$3,386,967	$3,384,486	$3,225,400	$3,225,400
Replacement Services Program	$0	$0	$0	$0	$0
Leak Clamping	$5,506,331	$5,223,663	$5,221,915	$5,394,300	$5,394,300
Purch Misc Tools & Equip	$197,208	$207,260	$207,260	$192,800	$192,800
Improvement Mains	$742,382	$709,371	$708,936	$704,400	$704,400
Cathodic Protection	$2,564,758	$3,071,110	$3,071,110	$3,076,600	$3,076,600
CD&O & Engineering	$21,446,570	$23,766,462	$24,089,384	$23,507,938	$23,675,094
IT Blankets	$354,743	$483,689	$948,750	$303,600	$303,600
Facility and Fleet Blankets	$4,015,589	$6,032,047	$4,638,305	$3,401,700	$3,401,700
Total	**$74,498,021**	**$91,705,468**	**$93,417,104**	**$86,941,696**	**$87,815,876**

Five Year Average **$86,875,633**

South Jersey Gas Company
Infrastructure Investment Program
Engineering Evaluation

Background

South Jersey Gas Company (SJG) owns and operates 6,684 miles of distribution mains, 146.4 miles of transmission mains, and 322,000 services in its five (5) operating divisions. The following is a breakdown of the Company's distribution system inventory by material type as of December 31, 2019:

Description	Unprotected	Cathodically Protected	Plastic	System Totals
	Bare Steel	Coated Steel		
Miles of Main	83	1614	4987	6684
No. of Services	42278	23430	256292	322000

At-Risk Aging Infrastructure

The Company considers its vintage, at-risk distribution system as being coated steel main installed prior to the 49 CFR 192 code adoption (pre-code) and vintage plastic (Aldyl-A) main operating between 25 psig and 60 psig. Both pre-code coated steel and vintage plastic main are prone to leaks. The amount of pre-code steel and vintage plastic main that remains in service today represents a current and future concern for SJG. Additionally, from a leak perspective, the bulk of these materials found in the distribution system consumes a significant percentage of the Company's annual O&M budget.

The pre-code coated steel main was constructed in a manner that doesn't align with current standards. This means that the field applied coatings and more specifically vintage field applied girth weld coatings have a high likelihood of holidays being found. These holidays are an area of concern for SJG since external corrosion is prevalent in those locations which makes this pipe more prone to leaks over time.

In addition, steel pipe deteriorates due to contact with moisture present in the soil. The rate of corrosion varies depending on several characteristics of the soil, including moisture and acidity ("pH"). Uncontrolled corrosion will ultimately result in numerous, relatively small gas leaks.

Initially, a leak from a pre-code coated steel main starts as a pinhole leak. Over time metal loss will increase in size and location, allowing more gas to escape, eventually resulting in numerous relatively small gas leaks. Eventually, these small leaks multiply and can grow to the point where they threaten the integrity of the pipe. In general, the deterioration of pre-code coated steel accelerates as it ages.

This aligns with SJG's findings in the 2019 Risk Model Analysis which shows that corrosion is the top threat for mains. The following is a listing of the top five (5) threats to SJG's distribution system:

1. Corrosion on Mains (2,300 or 26.14% of all leak repairs)
2. Corrosion on Services (1,336 or 15.18% of all leak repairs)
3. Equipment Repairs on Services (1,332 or 15.14% of all leak repairs)
4. Excavation Damages on Services (1,084 or 12.32% of all leak repairs)
5. Pipe, Weld, or Joint Failure on Services (807 or 9.17% of all leak repairs)

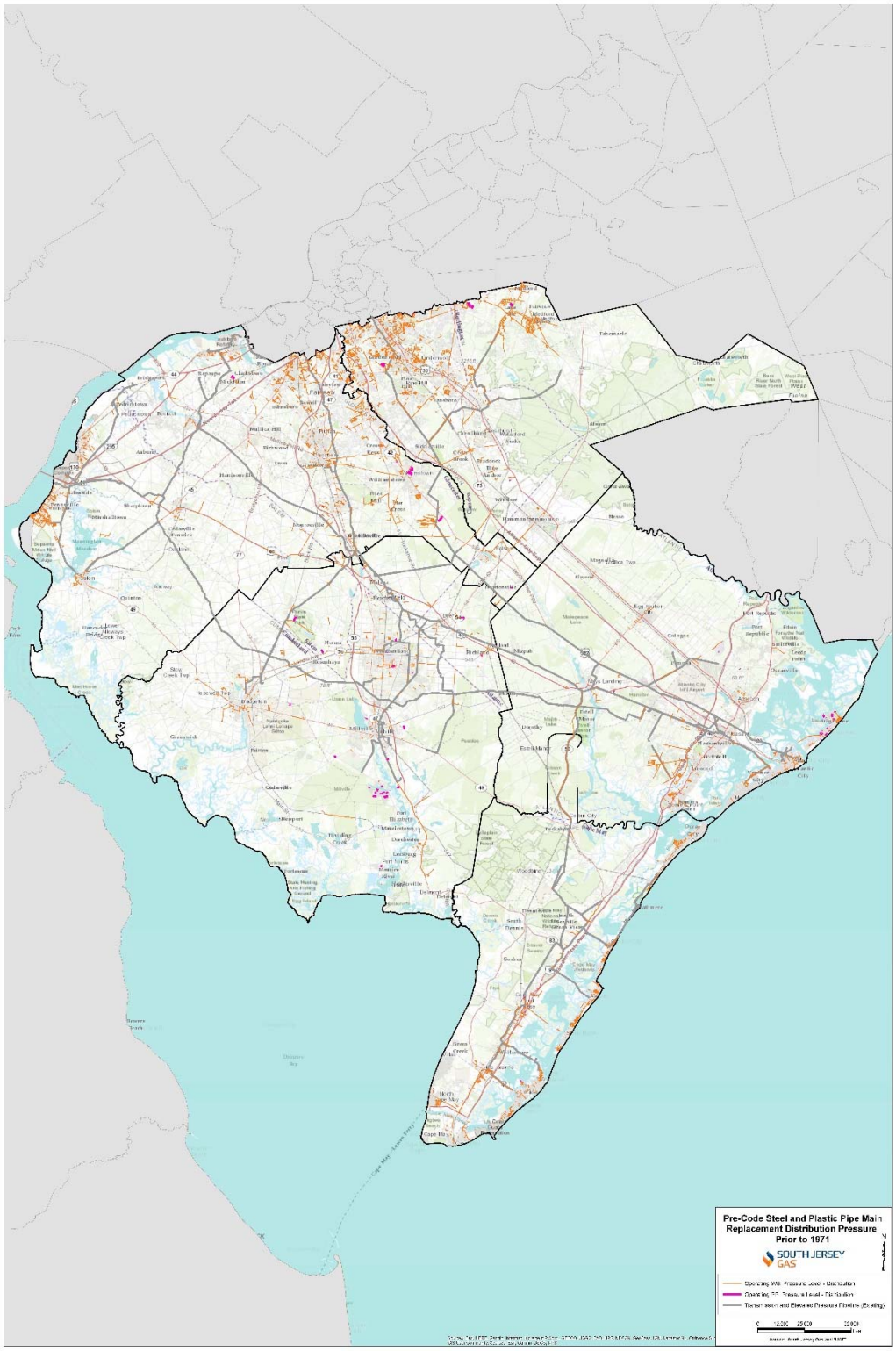
In addition, some of the early products of vintage plastic pipe found in systems have an oxidized inner surface that predisposes the inner surface to initiate cracks faster when certain stresses are applied. The resulting shortened crack initiation time leads to dramatically reduced overall pipeline longevity through a predominant failure mechanism known as slow crack growth. This unpredictable failure mode can have catastrophic consequences and was the cause of an incident involving multiple fatalities in Puerto Rico in 1996. Incidents in California led to the California Public Utilities Commission identifying Aldyl-A Polyethylene ("PE") pipes as a major potential hazard that is not manageable by leak surveying. Additionally, the United States Department of Transportation ("DOT") has issued various Pipeline and Hazardous Materials Safety Administration ("PHMSA") advisory bulletins about this vintage plastic pipe.

The below table represents the Company's system main inventory by decade of installation as of 12/31/2019. Included in the figures found in the below chart is the 707.9 miles of pre-code coated steel main and 1,952.9 miles of vintage plastic main.

MILES OF MAIN BY DECADE OF INSTALLATION										
UNKNOWN	**PRE-1940**	**1940-1949**	**1950-1959**	**1960-1969**	**1970-1979**	**1980-1989**	**1990-1999**	**2000-2009**	**2010-2019**	**TOTAL**
1	113	5	213	646	571	875	909	1073	2278	6684

Location of Vintage Infrastructure

SJG Pre-code Coated Steel & Vintage Plastic Pipe Targeted Replacement –



South Jersey Gas' Proposed Infrastructure Investment Program Plan

The Company is proposing to file an IIP Plan in the 4th quarter of 2020 to commence on June 1, 2021. The plan is proposed for an initial five-year period, through May 31, 2026. The Company proposes to invest an estimated $742.5 million (excluding Allowance for Funds Used During Construction ("AFUDC")) pursuant to an IIP to (i) retire and replace approximately 825 miles of vintage, at-risk mains and associated customer services. and (ii) install approximately 43,500 excess flow valves ("EFVs") on services on the upgraded system.

Description of the Project Plan

Pre-Code Steel and Vintage Plastic Main Replacement:

This project involves the replacement of 825 miles of the Company's pre-code coated steel and vintage plastic main in SJG's distribution system which operates predominantly between 25 psig and 60 psig. This 5-year program will replace pre-code coated steel and vintage plastic main throughout the five (5) operating divisions at SJG. In addition, 43,500 service lines will be replaced, much of them being vintage steel and plastic, along with the same amount of excess flow valves to be installed on each service line. The excess flow valves are required as mandated by the Pipeline Integrity, Protection, Enforcement and Safety Act of 2006, and its implementing regulations

Quantitative and Qualitative Benefits of Program Plan:

Implementing a multi-year program will allow SJG to address larger sections of pipe within a single construction project, which in turn can lead to lower costs per mile as the costs of engineering and construction mobilization efforts are spread over a larger project. Additionally, over time, the Program will reduce the number of unplanned replacements, which have substantially higher costs per mile than planned replacements. As a result, the percentage of replacements that are unplanned should decrease, enhancing the efficient use of capital expenditures to address reliability risks associated with aging infrastructure. These cost savings associated with approaching the work in a multi-year, planned program will continue to yield lower costs for infrastructure replacement, which will be reflected in future customer prices. The Company will require a mix of external and internal resources to effectively implement the proposed Program. The Company will utilize outside contractors for the majority of the planned replacement work under the program. The Company already has a significant amount of these resources to implement the Program, however, is currently evaluating the need for additional engineers, project managers, analysts and financial staff to fully implement the Program.

The implementation of a multi-year program offers important opportunities for outside contractors to plan more effectively to meet increased work requirements. The increased level of work will require contractors to add/maintain construction jobs, acquire additional equipment and support necessary operator qualifications. The 5-year Program will allow SJG to make a longer commitment to contractors, which has the potential to translate into lower costs for SJG and a more productive work effort, providing benefits to the New Jersey economy.

Also, SJG's leak management and asset protection programs emphasize prevention and mitigation activities within its operating procedures. This includes the following elements:

- mobile, walking, and business district leak surveys
- patrolling for excavation activities
- inspection of exposed pipe and facilities
- preventive maintenance
- repair, rehabilitation, and replacement of compromised infrastructure
- excavation damage prevention programs
- emergency response

The replacement of SJG's vintage, at-risk infrastructure will greatly help with leak management and asset protection programs by reducing leaks on mains which enables the Company to avoid greater costs associated with unplanned replacements of leaking main.

As SJG continues to significantly reduce the amount of vintage at-risk pipe through replacement, the Company anticipates a decline in costs associated with the monitoring, identifying, and repairing of leaks. In addition, by eliminating leaks, SJG is decreasing the potential for an incident.

Lastly, the installation of EFVs is mandated by the Pipeline Integrity, Protection, Enforcement and Safety Act of 2006, and its implementing regulations. By way of background, EFVs installed at the connection between the service line and the distribution main automatically cut off gas flow that exceeds a preset rate of flow. As a result, EFVs eliminate the potentially hazardous condition that may occur when gas escapes from customer facilities within the premise or Company facilities outside the premises resulting in gas build-up at the walls of the home or business. The proposed Program includes the installation of approximately 43,500 EFVs that will enable automatic shut-off in the event of a service line failure, reducing the potential risk for the Company's customers.

Conclusion:

The proposed IIP will result in a safer, more resilient and more reliable distribution system. The benefits of replacing aging infrastructure are clear and compelling. First, if approved, the IIP will enable SJG to retire portions of the Company's pipe inventory that are more susceptible to leaks over the five-year period. Any leak increases the potential for an incident and leads to higher operating costs associated with leak management. An added benefit to this leak elimination is that greenhouse gas emissions will be reduced significantly as legacy pipe is replaced.

Second, in addition to the elimination of a significant source of leaks, the proposed IIP would replace the existing at-risk vintage facilities with state-of-the-art materials that would provide reliability advantages. These advantages include the ability to more readily isolate and shut off a smaller area of main when damage occurs, minimizing the impact to customers.

Third, the replacement of aging infrastructure will support the Industry's GIS tracking and traceability initiative. This support will mean that the mains are more precisely mapped resulting in more accurate markouts which will in turn eliminate unnecessary third-party damages to the distribution infrastructure.

Lastly, the proactive distribution main replacement work will allow the Company to avoid impacts to other capital investments related to road reconstruction work that could entail road moratoriums and the disturbance of such roadways when responding to emergent leaks.

VERIFICATION

STATE OF NEW JERSEY)
) ss:
COUNTY OF ATLANTIC)

I, Brent W. Schomber, being duly sworn according to law, upon his oath, deposes and says:

1. I am a Vice President of Operations for the Petitioner in the foregoing Petition and I am authorized to make this Affidavit on behalf of the Petitioner.

2. The statements made in the foregoing Petition and exhibits and schedules submitted therewith correctly portray the information set forth therein, to the best of my knowledge, information and belief.

Brent W. Schomber
Vice President of Operations

Sworn to and subscribed to before me
this 19th day of November, 2020.

Notary Public
CAROLYN A. JACOBS
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires October 28, 2023

EXHIBIT P-2

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

I/M/O THE PETITION OF SOUTH JERSEY GAS COMPANY TO IMPLEMENT AN INFRASTRUCTURE INVESTMENT PROGRAM ("IIP") AND ASSOCIATED RECOVERY MECHANISM PURSUANT TO *N.J.S.A.* 48:2-21 AND *N.J.A.C.* 14:3-2A

DIRECT TESTIMONY

OF

NICOLE C. GATYAS
ASSOCIATE, RATES ANALYST

ON BEHALF OF

SOUTH JERSEY GAS COMPANY

NOVEMBER
2020

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, AFFILIATION AND BUSINESS ADDRESS.

A. My name is Nicole C. Gatyas and I am an Associate Rates Analyst for South Jersey Gas ("SJG" or "the Company"). My business address is One South Jersey Place, Atlantic City, NJ 08401.

Q. WHAT IS THE SCOPE OF YOUR DUTIES AT SOUTH JERSEY?

A. In my current role, I support the Company's Rate Department activities, including the preparation and coordination of all rate case, revenue-related and other filings with the New Jersey Board of Public Utilities ("BPU" or the "Board").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS AND BUSINESS EXPERIENCE.

A. I received a Bachelor of Science Degree in Finance from Kean University in 2017. In December 2019, I joined the Rates Department at SJG.

Prior to my employment at SJG, beginning in February 2017, I worked for JPMorgan Chase as a Teller. In May 2018, I subsequently accepted a role for a Deposit Operations Representative in the Operations Department of Ocean First Bank N.A. In February 2019, I moved to the Internal Audit Department at Ocean First Bank N.A. as an Internal Auditor and represented a diverse internal customer base in conducting audits of operations and management practices.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to support SJG's petition to establish an Infrastructure Investment Program ("IIP" or "Program") to permit the Company to undertake a five-year program to modernize and enhance the reliability and safety of its gas distribution system and obtain timely recovery of the costs associated with the Program. More specifically, I will support and explain SJG's proposed infrastructure recovery mechanism which is being submitted in accordance with *N.J.A.C.* 14:3-2A. As part of my testimony, I will provide details for calculating the revenue requirement, the associated cost recovery mechanism, rate design and customer bill impacts associated with the proposed IIP.

Q. DOES YOUR TESTIMONY INCLUDE ANY SCHEDULES THAT ILLUSTRATE HOW THE IIP RATE AND REVENUE REQUIREMENT WILL BE DETERMINED?

A. Yes. The following supporting schedules, which were prepared under my direction and supervision, are attached:

- Schedule NCG-1: Forecasted Revenue Requirements and Residential Bill Impacts
- Schedule NCG-2: Weighted Average Cost of Capital ("WACC")
- Schedule NCG-3: Revenue Expansion Factor
- Schedule NCG-4: Proposed Incremental IIP Rates
- Schedule NCG-5: Conservation Incentive Program ("CIP") Margin Revenue Rates

- Schedule NCG-6: Proposed Rider "B" Tariff sheet.

III. IIP COST RECOVERY

Q. PLEASE DESCRIBE HOW SJG PROPOSES TO RECOVER THE COSTS OF THE PROPOSED IIP.

A. SJG proposes to recover the IIP costs through the establishment of an IIP tariff rider, Rider "B", that will permit recovery of the revenue requirements associated with the IIP based on actual plant in-service for six-month periods pursuant to N.J.A.C. 14:3-2A.6(a). As proposed, the Company will invest $742,500,000 in mains and services in its distribution system over a five-year period. This amount excludes any Allowance for Funds Used During Construction ("AFUDC") and the cost of a program Monitor all of which is to be recovered under the proposed IIP Rider. In addition, the Company will invest $74,425,000 million, representing 10% of the IIP investment to be recovered in a subsequent base rate case filing(s) in accordance with N.J.A.C. 14:3-2A. The Company proposes to make its first filing on January 1, 2022 with a rate effective date of March 1, 2022 to reflect eligible IIP projects placed in service during the six-month period June 1, 2021 through November 30, 2021. Further details regarding the revenue requirement calculation and proposed timing of each subsequent semiannual filing are provided below.

Q. PLEASE EXPLAIN HOW THE COMPANY PROPOSES TO CALCULATE THE REVENUE REQUIREMENT FOR THE IIP PROJECTS.

A. The revenue requirement is calculated using the following formula:

Revenue Requirements = ((IIP Rate Base * After-Tax WACC) + Depreciation Expense (net of tax)) * Revenue Factor

Projected revenue requirements for each IIP roll-in are provided in Schedule NCG-1.

Q. HOW DOES THE COMPANY PROPOSE TO CALCULATE THE IIP RATE BASE?

A. The IIP Rate Base is calculated as the filing period's gross plant-in-service, which includes AFUDC and monitor expenses, less book depreciation and less Deferred Income Taxes.

Q. HOW IS THE AFTER-TAX WACC CALCULATED?

A. SJG is proposing to utilize the after-tax WACC approved by the Board in the Company's 2020 base rate case (Docket No. GR20030243). The WACC is 6.90% (6.418% after-tax), which is based on a return on equity ("ROE") of 9.60% and an equity component in the capital structure of 54.00%. See Schedule NCG-2 attached hereto.

Q. HOW WILL DEPRECIATION EXPENSE BE CALCULATED?

A. Depreciation expense will be calculated based on the asset class placed in service (i.e., distribution mains and services) multiplied by the associated depreciation rate for that asset as established in the Company's 2020 base rate case. The depreciation rate for distribution main is 1.48% and 2.23% for distribution services

Q. WHAT IS THE REVENUE EXPANSION FACTOR UTILIZED IN THE CALCULATION OF THE REVENUE REQUIREMENT?

A. The revenue expansion factor adjusts the revenue requirement to reflect State and Federal income taxes, as well as the costs associated with Board and Division of Rate Counsel Annual Assessments and an uncollectible account percentage. The revenue expansion factor utilized by the Company is 1.418291, which is the revenue factor that was approved in the Company's 2020 base rate case (Docket No. GR20030243). See Schedule NCG-3 attached hereto.

Q. WHAT EXPENDITURES WILL BE INCLUDED IN IIP PLANT-IN-SERVICE BALANCES?

A. The IIP in-service balances would include all capital expenditures associated with IIP projects placed in service, including actual costs of engineering, design and construction, and property acquisitions, including actual labor, materials, overhead, AFUDC, and monitor expenses. In order to begin physical construction on June 1, 2021 the Company is proposing that in be allowed to include in rates engineering design expenditures incurred prior to Board approval of the IIP program. Expenditures made prior to the Board's approval of the IIP would not be eligible for accelerated recovery, except for these engineering design expenditures. This treatment is consistent with the IIP approved for the Company's sister utility, Elizabethtown Gas Company.

Q. WHEN ARE IIP EXPENDITURES ELIGIBLE FOR AFUDC?

A. While IIP projects are under construction, they will be recorded in a Construction Work in Progress ("CWIP") account and will accrue AFUDC on a monthly basis. The AFUDC will be capitalized and included in the balance to be recovered through the proposed IIP Rider. At the time the respective project is deemed used and useful, it will be transferred to a utility plant in-service account and the booking of AFUDC will cease. The AFUDC rate on CWIP balances will be determined using the modified Federal Energy Regulatory Commission ("FERC") methodology.

Q. HOW WILL DEFERRED INCOME TAXES BE CALCULATED?

A. Deferred income taxes will be calculated by multiplying the difference in the Company's tax depreciation expense and book depreciation expense for the plant subject to the IIP by the effective income tax rate. The Company's tax depreciation expense would be adjusted for any bonus depreciation in accordance with Federal tax laws. The current tax rate used in the calculation of deferred taxes is 28.11%.

Q. HOW DOES THE COMPANY PROPOSE TO ADJUST THE IIP RATE?

A. The Company is proposing to recover the revenue requirement associated with the IIP based on actual plant in-service pursuant *N.J.A.C.* 14:3-2A.6(a). In accordance with *N.J.A.C.* 14:3-2A.6(b), the Company proposes to file semiannual when eligible in-service amounts exceed ten percent (10%) of the total proposed Program spending. The Company further proposes that the IIP rate adjustment take effect approximately sixty (60) days after the filing. The table below provides a proposed filing schedule for the IIP. Note the actual filings may be submitted less frequently than semi-annual

if the minimum 10% requirement has not been met for the corresponding recovery period.

Period	In-Service Period From	To:	Filing Date	Effective Date
1	June 1, 2021	Nov 30, 2021	Jan 1, 2022	Mar 1, 2022
2	Dec 1, 2021	May 31, 2022	July 1, 2022	Sept 1, 2022
3	June 1, 2022	Nov 30, 2022	Jan 1, 2023	Mar 1, 2023
4	Dec 1, 2022	May 31, 2023	July 1, 2023	Sept 1, 2023
5	June 1, 2023	Nov 30, 2023	Jan 1, 2024	Mar 1, 2024
6	Dec 1, 2023	May 31, 2024	July 1, 2024	Sept 1, 2024
7	June 1, 2024	Nov 30, 2024	Jan 1, 2025	Mar 1, 2025
8	Dec 1, 2024	May 31, 2025	July 1, 2025	Sept 1, 2025
9	June 1, 2025	Nov 30, 2025	Jan 1, 2026	Mar 1, 2026
10	Dec 1, 2025	May 31, 2026	July 1, 2026	Sept 1, 2026
residual	June 1, 2026	Nov 30, 2026	Jan 1, 2027	Mar 1, 2027

Assuming approval of the Program on June 1, 2021, the proposed IIP investments are all scheduled to be completed by May 31, 2026, except for certain residual close out work that may occur following the conclusion of the Program. As such, the Company proposes a residual rate adjustment filing no later than January 1, 2027 to reflect all costs incurred through November 30, 2026 to close out the IIP projects. Given the nature of the work, the residual filing may be less than 10% of the Program.

Q. WHAT RATE DESIGN IS THE COMPANY PROPOSING TO USE FOR THE IIP RATE ADJUSTMENTS?

A. The Company proposes to allocate the total revenue requirement to each firm customer class and firm special contract customers based on the level of distribution revenues from the rate design approved in the most recent base rate case. A volumetric

distribution charge will be determined for each class utilizing the rate case billing determinants to ensure the IIP costs are spread appropriately among SJG's firm customers. See Schedule NCG-4 attached hereto. Further, the Margin Revenue Rates applicable to the Company's CIP Margin Revenue Factor rates will also reflect the IIP rate adjustments which are also used to determine the non-weather portion of the CIP.

Q. WHY IS IT APPROPRIATE TO UPDATE THE CIP MARGIN REVENUE RATES FOR THE PROPOSED IIP COST RECOVERY MECHANISM?

A. Schedule NCG-5 presents the CIP Margin Revenue Rates as the sum of pretax base rates and proposed March 1, 2021 IIP rates for the RGS, GSG and GSG-LV classes. The CIP rates are typically adjusted in rate cases or other dockets that effect base rate volumetric distribution charges. Although the IIP rate is included in a rider, it is effectively a base rate change to volumetric distribution charges per plant in-service amounts that will in a future rate case be allocated to firm rate classes. It is therefore, appropriate to revise the CIP margin revenue rates to include IIP.

Q. ARE YOU PROPOSING ANY CUSTOMER SAFEGUARDS IN CONNECTION WITH THE PROPOSED COST RECOVERY MECHANISM?

A. Yes. In accordance with *N.J.A.C.* 14:3-2A.6(h-i), the IIP will be subject to an earnings test on return on equity ("ROE"). To the extent the calculated ROE exceeds the authorized ROE of 9.60 percent approved in the Company's most recent base rate case by 50 basis points or more, the Company will not seek accelerated recovery of the IIP investments in the applicable filing period. To the extent that this prevents the Company from recovering IIP program costs in any given semi-annual filing period,

such costs will be deferred and included in the next semi-annual filing period, or until such time as the earnings test is met.

Q. HOW DOES THE COMPANY PROPOSE TO CALCULATE ROE?

A. Consistent with IIP regulations, the Company proposes to calculate the ROE based on actual net income for the most recent 12-month period divided by the average of the beginning and ending common equity balances for the corresponding period.

Q. UNDER THE COMPANY'S PROPOSAL, WHAT OPPORTUNITY WILL THE BPU HAVE TO REVIEW THE IIP COSTS?

A. As discussed above, South Jersey proposes to make semi-annual IIP filings to recover IIP investments placed in service during the five-year program period that would commence on June 1, 2021 and remain in effect until May 31, 2026. The BPU and other interested parties will have the opportunity to review these filings to ensure that the proposed rates are calculated in accordance with the BPU order approving the IIP and any other relevant BPU orders. The IIP rate will be adjusted on a provisional basis and will be deemed final when the IIP project costs are rolled into base rates in the Company's next base rate proceeding.

Q. DOES THE COMPANY PLAN TO FILE A BASE RATE CASE IN CONNECTION WITH THE PROPOSED IIP?

A. Yes. In accordance with *N.J.A.C.* 14:3-2A.6(f), the Company will file a base rate case no later than five years after Program commencement, at which time the prudence of the Program costs would be subject to review. SJG may continue to file for accelerated

recoveries during the term of the IIP notwithstanding the filing of its next base rate case, which is consistent with the IIP regulations.

Q. PLEASE PROVIDE AN ESTIMATE OF THE POTENTIAL IIP RATE IMPACT ON A TYPICAL RESIDENTIAL HEATING CUSTOMER OVER THE FIVE-YEAR TERM OF THE PROGRAM.

A. The initial estimated bill impact for a residential heating customer using 1,000 therms semi-annual is estimated to begin on March 1, 2022 is $22.62 or 1.6% based on plant in service as of November 30, 2021. Schedule NCG-1 presents the estimated residential bill impacts for the remaining periods of the program.

Q. WHY IS IT APPROPRIATE FOR THE BOARD TO AUTHORIZE THE COMPANY TO IMPLEMENT THE PROPOSED IIP COST RECOVERY MECHANISM?

A. Approval of the IIP is consistent with the ratemaking approach permitted under *N.J.A.C.* 14:3-2A. The Company must be permitted to adjust rates on a provisional basis to ensure current recovery of IIP related costs. The proposed cost recovery mechanism will allow the Company to continue making significant incremental capital investments to improve the safety and reliability of its system, while recovering costs in a timely manner to ensure its ability to access the credit and capital markets is maintained. Additionally, by reflecting IIP investments in rates on a semi-annual basis, shortly after authorized investments are expended and prior to the Company's next base rate case, customer bills are impacted in smaller increments thereby reducing rate shock.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

SOUTH JERSEY GAS COMPANY
Infrastructure Investment Program ("IIP")
Revenue Requirement and Residential Bill Impact

	Roll-In >>>	November 2021 Mar-1-2022	May 2022 Sep-1-2022	November 2022 Mar-1-2023	May 2023 Sep-1-2023	November 2023 Mar-1-2024	May 2024 Sep-1-2024
Plant In Service (excl AFUDC)		$74,250,000	$74,250,000	$74,250,000	$74,250,000	$74,250,000	$74,250,000
Monitor		$75,000	$75,000	$75,000	$75,000	$75,000	$75,000
Advanced Leak Detection (ALD) Report		$0	$0	$0	$0	$0	$0
AFUDC		$182,080	$228,892	$275,419	$228,892	$275,419	$228,892
Total Plant In Service		$74,507,080	$74,553,892	$74,600,419	$74,553,892	$74,600,419	$74,553,892
Book Depreciation, half year		($649,045)	($649,452)	($649,858)	($649,452)	($649,858)	($649,452)
Deferred Income Tax		($602,951)	($603,330)	($603,707)	($603,330)	($603,707)	($603,330)
Rate Base		$73,255,084	$73,301,110	$73,346,854	$73,301,110	$73,346,854	$73,301,110
Rate of Return - net of tax		6.418%	6.4180%	6.4180%	6.4180%	6.4180%	6.4180%
		$4,701,511	$4,704,465	$4,707,401	$4,704,465	$4,707,401	$4,704,465
O&M Red. for Leak Repairs - per Stip, net of tax	28.110%	$0	$0	$0	$0	$0	$0
Advanced Leak Detection expense, net of tax	28.110%	$0	$0	$0	$0	$0	$0
Depreciation Exp, net of tax	28.110%	$933,196	$933,782	$934,365	$933,782	$934,365	$933,782
Allowable Net Income		$5,634,707	$5,638,247	$5,641,766	$5,638,247	$5,641,766	$5,638,247
Revenue Factor		1.418291	1.418291	1.418291	1.418291	1.418291	1.418291
Revenue Requirement		**$7,991,654**	**$7,996,675**	**$8,001,666**	**$7,996,675**	**$8,001,666**	**$7,996,675**
Cumulative Revenue Requirement		**$7,991,654**	**$15,988,329**	**$23,989,995**	**$31,986,670**	**$39,988,336**	**$47,985,011**
Average Book Depreciation Rate		1.74%	1.74%	1.74%	1.74%	1.74%	1.74%
Tax Depreciation Rate		3.750%	3.750%	3.750%	3.750%	3.750%	3.750%
Bonus Depreciation Rate		0%	0%	0%	0%	0%	0%
Half Year Book Depreciation		$649,045	$649,452	$649,858	$649,452	$649,858	$649,452
Tax Bonus Depreciation		$0	$0	$0	$0	$0	$0
Tax Depreciation		$2,794,016	$2,795,771	$2,797,516	$2,795,771	$2,797,516	$2,795,771
Deferred Income Tax Credit, (Bk - Tax)* Tax Rate		($602,951)	($603,330)	($603,707)	($603,330)	($603,707)	($603,330)
O&M Red. for Leak Repairs - per Stip		$0	$0	$0	$0	$0	
Advanced Leak Detection expense		$0	$0	$0	$0	$0	
Residential Bill Impact:							
Rate Case Billing Determinants							
% / $$$ to RGS	70.522255%	$5,635,895	$5,639,436	$5,642,955	$5,639,436	$5,642,955	$5,639,436
Rate Case Therms	265,712,873	$0.021210	$0.021224	$0.021237	$0.021224	$0.021237	$0.021224
per Therm w/ SUT	106.625%	$0.022615	$0.022630	$0.022644	$0.022630	$0.022644	$0.022630
Annual Increase, w/tax	1,000	$22.62	$22.63	$22.64	$22.63	$22.64	$22.63
Cumulative Increase		$22.62	$45.25	$67.89	$90.52	$113.16	$135.79
1,000 therm Bill as of 10/1/20 before / after IIP	$1,443.03	$1,465.65	$1,488.28	$1,510.92	$1,533.55	$1,556.19	$1,578.82
% Increase from Prior Bill		**1.6%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**
Cumulative % Increase from Current Bill		**1.6%**	**3.1%**	**4.7%**	**6.3%**	**7.8%**	**9.4%**

SOUTH JERSEY GAS COMPANY
Infrastructure Investment Program ("IIP")
Revenue Requirement and Residential Bill Impact

	7 **November 2024** **Mar-1-2025**	8 **May 2025** **Sep-1-2025**	9 **November 2025** **Mar-1-2026**	10 **May 2026** **Sep-1-2026**
Plant In Service (excl AFUDC)	$74,250,000	$74,250,000	$74,250,000	$74,250,000
Monitor	$75,000	$75,000	$75,000	$75,000
Advanced Leak Detection (ALD) Report	$0	$0	$0	$0
AFUDC	$275,419	$228,892	$275,419	$321,972
Total Plant In Service	$74,600,419	$74,553,892	$74,600,419	$74,646,972
Book Depreciation, half year	($649,858)	($649,452)	($649,858)	($650,263)
Deferred Income Tax	($603,707)	($603,330)	($603,707)	($604,083)
Rate Base	$73,346,854	$73,301,110	$73,346,854	$73,392,626
Rate of Return - net of tax	6.4180%	6.4180%	6.4180%	6.4180%
	$4,707,401	$4,704,465	$4,707,401	$4,710,339
O&M Red. for Leak Repairs - per Stip, net of tax	$0	$0	$0	$0
Advanced Leak Detection expense, net of tax	$0	$0	$0	$0
Depreciation Exp, net of tax	$934,365	$933,782	$934,365	$934,948
Allowable Net Income	$5,641,766	$5,638,247	$5,641,766	$5,645,287
Revenue Factor	1.418291	1.418291	1.418291	1.418291
Revenue Requirement	**$8,001,666**	**$7,996,675**	**$8,001,666**	**$8,006,660**
Cumulative Revenue Requirement	**$55,986,677**	**$63,983,352**	**$71,985,018**	**$79,991,678**
Average Book Depreciation Rate	1.74%	1.74%	1.74%	1.74%
Tax Depreciation Rate	3.750%	3.750%	3.750%	3.750%
Bonus Depreciation Rate	0%	0%	0%	0%
Half Year Book Depreciation	$649,858	$649,452	$649,858	$650,263
Tax Bonus Depreciation	$0	$0	$0	$0
Tax Depreciation	$2,797,516	$2,795,771	$2,797,516	$2,799,261
Deferred Income Tax Credit, (Bk - Tax)* Tax Rate	($603,707)	($603,330)	($603,707)	($604,083)
O&M Red. for Leak Repairs - per Stip				
Advanced Leak Detection expense				
Residential Bill Impact:				
Rate Case Bi				
% / $$$ to RGS	$5,642,955	$5,639,436	$5,642,955	$5,646,477
Rate Case Therms	$0.021237	$0.021224	$0.021237	$0.021250
per Therm w/ SUT	$0.022644	$0.022630	$0.022644	$0.022658
Annual Increase, w/tax	$22.64	$22.63	$22.64	$22.66
Cumulative Increase	$158.43	$181.06	$203.70	$226.36
1,000 therm Bill as of 10/1/20 before / after IIP	$1,601.46	$1,624.09	$1,646.73	$1,669.39
% Increase from Prior Bill	**1.4%**	**1.4%**	**1.4%**	**1.4%**
Cumulative % Increase from Current Bill	**11.0%**	**12.5%**	**14.1%**	**15.7%**

Schedule NCG-2

SOUTH JERSEY GAS COMPANY
Infrastructure Investment Program ("IIP")
Weighted Average Cost of Capital ("WACC")

Rate Case 2020			**FIT at**	21%
	Capitalization Ratios	**Rate**	**Cost %**	**After Tax**
				28.110%
Long Term Debt	46.00%	3.731%	1.716%	1.234%
Short Term Debt	0.00%	0.000%	0.000%	0.000%
Common Equity	54.00%	9.600%	5.184%	5.184%
Total Capitalization	100.00%		**6.900%**	**6.418%**

Schedule NCG-3

SOUTH JERSEY GAS COMPANY
Infrastructure Investment Program ("IIP")
Revenue Expansion Factor

	Rate Case 2020
Revenue Increase	100.000%
BPU Assessments	0.220453%
RC Assessments	0.053099%
Uncollectible Accounts Percentage	1.649700%
Income before Corporate Business Tax	98.07675%
NJ Corporate Business Tax @ 9.00%	8.82691%
Income before Federal Income Taxes	89.24984%
Federal Income Taxes @ 21%	18.74247%
Return	70.50737%
Revenue Factor (100% / Return %)	**1.418291**

Schedule NCG-4

SOUTH JERSEY GAS COMPANY
Infrastructure Investment Program ("IIP")
Proposed Rates - March 1, 2022
Summary

	2020 Rate Case % of Base Revenues	Revenue Requirement	Revenue Proof	2020 Rate Cas Distribution Therms	Pre Tax Rates per Rev.Req.	Sales Tax 6.625%	Rates w/ Tax
RSG	70.5223%	$5,635,895	$5,635,770	265,712,873	$0.021210	$0.001405	$0.022615
GSG	20.7611%	$1,659,158	$1,659,115	98,604,223	$0.016826	$0.001115	$0.017941
GSG-LV	3.4846%	$278,480	$278,484	29,002,749	$0.009602	$0.000636	$0.010238
CTS	2.2500%	$179,812	$179,808	31,227,584	$0.005758	$0.000381	$0.006139
LVS	2.6031%	$208,031	$208,046	64,590,601	$0.003221	$0.000213	$0.003434
EGS	0.0912%	$7,285	$7,285	1,766,153	$0.004125	$0.000273	$0.004398
EGS-LV	0.1622%	$12,965	$12,974	31,799,164	$0.000408	$0.000027	$0.000435
NGV	0.1226%	$9,800	$9,801	1,719,145	$0.005701	$0.000378	$0.006079
YLS*	0.0016%	$127	$127	48	$0.220486	$0.014607	$0.235093
SLS*	0.0013%	$102	$102	36	$0.236111	$0.015642	$0.251753
		$7,991,655	$7,991,512				

* Installation charge per month

Schedule NCG-5

SOUTH JERSEY GAS COMPANY
Infrastructure Investment Program ("IIP")
Conservation Incentive Program (CIP) and
Margin Revenue Factor

Classes	Margin Revenue Rates including taxes, ($/ therm) a	less SUT tax 6.625% b	Margin Revenue Rates excluding taxes, ($/ therm) c = a - b
Base Rates			
RSG, Non Htg. and Htg.	$0.863939	$0.053680	$0.810259
GSG	$0.708516	$0.044023	$0.664493
GSG-LV	$0.351481	$0.021839	$0.329642
IIP Rates			
RSG, Non Htg. and Htg.	$0.022615	$0.001405	$0.021210
GSG	$0.017941	$0.001115	$0.016826
GSG-LV	$0.010238	$0.000636	$0.009602
Combined Margin Rates			
RSG, Non Htg. and Htg.	$0.886600	$0.055131	$0.831469
GSG	$0.726500	$0.045181	$0.681319
GSG-LV	$0.361700	$0.022456	$0.339244

SOUTH JERSEY GAS COMPANY

First Revised Sheet No. 70
B.P.U.N.J. No. 13 - GAS **Superseding Original Sheet No. 70**

RIDER "B"

INFRASTRUCTURE INVESTMENT PROGRAM ("IIP")

Applicable to all customers in classes RSG, GSG, GSG-LV, CTS, LVS, EGS, EGS-LV, NGV, YLS and SLS receiving service through the Company's distribution system. The IIP rate shall be collected on a per therm basis, except as noted and shall remain in effect until changed by order of the NJBPU.

		Rates w/tax
RSG	Residential	$0.022615
GSG	General Service	$0.017941
GSG-LV	General Service - Large Volume	$0.010238
CTS	Comprehensive Firm Transportation Service	$0.006139
LVS	Large Volume Service	$0.003434
EGS	Electric Generation Service	$0.004398
EGS-LV	Electric Generation Service - Large Volume	$0.000435
NGV	Natural Gas Vehicle Service	$0.006079
YLS	Yard Lighting Service, per installation	$0.235093
SLS	Street Lighting Service, per installation	$0.251753

The charges applicable under this Rider include provision for the New Jersey Sales and Use Tax, and when billed to customers exempt from this tax shall be reduced by the amount of such tax included therein.

The IIP is a five-year program to modernize and enhance the reliability and safety of the Company's gas distribution system by replacing its vintage, at-risk facilities consisting of bare steel, pre-code coated steel and vintage plastic facilities in SJG's distribution system and the installation of excess flow valves on new service lines. The costs recovered through the IIP Rider rate include the Company's after-tax weighted average cost of capital as adjusted upward for the revenue expansion factor, depreciation expense and applicable taxes.

VERIFICATION

STATE OF NEW JERSEY)
) ss:
COUNTY OF ATLANTIC)

I, Nicole C. Gatyas, being duly sworn according to law, upon his oath, deposes and says:

1. I am an Associate Rates Analyst for the Petitioner in the foregoing Petition and I am authorized to make this Affidavit on behalf of the Petitioner.

2. The statements made in the foregoing Petition and exhibits and schedules submitted therewith correctly portray the information set forth therein, to the best of my knowledge, information and belief.

Nicole C. Gatyas
Nicole C. Gatyas
Associate Rates Analyst

Sworn to and subscribed to
before me this 19th day of
November, 2020.

Carolyn A. Jacobs
Notary Public

CAROLYN A. JACOBS
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires October 28, 2023