Exhibit No.:
Issue(s): Spire STL Pipeline
Witness: Gregory M. Lander
Sponsoring Party: EDF
Type of Exhibit: Direct Testimony
Case No.: GR-2021-0127
Date Testimony Prepared: April 28, 2023

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Spire Missouri, Inc. d/b/a Spire (East) Purchased Gas Adjustment (PGA) Tariff Filing	)))	Case Number GR-2021-0127

DIRECT TESTIMONY OF GREGORY M. LANDER

ON BEHALF OF

ENVIRONMENTAL DEFENSE FUND

PUBLIC VERSION

April 28, 2023

Q. Please state your name and business address.

A. My name is Gregory M. Lander. My business address is 83 Pine Street, Suite 101, West Peabody, MA 01960, and my email address is glander@skippingstone.com.

Q. What is your occupation and by whom are you employed?

A. I am President of Skipping Stone, LLC. ("Skipping Stone").

Q. Please state your educational background and experience.

A. I graduated from Hampshire College in Amherst, Massachusetts, in 1977, with a Bachelor of Arts degree. In 1981, I began my career in the energy business at Citizens Energy Corporation in Boston, MA ("Citizens Energy"). I became involved in the natural gas business of Citizens Energy in 1983. Between 1983 and 1989, I served as Manager, Vice President, President and Chairman of Citizens Gas Supply Corporation (a subsidiary of Citizens Energy). I started and ran an energy consulting firm, Landmark Associates, from 1989 to 1993, during which time I consulted on numerous pipeline open access matters, a number of Federal Energy Regulatory Commission ("FERC") Order No. 636 rate cases, pipeline certificate cases, fuel supply and gas transportation issues for independent power generation projects, international arbitration cases involving renegotiation of pipeline gas supply contracts, and natural gas market information requirements cases (FERC Order Nos. 587 *et seq*.). In 1993, I founded TransCapacity LP, a software and natural gas information services company. Since 1994, I have also been a Services Segment board member of the Gas Industry Standards Board ("GISB") and its successor organization, the North American Energy Standards Board ("NAESB"). During the period 1994 to 2002, I served as a Chairman of the Business Practices Subcommittee, the Interpretations Committee, the Triage Committee, and several GISB/NAESB Task Forces. I am currently a Board Member of NAESB and have served continuously in that capacity since 1997. Skipping Stone, Inc. acquired TransCapacity in 1999, and since that time I have headed up Skipping Stone's Energy Logistics practice, where my specialization has been interstate pipeline capacity issues, information, research, pricing, acquisition due diligence and planning. In 2001, Skipping Stone launched CapacityCenter.com, a pipeline capacity

information service. In 2004, Skipping Stone was acquired by Commerce Energy Group, a national retail energy services provider. In 2005, I was appointed President of Skipping Stone, which operated as a wholly owned subsidiary of Commerce Energy Group. In 2008, I purchased substantially all of the assets of Skipping Stone and now operate essentially the same business as before the Commerce Energy transaction as Skipping Stone, LLC.

From 1984 to present, I have maintained a deep familiarity with a wide range of pipeline transportation issues, beginning with access to pipeline capacity to make competitive sales, resolution of the pipeline take-or-pay contracting regime, pipeline affiliate marketer concerns, restructuring of the pipelines from merchants to transporters and thereafter, and definitions of what constituted a pipeline capacity "right" for the purposes of formulating the then newly commenced capacity release and capacity rights trading business process. I continue to be involved in nearly all facets of the capacity information and trading business as part of my duties at Skipping Stone. In addition, I have been the lead principal on all 50+ pipeline and storage mergers and acquisitions transactions as well as all pipeline and storage facility expansion projects for which Skipping Stone has been retained by potential purchasers and project sponsors to provide economic due diligence consulting and market analysis.

My current CV is attached as Schedule EDF-GML-1.

Q. Have you previously filed testimony before regulatory commissions?

A. I have filed testimony in several FERC and State regulatory proceedings. A listing of those proceedings is contained in attached Schedule EDF-GML-2.

Q. On whose behalf are you testifying in this proceeding?

A. I am submitting testimony on behalf of the Environmental Defense Fund.

Q: Please summarize your testimony.

A: The focus of my testimony is that Spire Missouri, Inc. d/b/a Spire (East) (Spire MOE) imprudently changed the physical manner in which it receives supply, eliminated its on-system propane peak supply capability; and terminated/allowed to terminate pipeline

capacity contracts (taken altogether historic supply services) resulting in reliance upon service from an affiliate pipeline, Spire STL Pipeline (Spire STL), that did not yet have a certificate from the Federal Energy Regulatory Commission (FERC) that was not subject to appeal. Those changes, and Spire MOE's resulting reliance on Spire STL, placed service to customers at great risk. The Company itself stated in filings at the FERC that this reliance created the risk of this affiliated pipeline not being able to provide service; which could have led to calamitous consequences. Upon vacatur of the Certificate, Spire sought and received a temporary certificate; therefore, Spire MOE and its customers were fortunate in that while the risk or termination of service from the affiliate pipeline existed, such a termination of service did not happen. Nevertheless, the actions to put its customers at such risk were imprudent and should be addressed.

In addition, Spire MOE also altered its on-system storage compressor facilities, (i.e., eliminated compressors used to inject in its storage facilities) and propane facilities prior to the new pipeline having a certificate that was not subject to appeal. Such compressor facilities and propane peak supply capability could have assisted in limiting the damage of a lack of service. Based on the filings in this case, I do not find the timing of such actions to be prudent.

Finally, Spire MOE acquiesced or agreed to the new pipeline eliminating a direct connect to Spire MOE's traditional supplier Enable Mississippi River Transmission (EMRT) at the location where EMRT traditionally delivered to the Spire MOE line running from EMRT to Storage. I believe allowing such elimination was imprudent.

Spire MOE's imprudent actions that resulted in reliance on a pipeline that was at reasonable risk of not being able to provide service. I therefore propose that certain costs be disallowed. Those concerns and imprudence further support the proposed adjustment.

Q: Are you sponsoring any Schedules to this testimony?

A: Yes. I am sponsoring the following:

EDF-GML-1 Gregory M. Lander's Curriculum Vitae

EDF-GML-2 Gregory M. Lander's prior testimony in regulatory proceedings

EDF-GML-3 Spire STL Request of May 27, 2020 in Docket Nos. CP17-40-000, -001 to FERC for Extension of Time to complete construction and begin service

EDF-GML-4 Scott Carter, President, Spire Missouri, Affidavit dated July 26, 2021 filed with FERC as part of request by STL Pipeline continue its current operations for the 2021-22 winter heating season.

Q: What are some pertinent facts regarding contracts between affiliates?

A: Let me first note that while most attention by regulators to affiliate transactions tends to be focused on the allocation of cost(s) and profit(s) between the two related entities, and how these relative allocations are reflected in their respective books and records, affiliate transactions also involve the allocation(s) of risk in the transaction.

Q: Can you give us an example of a risk allocation between Spire MOE and Spire STL?

A: There are other risks and allocations that I discuss below, but I want to point out a risk that Spire MOE accepted ab initio (i.e., at the outset); and, that was to accept a contract for a service, a critical service, from an affiliated entity that had no history of providing that service.

Q: Please discuss more about the decision Spire MOE made to have a newly formed interstate pipeline affiliate provide service to Spire MOE.

A: Being, building, managing, and operating, an interstate pipeline is not a casual undertaking. It's rare that a local distribution company (LDC) (like Spire MOE) or even family of LDCs have the skill sets, in-house, to build, manage and operate an interstate pipeline.

Q: What are some of the pertinent facts with regard to risk(s) to Spire MOE from its contract with Spire STL and the way the Spire STL pipeline project ("Project") evolved?

A: The Spire STL initial application to FERC for certification of the Spire STL pipeline, filed on January 26, 2017, stated:

> "The Project consists of approximately 59 miles of greenfield 24-inch-diameter pipeline originating at an interconnection with REX in Scott County, Illinois, and extending southward through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River and ***ties into the existing Line 880***, a natural gas pipeline facility in St. Louis County, Missouri that is currently owned and operated by Laclede. The terminus of Line 880, and therefore of the new Spire pipeline, is at the existing interconnection between Line 880 and Enable MRT's interstate natural gas pipeline system. ***As part of the proposed Project, and subject to Laclede's receipt of approval from the MPSC and Spire's receipt of the authorizations requested herein, Spire plans to purchase Line 880***, including its appurtenant and ancillary facilities, from Laclede and operate it as part of the Project. Line 880 is an approximately 7-mile, 20-inch diameter steel natural gas pipeline located in St. Louis County, Missouri. Following its acquisition, Spire will modify Line 880 for its use in interstate service as an extension of the 24-inch pipeline. ***Inclusion of Line 880 in its new interstate pipeline system will allow Spire to make deliveries at delivery points located along that line and will further allow it to connect the 24-inch pipeline to the Enable MRT interstate pipeline along the western bank of the Mississippi River*** in St. Louis County, Missouri. Modifications to Line 880 will include (a) replacement of syphon drips, mainline valves, and other associated pipeline safety and minor integrity-related replacement work; and (b) relocation of a portion of the line at an existing stream crossing, also for pipeline safety/integrity management purposes. No change in the maximum allowable operating pressure or capacity of Line 880 is presently contemplated."[1] [emphasis added]

In short, the Project originally involved, among other things, the purchase by Spire STL of that portion of Spire MOE's Line 880 between approximately where Line 880 meets Spire MOE's Lange storage facility and where Line 880 interconnected with Enable Mississippi River Transmission ("EMRT") near the original Chain of Rocks delivery point from EMRT to Spire MOE.

[1] January 26,2017 Spire STL Pipeline Certificate Application, FERC docket CP17-40 at pages 10-11. Internal footnotes removed.

Q: What is the significance of the language you have emphasized?

A: While the proposed sale of the Spire MOE Line 880 to Spire SLT would mean that Spire MOE would no longer control its connection to EMRT, a vacatur of the certificate (if that were to occur as it did) coupled with a reversal/unwinding of the sale between affiliates would mean the connection between Spire MOE and EMRT would still be there and return to operation by Spire MOE.

Q: Did this initial configuration of facilities between Spire MOE and Spire STL, and Spire MOE and EMRT evolve?

A: Yes. On April 21, 2017, less than four months after the initial FERC Application by Spire STL, Spire STL filed an Amended Application for certification of the Project at FERC which in pertinent part read:

> "Spire has determined to make a route change with respect to the final segment of its Project. Specifically, Spire has determined not to proceed with the acquisition and refurbishment of Line 880 and instead to construct the North County Extension, a new 24-inch diameter steel pipeline that ***will extend approximately six miles from the current terminus of the proposed 59-mile 24-inch pipeline at the Laclede/Lange*** interconnect in St. Louis County, Missouri, through the northern portion of St. Louis County, ***and terminate at a new interconnection point with both MRT and Laclede that will replace the existing Laclede-MRT interconnection at Chain of Rocks.*** …. [2]

Continuing Spire STL stated:

> "Following the reconstruction of the current Chain of Rocks interconnection into a bi-directional station, ***MRT will, as originally proposed, continue to make physical deliveries at Chain of Rocks with those deliveries received into Spire's facilities at the reconstructed Chain of Rocks Station***. Spire will be making physical deliveries into Laclede at Chain of Rocks and, to the extent permitted by MRT, will also make physical or displacement deliveries into MRT." [emphasis added]

In short, the Amendment changed the configuration of both Spire STL's and Spire MOE's facilities such that, once construction was concluded, Spire MOE would *no longer* directly

[2] April 21, 2017 Spire STL Amendment to Application of Spire STL, Docket CP17-40, at page 5.

connect to EMRT and no longer be able to directly receive gas into Spire MOE from EMRT at the new chain of Rocks *and instead, Spire MOE's contracted supplies transported by EMRT would have to flow into and through Spire STL facilities before entering Spire MOE facilities.* Had the amendment not been made, and the certificate been vacated after construction was concluded, Line 880 along with its connection to EMRT could, with consent between the affiliates, have reverted to Spire MOE thus enabling Spire MOE to receive supplies directly from EMRT and not be alienated by having to flow through facilities lacking a certificate.

Q: Please explain the significance of the highlighted language from both the initial FERC Application filed by Spire STL and the Amended Application also filed by Spire STL.

A: The highlighted language, in pertinent part, demonstrates that as initially conceived, even after completion of the Spire STL Project, its configuration would have enabled Spire MOE to cancel/unwind the sale in order to continue to physically receive gas from EMRT at Chain of Rocks without having to rely on Spire STL facilities.

Q: But if Line 880 were sold to Spite STL, as originally conceived, Spire MOE would not have the ability to move the gas from Chain of Rocks to the Lange Storage facility through Spire MOE facilities, right?

A: Had the Project gone forth as initially designed, been constructed according to the original (or even the actual) schedule and had its certificate been vacated by the court as it happened, time wise, Line 880 would have retained its interconnect with EMRT at Chain of Rocks; and, with the certificate vacated the purchase of Line 880 would have been nullified or at the very least the Spire, Inc. family could facilitate Spire MOE's repurchase of Line 880 and enable Spire MOE to revert to service from EMRT at the original Chain of Rocks.

Q: You said "Had the Project gone forth as initially designed…"; what was different?

A: After it was determined that Spire STL would not purchase Line 880 and instead would build its own line instead of buying Line 880; as well as the determination that Spire STL would relocate the original Chain of Rocks delivery point between Spire STL and EMRT to a new location and in the process determined to eliminate the direct connection between Spire MOE and EMRT (i.e., alienate Spire MOE's Line 880 from EMRT at Chain of Rocks), risk was created and placed on Spire MOE. This was because, together, these determinations had the effect of requiring any physical deliveries of gas from EMRT to Spire MOE in the vicinity of Chain of Rocks and into the Spire MOE Line 880 running from Chain of Rocks to Spire MOE's storage facility to first pass through new facilities of Spire STL in order to reach Spire MOE's Line 880.

Q: How do you know for sure that Spire MOE could no longer get supplies directly from EMRT at Chain of Rocks?

A: In late May of 2020, Spire STL filed with FERC a request for Extension of time to complete construction the segment of pipe from the new, relocated, Chain of Rocks Station needed to complete the Spire STL/EMRT interconnect (i.e., an interconnect with EMRT that was *not at* the new, relocated, Chain of Rocks Station).[3]

Q: Why do you focus on the evolution of the reconfiguration?

A: For at least two reasons. First, under the affiliate contract between Spire STL and Spire MOE, as I mentioned above, there is an allocation of risks. The evolved configuration of the project proceeded, despite the risks such reconfiguration placed on Spire MOE and its customers in the event of vacatur. Though the appeals process was not completed, permanent changes due to

[3] See Schedule EDF-GML-3; second paragraph at Page 1 carry over to Page 2.

construction proceeded and were completed. The risk to Spire MOE of this alienation due to reconfiguration, (as proposed by Spire STL in its Amendment to the Application), was not reflected in either the Precedent Agreement, or in a different reconfiguration of facilities' that would not cause such risk.

Q: Did Spire MOE need to accept this reconfiguration risk?

A: No. Had Spire MOE put security of supply, and service reliability for its customers, as top priorities, it could have insisted on an ultimate facilities' configuration/reconfiguration that would serve the needs of its customers under all conditions, prior to a being granted certificate that was no longer subject to appeal.

Q: How do you know there was no sharing of the risks to Spire MOE from these changes to the initial configuration?

A: There was no change to the Precedent Agreement, no contingency accommodations to the proposed reconfiguration of facilities (i.e., the alienation of Spire MOE from their supplier EMRT), and no opposition or concern expressed by Spire MOE to address this risk.

Q: Why do you identify this Project evolution as creating risk(s) to Spire MOE?

A: By alienating (i.e., permanently separating) the Spire MOE system from EMRT at Chain of Rocks, in the event the Spire STL certificate was revoked following construction by the outcome of still pending court appeals, Spire MOE could not resume (i.e., revert to the status quo ante and continue) receiving gas from EMRT at the original Chain of Rocks via Line 880; and, as a result, its eastern St. Louis service area would face risk of loss of supply, which loss of supply placed Spire MOE's customers at great risk of curtailment.

Q: During the evolution of the Project, did Spire MOE identify this reconfiguration of the Project as placing it at risk in the event the certificate was ultimately undone?

A: There is no evidence that I have seen that Spire MOE opposed this reconfiguration or identified any risk to its ability to revert to the status quo ante in order to continue to reliably supply its customers in the event the certificate was ultimately undone (i.e., vacated due to outcome of the appeals process).

Q: Are you taking issue with or criticizing the design decisions of Spire STL?

A: No. I am pointing out the risks to Spire MOE's customers that Spire MOE explicitly, or at least implicitly, agreed to assume via the actions I have described.

Q: Can you please quantify the risks to customers that Spire MOE assumed/permitted be shifted to it and them?

A: I will be happy to later, but first, I want to point out actions taken by Spire MOE prior to the finality of the certificate process (i.e., during the pendency of rehearing at the FERC and/or potential appeals to court(s)) that compounded the risks identified above.

Q: What other risks did ratepayers of Spire MOE face as a result of Spire MOE's actions during the pendency of a final non-appealable order with respect to the Project?

A: First, I would note that in a schedule to the direct testimony of Scott A. Weitzel (i.e., Confidential Schedule SAW-D-9) at PDF page 5 (note the December 2019 Report did not have page or paragraph numbers) it is clear that as of that December 2019 date, Spire MOE had yet to finally determine that it would [BEGIN CONFIDENTIAL] **[redacted] [redacted]** [END CONFIDENTIAL]. Subsequently, Spire MOE determined to take its propane peaking facilities out of service.

Q: When was it that Spire MOE took its propane peaking facilities out of service?

A: According to Spire STL's FERC filing of July 7, 2021 in CP17-40 containing the Scott Carter, President of Spire MOE Affidavit, it was out of service prior to that July 2021 date.[4]

Q: Was this elimination of the propane peaking facilities done prior to there being a non-appealable certificate for the STL Pipeline?

A: Yes.

Q: Did this action create risk to Spire MOE's ability to continue reliable service to its customers in the event the pending final non-appealable certificate failed to materialize?

A: Yes. Such facilities would have provided propane supply into the Spire MOE system which would supplement Spire MOE's natural gas supply in the event of termination of service by the Spire STL pipeline due to the lack of valid certificate.

Q: Did any other actions of Spire MOE taken prior to the issuance of a certificate for the Project that is not subject to appeal create risks to Spire MOE's ability to continue to provide reliable service to its customers?

A: Yes.

Q: Please elaborate.

A: Spire MOE determined to take compressors located at its on-system Lange Storage field out of service.[5] The effect of this was to eliminate the ability to compress into storage lower pressure

[4] See Schedule EDF-GML-4 Paragraph 9, Affidavit of Scott Carter, President, Spire Missouri, Inc.

gas that previously came to Spire MOE from EMRT at the original Chain of Rocks interconnect with Spire MOE's Line 880.

Q: Was this action taken prior to a having a certificate that is no longer subject to appeal?

A: Yes.

Q: Did this action create risk to Spire MOE's ability to continue reliable service to its customers in the event the pending certificate not subject to appeal failed to materialize?

A: Yes. The removal/retirement of the compressors located at Spire MOE's on-system storage facilities jeopardized filling storage to full capacity as well as inhibiting winter period re-fill of storage following gas withdrawals. Either or both of those circumstances would leave Spire MOE's customers without sufficient supply to meet elevated demand due to frigid winter weather.

Q: Did any other actions of Spire MOE taken prior to the certificate for the project being no longer subject to appeal create risks to Spire MOE's ability to continue to provide reliable service to its customers?

A: Yes.

Q: Please elaborate.

A: Spire MOE did not renew capacity contracts with EMRT[6] and much of this EMRT capacity was subscribed by others [7]during the period prior to the certificate order being non-appealable.

[6] See Schedule EDF-GML-4, Paragraph 38, Affidavit of Scott Carter, President, Spire Missouri, Inc.
[7] See Schedule EDF-GML-4 Paragraph 39, Affidavit of Scott Carter, President, Spire Missouri, Inc.

Q: What was the combined effect of all these actions taken by or not opposed by Spire MOE?

A: The combined effect of these decisions was to put Spire MOE's customers in the position that they were faced with potentially calamitous consequences due to Spire MOE's inability to assure reliable service in the event the Project's certificate were revoked.

Q: You say "calamitous consequences". Please explain.

A: I use the term "calamitous consequences" to encompass the following statements made by Scott Carter as President of Spire MOE:

> "Spire Missouri would very likely be forced to intentionally curtail natural gas service to many of its customers during the upcoming 2021-2022 winter heating season. In addition, Spire Missouri faces the very real threat that despite such mandated curtailments, its reduced gas supply would lead to low pressure on its distribution system during cold periods ***and cause uncontrolled loss of service*** to households and other high priority consumers, such as hospitals, nursing homes, and schools. Loss of natural gas service during cold periods would create the potential for loss of life and severe impacts to essential services relied on by many individuals and communities served by Spire Missouri."[8] [emphasis added]

> "Moreover, natural gas outages caused by uncontrolled pressure loss present an even more dangerous scenario. When pressure is lost to a customer's premise, the lack of flowing gas can extinguish gas appliance pilot lights. If pressure is restored prior to the customer's meter being physically shut-off, there is a risk of explosion created by uncontrolled gas escaping into customer homes through the unlit gas appliance pilot orifice." [9]

> "For every 100,000 customers who lose gas service, even with 100 technicians working on addressing the outage, Spire Missouri estimates that it would take roughly 25 days before all customers would have service re-established."[10]

Q: Is Spire MOE responsible for the enabling the factors that created the risk of these calamitous consequences arising?

[8] See Schedule EDF-GML-4 Paragraph 4, Affidavit of Scott Carter, President, Spire Missouri, Inc.
[9] See Schedule EDF-GML-4 Paragraph 23, Affidavit of Scott Carter, President, Spire Missouri, Inc.
[10] See Schedule EDF-GML-4 Paragraph 24, Affidavit of Scott Carter, President, Spire Missouri, Inc.

A: Yes.

Q: Did these potentially calamitous consequences stem from Spire MOE's potential inability to continue reliable service to its customers?

A: Yes.

Q: Could these risks have been avoided by any actions of Spire MOE during the period between Spire STL's filing for the certificate and the certificate approving the Project being no longer subject to appeal?

A: Yes.

Q: Please elaborate.

A: First, as I discussed at the outset, Spire MOE and Spire STL, being under common ownership, decided upon the initial and final configurations of the Project. These agreements or absence of objections constituted an allocation of risk to Spire MOE and its acceptance of this risk. Spire MOE could have insisted that the reconfiguration was done in such a manner as to permit Spire MOE to continue to be able to receive service into its Line 880 directly from EMRT in the event the certificate was revoked after construction and prior to existence of a non-appealable order. This was not done. And, as a result, Spire MOE's customers were put at risk because Spire MOE was not able to return to the status quo ante following vacatur of the certificate and its remand to the FERC.

Second, Spire MOE could have delayed elimination of its propane peaking facilities until after the Project's certificate was final and non-appealable.

Third, Spire MOE could have delayed retirement of the compressor facilities adjunct to the Lange Storage field until after the Project's certificate was final and non-appealable.

Fourth, Spire MOE, along with either maintaining the initial configuration or insisting on a reconfiguration that enabled Spire MOE to maintain its EMRT at Chain of Rocks to Line 880 direct connection, could have maintained its capacity contracts with EMRT until after the Project's certificate was final and non-appealable.

Q: Are you aware of claims that availability of Spire STL service to Spire MOE during the period covered by this proceeding led to operational improvements for Spire MOE and possible cost savings to Spire MOE customers?

A: Spire has pointed to benefits of higher pressure from Spire STL that ultimately enables better service to Spire MOE's western suburban customers?

Q: Do you agree that is an operational improvement?

A: It may be, but the relevant issue is that it doesn't obviate or erase the fact that Spire MOE's actions and concurrence with Spire STL's actions and decisions created substantial risk of harm to its customers. There was one particular operational benefit to Spire MOE arising out of its contract for service on Spire STL that was not stated or claimed in the initial Spire STL application, any amendments to same, nor at any time prior to approximately a year following the in-service date of Spire STL.

Q: What was that operational benefit?

A: That operational benefit was the result of: 1) the interconnection of Spire STL with MoGas Pipeline[11] and 2) a contract not entered into by Spire MOE with MoGas Pipeline until November of 2020 which is after the period of this proceeding. In short, Spire MOE's citing to the

[11] The MoGas Pipeline (MoGas) is an interstate pipeline that runs east to west along the northern extent of Spire MOE's St. Louis service area as well as north to south along the western suburbs of St. Louis that are served by Spire MOE. MOGAS has delivery points to Spire MOE along MoGas' north to south extent in Spire MOE's western suburbs.

operational benefits to its western-more service area is simply post-facto justification. In any event, Spire MOE did not need to subject its customers to the risks described above to obtain this benefit.

Q: What was the magnitude of the totality of all these risks?

A: As recounted above, Spire MOE itself noted that the risks to its ability to continue to provide reliable service to its customers created "the potential for loss of life and severe impacts to essential services", which is profound. As Spire MOE has catalogued in FERC Filings and press announcements following vacatur of the Spire STL certificate, it had no practical means of providing reliable service to its customers without Spire STL. What Spire MOE did not say was that the situation it found itself in was a circumstance of its own making following all the decisions and undertakings it and Spire STL made prior to vacatur.

Q: What should this Commission do, in this proceeding, to address these facts and the consequences brought about by the totality of the decisions you have recounted?

A: The Commission should find that subjecting Spire MOE customers to these risks was imprudent and unreasonable. Based on such imprudence, the Commission should disallow recovery of all amounts spent by Spire MOE on reservation charges paid to Spire STL during this ACA period.

Q: What are reservation charges?

A: Reservation charges are those charges levied by pipelines to their firm service customers. Reservation charges compensate the pipeline for providing the capacity for the customer to use. Said another way, reservation charges are paid for the right of the customer to use the contracted capacity; whether they use it or not. Most pipelines also have usage charges that they levy on their customers for each unit of capacity their customers actually use.

Q: Does Spire STL have reservation charges that are paid by Spire MOE?

A: Yes.

Q: Does Spire STL also have usage charges that are paid by Spire MOE?

A: No. Spire STL does not have usage charges. It only has reservation charges; so, Spire MOE does not pay for use of Spire STL. Spire MOE only pays Spire STL for the "right to use" whether or not it actually uses Spire STL.

Q: Approximately what is the amount of disallowance you are recommending?

A: Based upon the Spire STL rate of $0.25 per Dth per day of capacity; and, 350,000 Dth per day of contracted capacity and the 316[12] days of service Spire MOE contracted for during this ACA period, the disallowance would be $27,650,000.

Q: Do recommend the same disallowance for the subsequent Spire MOE ACA?

A: I recommend this disallowance for the ACA periods during which time Spire MOE was using Spire STL and paying reservation charges but the pipeline's certificate was subject to appeal. I do not recommend a permanent or continuing this disallowance into periods beyond FERC's granting a final certificate and such Order no longer being appealable.

Q: So, is what you are proposing effectively a limited-term disallowance to resolve this issue?

A: Yes.

Q: Does this conclude your testimony?

A: Yes.

[12] The period from November 19, 2019, through September 30, 2020 is 316 days.

SkippingStone

Greg Lander, President
Skipping Stone LLC

Professional Summary:

As President of Skipping Stone Inc., Greg Lander is responsible for Strategic Consulting in the mergers and acquisition arena with numerous clients within the energy industry. Generally recognized in the energy industry as an expert, he has advised and/or given testimony at numerous Federal Energy Regulatory Commission (FERC), State, arbitration, and legal proceedings on behalf of clients and has advised as well as initiated standards formation before the Gas Industry Standards Board (GISB) (predecessor to the North American Energy Standards Board (NAESB)) as well as NAESB. As Founder, President, and Chief Technology Officer of TransCapacity Limited Partnership, he was responsible for conceiving, planning, managing, and designing Transaction Coordination Systems utilizing Electronic Data Interchange (EDI) between trading partners. As a founding member of GISB, he assisted in establishing protocols and standards within the Business Practices, Interpretations and Triage Subcommittees.

Professional Accomplishments:

- Handled all Due Diligence for purchaser (Loews Corp) in acquisitions of two interstate pipelines, one natural gas storage complex, and ethylene distribution and transmission systems (Texas Gas Transmission, Gulf South Pipeline, Petal Storage, Petrologistics, and Chevron Ethylene Pipeline) most in excess of $1 Billion. Developed purchaser's business case model, including rate/revenue models, forward contract renewal models, export basis modeling and revenue models, and operating cost and capex models. Coordinated Engineering and Environmental Due Diligence Teams integrating findings and assessments into final Diligence Reports.
- Assisted major electric retailer in 9 states with business case development for entry into North Eastern U.S. Commercial &Industrial natural gas marketing business. Identified market share of incumbents; retail registration process, billing processes; utility data exchange rules and procedures and developed estimates of addressable market by utility.
- Handled all economic Due Diligence for purchaser of large minority stake in Southern Star Gas Pipeline. Developed purchaser's business case model, including rate/revenue models and forward contract renewal models, assessed potential competitive by-pass of asset located in "pipeline alley", developed revenue models and operating cost and capex models. Coordinated Engineering, Pipeline Integrity, and Environmental Due Diligence Teams integrating findings and assessments into final Diligence Reports.
- Developed post-acquisition integration plans for inter-operability and alterations to system operations to take advantage of opportunities presented by

synergistic facilities' locations and functions and complimentary contractual requirements. Implementation of plan resulted in fundamental changes to systems operations and improvement in systems, net revenues, capacity capabilities, and facilities utilization.

- Handled all economic analysis, modeling, and systems capability due diligence for potential purchaser in several preliminary or completed yet un-consummated pre-transaction investigations involving Panhandle Eastern, Northern Border, Bear Paw, Florida Gas, Transwestern, Great Lakes, Guardian, Midwestern, Viking, Southern Star, Columbia Gas, Midla, Targa (No. Texas), Ozark, ANR, Falcon Gas Storage, Tres Palacios, Petal Gas Storage, Rockies Express, Norse Pipelines, Southern Pines, Leaf River, LDH (Mont Belvieu), Kinder Morgan Interstate, Trailblazer, Rockies Express and South Carolina Gas Transmission.
- Post Texas Gas Transmission and Gulf South Pipe Line acquisitions, assisted with all investigations involving assessments and proposals for realizing potential synergies with/from asset portfolio; rate case strategy development and alternate case development; and strategies around contract renewal challenges.
- Headed up due diligence team in acquisition of multi-state retail (residential) natural gas and electric book by Commerce Energy.
- Headed up due diligence team in acquisition of multi-state retail (C&I) natural gas book by Commerce Energy.
- Served as lead consultant for consortium of end-users, Local Distribution Companies, Power Generators, and municipalities in several major FERC Rate Cases, service restructuring, and capacity allocation proceedings involving a major Southwestern U.S. Pipeline.
- Expert witness in numerous gas and electric utility rate cases; integrated resource plans; litigated service offerings and cost approval and allocation proceedings for public interest clients. Controversies, often involving hundreds of millions to billions of dollars over cases' time horizons, are common.
- Served as lead consultant and expert witness for consortium of end-users, Local Distribution Companies, Power Generators, and municipalities in major FERC rate case under litigation involving decades-long disputes over service levels, cost allocation, and rate levels.
- Served as lead consultant for consortium of end-users and municipalities in major FERC rate case involving implementation of proposed rate design, cost allocation, and rate level changes.
- Developed and critiqued Rate Case Models for several pipeline proceedings and proposed proceedings (as consultant variously to both pipeline and shippers). Activities included modeling (and critiquing) new services' rates, costs, and revenues; responsibilities included development of various alternative cost allocation/rate designs and related service delivery scenarios.

- Handled all market assessment, forward basis research, and transportation competition modeling for several proposed major pipelines and laterals, including two $1 Billion+ Greenfields projects that went into construction and operation providing new outlets for growing southwestern shale production. (Gulf Crossing and Fayetteville Lateral).
- Assessed supply and demand balance for Southwestern US (OK, TX, Gulf Coast and LA) including assessment of future demand and supply displacement associated with West Texas wind power development and its likely impact on pipeline export capacity from region.
- Assessed supply and demand balance for Northeast to Gulf Coast capacity additions including assessment of Gulf Coast demand and export growth and its likely impact on forward basis.
- Assessed start-up gas supply needs for Appalachian coal fired power plant, resulting in installation of on-site LNG storage and gasification to address lack of enough firm pipeline capacity to meet need.
- Assessed installed and projected wind-turbine capacity in ERCOT and its eventual impact on Texas electric market as wind power output approaches minimum ERCOT load levels.
- Designed and developed EDI based data collection system, data warehouse and web-based delivery system (www.capacitycenter.com) for delivering capacity data collected from pipelines to shippers, marketers, traders, and others interested in capacity information to support business operations and risk-management requirements.
- Designed pipeline capacity release deal integrating settlement system for firm users, including design and development for information services delivery on a transaction fee basis.
- Assisted client in developing proposals to increase pipeline capacity responsiveness and proposed market fixes that would create price signals around sub-day non-ratable flows, including rate proposals, sub-day capacity release markets, and measures to address advance reservation of capacity for electric generation fuel to meet sub-day generation demands.
- Developed “universal capacity contract” data model for storage of all interstate capacity contract transactions from all 90 interstates in single database.
- Led design effort culminating in FERC-mandated datasets defining pipeline capacity rights, (including receipt capacity, mainline capacity, delivery capacity, segmentation rights, in and out of path capacity rights), Operationally Available Capacity, Index of Customers, and Transactional Capacity Reports (through GISB).
- Assembled consortium of utilities to investigate and develop large high-deliverability salt storage cavern in desert southwest (Desert Crossing). As LLC’s Acting Manager, was responsible for developing business case and

economic models; handling all partner issues and reporting; coordinating all field engineering, facilities design, planning and siting; and managing all environmental, legal, engineering and regulatory activities. Wrote FERC Tariff. Brought project to NEPA Pre-Filing Stage and conducted non-binding Open Season, as well as assisted with prospective shipper negotiations. Project cancelled due to 2001 "California Energy Crisis" and contemporaneous Enron and energy trading sector implosions.

- Designed comprehensive retail energy transaction and customer acquisition data model, process flow, and transaction repository for web-based customer acquisition and customer enrollment intermediary.
- Experienced in negotiation and drafting (from both seller side and buyer side) of firm supply, firm precedent, firm transportation, firm storage, and power supply and capacity agreements for numerous entities including project financed IPPs and for new greenfields pipeline and expansion of storage system.
- Conducted interstate pipeline capacity utilization analysis for New England following winter of 2013/2014 price fly-up.
- Conducted PJM East interstate gas pipeline capacity utilization and comparative analysis between pipelines with standard NAESB nominating cycles versus those with near hourly scheduling practices.
- Conducted requirements analysis for several firms pursuing software selection of energy transaction systems.
- Instrumental in the formation of the GISB. Member of industry team that lead the development of the proposal for and bylaw changes related to the formation of NAESB.
- Provided support to numerous clients and clients' attorneys in disputes involving capacity contracts, capacity rights allocations, tariffs, rate cases, and supply contract proceedings as both up-front and behind the scenes expert.

Associations and Affiliations:

Longest serving Member of Board of Directors for NAESB and prior to that GISB - 27 years.

GISB Committees: Former Chairman, Business Practices Subcommittee – drafted approximately 450+ initial industry standards that are now codified FERC regulations (Order 567); Former Chairman, Interpretations Subcommittee – drafted and led adoption process for first 50+ standards interpretations; Former Chairman, Triage Subcommittee; Title Transfer Tracking Task Force; Order 637 GISB Action Subcommittee; and industry Common Codes Subcommittee. Currently member of NAESB Wholesale Gas Quadrant Executive Committee and of NAESB Parliamentary Committee.

Past and Affiliations and Associated Accomplishments:

1981-1989: One of five initial employees of Citizens Energy Corporation, Boston Mass. Responsible for starting and growing Citizens Gas Supply, one of the first independent gas marketers of the early 1980's, into $200MM+ annual operation. Successfully lobbied for pipeline Open Access (Orders 436 and 636), introduction of pipeline Affiliated Marketer rules of conduct (Order 497), and Open Access to pipeline operational information (Order 563).

1989-1993: Independent Consultant - Natural Gas Projects, Pipeline Rate Cases, Project Financed Contract negotiations, and Independent Power markets

1993 – 1999: Founder and President, TransCapacity Service Corp – Software products and services related to pipeline capacity trading, nomination, and contracting. Raised $17 MM from industry player to establish TransCapacity. Successfully lobbied for Pipeline restructuring and formation of capacity release market (Order 636). Sold to Skipping Stone.

1999 – 2004: Principal and Partner, Skipping Stone – Energy market consultants

2004 – 2008: President of Skipping Stone following purchase of Skipping Stone by Commerce Energy, Inc.

2008: Repurchased Skipping Stone from Commerce Energy, Reformulated Skipping Stone as LLC with Peter Weigand

2008 to Present: President and Partner, Skipping Stone. In addition to handling book of clients, responsible for all Banking, Accounting, Operations, Risk Management and contract matters for Skipping Stone.

Education:

1977: Hampshire College, Amherst, MA; Bachelor of Arts

Publication:

2013: Synchronizing Gas & Power Markets - Solutions White Paper

EDF-GML-2: Expert Testimony of Gregory M. Lander

Name of Case	Jurisdiction	Docket Number	Date
El Paso Natural Gas Company	Federal Energy Regulatory Commission	RP04-251-000	May 3, 2004 (Testimony)
El Paso Natural Gas Company	Federal Energy Regulatory Commission	RP08-426-000	May 19, 2009 (Answering Testimony) June 2, 2010 (Supplemental Answering Testimony)
El Paso Natural Gas Company	Federal Energy Regulatory Commission	RP10-1398-000	June 28, 2011 (Answering Testimony) March 4, 2014 (Answering Testimony)
Petition of Boston Gas Company and Colonial Gas Company, each d/b/a National Grid for Approval by the Department of Public Utilities for a Firm Transportation Contract with Algonquin Gas Transmission Company	Massachusetts Department of Public Utilities	13-157	December 12, 2013 (Direct Testimony)
Petition of Boston Gas Company d/b/a National Grid for Approval by the Department of Public Utilities of a twenty-year Firm Transportation Agreement with Tennessee Gas Pipeline Company, involving an expansion of Tennessee's interstate	Massachusetts Department of Public Utilities	15-34	June 5, 2015 (Direct Testimony)

pipeline running from Wright, New York to Dracut, Massachusetts, known at the Northeast Energy Direct Project			
Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval by the Department of Public Utilities of a twenty-year Firm Transportation Agreement with Tennessee Gas Pipeline Company, involving an expansion of Tennessee's interstate pipeline running from Wright, New York to Dracut, Massachusetts, known at the Northeast Energy Direct Project	Massachusetts Department of Public Utilities	15-39	June 5, 2015 (Direct Testimony)
Petition of The Berkshire Gas Company for Approval of a Precedent Agreement with Tennessee Gas Pipeline Company, LLC, pursuant to G.L. c. 164, § 94A	Massachusetts Department of Public Utilities	15-48	June 5, 2015 (Direct Testimony)
Investigation of Parameters for Exercising Authority Pursuant to Maine Energy Cost Reduction Act, 35-A M.R.S.A. Section 1901	Maine Public Utilities Commission	2014-00071	July 11, 2014 (Direct Testimony)
Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 *et seq*.	Virginia Corporation Commission	PUR-2017-00051	August 11, 2017 (Direct Testimony)
In the Matter of the Laclede Gas Company's Request to	Missouri Public Service Commission	**File No. GR-2017-0215**	September 8, 2017 (Direct Testimony)

Increase Its Revenues for Gas Service In the Matter of the Laclede Gas Company d/b/a Missouri Gas Energy's Request to Increase Its Revenues for Gas Service		**File No. GR-2017-0216**	Consolidated and November 21, 2017 (Surrebuttal Testimony) Consolidated
Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019. Application of Southern California Gas Company (U904G) for Authority, Among Other Things, to Update its Gas Revenue Requirement and Base Rates Effective on January 1, 2019.	California Public Utilities Commission	Application 17-10-007 Application 17-10-008	Consolidated Direct Testimony May 14, 2018 Rebuttal Testimony June 8, 2018
Application of Virginia Electric and Power Company to revise its fuel factor pursuant to § 56-249.6 of the Code of Virginia	Virginia State Corporation Commission	PUR-2018-00067	Direct Testimony June 14, 2018
Application of Southern California Gas Company (U 904 G) and San Diego Gas & Electric Company (U 902 G) Regarding Feasibility of Incorporating Advanced Meter Data Into the Core Balancing Process	California Public Utilities Commission	Application 17-10-002	Direct Testimony July 2, 2018
Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 *et seq*.	Virginia Corporation Commission	PUR-2018-00065	August 13, 2018 (Direct Testimony)
In the Matter of Constellation Mystic Power, LLC Docket No. ER18-1639	Federal Energy Regulatory Commission	ER18-1639	September 4, 2018 (Cross Answering Testimony)

South Carolina Electric and Gas Company Application for Approval of Merger with Dominion Resources Docket Nos. 2017-370-E; 2017-305-E; and 2017-207-E	South Carolina Public Service Commission	Docket Nos. 2017-370-E; 2017-305-E; and 2017-207-E	September 24, 2018 (Direct Testimony)
In re: Annual Review of Base Rates for Fuel Costs of South Carolina Electric and Gas Company	South Carolina Public Service Commission	Docket 2019-2-E	March 19, 2019 (Direct Testimony)
Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company for Gas Service	New York Public Service Commission	Case 19-G-0066	May 24, 2019 (Direct Testimony)
Application of Virginia Electric and Power Company to revise its fuel factor pursuant to VA Code § 56-249.6.	Virginia State Corporation Commission	Case No. PUR-2019-00070	June 19, 2019 (Direct Testimony)
In the Matter of Annual Review of Base Rates for Fuel Costs for Duke Energy Carolinas, LLC, Increasing Residential and Non-Residential Rates	South Carolina Public Service Commission	Docket 2019-3-E	August 19, 2019 (Direct Testimony)
Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of The Brooklyn Union Gas Company d/b/a National Grid NY for Gas Service	New York Public Service Commission	Case-19-0309	August 30, 2019 (Direct Testimony)
Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of The KeySpan Gas East Corp. d/b/a National Grid for Gas Service	New York Public Service Commission	Case-19-0310	August 30, 2019 (Direct Testimony)

Annual Review of Base Rates for Fuel Costs of Dominion Energy South Carolina, Inc.	South Carolina Public Service Commission	DOCKET NO. 2020-2-E	March 13, 2020 (Direct Testimony) March 27, 2020 (Surrebuttal Testimony)
APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY *To revise its fuel factor pursuant to § 56-249.6 of the Code of Virginia*	Virginia State Corporation Commission	Case No. PUR-2020-00031	April 30, 2020 (Direct Testimony)
Annual Review of Base Rates for Fuel Costs of Duke Energy Progress, LLC	South Carolina Public Service Commission	DOCKET NO. 2020-1-E	May 18, 2020 (Direct Testimony) June 2, 2020 (Surrebuttal Testimony)
In the Matter of the Application of Washington Gas Light Company for Authority to Increase Existing Rates and Charges for Gas Service	District of Columbia Public Service Commission	Formal Case No. 1162	July 31, 2020 (Direct Testimony)
Annual Review of Base Rates for Fuel Costs of Duke Energy Carolinas, LLC, Increasing Residential and Non-Residential Rates	South Carolina Public Service Commission	DOCKET NO. 2020-3-E	August 14, 2020 (Direct Testimony)
Annual Review of Gas Costs for Public Service Company of North Carolina, Inc.	North Carolina Utilities Commission	Docket No. G-5, Sub 635	July 26, 2021 (Direct Testimony)
Application of Duke Energy Carolinas, LLC Pursuant to N.C. Gen. Stat. § 62- 133.2 and Commission Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments for Electric Utilities	North Carolina Utilities Commission	Docket No. E-7, Sub 1263	May 17, 2022 (Direct Testimony)

Spire STL Pipeline LLC
700 Market Street
St. Louis, Missouri 63101

May 27, 2020

VIA EFILING

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington DC 20426

Re: Spire STL Pipeline LLC
Docket Nos. CP17-40-000, -001
Request for Extension of Time

Dear Ms. Bose:

On August 3, 2018, the Federal Energy Regulatory Commission ("Commission") issued an Order Issuing Certificates in the above-referenced proceeding granting Spire STL Pipeline LLC ("Spire") a certificate of public convenience and necessity to construct, own, and operate the Spire STL Pipeline Project ("Project"), a new 65-mile-long natural gas pipeline system in Illinois and Missouri.[1] In the Certificate Order, the Commission conditioned its authorization on Spire constructing and making the Project available for service within two years of the date of the order—August 3, 2020—pursuant to Section 157.20(b) of the Commission's regulations.[2]

On November 12, 2019, Spire filed a request with the Commission to place into service the following Project facilities: 24-inch-diameter pipeline; North County Extension; REX Receipt Station; Laclede/Lange Delivery Station; and the Chain of Rocks Delivery Station, with the exception of a section of 24-inch-diameter pipeline to the Enable Mississippi River Transmission, LLC ("MRT") interconnect.[3] Spire also informed the Commission that it would begin constructing this last section of the Project in the spring of 2020 and would request authorization to commence service of the same once construction was complete. On November 18, 2019, Spire placed the facilities listed above in service, with the exception of the last section of the pipeline.[4]

Spire has diligently pursued completion of the Project by negotiating with MRT all issues associated with constructing the MRT interconnect and had prepared to commence construction

---

1 *Spire STL Pipeline LLC*, 164 FERC ¶ 61,085 (2018), *reh'g denied*, 169 FERC ¶ 61,134 (2019) ("Certificate Order").

2 *Id.* at Ordering Paragraph (B)(1).

3 Spire STL Pipeline LLC, Request to Commence Service, Docket Nos. CP17-40-000, *et al.* (filed Nov. 12, 2019).

4 Spire STL Pipeline LLC, Notice of Commencement of Service, Docket Nos. CP17-40-000, *et al.* (filed Nov. 26, 2019).

on the last section of pipeline to the MRT Interconnect this spring. However, as Spire explained in a recent construction report, Spire has had to suspend construction on this section of the pipeline due to the COVID-19 pandemic. With commercial negotiations complete, Spire intends to commence construction on this final section of pipeline later in 2020.[5] As a result of these developments, Spire does not anticipate placing the remaining section of its pipeline in service by August 3, 2020.

The uncertainty regarding the ongoing pandemic means that Spire may be further delayed in commencing construction on this last section of pipeline until fall 2020. Therefore, Spire hereby requests an extension of time of one year, or until August 3, 2021, to place these remaining Project facilities in service. This extension of time will allow sufficient time for this final construction to begin in earnest, proceed safely and in accordance with all applicable rules at that time (including any guidelines or requirements associated with COVID-19), and be completed without having to request any additional extensions of time from the Commission. Spire is not seeking to change the approved Project or otherwise amend the Commission's underlying Certificate Order. Given the limited nature of the remaining construction needed to complete the Project, this request will not impact the Commission's prior environmental and public interest findings approving the Project. For all of these reasons, good cause exists to grant Spire's requested extension.

Spire appreciates the Commission's assistance in this matter and respectfully requests that the Commission grant this extension as soon as possible.

Please contact the undersigned below with any questions regarding this filing.

Respectfully submitted,

Sean P. Jamieson
General Counsel
Spire STL Pipeline LLC

cc: All Parties on Service List

5 Spire STL Pipeline LLC, Status Report No. 70, Docket Nos. CP17-40, *et al.*, at 3 (filed Apr. 13, 2020).

CERTIFICATE OF SERVICE

I hereby certify that I have caused the foregoing document to be served on the official service list compiled by the Office of the Secretary for the above-referenced proceeding.

Dated at Washington, D.C. this 27th day of May, 2020

/s/ Russell Kooistra
Russell Kooistra
Troutman Sanders LLP
401 9th Street, NW, Suite 1000
Washington, DC 20004
(202) 274-2872
russell.kooistra@troutman.com

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Spire STL Pipeline LLC **)** **Docket No. CP17-40-___**

AFFIDAVIT OF SCOTT CARTER

1. My name is Scott Carter, and I am President of Spire Missouri Inc. ("Spire Missouri"). Spire Missouri is the natural gas utility serving the St. Louis, Missouri metropolitan area and is a local distribution company ("LDC") regulated by the Missouri Public Service Commission. My business address is 700 Market St., Saint Louis, MO 63101. I have decades of experience in the natural gas utility industry, both at Spire Missouri and other utilities throughout the United States. I am very familiar with Spire Missouri's natural gas supply portfolio, distribution system and natural gas supply requirements.

Purpose of Affidavit and Summary of Conclusions

2. The purpose of this Affidavit is to inform the Federal Energy Regulatory Commission ("FERC"), the courts, and the public of the potential impacts on the retail customers and communities served by Spire Missouri in the event Spire STL Pipeline LLC ("STL Pipeline") were to cease operations due to a loss of certificate authority.
3. As I will explain in detail below, loss of service from STL Pipeline would severely jeopardize Spire Missouri's ability to provide needed energy to a large portion of the 650,000 households and businesses that Spire Missouri serves in Eastern Missouri, in

addition to other potentially severe consequences. This energy is needed to fuel the economy, in addition to sustaining life through heating homes and cooking food.

4. Spire Missouri cannot replace its current firm supply from STL Pipeline with any other alternatives to ensure reliable gas service to the St. Louis region. Without supply from STL Pipeline, Spire Missouri would very likely be forced to intentionally curtail natural gas service to many of its customers during the upcoming 2021-2022 winter heating season. In addition, Spire Missouri faces the very real threat that despite such mandated curtailments, its reduced gas supply would lead to low pressure on its distribution system during cold periods and cause uncontrolled loss of service to households and other high priority consumers, such as hospitals, nursing homes, and schools. Loss of natural gas service during cold periods would create the potential for loss of life and severe impacts to essential services relied on by many individuals and communities served by Spire Missouri.
5. Therefore, it is essential that STL Pipeline be permitted to maintain adequate service to its customer Spire Missouri during the upcoming winter season and beyond, in order to avoid imposing severe hardships on the people of eastern Missouri, including the potential for loss of life.

Pertinent Background

6. In order to provide the context for these projections, I will first address the background that led to the current supply situation and constraints.
7. Spire Missouri serves approximately 650,000 households and businesses in Eastern Missouri. Historically, Spire Missouri was heavily dependent on a single interstate natural gas pipeline – the Enable Mississippi River Transmission ("MRT") system – to

supply Eastern Missouri. However, in the normal course of the utility's prudent system planning efforts, the MRT system was identified as presenting a heightened supply diversity and reliability risk for Spire Missouri customers because (1) MRT derived its supplies from the traditional Midcontinent and Gulf Coast natural gas basins, whereas, by the mid-2010s, alternative supplies from the developing Appalachian Basins were providing better access to more diverse, reliable, abundant, and environmentally friendly natural gas, and (2) MRT's system runs through the seismically unstable New Madrid fault zone. Additionally, during these planning efforts, Spire Missouri's liquid propane peaking facilities were flagged as being problematic for its gas supply operations and needing to be removed, as outlined in this affidavit.

8. Consequently, to mitigate the identified risks from prudent system planning analyses, discussions were had with pipeline developers to improve critical infrastructure for gas supply into the St. Louis region that could optimize opportunities to access new prolific supplies from the Appalachian Basins and allow Spire Missouri to remove its liquid propane peaking facilities from its supply stack. But those discussions did not lead to any definitive agreements to construct new capacity. Accordingly, Spire Inc. formed STL Pipeline and proposed a project which satisfied all of Spire Missouri's critical infrastructure needs. STL Pipeline proposed to build and operate a new 65-mile long pipeline to bring gas from the Rockies Express Pipeline ("REX"), which would provide Spire Missouri with improved access to natural gas supplies from the Rockies and Appalachian Basins, bringing new supply diversity, reliability and cost competitiveness to the region.

Changes to Spire Missouri's Facilities and Operations Post-STL

9. Once STL Pipeline was placed into service in 2019, it provided Spire Missouri with 350,000 Dth/day of new firm pipeline capacity. Because of this new firm capacity, Spire Missouri undertook several steps to diversify and optimize its natural gas supply portfolio, which resulted in replacing preexisting sources, and maximize the benefits of the new pipeline connection. Specifically, Spire Missouri took the following steps: (1) allowed approximately 180,000 Dth/day of firm capacity contracts on MRT, as well as 170,000 Dth/day of firm capacity on upstream pipelines that fed into MRT's East Line, to expire; and (2) retired its obsolete propane peaking facilities, which previously had the ability to supply 160,000 Dth/day of peak demand.

10. In addition, Spire Missouri was later able to take advantage of the high-pressure deliveries available from the STL Pipeline system in other ways, providing additional benefits to those presented by Spire Missouri in the STL Pipeline certificate proceeding.

11. First, Spire Missouri was able to use the higher pressure STL Pipeline supply to improve injections into its on-system (behind city-gate) Lange storage field. The high-pressure supply allows for direct injection into the field without having to rely on compression to do so. Given the ability to direct-inject into the Lange storage field from STL Pipeline, Spire Missouri retired and removed three compressors that had been used for injection into Lange storage prior to STL Pipeline. The changes to the operations at Spire Missouri's Lange storage facility resulted in more than an 80% reduction in greenhouse gas emissions (GHG) from the Lange storage facility.[1] However, it is important to

[1] Spire Missouri is committed to sustaining the environment and the reduction of greenhouse gas (GHG) emissions STL Pipeline provides the most environmentally friendly gas to Spire Missouri and the St Louis region through access to the Appalachian Basin According to the EPA, the carbon intensity of gas sourced from the Appalachian Basin is nearly four times lower than the average of all other basins

recognize that even aside from the pressure issues that are created without STL Pipeline, there is insufficient supply available to replenish the Lange storage field without STL Pipeline. The Lange storage field has a high yield deliverability of up to 357,000 Dth/day, and Spire Missouri typically reinjects throughout the winter heating season to maintain its inventory level for late season cold weather events. Spire Missouri relies heavily on its Lange natural gas storage facility to meet its customer's needs, and now relies solely on the high-pressure supply of STL Pipeline to replenish that storage inventory. Without the high-pressure supply from STL Pipeline, Spire Missouri may be unable to operate the Lange storage once it is depleted. In this scenario, Spire Missouri could face a lack of inventory availability, as it will not be able to replenish inventory from time to time as needed throughout the winter months. Accordingly, there is a potential for significant disruptions to service and the potential loss of up to an additional 357,000 Dth/d of deliverability (if the Lange storage facility is depleted) into our distribution system. This deliverability shortfall, combined with the loss of 350,000 Dth/d from STL Pipeline, creates an overall deficit of over half of our planned peak day supply. Without the high pressure supply available from STL Pipeline, Spire Missouri would likely not be able to maintain ongoing replenishment of the Lange facility over the winter, thus jeopardizing the availability of the asset to serve its customers at temperatures as high as approximately 38 degrees Fahrenheit. As an example, this past February following the Winter Storm Uri, Spire Missouri reinjected into its Lange storage facility for nine days, February 20-28, 2021, in order to replenish inventory in the event of another late cold during that winter season. If the high pressure supply from STL Pipeline would not have been available for this purpose, Spire Missouri would not

have been able to replenish that level of inventory and would have been at risk for customer outages throughout the rest of the winter season if there had been another cold snap. The high-pressure supply from STL Pipeline is absolutely critical to the operation of Spire Missouri's on-system (behind city-gate) storage and cannot be replaced with anything other than high pressure flowing supply, which is not available without STL Pipeline.

12. Second, and not contemplated during the certificate application process, higher pressure deliveries from STL Pipeline into MoGas (via a new interconnect) allowed Spire Missouri to forego making certain costly reinforcements to its own distribution system, which would have been absorbed by customers. Spire Missouri was able to secure a 12-year contract for additional capacity on MoGas (because MoGas interconnected with STL Pipeline), and the high pressures from STL Pipeline provided incremental delivered capacity on MoGas. This capacity, which is more than double what Spire Missouri was able to secure before STL Pipeline was placed into operations, benefited the west and southwest portions of our distribution system that are served by MoGas This permitted Spire Missouri to avoid making certain costly reinforcements of its facilities to ensure adequate supply into these areas of its distribution system. Without the additional deliveries from MoGas, reinforcements would have been required and would have involved building additional high-pressure pipelines in very populated areas. Based on engineering estimates, it would take years to install such reinforcements, putting the company at risk of not being able to serve its customers during the construction period. Even with these reinforcements, without STL Pipeline, Spire Missouri would lack

reliable supply to serve this area, which is the largest growth area in Spire Missouri's Eastern service territory, and is expected to continue growing.

13. The net result of all of Spire Missouri's actions to improve reliability and reduce costs to customers resulted in a radical change to its distribution operations and supply situation. Consequently, if STL Pipeline were to cease functioning, Spire Missouri would no longer have the firm capacity that it needs to meet winter season demand for household, industrial, commercial, and other uses. The following chart shows the current supply capabilities of Spire Missouri, both with and without STL Pipeline.

Table 1

Pipeline	Current Portfolio w/ STL Pipeline City Gate Capacity (Dth/day)	Winter 21/22 w/out STL Pipeline City Gate Capacity (Dth/day)	Winter 21/22 w/out STL Pipeline and Lange City Gate Capacity (Dth/day)
Enable MRT	550,779	*473,547*[1]	*473,547*[1]
Mogas Pipeline	145,600	*62,800*[2]	*62,800*[2]
Southern Star Central	30,300	30,300	30,300
Spire STL Pipeline	190,000	-	-
Spire MO Underground Storage	357,000	*357,000*[3]	-[3]
Total	**1,273,679**	**923,647**	**566,647**

[1] *Assumes the following. (1) 7,800 Dth/day of the 550,779 Dth/day now becomes upstream capacity utilized to feed MoGas (2) 70,000 Dth/d of capacity from STL Pipeline is no longer available to feed a southbound contract on MRT in the market area, and (3) Spire Missouri is able to contract for the 568 Dth/day of MRT Main Line capacity currently available.*

[2] *Assumes the historical contract capacity Spire Missouri held pre-STL Pipeline given the STL Pipeline interconnect will no longer be available.*

[3] *Spire Missouri's on-system underground storage is a finite resource. As Spire Missouri's underground storage is depleted, our ability to withdraw at max rates – 357,000 Dth/d – and support peak loads will also decline STL is currently the sole source of supply for winter re-injections and annual summer storage*

refill. Without access to STL Pipeline, the Company may not be able to sustain the max withdrawal rate long term, eliminating the city gate capacity represented by underground storage.

14. Table 1 shows a shortfall of 350,032 Dth/day in the absence of STL's deliveries, and up to 707,032 Dth/day once Spire Missouri's Lange storage field is depleted.

Loss of STL Pipeline Would Cause Severe Harm, and Potentially Loss of Life

15. Without STL Pipeline's firm, high pressure deliveries into its distribution system, Spire Missouri would face significant shortfalls of the natural gas needed to serve its customers during the winter season. Winter weather increases demand, and it does so during a period when natural gas is critically needed by households, businesses, hospitals, nursing homes, schools, and other consumers to provide space and water heat.
16. If STL Pipeline is not in service during the upcoming winter heating season, depending on availability of Lange storage, approximately 175,000-400,000 Spire Missouri customers may be without gas service for periods of time, based on Spire Missouri's extreme cold weather planning scenarios.
17. Spire Missouri undertakes a planning process, consistent with industry standards and audited by the Missouri Public Service Commission, which outlines how it will meet a planned peak day (i.e. peak customer demand) during the winter heating season. Based on its planning estimates, Spire Missouri would require nearly 1,300,000 Dth of capacity for a planned peak day.
18. Without STL Pipeline's 350,000 Dth/d of supply, Spire Missouri estimates that as many as 175,000, or 27%, of its customers could be without gas service on a planned peak day assuming Lange storage is still available.
19. A large portion of Spire Missouri's peak day is served by its on-system (behind city-gate) Lange natural gas storage, which as discussed above allows reinjections following

withdrawals. Without supply from STL Pipeline, the Lange storage field will be depleted much earlier in the winter than normal, and therefore the inability to reinject during the winter months will be even more impactful. Given that Spire Missouri will not be able to replenish the Lange storage inventory during the winter months without STL Pipeline, and once the inventory is fully depleted, as many as 400,000, or close to 62%, of Spire Missouri's customers could be without gas service on a planned peak day.

20. After Spire Missouri maximizes its available supplies and issues curtailment orders to minimize use of natural gas by non-essential end users, its customers could begin to lose service due to uncontrolled pressure loss at an average daily temperature of approximately 9 degrees Fahrenheit without natural gas supply from STL Pipeline. These temperatures are not atypical for St. Louis. Spire Missouri has experienced days with average daily temperatures at or below 9 degrees Fahrenheit during four of the last five winters. This temperature threshold for potential loss of service to customers increases to approximately 38 degrees Fahrenheit once Spire Missouri's natural gas storage resource is depleted. Finally, it is important to note that these temperatures are well above Spire Missouri's peak day temperature for planning purposes of -10.6 degrees Fahrenheit.

21. The geographical impact of such gas supply outages is illustrated broadly in the map attached as Appendix A, which is entitled "Missouri East Projected Outages" ("Outage Map"). The Outage Map is based on two scenarios.

    Scenario 1:

    Estimated outages on a peak day without STL Pipeline (yellow polygon region): This is the area that Spire Missouri expects to have insufficient pressure to provide

natural gas service should the following occur: (the total expected outages in this scenario is as many as 175,000 customers)

a. STL Pipeline is no longer in service.

b. St. Louis experiences its peak planning scenario, with an average daily gas day temperature of -10.6 degrees Fahrenheit.

Scenario 2:

Estimated outages on a peak day without Lange underground storage and STL Pipeline (red and yellow polygon regions): This is the area that Spire Missouri expects to have insufficient pressure to provide natural gas service should the following occur: (the total expected outages in this scenario is as many as 400,000 customers)

a. Spire Missouri depletes its Lange underground storage facility.

b. STL Pipeline is no longer in service.

c. St. Louis experiences its peak planning scenario, with an average daily gas day temperature of -10.6 degrees Fahrenheit.

Both scenarios were run in an industry-leading hydraulic model maintained by Spire's system planning department, and both scenarios assume peak conditions. It is important to note, however, that customer outages can occur at temperatures well above our peak planning temperature of -10.6 degrees Fahrenheit, as I referenced earlier in this Affidavit.

22. The practical impacts of a loss of natural gas service would be dire. In the event of a mass outage, customers will remain without heat, hot water, and the ability to cook for a

prolonged period of time due to the time and complexity required to reestablish service. Loss of heat during extreme cold weather sometimes results in death.

23. Loss of natural gas service is considerably more difficult to restore, and is more hazardous, than the more familiar loss of electric service. By contrast, Missouri state pipeline safety regulations[2], company operating standards, and sound safety practices require that, to restore natural gas service, a utility technician must visit each impacted home or business to physically shut-off the meter prior to re-establishment of gas into the system. When gas flow is re-established to the company's facilities, a utility technician must then return later to physically turn-on the meter for the customer, purge the customer's fuel lines of any air, complete a shut-in pressure test, and re-light all gas appliances. Moreover, natural gas outages caused by uncontrolled pressure loss present an even more dangerous scenario. When pressure is lost to a customer's premise, the lack of flowing gas can extinguish gas appliance pilot lights. If pressure is restored prior to the customer's meter being physically shut-off, there is a risk of explosion created by uncontrolled gas escaping into customer homes through the unlit gas appliance pilot orifice.

24. Even under a controlled curtailment scenario, mass restoration of natural gas service is a formidable challenge. For every 100,000 customers who lose gas service, even with 100 technicians working on addressing the outage, Spire Missouri estimates that it would take roughly 25 days before all customers would have service re-established. It is important to note that gas flow typically cannot be re-established until after the cold weather subsides and overall demand on the system decreases, potentially leaving customers without service for an even longer period of time during extreme and sustained cold weather.

[2] See 20 CSR 4240-40 030 (12)(S)1A

25. Based on these assumptions, if Spire Missouri were to lose gas service to 400,000 customers, it may take up to 100 days to re-establish service for all customers in the region, depending on how many technicians are available to work on the outage.

26. As discussed in more detail below, the widespread impact of a mass outage during the winter could therefore result in loss of life and property similar to, or even worse than, that seen in Texas during Winter Storm Uri in February 2021.

27. In addition to loss of service to households, in the above scenarios, gas service could be lost to more than 320 schools and nearly 20 hospitals, as well as nursing homes, churches and government facilities.

28. In addition to the impact on human needs, another consequence of losing service from STL Pipeline, even assuming replacement supply was available, which we know it is not, would be increased gas costs given a lack of supply availability to the St. Louis region. This effect almost certainly would be higher gas utility bills for customers in Eastern Missouri.

29. In St. Louis, research shows that energy costs are a higher burden on poor communities and communities of color. The detrimental impacts of taking STL Pipeline out of service will therefore have a disproportionate impact on these communities.

Winter Storm Uri, in January 2021, Demonstrates Both the Need for STL Pipeline and the Potential Impacts of Losing Its Supplies

30. The discussion above regarding loss of service involves projections based on the known supplies remaining after loss of STL Pipeline, as well as the historical demand within Spire Missouri's service territory, and is likely to be accurate, but does represent an effort to foresee future events. It is not, however, necessary to engage in predictions in order to conclude that STL Pipeline is an essential source of supply. The experience of Spire Missouri during Winter Storm Uri in February 2021 powerfully demonstrates that STL

Pipeline has already provided dramatic benefits, without which Spire Missouri's customers would have likely experienced gas service outages and far higher costs.

31. Without STL Pipeline, Spire Missouri estimates that as a result of Winter Storm Uri up to 133,000 customers would have been without gas service, and customers overall would have experienced a combined increased gas cost of up to $300 million (assuming Spire Missouri would have been able to serve all of its customers). This translates to Spire Missouri customers, on an individual basis, saving between $170 and $345 in a year, as a result of STL Pipeline service during Winter Storm Uri.

32. Spire Missouri's ability to avoid that disastrous outcome was a direct result of STL Pipeline's access to more diverse supplies than Spire Missouri's traditional supply basins. During Winter Storm Uri, natural gas production in the U.S. declined by roughly 25%, mostly driven by declines in Oklahoma, Texas, and Louisiana, but production in the Rockies and Appalachian Basins that STL Pipeline accessed saw little to no impact. As a result, Spire Missouri was able to provide reliable service to its customers during this weather event with minimal cost impact to customers.

33. Without STL Pipeline, Spire Missouri expects that customers would have lost gas service on eight of the nine days from February 11, 2021 to February 19, 2021, with a peak of roughly 133,000 customers without service on February 15, 2021. The average daily temperature on this day was 2 degrees Fahrenheit, which is approximately 13 degrees Fahrenheit warmer than Spire Missouri's planned peak day of -10.6 degrees Fahrenheit.

34. Spire Missouri customers realized up to an estimated $300 million in gas cost savings over the course of nine days during Winter Storm Uri because STL Pipeline delivered gas supply sourced from the Rockies and Appalachian Basins, instead of the significantly higher

priced gas from the Midcontinent producing basins, around Texas and Oklahoma, that suffered from major operational impediments due to the Winter Storm Uri extreme weather. These price differentials are illustrated in Appendix B. The map very clearly illustrates the extremely high prices that were experienced in the Midcontinent region around Texas and Oklahoma (red circle) relative to those experienced from trading points that had access to the Appalachian Basins (green circle).

35. Winter Storm Uri provides concrete historical evidence of the supply security and cost benefits that STL Pipeline provides by allowing Spire Missouri to maintain a portfolio consisting of diverse supplies of natural gas. Those benefits would be lost if STL Pipeline were forced to cease operations.

Spire Missouri Cannot Timely Re-Establish the Supply Sources that STL Pipeline Replaced, for Both Technical and Contractual Reasons

36. As discussed above, Spire Missouri faces a high risk of significant loss of natural gas service to large areas of its service territory if STL Pipeline ceases operation, because of changes to its supply portfolio, system, and operations leading up to, and since, STL Pipeline commenced service. Specifically, those changes were: (1) allowing contracts on MRT and upstream pipelines to expire; (2) retiring the antiquated propane peaking facilities; (3) making changes to the operations at the Lange storage facility to allow reliance on high pressure supply from STL Pipeline; and (4) foregoing system reinforcements for service to the western and southwestern areas because of the new supplies by STL Pipeline.

37. None of those steps can be reversed, and none of these sources of gas can be accessed before the upcoming winter season or beyond, as is explained in more detail below.

38. **MRT is not available to replace the STL Pipeline supply.** As noted above, Spire Missouri allowed 180,000 Dth/day of firm transportation contract rights on MRT to expire, as well as the nearly 170,000 Dth/day of firm upstream contracts that fed its MRT East Line capacity via NGPL and Trunkline. These quantities of firm entitlements are no longer available, for several reasons

39. Other shippers have subsequently contracted for the pipeline capacity that Spire Missouri allowed to expire on those pipelines. For example, MRT has capacity available on two distinct segments, its Mainline and its East Line, but neither can adequately replace STL Pipeline for the 2021-2022 heating season.

40. MRT now only has 568 Dth/day of capacity available on its Main Line, a negligible quantity compared to the 350,000 Dth/day contracted on STL Pipeline.

41. Although MRT's bulletin board shows that capacity is available on the East Line for this winter, MRT's delivery point into Spire Missouri's distribution system at Chain of Rocks has been abandoned, so this capacity is not a viable option for Spire Missouri to use in place of STL Pipeline. In addition to the delivery point being out of service, due to the changing flow dynamics associated with the Appalachian Basins gas flowing south to the Gulf Coast area, driven in part by increased LNG exports, upstream flows can no longer reliably deliver into the East Line at the pressures MRT needs to reliably deliver the gas downstream markets. Since STL Pipeline was placed into service, MRT has physically abandoned its delivery infrastructure at Chain of Rocks. That station was replaced by the new Chain of Rocks interconnect between MRT and STL Pipeline, which is an authorized facility under the STL Pipeline FERC Certificates issued in Docket No. CP17-

42. At present, any East Line deliveries from MRT must be made through STL Pipeline to get into this area of Spire Missouri's distribution system. The facilities needed to connect MRT with Spire Missouri's distribution system cannot be constructed in time for the upcoming 2021-2022 winter season, and would lack the higher pressures that STL Pipeline provides, which is crippling for Spire Missouri's operations. Moreover, even if it were to be connected to Spire Missouri's system at some point in the future, deliveries into the East Line have had significant pressure reliability problems for years, making it an unreliable and consequently unacceptable supply source to serve customers when they need it the most. For example, based on its market intelligence, Spire Missouri knows that firm shippers experienced interruptions of service on their East Line volumes during Winter Storm Uri. While MRT was able to deliver quantities actually received from upstream pipelines on its East Line, interruptions occurred due to the inability of MRT to receive all scheduled gas from the upstream pipelines, thus leaving shippers with deliveries less than their nominated quantities. Spire Missouri is exploring availability on upstream pipelines, NGPL and Trunkline, to feed into the East Line. However, recent pressure issues have been acknowledged by the upstream pipelines, and Spire Missouri has not received a firm delivery pressure commitment from either upstream pipeline, making transportation capacity on the East Line even less dependable. Finally, even if – contrary to fact – Spire Missouri could access the East Line capacity, it would be far from adequate to meet the overall shortfall that Spire Missouri faces, as shown by Table 1 above.

43. Overall, Spire Missouri may only be able to secure an incremental 568 Dth/day (MRT Main Line) of available pipeline capacity, resulting in a deficit of more than 350,032

Dth/day of contracted supply to meet customer demand during extreme cold weather, as outlined in Table 1 above.

44. **The propane peaking facilities are no longer available.** Spire Missouri's propane injection facilities, which historically were utilized to meet 160,000 Dth/d of customer demand on a planned peak day, were old and inefficient, and therefore decommissioned after the STL Pipeline went into service, and are no longer available. The injection facilities have been removed and disconnected from the propane pipeline, and the vaporizers have been repurposed. Physically reassembling these facilities cannot be done before the 2021-2022 winter season, or for some time beyond, and would involve substantial costs. Additionally, Spire Missouri made a strategic decision to remove propane from its supply stack; does not intend to rely on propane in the future to meet customer demand; and does not believe it would be prudent to do so. There are many reasons for this, but in particular, vaporizing propane is more complicated and introduces more risk than flowing natural gas supply; it requires Spire Missouri to notify large industrial customers prior to propane injection as higher percentages of propane can damage equipment due to the higher Btu content it introduces to the system; and the Spire Missouri system was the only system of its kind in the U.S., and therefore knowledge and expertise of how to maintain and operate the equipment is a long-term risk. Moreover, although the propane cavern and pipeline still exist (though not functional for Spire Missouri to utilize), Spire Missouri no longer has priority access to propane supply even if, contrary to fact, Spire Missouri could rebuild and reconnect its facilities, because Spire Missouri terminated its priority propane service contract following the commencement of STL Pipeline service.

45. **The high-pressure supply from STL Pipeline cannot be replaced for Lange storage injection.** As noted above, the operations of the Lange storage field changed with the advent of STL Pipeline to allow the benefit of relying on the higher-pressure supply from STL Pipeline to direct inject. Given the ability to direct inject into the Lange storage field from STL Pipeline, Spire Missouri retired and removed three compressors that had been used prior to STL Pipeline, as needed, for injection into storage prior to STL Pipeline. Any resumption of service from MRT (which is purely hypothetical because there is no longer an MRT delivery location other than STL Pipeline at Chain of Rocks) would still not address the lack of high pressure supply for direct injection into the field, and would leave Spire Missouri with inadequate supply and pressure to operate its storage field during the winter heating season to meet customer demand.

46. **Reinforcements to the Spire Missouri distribution system cannot be completed in time to allow continued adequate service to the western and southwestern service areas that have relied on the new supplies from STL Pipeline**. As noted above, STL Pipeline's service allowed Spire Missouri to forego certain reinforcements on its own system in order to serve demand in the west and southwest areas of its Eastern Missouri service territory. Instead, the greatly improved pressure on MoGas due to its interconnection with STL Pipeline has rendered these reinforcements unnecessary. As I mentioned before, to construct these reinforcements would take years, making that option unavailable for the 2021-2022 heating season, and beyond.

47. In sum, even if Spire Missouri were to attempt to replace STL Pipeline with the pre-existing alternatives, which would involve numerous risks and costs even if completed, it cannot do so in time for the upcoming 2021-2022 heating season.

Conclusion: Continued Operation of STL Pipeline Remains Essential to Continued Service by Spire Missouri to its Customers

48. Spire Missouri is attempting to make contingency plans to ensure customers have continued access to affordable, reliable gas supply in the event STL Pipeline is taken out of service, including discussions with Enable MRT, MoGas and Southern Star Central regarding available capacity. But today, **there currently is no viable alternative to replace the energy supply delivered by STL Pipeline to ensure reliable service to customers**.

49. For the reasons discussed above in detail, if STL Pipeline ceases service, Spire Missouri does not have sufficient natural gas supply to meet the demands of the St. Louis region during the upcoming winter season, and faces the prospect of major losses in natural gas service during cold weather events, with attendant hardships to the residents of Missouri – particularly the most vulnerable – including a significant potential for loss of life.

50. For all of the foregoing reasons, it is critically important that STL Pipeline continue its current operations for the upcoming 2021-22 winter heating season.

51. I declare under penalty of perjury that the foregoing is true and correct. This concludes my affidavit.

Scott Carter

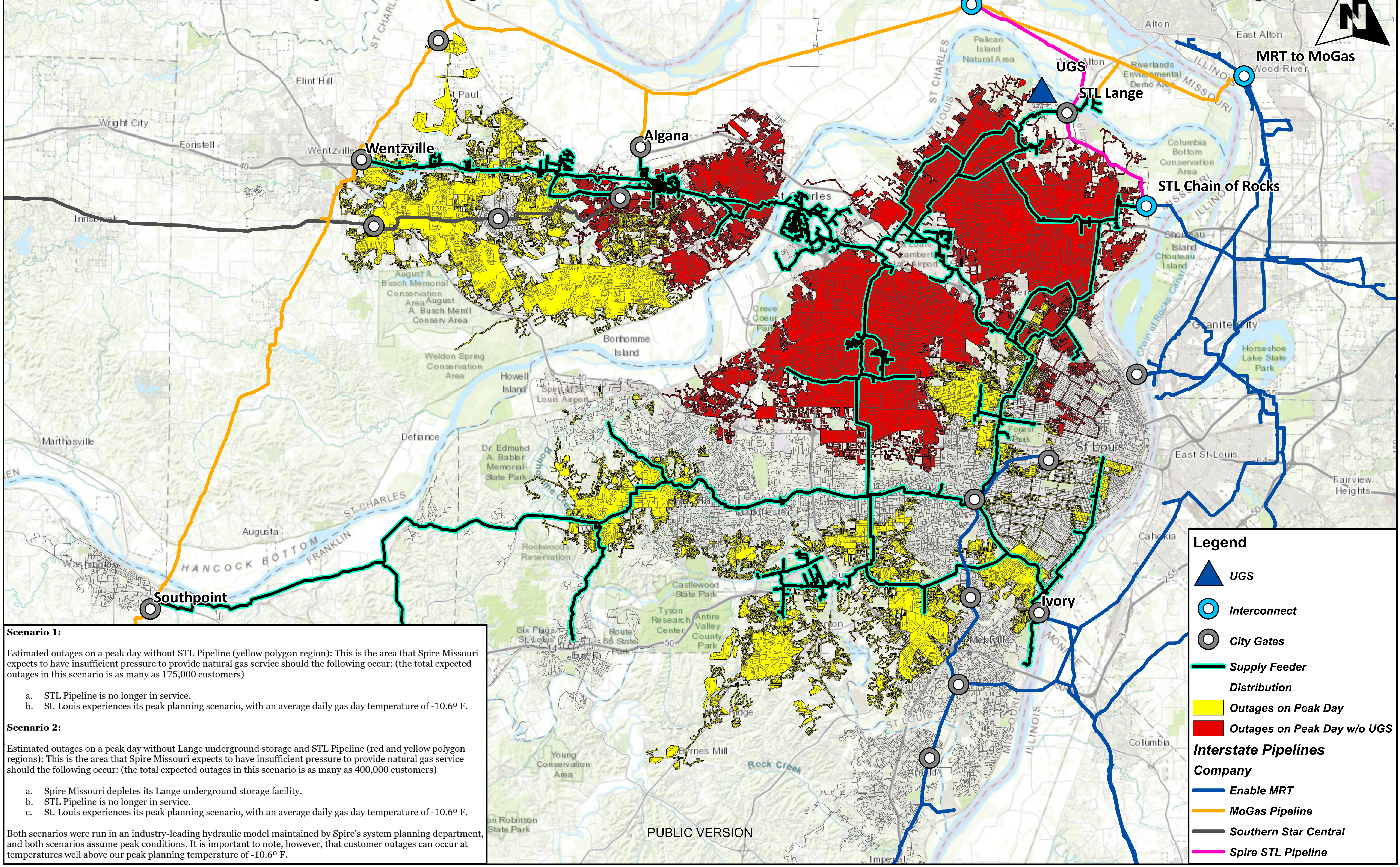
STATE OF MISSOURI)
) SS
CITY OF ST LOUIS)

Subscribed and Sworn to before me this 26th day of July, 2021.

Notary Public

LANA K SCHNEIDER
Notary Public - Notary Seal
STATE OF MISSOURI
Commissioned for Saint Louis City
My Commission Expires. October 29, 2022
Commission # 18005093

Spire Missouri East Projected Outages



Scenario 1:

Estimated outages on a peak day without STL Pipeline (yellow polygon region): This is the area that Spire Missouri expects to have insufficient pressure to provide natural gas service should the following occur: (the total expected outages in this scenario is as many as 175,000 customers)

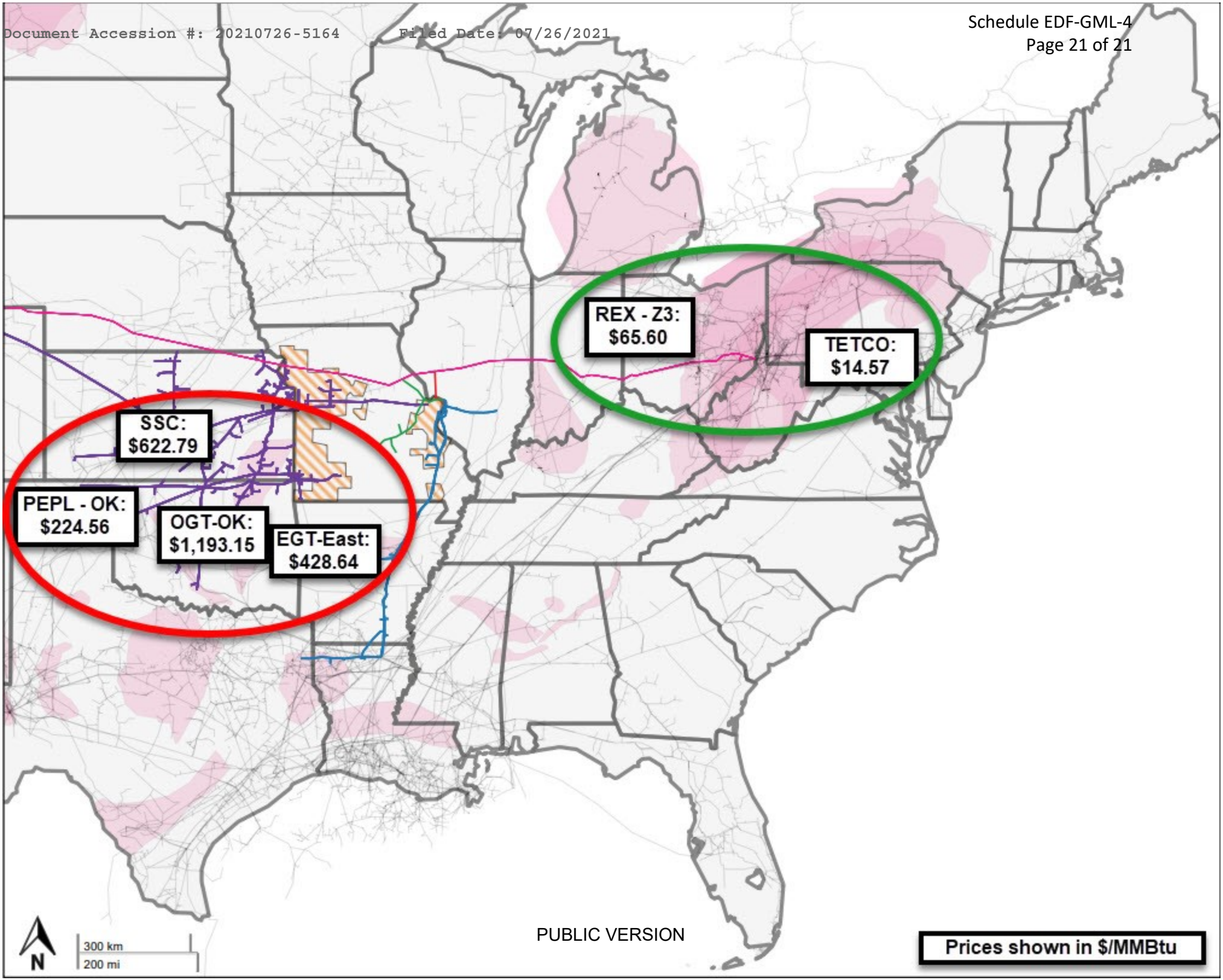
a. STL Pipeline is no longer in service.
b. St. Louis experiences its peak planning scenario, with an average daily gas day temperature of -10.6º F.

Scenario 2:

Estimated outages on a peak day without Lange underground storage and STL Pipeline (red and yellow polygon regions): This is the area that Spire Missouri expects to have insufficient pressure to provide natural gas service should the following occur: (the total expected outages in this scenario is as many as 400,000 customers)

a. Spire Missouri depletes its Lange underground storage facility.
b. STL Pipeline is no longer in service.
c. St. Louis experiences its peak planning scenario, with an average daily gas day temperature of -10.6º F.

Both scenarios were run in an industry-leading hydraulic model maintained by Spire's system planning department, and both scenarios assume peak conditions. It is important to note, however, that customer outages can occur at temperatures well above our peak planning temperature of -10.6º F.



PUBLIC VERSION

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Spire Missouri, Inc. d/b/a Spire (East) Purchased Gas Adjustment (PGA) Tariff Filing	)))	Case Number GR-2021-0127

AFFIDAVIT OF GREGORY M. LANDER

State of Massachusetts	)	
	)	ss
County of Essex	)	

Comes now Gregory M. Lander on his oath declares that he is of sound mind and lawful age; that he prepared or caused to be prepared the foregoing Direct Testimony of Gregory M. Lander; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Gregory M. Lander

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Essex, State of Massachusetts on this 28th day of April, 2023.

Notary Public

SHANTI CHELLAR
Notary Public
Massachusetts
My Commission Expires
Nov 22, 2024