Mississippi Public Service Commission

Docket No. 24-AD-37

Investigation into the Holly Springs Utility Department Provision of Electric Service

Final Report

Submitted By:

SILVERPOINT CONSULTING LLC

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I. Executive Summary

A. Background

The City of Holly Springs (Holly Springs or City) operates a municipal utility, the Holly Springs Utility Department (HSUD), which provides electric, gas, water, and sewer service in the City as well as parts of Marshall, Benton, and Lafayette Counties in Mississippi and Hardeman and Fayette Counties in Tennessee. The Tennessee Valley Authority (TVA) provides wholesale power to HSUD under a long-term contract with the City. HSUD in turn delivers electricity to roughly 12,000 business and residential electric customers across a 1,600 square mile service territory. Approximately two-thirds of HSUD customers are outside City limits.

Both the Mississippi Public Service Commission (Commission) and TVA have, in recent years, received numerous complaints from HSUD electric customers. Many of these complaints related to operational issues such as substandard reliability and poor restoration performance, while others pertained to customer service-related issues like billing. The City is also out of compliance with certain operational and financial regulatory requirements of its TVA contract.[1] In October 2023, the Tennessee Valley Public Power Association (TVPPA) completed an on-site assessment of the City's electric department. The resultant report described a lack of qualified management and engineering expertise, seriously deficient system maintenance, unsafe crew work practices, and the absence of reliability- and outage-related data and analysis.[2] TVPPA presented its report findings and conclusions at a Commission work session in January 2024.

Senate Bill 2453, signed by Mississippi's Governor on April 8, 2024, expanded the Commission's jurisdiction, authorizing it to investigate electric service quality at certain municipal utilities including HSUD. Subsequently codified in Mississippi Code § 77-3-21 and § 77-3-22, it authorizes the Commission to petition the courts to place an electric system under receivership should it find the utility unable or unwilling to adequately serve its customers. On April 11, 2024, the Commission established a formal docket for the purpose of investigating, conducting hearings, and ordering and taking necessary measures regarding the provision of reasonably adequate service by HSUD.[3] On May 14, 2024, the Commission issued a request for proposals (RFP) for a qualified firm to independently investigate and present its conclusions about the adequacy of the service provided by HSUD. The Commission subsequently selected Silverpoint Consulting LLC (Silverpoint) to conduct this investigation.

In this executive summary, Silverpoint provides a brief overview of the investigation, a synopsis of the team's principal findings, and our overall conclusions and recommendations.

[1] TVA Report, Holly Springs Utility Department Review of Storm Recovery Events in 2022 and 2023, issued March 3, 2023. See PSC Docket No. 24-AD-47, Item 10.
[2] TVPPA Local Power Company – Comprehensive Assessment Findings, Holly Springs Utility Department, October 2023. The TVPPA represents the interest of consumer-owned electric utilities operating within the TVA service area.
[3] Docket No. 2024-AD-037, Investigation into the Holly Springs Utility Department Provision of Electric Service.

B. Overview of the Investigation

Silverpoint's evaluative framework for the investigation of HSUD was based on the concept of good utility practice, which refers to the generally accepted industry standards, techniques, and procedures commonly used by utilities to ensure they operate safely, reliably, and efficiently. This approach is consistent with the type of assessment envisioned under § 77-3-21 to determine whether HSUD provides reasonably adequate service to its customers. The standard of good utility practice is commonly applied by regulators to evaluate whether utilities have made informed, responsible decisions when managing infrastructure, delivering services, and responding to operational challenges. It is one that emphasizes the importance of maintaining reliability and safety in utility operations.

Although Silverpoint officially began its investigation in August 2024, we were unable to obtain any meaningful cooperation from HSUD for nearly six months. This was likely at the direction of City leadership, who ultimately retained outside counsel. Silverpoint submitted more than seventy-five comprehensive document requests, although much of the material we were ultimately provided was either non-responsive or irrelevant to our questions. Our team had no access to HSUD employees until the end of April, when we were finally permitted to conduct some brief interviews at the Commission's Northern District office.

Silverpoint's examination of HSUD encompassed a broad range of areas including system operations, vegetation management, preventative maintenance of substations and overhead lines, work order management, emergency preparedness, outage response, system planning and analysis, capital investment, and support functions such as metering, customer service, and billing. The shortcomings we identified during our review are consistent with the kind of reliability, service quality, and billing-related issues raised in customer complaints to the Commission. During our assessment we observed recurring themes—inadequate management or technical/engineering expertise, reactive versus proactive maintenance practices, insufficient planning and analysis, and questionable choices that appear to have been influenced by the City's lack of financial resources.

The Silverpoint team also evaluated HSUD's response to the concerns first identified in the TVA and TVPPA reports such as grossly deficient vegetation management, chronic underinvestment in system assets, inadequate inspection and maintenance programs, poor restoration response, and inexperienced management. As described in this report, little or nothing has been done in the interim and these same problems persist. The entire distribution system is still terribly overgrown. System reliability remains seriously compromised from years of neglected asset maintenance and inadequate capital investment. Work order backlogs are growing due to chronic understaffing and service quality continues to erode. The utility's metering and billing process is in chaos. Current management is incapable of achieving any real improvements moving forward.

C. Summary of Conclusions and Recommendations

Mississippi Code § 77-3-21 permits the Commission to issue an order finding that HSUD does not render reasonably adequate electric service. This conclusion was apparent two years ago based on the TVA and TVPPA reports and the sheer volume of customer complaints—our investigation merely reinforces it. Throughout this report Silverpoint documents how HSUD and the City

consistently failed to implement any of the pragmatic recommendations offered by TVA and TVPPA to improve the quality and reliability of their electric service. They appear incapable of doing so, financially or otherwise. Allowing them any more time would be fruitless as well as disrespectful to the utility's long-suffering customers.

Consistent with the language of § 77-3-22, Silverpoint recommends that the Commission find that the City and HSUD are unable or unwilling to adequately serve its customers. They lack sufficient technical, operational, and management expertise to effectively reverse the downward trajectory the electric system has been on for some time. Doing so would also require significant financial resources the City simply does not have. The City has for years refused to adequately invest in the electric system and instead has systematically drained utility resources to fund its other expenses. In that context, Silverpoint recommends the Commission also find, per § 77-3-22, that the City's management of its electric system is grossly inefficient, irresponsible, or unresponsive to the needs of its customers.

No specific outcome is mandated by § 77-3-22, although one option is described, namely receivership. Silverpoint recommends the Commission temporarily hold that approach in abeyance. Instead, we suggest the Commission spearhead a brief yet focused feasibility study to identify other possible alternatives, such as a sale of the HSUD system to another municipal or cooperative utility, eminent domain/condemnation, or conversion to a cooperative structure. Significant financial resources and a highly skilled management team will be required to effectuate meaningful change at HSUD under any future scenario, and so assessing their availability will be an important part of identifying potential viable alternatives to receivership.

II. Background of the Investigation

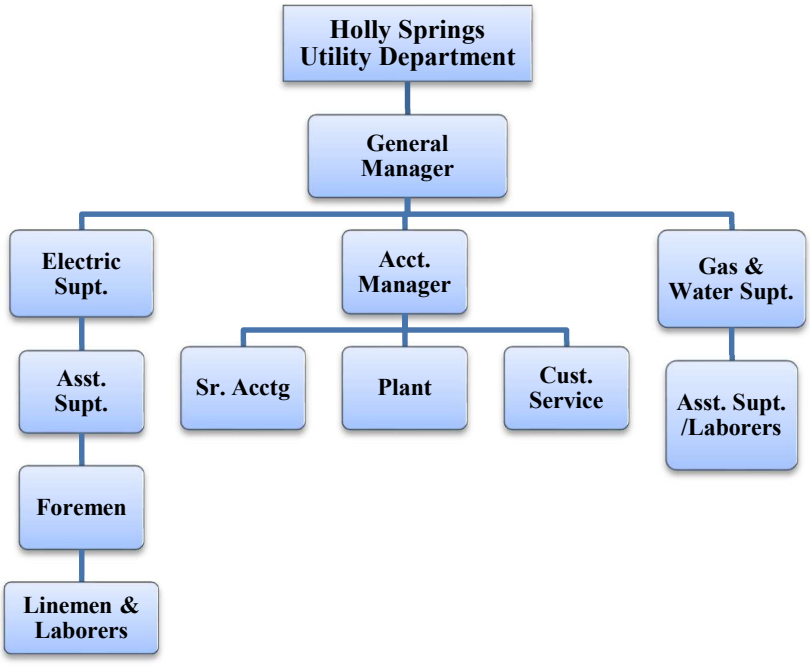
A. Overview of the Utility

The City of Holly Springs (Holly Springs or City) has a current population of approximately 7,000 people. The City operates a municipal utility, the Holly Springs Utility Department (HSUD), which provides electric, gas, water, and sewer service in the City as well as parts of Marshall, Benton, and Lafayette Counties in Mississippi and Hardeman and Fayette Counties in Tennessee. The Tennessee Valley Authority (TVA) provides wholesale power to HSUD under a long-term contract with the City.[4] HSUD in turn delivers electricity to roughly 12,000 business and residential customers across its 1,600 square mile service territory. Approximately two-thirds of HSUD customers are located outside municipal limits.

HSUD's service territory is more akin to that of a rural electric cooperative than a traditional municipal utility. The City of Holly Springs comprises a relatively small portion of HSUD's service territory, which encompasses areas with relatively low customer density outside the City as well as towns like Ashland. Given current system architecture, customers outside the City cannot be electrically separated from City customers or receive power from neighboring utilities.

HSUD's organizational structure is illustrated in the following chart. Like other municipal departments in the City, HSUD is governed by the Mayor and the Board of Aldermen, to which the HSUD General Manager reports.[5]

HSUD Organizational Structure



[4] The agreement between TVA and the City was first entered into in 1975 and subsequently amended in 1986.
[5] A municipality is a city, town, or village that has its own government structure and powers. That structure typically includes an executive branch (e.g., mayor or city manager) and a legislative branch (e.g., city council).

The organizational chart for the City of Holly Springs as a whole, reflecting all municipal departments, is included in Appendix A.

Concerns about the quality and reliability of the electric service provided by HSUD are not new. TVA has had issues with the utility for decades. The magnitude and urgency of the concerns have increased in recent years, however, with both the Mississippi Public Service Commission (Commission) and TVA receiving an unprecedented number of complaints from HSUD electric customers. Many of these complaints relate to substandard reliability and restoration performance, while others pertain to customer service-related issues like billing and metering.

B. TVA Report of March 2023

TVA regulates the 153 local power companies (LPCs) that distribute its power, which include electric cooperatives as well as municipally owned electric utilities like HSUD. TVA exercises regulatory oversight of each LPC's financial health, rates, use of electric system revenues, and service practices (e.g., billing and disconnections), and imposes certain annual financial reporting requirements. Areas within TVA's scope include accounting, payments in lieu of taxes, and discrimination in the sale and distribution of its electric power. That jurisdiction does not extend to operations, however, and each LPC is ultimately responsible for managing its own operations to ensure safe, reliable delivery to customers on its distribution system.

In April 2022, customers in the HSUD service territory experienced widespread and prolonged power outages resulting from severe inclement weather. A significant number of impacted customers contacted TVA to raise concerns about HSUD's power restoration efforts, with some alleging preferential treatment in restoration of service. TVA also received comments from state and local officials, and the Commission provided information on additional complaints it received. TVA subsequently initiated a review of restoration efforts, although it ultimately found no concrete evidence of preferential treatment. During its review, TVA identified several factors contributing to the utility's long delays in restoring power to customers, which it discussed in a report ultimately issued on March 3, 2023 (TVA Report).[6] These include an insufficient vegetation management program, inadequate right-of-way clearing practices, and unreliable crew communications technology. The report also points to the lack of formal storm recovery policies and procedures, adequate and up-to-date system maps, and real-time outage information.[7]

While TVA was preparing its report, another major storm event—a severe ice storm on January 30-February 1, 2023—significantly impacted the HSUD system. At the time, the utility's General Manager position was vacant due to retirement. After the state declared an emergency, the Mississippi Emergency Management Agency (MEMA) designated a manager from a neighboring LPC to lead the response. In all, ten LPCs provided storm recovery assistance, and restoration efforts continued until February 10th. TVA received an inordinate number of complaints—over 1,300—from HSUD's customers about the utility's response to this event. TVA subsequently met

[6] TVA Report, Holly Springs Utility Department Review of Storm Recovery Events in 2022 and 2023, issued March 3, 2023. See PSC Docket No. 24-AD-47, Item 10.
[7] TVA Report, pp. 6-7.

with representatives from several LPCs involved in the restoration who echoed the same concerns and shortcomings that the agency identified in connection with the April 2022 event. Several LPCs also noted that the current condition of the HSUD system had created potentially unsafe working conditions for their crews during restoration efforts.[8]

During its review, TVA identified more than a dozen areas for improvement for the City's Mayor and Board of Aldermen to consider in carrying out their responsibility for operating and managing the utility. In the TVA Report, the agency strongly urged the City to implement these as soon as feasible and in a financially prudent manner. These recommendations include the following:[9]

- Hire a General Manager knowledgeable in electric distribution systems
- Meet with LPCs that supported restoration to gain insights into the challenges they faced
- Implement an effective vegetation management program to address right-of-way issues
- Conduct a full inspection of distribution system assets, document maintenance needs, and develop a plan to correct identified safety and system issues
- Develop a storm response and recovery plan
- Develop a plan to improve crew communications in the field during restorations
- Consider new call center technology to support data collection and storm recovery efforts
- Develop a communications plan to inform customers about outages and restoration efforts
- Reinforce collaboration with nearby LPCs regarding mutual aid for significant restorations
- Identify a vendor for contract crews to support outage restoration efforts
- Maintain a sufficient inventory of critical distribution equipment to avoid supply chain issues, and benchmark and implement an appropriate procurement process
- Evaluate the effectiveness of the utility's Advanced Metering Infrastructure (AMI) outage system
- Consider engaging a rate consultant to determine if a local rate adjustment is needed
- Evaluate tools and technologies that provide up-to-date mapping and outage management options.

The balance of TVA's report focuses on its assessment of HSUD's financial position. Historically, HSUD has struggled to submit timely financial information to TVA as required under its wholesale power contract and was delinquent in its reporting. At the time, the most recent financial report available was as of June 2021. Using that data, TVA performed comparative analytics, benchmarking HSUD financial data against similar LPCs. TVA reached the following conclusions:[10]

[8] TVA Report, pp. 7-8.
[9] TVA Report, p. 10.
[10] TVA Report, pp. 8-9.

- HSUD is spending 22% less on system support through operations and maintenance (O&M) expenses versus similar LPCs
- HSUD is spending 33% less on the operations and maintenance of overhead lines versus similar LPCs
- Similar LPCs are investing in net electric system assets at ten times the rate of HSUD
- HSUD's operating margins are 20% lower than similar LPCs, equaling approximately $2 million less in annual operating funds
- HSUD's line losses are 75% higher versus similar LPCs, equaling approximately $465,000 in additional annual losses.[11]

TVA concluded that decisions made at the local level had resulted in inadequate investment—both in capital and O&M—in the HSUD system, and that this was likely a factor in the utility's reduced reliability and lengthy storm recoveries. TVA also formally designated the utility's failure to submit required financial information as a Significant Regulatory Issue, stating that it intended to begin a full compliance assessment to ensure HSUD is compliant with the requirements in its TVA contract.

C. TVPPA Assessment and October 2023 Report

Although both TVA and the Commission were receiving complaints about HSUD's reliability, restoration performance, and related matters, neither entity had clear regulatory authority over those aspects of utility operations. In that context, during a presentation to the Mayor and Board of Aldermen following its March 2023 report, TVA recommended that the City consider allowing the Tennessee Valley Public Power Association (TVPPA) to perform an assessment of the condition of its electric system. TVPPA is a nonprofit, regional service organization that represents the interest of consumer-owned electric utilities operating within the TVA service area.

No action was taken on TVA's recommendation until after the State of Mississippi allocated funds to pay for the study as well as for some vegetation management work at HSUD. At that point, the City agreed to allow TVPPA to perform the assessment at the State's expense. TVPPA subsequently retained a retired utility executive, Thomas E. Suggs, Jr., to perform the assessment in conjunction with two safety professionals.[12] This assessment of HSUD by TVPPA was the first of its kind project among the 153 LPCs in TVA's service territory.

The TVPPA team performed an on-site assessment in late September and early October, focusing on areas such as system maintenance, management and leadership, system planning, and the overall condition of system infrastructure, and produced a final report (TVPPA Report) shortly

[11] Line losses are the difference between the total kilowatt hours of energy purchased from TVA and the total amount sold to customers.

[12] Mr. Suggs has over forty years of electric utility system operations and engineering experience. Before retiring, he was Chief Operating Officer of Middle Tennessee Electric, a member-owned electric cooperative serving approximately 350,000 customer accounts. Mr. Suggs is currently a member of the Silverpoint team.

thereafter.[13] The report describes many deficiencies at HSUD, including little-to-no system maintenance, aging and out-of-service infrastructure, numerous unsafe work practices, and an absence of data tracking and analysis regarding reliability and system outages. The report also echoes two of the serious issues first raised by TVA—the lack of qualified management and engineering expertise and a serious deficiency in vegetation management.

At the time of the review, the General Manager position remained unfilled following a retirement at year-end 2022, and the City's Mayor was acting in that role. In the report, the TVPPA team emphasizes that, first and foremost, the utility needed a capable, competent, and qualified person to fill the General Manager position—one with a minimum of 12-15 years of experience in a similar role at an electric utility. The new manager should also have a strong background in electrical engineering unless the utility intended to add that expertise through a new staff position or via consulting engineers. The team found the absence of technical engineering expertise to be particularly problematic. A lack of competent leadership had led to the deployment and implementation of stop-gap measures rather than well-considered solutions. Also, utility employees functioned in day-to-day mode without consideration of the larger picture.[14]

The TVPPA Report emphasizes another high priority concern—management of vegetation on the HSUD system. The report includes over two dozen photographs with examples of gross incursion of vegetation on HSUD's distribution lines and other system infrastructure.[15] The TVPPA team found the problem to be systemic, extending throughout the utility's sub-transmission system, distribution system, and substations, and having a negative impact on reliability, worker safety, and overall productivity. The team concluded that the situation could not be remedied with the current HSUD workforce. An aggressive remediation plan and schedule would have to be developed by someone with appropriate expertise. The TVPPA team estimated that restoring HSUD's rights-of-way to the necessary standards within the next two-to-three years would entail onboarding large numbers of contractors at a total cost of roughly $10 million.[16]

The TVPPA Report also discusses examples of poor overall system condition. For example, a sub-transmission line serving the Slayden substation from the South Holly Springs substation was lying on the ground and had remained unrepaired for at least two years. The utility's North Holly Springs substation was partially out of service due to an explosion at least five years before, and the transformers at the South Holly Springs substation posed worrying age and condition concerns. The TVPPA Report indicates that the costs for rectifying these issues would be very significant, with a worst-case scenario estimate of approximately $15 million.

Dereliction of vegetation management was not the only example of poor maintenance or operational practices identified at HSUD. For example, a significant backlog of service and work order requests indicated unproductive operational practices (as well as insufficient manpower). The TVPPA Report discusses at some length the absence of routine maintenance of substation

[13] TVPPA Local Power Company – Comprehensive Assessment Findings, Holly Springs Utility Department, October 2023.
[14] TVPPA Report, p. 5.
[15] TVPPA Report, pp. 44-51; see also selected photographs showing undesirable vegetation in portions of the utility's substations on pages 52, 54, and 55 through 65.
[16] TVPPA Report, pp. 5-6.

equipment, pointing to the lack of routine sampling of transformer oil as an example of a particularly serious and immediate concern. The report also discusses in some detail the lack of preventative maintenance and associated recordkeeping for utility vehicles and other key equipment.

The TVPPA team raises a litany of safety-related concerns, including poor practices around the use, care, and testing of personal protective equipment (PPE) that potentially exposes linemen to serious hazards. Dozens of photographs are included in the report showing examples of various types of safety hazards at utility facilities and on fleet vehicles.[17] Another serious shortcoming in operational practices discussed in the report was the lack of written switching procedures (e.g., lockout/tagout) to ensure that lines are not re-energized while still being worked on.

The TVPPA Report discusses issues related to storm restoration and response. As first noted by TVA, HSUD has no emergency response or utility disaster plan. The TVPPA team also found that the utility did not conduct periodic storm response or disaster drills. It had no formal damage assessment procedures or outage restorations procedures and maintained no written information for outside mutual aid crews to orient them on the system. The TVPPA Report also discusses the negative impact of the lack of a real-time mapping system, which is necessary to support safe and efficient outage restoration practices. The only existing system map of HSUD is a rudimentary one from 2009, which is useless for such purposes.

The TVPPA Report highlights the lack of data collection around system outages that would allow HSUD to better analyze the outages and to develop the type of reliability metrics that are a standard of good utility practice throughout the industry. As noted by TVA, HSUD apparently was not taking advantage of any customer outage reporting capability associated with its AMI metering system, instead relying on customer phone calls to identify likely system issues. In that same vein, the TVPPA team emphasized the riskiness of having only one employee who understands how the current AMI system works.

Specific recommendations cited in the TVPPA Report include the following:

- Immediately hire an appropriately qualified General Manager, supplemented with additional electrical engineering expertise as needed
- Develop and execute a vegetation management program on an expedited timeline
- Commission a new system study from an experienced electric utility consulting firm to determine necessary upgrades and/or rebuilds of system infrastructure
- Evaluate the current backlog of work orders, and consider contract resources to alleviate the backlog
- Implement a real time mapping system
- Supplement current staff with in-house expertise in either engineering or radio frequency networks to properly support the AMI metering system

[17] See TVPPA Report, pp. 67-74.

- Develop a long-range technology and operational plan
- Prepare a system of inspections and preventative maintenance for utility vehicles and special equipment
- Implement training in the proper use and testing of PPE
- Prepare a system of inspections and preventative maintenance and maintain up to date logs.

TVPPA's President and Mr. Suggs made a presentation about the report at a Commission Work Session on January 31, 2024 in Jackson. Representatives from TVA also provided comments on their own recent report.[18]

A copy of the TVPPA Report has been filed with this report as Exhibit 1.

D. Legislative Action in 2024

Following the presentation of the TVPPA Report to the Commission in January 2024, Mississippi lawmakers passed a bill granting the Commission authority to investigate HSUD operations on its own. Senate Bill 2453 (SB 2453), signed by Mississippi's Governor on April 8, 2024, expanded the Commission's jurisdiction to investigate electric service quality at certain municipal utilities. More specifically, the bill applies to municipalities holding a certificate to provide service more than one mile outside its boundaries. The bill helps provide some recourse to the majority of HSUD's customers located outside City limits who cannot vote on the entities that govern their utility, i.e., the City's Mayor and Board of Aldermen. The bill was subsequently codified in Mississippi Code § 77-3-21 and § 77-3-22.[19] A copy of SB 2453 and Mississippi Code § 77-3-21 and § 77-3-22 are included in Appendix B.

Under Mississippi Code § 77-3-21, if the Commission finds that a utility has failed to provide reasonably adequate service, it may order the utility to correct those specific failures. If the utility fails to comply and the Commission believes it would be in the best interest of the public, it may revoke or cancel the municipality's certificate for the area that extends beyond its boundaries. Alternatively, if the Commission finds that the utility is unable or unwilling to adequately serve its customers, Mississippi Code § 77-3-22 allows regulators to petition a chancery court to place the utility under receivership. Under receivership, control of and responsibility for the system would remain with the receiver until the court determined it in the best interest of customers that it be returned to the owner, transferred to another owner, or assumed by another operator, system, or public service corporation.

[18] A video recording of the Commission's work session is available at the following address: https://www.youtube.com/watch?v=X7rPCARvu7s

[19] SB 2453 amends Mississippi Code 1972, Section 77-3-21, Hearing on Adequacy of Service Afforded by Certificate Holder by creating an exception to the exclusion of municipals under Section 77-3-1. It also amends Mississippi Code 1972, Section 77-3-22, Placement of Privately Owned Water and Service Systems in Receivership; Conditions by creating the exception to municipals under Section 77-3-1.

E. Public Service Commission Investigative Docket

A few days after passage of SB 2453, the Commission opened its investigation into HSUD's service quality. The Commission's April 11, 2024 Order established Docket No. 24-AD-37 for the purpose of "investigating, conducting hearings, and ordering and taking necessary measures regarding the provision of reasonably adequate electric utility service by the City of Holly Springs Utility Department."[20] In the Order, the Commission referenced its work session at which both TVA and TVPPA presented their findings, as well as the countless communications from HSUD customers voicing serious concern and frustration with the quality of the utility's electric service.

On May 14, 2024, the Commission issued a request for proposals (RFP) for a qualified firm to independently investigate and present its conclusions about the adequacy of the service provided by HSUD. The Commission subsequently selected Silverpoint Consulting LLC (Silverpoint) to conduct this investigation, and the parties signed a contract in early August.[21] To maintain independence from the Commission and its Staff, Silverpoint is precluded from consulting, collaborating, or in any way discussing the investigation at any time prior to presenting its findings to the Commission at a hearing. Silverpoint was, however, assigned one senior attorney from the Commission Staff to facilitate conduct of the investigation, including securing documents and data from HSUD.

Activity in connection with the Commission docket is discussed in more detail in the next section, which describes the overall conduct of the Silverpoint investigation that is the basis for this final report.

F. Conduct of the Silverpoint Investigation

The Commission notified HSUD's recently hired General Manager by letter of the start of Silverpoint's independent investigation on August 8, 2024. A few days later, Silverpoint sent an email to the General Manager requesting to schedule a brief kick-off call to introduce him to the audit team and discuss administrative issues such as the timing of initial on-site interviews. Receiving no reply, Silverpoint sent a reminder email a week later, on August 20th. Later that day, the City Attorney for Holly Springs contacted Silverpoint, indicating that the subject of our email would be addressed in the City's Board meeting that evening. Silverpoint reminded him that Board approval was not required for the Commission's investigation to move forward. Hearing nothing further, two days later Silverpoint sent an email to the General Manager and the City Attorney along with a link for a kick-off videoconference on August 26th. No one from HSUD or the City joined the call.

Silverpoint's assigned senior staff attorney subsequently sent a letter to the General Manager and City Attorney along with detailed agendas for Silverpoint's first set of on-site interviews. These agendas outlined specific topics to be discussed during (1) a full day technical session with HSUD personnel knowledgeable about the electric distribution system and related operational and engineering functions, and (2) a separate technical session with personnel knowledgeable about customer service-related functions including billing and meter reading. These interviews would allow Silverpoint to obtain

[20] Docket No. 2024-AD-037, Investigation into the Holly Springs Utility Department Provision of Electric Service.
[21] The Silverpoint investigative team is composed of the firm's principal, Stephanie Vavro, and Thomas Suggs, who previously served as lead investigator for the TVPPA Report.

general information about the utility and would be followed by an initial set of data and document requests. Silverpoint planned to later conduct shorter and more in-depth follow-up interviews on specific topics (e.g., vegetation management efforts) as needed. Silverpoint's detailed agendas for these initial interviews and the accompanying letter are included in Appendix C.

One week later, on September 4th, the City Attorney informed us of his inability to attend interviews for two or three weeks due to an impending trial. Ostensibly, the Mayor and/or Board of Aldermen were unwilling to allow HSUD interviews to proceed without the City Attorney present. Several weeks later, the City Attorney was unresponsive to requests to schedule the interviews. Compelled by the Commission's project timeline, our senior staff attorney emailed the City Attorney on September 26th, advising him that he would need to contact her by the following day or else subpoenas would be issued.

Absent a response, subpoenas were issued a few days later for six HSUD employees to appear at the Commission's offices in Jackson beginning on October 22nd so that Silverpoint could conduct interviews consistent with its original agendas.[22] The day before the interviews in Jackson were set to begin, the City Attorney filed with the Commission a motion to quash the subpoenas. According to the motion, the City planned to seek a court ruling declaring as unconstitutional the actions of the Commission and the State of Mississippi, disputing the authority of SB 2453 to authorize an "arbitrary and capricious fishing expedition into the affairs of the Holly Spring Utility Department."[23]

Rather than reissuing subpoenas, the Commission opted instead to pursue a show cause hearing. On November 4th, the Commission issued its show cause order and associated complaint, as well as a summons for the City to appear at the show cause hearing set to begin on January 7, 2025.[24] The same day, the Commission also served on the City an initial set of 65 data requests that had been developed by Silverpoint to obtain some of the information it had expected to gather from its initial on-site interviews; a copy of the data requests is contained in Appendix D.[25] The Commission planned to give Silverpoint the opportunity to pursue these topics further with HSUD witnesses at the hearing

The City Attorney responded to the Commission's complaint on November 22nd, again challenging the constitutionality of its actions and announcing that the City had retained the Blackmon law firm to represent it.[26] On December 12th, the City's new counsel filed a motion seeking an extension of time, which the Commission denied on December 20th.[27] The same day, the City filed a motion for rehearing and continuance.[28] The second motion was denied by the Commission on December 30th. On the same day, the City filed a motion with the Mississippi Supreme Court requesting a stay of the Commission's planned January 7th hearing.[29] The Mississippi Attorney General's Office responded to the motion on behalf of the Commission on January 3rd. The City, however, ultimately obtained a temporary restraining order against the Commission from a local circuit court on January 6th. Shortly thereafter,

[22] See Docket No. 24-AD-37, Doc. Seq. 3.
[23] See Docket No. 24-AD-37, Doc. Seq. 4.
[24] See Docket No. 24-AD-37, Doc. Seq. 7, 9, and 12.
[25] The City had been allotted 45 days to respond to these questions but provided nothing in that time window.
[26] See Docket No. 24-AD-37, Doc. Seq. 15.
[27] See Docket No. 24-AD-37, Doc. Seq. 22.
[28] See Docket No. 24-AD-37, Doc. Seq. 24.
[29] The motion argued that Mississippi law requires a mandatory continuance in proceedings in which a counsel is a member of the Legislature, and the Legislature is in session. Since the 2025 legislative session was set to begin on January 7th and one of the City's attorneys is a state senator, the City's motion was granted.

members of the Attorney General's Office met with the City's counsel, ultimately securing their agreement to facilitate responses to the interrogatories originally due in December. The City also agreed to work toward scheduling in-person interviews with HSUD. Nonetheless, the Commission had to ultimately issue to the City a motion to compel cooperation with the independent consultants and their investigation.[30]

In February, the City's counsel began forwarding partial written responses to some of Silverpoint's data request questions, along with batches of supporting documents totaling nearly 1,500 pages. None of these documents proved to be responsive or otherwise useful. During March, the City's counsel continued forwarding documents and partial written responses to the data requests. An important aspect of Silverpoint's investigation was to assess to what extent, if any, the utility has taken any of the actions recommended in the TVPPA Report. As such, Silverpoint's assigned attorney sent the City a set of eleven supplemental data requests focused on that question; a copy of these data requests is provided in Appendix D. No written responses were ever provided to our supplemental questions. In-person interviews with HSUD personnel were ultimately scheduled for April.

Silverpoint was given an opportunity to conduct roughly nine or ten hours of interviews with HSUD personnel at the Commission's Northern District office on April 29th and 30th. Over the course of the following month, the City provided roughly 1,000 pages of documents, many of which were specifically requested during the interviews (e.g., versions of the City's contract with GE for its AMI metering system). Some of the material was responsive, some not. The City had until the end of May to provide additional documents that had been requested before Silverpoint officially closed its investigative field work. Several key documents, such as the City's new contract for vegetation management services, were never provided.

Silverpoint discusses the results of its investigation in detail in Chapter III of this report.

G. TVA's Complaint Against the City

On May 1, 2025, the day after Silverpoint concluded its in-person interviews with HSUD personnel, TVA filed a Verified Complaint (TVA Complaint) in U.S. District Court to compel from the City specific performance under its wholesale power contract. It also requested injunctive, declaratory, and other relief against listed defendants—the City of Holly Springs, the Mayor, each individual member of the Board of Aldermen, and HSUD's General Manager. The complaint states that by contracting with TVA, the City agreed to specific conditions to ensure that it does not defeat the original intent of the TVA Act, i.e., that the benefits of TVA electric power go to the ultimate consumer. These conditions require the City to do the following:

- Operate the electric system primarily for the benefit of the consumers of electricity and limit the amount of revenues from system operations that can be used for general municipal purposes
- Operate the system and the system's financial accounts and affairs in full and strict accordance with the TVA wholesale power contract

[30] See Commission Order dated January 29, 2025 in Docket No. 24-AD-37.

- Operate the electric system on a self-supporting and financially sound basis
- Serve customers under rate schedules approved by TVA and agree to adjust rates and charges when necessary to provide for the operation and maintenance of the electric system
- Use the gross revenues from electric system operations only for the purposes set out in the contract and in the order provided therein
- Abide by TVA's financial oversight requirements.

The TVA Complaint maintains that the City's electric system is in a critical state of financial insolvency. It is unable to pay operating expenses including timely and full payment of TVA's invoices for power and energy usage. In addition, the City is in continuous breach of several other contractual obligations, including the proper use of system revenues and various financial reporting requirements. TVA maintains that it has repeatedly voiced concerns about the precarious financial state of the system, yet the City has refused to fulfill its obligations.

TVA began its compliance assessment of the City shortly after its report was issued in March. In September 2023, TVA warned the City that given its current financial trajectory, HSUD would not have the necessary revenue to cover its costs. Less than a year later, HSUD failed to timely pay its June 2024 wholesale power invoice. In October 2024, TVA again reviewed the utility's financial position, finding that it remained in a critical state of financial insolvency. TVA twice requested that the utility institute a proposed rate adjustment of 6.6% to increase revenues and help bring the City back into compliance. By way of context, TVA's wholesale power contract states that if rates and charges do not produce sufficient revenue to provide for the operation and maintenance of the system, the City is required to promptly implement rate increases necessary to place the system on a self-supporting and financially sound basis. In response, the City refused to act.

In an October 2024 presentation to the City on this matter, TVA made clear that the proposed rate increase of 6.6% would help cover existing costs but still fall short of funding essential long-term electric system investments.[31] TVA highlighted HSUD's long history of forgoing local rate increases to reflect normal increases in operational expenses due to inflation or customer growth. Had HSUD followed the average rate of growth of other LPCs over the past fifteen years, its rates would be roughly 16% higher than today.[32] The City's unwillingness to implement normal increases was unexplained.

A main point of contention is the City's long-standing use of significant amounts of HSUD's operating revenues to fund its municipal budget. The wholesale power contract allows the City to pay itself, from electric system revenues, payments in lieu of taxes (PILOT payments). These PILOT payments represent a fair share of the cost of governance properly borne by the electric system. Before paying itself, however, the City must first use revenues for the purposes outlined in the contract. These include the following, in priority order:

[31] Slides from this October 2024 presentation are included as part of the TVA Complaint.
[32] TVA Complaint, Attachment 3, p. 9.

- Current electric system operating expense, including salaries, wages, materials and supplies, wholesale power, and insurance
- Current payments of interest on system indebtedness and payments of principal amounts when due
- From remaining revenues, reasonable reserves for renewals, replacements, and contingencies (i.e., capital projects and similar system improvements); also, cash working capital adequate to cover operating expenses for a reasonable number of weeks
- From any remaining revenues, PILOT payments to the City's general fund.

Given HSUD's ongoing inability to fully pay its wholesale power operating costs in a timely fashion, in August 2024 TVA notified the City that continued monthly PILOT payments would be a violation of the contract. Nonetheless, it appears that the utility continued to make these payments to the City through at least March 2025.

Financial reporting requirements under the contract allow TVA oversight of the City's financial health to ensure that customers are provided with affordable and reliable power. The TVA Complaint maintains that the City had repeatedly failed to provide TVA with monthly electric system operating, statistical, and financial reports as well as independently audited annual financial statements. In December 2023, TVA notified the City that it would have its own staff perform, at the City's expense, the work necessary to collect and process the data necessary to provide the information otherwise furnished by these monthly and annual reports. The City withheld access from TVA until August 2024. Although TVA has since been able to compile some of the overdue reports, the City is still behind in reporting for much of 2024 and 2025.

A copy of the TVA Complaint has been filed with this report as Exhibit 2.

III. Silverpoint Investigation of HSUD

A. Introduction

Silverpoint was engaged by the Commission to independently investigate and present conclusions about the adequacy of the electric service provided by HSUD. The evaluative framework the team applied in conducting this assessment is based on the concept of good utility practice. Good utility practice refers to the generally accepted industry standards, techniques, and procedures commonly used by utilities to ensure they operate safely, reliably, and efficiently. Our approach is therefore consistent with the type of assessment intended under Mississippi Code § 77-3-21, which refers to the provision of "reasonably adequate service" to customers.[33]

The overall objective of good utility practice is to ensure that utilities make informed, responsible decisions when managing infrastructure, delivering services, and responding to operational challenges. It also emphasizes the importance of maintaining reliability and safety in utility operations, including emergency preparedness, incident response, and disaster recovery. Rather than being limited to specific approaches, good utility practice encompasses a range of practices, methods, or actions generally accepted in the industry. These can vary depending on the type, size, and scope of the utility as well as its specific geographical location or regulatory requirements. For example, it may be both appropriate and cost-effective for a small municipal utility to rely on manual procedures for the same process that has been highly automated at large multistate utilities such as Entergy. To that point, Silverpoint evaluated HSUD's performance and capabilities as compared to well-run electric cooperatives or municipal utilities of a similar size.

Silverpoint's investigation of HSUD encompassed a broad range of areas including system operations, preventative maintenance, reliability, emergency preparedness and response, system planning, O&M, capital investment, and support functions such as metering, customer service, and billing. Examples of the topics that Silverpoint explored include the following:

- Organizational structure, current and historical staffing levels, and job classifications
- Operating practices for providing 24/7 operational and emergency coverage on the system
- Budgeted and actual spending for O&M and for capital projects
- Work order management processes, reporting, and backlogs
- Repair and maintenance practices, including prioritization and tracking
- System reliability performance and metrics
- Outage history and primary causes during blue sky conditions and major events
- Overhead circuit and substation maintenance practices, inspections, and schedules
- Current and historical vegetation management practices, standards, and spending levels
- System asset management and criteria for replacement (e.g., condition vs. time-based)

[33] The good utility practice standard is also consistent with the criteria reflected in the APPA Reliable Public Power Provider assessment utilized in the earlier investigation by TVPPA.

- Short-term and long-term plans to improve reliability and resilience/storm hardening
- Emergency/storm preparation and response plans, and outage restoration practices
- Use of contractors to support O&M and capital work
- Management reporting and operational data recordkeeping and analysis.

It is important to note at the outset that conducting investigations of this type requires access to adequate, reliable data and information from the utility. In its similar examinations of electric utilities, Silverpoint has been able to review system design studies to assess the utility's system planning and analysis efforts and consider the adequacy of recent capital investments in the distribution system. With access to historical system reliability metrics and outage data, we were able to consider the adequacy of recent and planned improvement initiatives. On the operations side, through in-depth discussions and document reviews, we were able to properly assess the adequacy of inspection and maintenance programs including vegetation management. In a similar fashion, Silverpoint was able to consider the sufficiency of manpower levels, the adequacy of operating and work management practices, and the effectiveness of the utility's preparedness and response to emergency events such as storms.

By way of contrast, achieving access to sufficient information and data for this investigation was difficult. As noted in the previous chapter of this report, Silverpoint began its investigation in August 2024 but was unable to obtain much if any information from the City or HSUD for roughly six months. The utility never explained its initial unwillingness to cooperate with the investigation, although we assume its management was under the direction of City leadership. During our review, Silverpoint submitted over seventy-five comprehensive data and document requests. Well over half of the material we ultimately received was either non-responsive or irrelevant to our questions. Our team's access to HSUD employees was limited, although we were finally able to conduct brief interviews in late April. The HSUD employees we spoke with at that time were cooperative and we believe they responded to our questions to the best of their ability. Additional interviews with them would likely not have improved the information available to us, however.[34]

Early in the investigation while waiting for access to HSUD personnel, the Silverpoint team reviewed approximately 1,000 complaints received by the Commission between August 2023 and September 2024. These covered operations-related subjects such as poor reliability, prolonged outages, power quality problems, and service order delays, as well as metering issues, large or confusing bills, and unresponsive customer service. During our investigation, we noticed some recurring themes—inadequate management or technical/engineering expertise, reactive versus proactive maintenance practices, insufficient planning and analysis, and questionable choices that appear to have been influenced by the City's lack of financial resources. The system conditions and operating practices we identified during the investigation would clearly lead to the type of reliability, service quality, and billing-related issues that were the subject of customer complaints.

Silverpoint's investigation built on the initial assessment of HSUD by the TVPPA team, and as part of our analysis we assessed the sufficiency of actions taken in response to key issues raised in

[34] Given the relatively small amount of new information that HSUD was able to provide to us, having the lead investigator from the TVPPA Report on the Silverpoint team proved critical.

both the TVA and TVPPA reports. During the review, our team considered the capabilities and effectiveness of the utility's management and considered the prudence and appropriateness of past decisions, particularly those that may have had a significant negative impact on quality of service. Despite the difficulties during our investigation, we believe it important to note that the HSUD personnel we interviewed are well-intentioned and clearly care about their utility and its customers. They appear to be doing their best to cope with the challenges of the system. Most of the problems we identified are ultimately due to governance-level decisions, e.g., inadequate provision of funds for O&M and capital spending and for adequate technical and engineering support.

Silverpoint has organized the discussion that follows into four main topic areas: (1) system operations; (2) preventative maintenance; (3) system planning and analysis; and (4) metering, billing, and customers service.

B. System Operations

During its investigation, Silverpoint assessed the effectiveness of HSUD's electric distribution operations functions. These include routine maintenance in response to day-to-day outages and trouble reports, completion of work orders and new service orders, and management of emergency response and restoration activities during major outage events. As part of our review, we examined HSUD's manpower levels including its use of outside contractors to determine if the utility maintains an adequate workforce to perform core operational functions. We reviewed certain operational processes and procedures to determine if they reflect sound utility practices that support safe and reliable operation of the distribution system. The team also assessed the extent to which HSUD and/or the City addressed the operations-related issues first raised roughly two years ago in the TVA and TVPPA reports.

1. Overview of the HSUD Electric Distribution System

HSUD delivers electricity to roughly 12,000 business and residential electric customers across its 1,600 square mile service territory. Approximately two-thirds of HSUD customers are located outside municipal limits. The City of Holly Springs itself comprises only about nineteen square miles of HSUD's territory, which encompasses areas with relatively low customer density outside the City as well as towns like Ashland. The next table summarizes basic statistics on the system.

HSUD Electric Distribution System

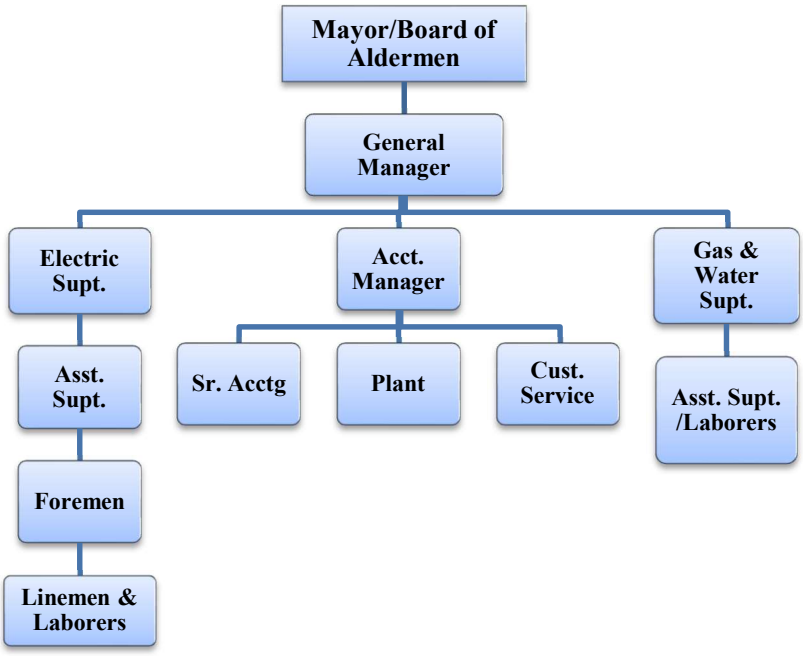
Statistic	Total
Service territory - square miles	1,600
Electric customers, approx.	12,000
Overhead distribution line - pole miles	1,400
Distribution circuits	15-20
Distribution poles (estimated)	25,000
Distribution-only substations	5
Substation transformers	11

Two of HSUD's five substations, North Holly Springs and South Holly Springs, are located within the City. The remaining three—Ashland, Coldwater, and Slayden—are located outside the City in Marshall and Benton Counties. Three substations are relatively modern in design, although two—Slayden and South Holly Springs—are relatively dated. South Holly Springs, for example, has transformers more than sixty years old.[35] All substations are connected to the TVA transmission system at 161 kilovolts (kV) except for Slayden, which takes service at 46 kV. Interconnections between substations allow HSUD to restore customers, at least in part, if one substation experiences a total outage.

Some HSUD substations and many of the utility's overhead distribution lines currently serve both City and non-City customers. Given current system architecture, HSUD's customers outside the City cannot be electrically separated from its City customers, or potentially receive power from neighboring utilities, without significant investments of time and money.[36]

2. Utility Organization and Staffing

HSUD's organizational structure is shown in the chart below. The utility is governed by the Mayor and the Board of Aldermen, to which the HSUD General Manager reports.



An employee roster provided by HSUD lists 74 employees, as summarized on the next table; approximately 40% are utility operations-related personnel in the Electric Department.[37]

[35] Response to MPSC 1-9 and Transcript from April 29, 2025 Interviews with HSUD Personnel (April 29 Transcript), pp. 74-75.
[36] SB 2453 and Mississippi Code § 77-3-21 refer to a potential revocation of the certificate to serve customers outside the City, which has been incorrectly interpreted by some as implying that the HSUD system can be readily divided.
[37] Undated Holly Springs Utility Department roster provided in response to MPSC 1-1, Bates No. 1333-1336. The roster does not exactly match the stylized organizational chart, which does not reflect all positions (e.g., meter readers).

HSUD Employees

Position	# of Employees
General Manager and Admin. Asst.	2
Electric Utility Operations	29
Water and Sewer Department	11
Gas Department	5
Metering	7
Accounting/Billing/Customer Service	15
Drainage/Concrete/Warehouse/IT	5
Total	74

Employees in certain functional areas such as accounting, billing, customer service, and the warehouse support all services provided by HSUD—electric, gas and water/sewer. The same is true of the metering group. The General Manager is responsible for all HSUD departments.

A breakdown of the operations-related positions, taken from the employee roster, is shown on the next table. Based on our discussions with HSUD personnel, these figures are outdated and no longer accurate (e.g., there are now two, rather than four, line foremen). Silverpoint was unable to obtain more reliable information on current manpower levels.[38]

HSUD Electric Department

Position	# of Employees
Superintendent	1
Assistant Superintendent	2
Line Foreman	4
Lineman	4
Groundman/Apprentice Lineman	10
Serviceman	2
Right-of-Way Foreman & Crew	4
Mechanic	1
Administrative Asst.	1
Total	29

In terms of job roles, linemen are qualified to work on energized power lines originating at the substation up to the 12,470-volt level. Groundmen support the linemen by laying out and providing

[38] Operations headcounts provided in response to MPSC 1-4 differ from the employee roster figures; both sources overstate current manpower levels.

materials as well as other duties (e.g., digging holes) that do not require working around energized facilities. Line foremen supervise combined four-to-five-member crews of linemen and groundmen.[39] Servicemen are linemen that generally work alone or possibly with one groundman. Their normal work typically consists of small, scattered jobs across the system that do not require an entire crew with large trucks, and they are usually the first ones dispatched to investigate outage and trouble situations. The right-of-way group performs vegetation management work on the system such as selective trimming around overhead lines. Silverpoint reviewed job descriptions for nearly all HSUD employee positions relevant to our investigation. Although most were quite dated, they list job duties and qualifications that are generally appropriate.[40]

Nearly two years ago, the TVPPA Report pointed to serious issues at HSUD including the lack of adequate substation and overhead line maintenance, grossly deficient vegetation management, and a significant backlog of work orders. All point to the likelihood of insufficient staffing as well as a lack of financial resources to hire additional employees and/or outside contractors. This concern was echoed in the TVA Report, which indicated that HSUD was spending roughly 25 percent less than similar LPCs on its operations and maintenance expense.

During our assessment of HSUD's electric service, Silverpoint confirmed that current manpower levels are indeed insufficient. To gain more insight into this issue, Silverpoint requested ten years of historical staffing information for key field positions in the electric operations group. HSUD was unable to provide it.[41] Anecdotally, however, HSUD personnel were able to confirm that utility manpower levels, particularly in operational roles, have eroded in recent years due to attrition and lack of replacement hiring. The electric operations group currently has only two crews in the field. Four years ago, operations had three crews and was ready to expand to four.[42]

Electric operations staffing levels are vulnerable to even further degradation. The Superintendent and Assistant Superintendent that Silverpoint interviewed in April have roughly 100 years of combined experience on the HSUD system and will likely soon retire. The Superintendent, well into his 80s, is already well beyond the maximum retirement age allowable at most any other utility. The HSUD Electric Department is therefore clearly in danger of a debilitating loss of operational and functional experience, particularly at the managerial level.

It is normal for electric utilities, large or small, to supplement their own staff with outside contractors and consultants. Most utilities utilize outside contractors for much of their vegetation management work and routinely hire specialized electrical contractors to support capital construction and system improvement projects. Some utilities also employ contractors for lesser-skilled activities (e.g., pole inspections), allowing them to focus their skilled crews elsewhere. Despite decreased staffing levels, City leadership has apparently limited its electric utility to two contractor teams, one for vegetation management and one for construction line work, ostensibly due to financial constraints. In the same vein, the HSUD Electric Department has had no in-house engineering expertise for at least fifteen years.[43] It is not unusual, however, for small cooperatives

[39] In terms of training and qualifications, the job progression is generally from groundman to lineman to foreman.
[40] Response to MPSC 1-3 and Bates No. 1466-1483 and 1799-1866.
[41] Response to MSPC 1-2.
[42] April 29 Transcript, pp. 5-6.
[43] April 29 Transcript, p. 19.

or municipals like HSUD to rely on outside engineering firms for this type of expertise. HSUD has done so in the past, although City leadership apparently discontinued its relationship with the utility's long-time engineering advisors a few years ago.[44]

Role of the General Manager

Over the last ten years there have been at least six different general managers at HSUD, although none of them have had utility experience since at least 2019. Recent incumbents or acting managers include a former state senator and two of the City's mayors.[45] At the time of the TVA and TVPPA reports, HSUD was without a general manager, the most recent one having retired at year-end 2022, and the City's Mayor was again acting in that role. Both reports strongly recommended that HSUD immediately hire an appropriately qualified general manager.

The TVPPA Report stressed that the general manager should possess, at a minimum, twelve to fifteen years of experience in a related role at another utility, supplemented with additional electrical engineering expertise as needed. The report maintained that the lack of competent leadership at HSUD had led to the implementation of stop-gap measures rather than well-considered solutions. Utility employees were functioning in day-to-day, seat-of-the-pants mode without appropriate direction or consideration of the larger picture. The bottom line was very clear—to make any meaningful progress in improving the quality and reliability of electric service at HSUD, the City needed to first install a seasoned utility manager.

Despite strong recommendations to the contrary, last July the City hired a former bridge inspector with no utility or electric engineering experience to fill the general manager position. The rationale for this choice is unexplained. As discussed in more detail later in this report, the current manager has been excluded from major operating decisions, which are still being rendered by City leadership. While the new general manager appears to be motivated and well-intentioned, he is still learning the basics of the electric utility business and is unable to meaningfully address important operational, engineering, and technology issues. His actual day-to-day responsibilities are unclear.

Utility general managers normally monitor a wide range of financial and operational information. Routine management reports, such as monthly comparisons of actual versus budgeted O&M and capital spending, are key tools for running the business. In other utility investigations, Silverpoint normally reviews five-to-ten-year historical O&M and capital spending levels and utility planning practices to determine whether adequate amounts are being spent on the distribution system—and if not, why not. Neither HSUD nor the City were able to provide this information to us.[46] In retrospect, this is perhaps unsurprising given the laxness in financial recordkeeping described in the recent TVA Complaint. Beyond financial data, however, HSUD was also unable to provide examples of any other supervisory-level reports that are available to inform the General Manager or otherwise assist in decision-making. This includes any type of reporting or analysis of reliability-related metrics that are foundational to good utility practice.

[44] Although the City has a contract with an outside consulting group that it utilizes for other municipal matters, that firm has no relevant electrical engineering expertise.
[45] Response to MPSC 1-5 and April 29 Transcript, pp. 38-43.
[46] Response to MPSC 1-7 and MPSC 1-14. Financial information provided following the HSUD interviews in Bates No. 1659-1776 did not address our request.

Silverpoint was left with the question of what the role of the HSUD General Manager is meant to be. We repeatedly requested the job description and qualification requirements for this position. The current General Manager informed us that he had indeed seen a job description for his position, but neither he nor the City ever provided it to us.[47] As such, it is unclear whether City leadership failed to hire a candidate that met existing job requirements or whether they revised those qualifications downward. In either case, the City failed to implement the recommendation of both the TVA and TVPPA reports in this regard, which was to hire an appropriately qualified general manager.

3. Utility Operations Functions

Utility operations involve a variety of skilled and semi-skilled work activities related to the maintenance, repair, and installation of the electric system. At HSUD, the operations group works one daytime shift in the field, which is not uncommon for smaller utilities. Senior personnel provide emergency coverage during off hours. Currently, HSUD has two daytime line crews and a small number of servicemen to cover the system. Line crews are typically composed of a foreman, one or two linemen, and one or two groundmen. Their vehicles typically include a pickup truck, a bucket truck, and a digger derrick truck. These crews primarily repair or replace damaged facilities and perform new construction work as needed to provide service. Servicemen typically work alone or with one groundman and generally perform multiple tasks in different locations during the day that do not require the resources of a larger crew. Servicemen are usually the first to respond to a reported outage to determine the scope and what is required to restore service. In many cases they can remediate the issue or perform short-term repairs by themselves, otherwise full line crews will be dispatched.

The Superintendent or Assistant Superintendent assign work daily to operations personnel and any outside contractors performing O&M or capital work on the system. At HSUD, it is not uncommon for crews to be re-dispatched to other areas during their workday to respond to newly reported outages or other troubles. Worker productivity undoubtedly suffers. At most utilities, it is typical for operations personnel to undertake relatively quick and straightforward maintenance tasks as they drive by and observe issues on the system. Given the limited amount of crew time available, this rarely occurs at HSUD. Investigating more time-consuming issues such as potential power quality problems and other customer complaints are normally performed by the Superintendent or Assistant Superintendent when time permits.

As further discussed below, HSUD lacks an up-to-date detailed system map. With the absence of such a map, HSUD is more heavily dependent on the in-depth system knowledge and experience of its more senior employees, particularly the Superintendent and Assistant Superintendent, to plan and orchestrate work on the distribution system. In a similar fashion, HSUD lacks formal documentation of its operational practices and procedures, again relying on the guidance and expertise of its more senior employees. The TVPPA Report discussed in significant detail the lack of documented procedures at HSUD, particularly as they pertained to worker safety-related

[47] The job description was not provided with the others in the response to MPSC 1-3. See also April 29 Transcript pp. 45-48. The General Manager stated that the resume for his position had been turned over to the City.

issues.[48] Although Silverpoint did not specifically revisit many of these safety concerns during our investigation, we believe HSUD has taken few if any steps to remediate them. However, one specific issue—the continued absence of a lockout/tagout switching procedure—is particularly troubling and merits re-emphasis.

Lockout/tagout is a standard safety procedure critical for protecting workers from unexpected energization of the distribution system during maintenance and repair tasks. It involves electrically isolating a work area and applying physical locks and tags to prevent accidental re-energizing of the system. HSUD has no such procedure. As we discuss in more detail later in this section, the absence of what is standard utility industry practice has been a serious point of contention with outside mutual aid crews. In lieu of traditional lockout/tagout procedures, HSUD relies instead on word-of-mouth communication among the Superintendent and Assistant Superintendents to coordinate work and prevent potentially serious injuries, which is unacceptable.

Service and Work Order Backlogs

Utilities need a formalized method to create and track orders for repairs and new connections on their system, and to record the labor, materials, and equipment associated with completing those orders. Nearly all utilities have some form of computer-based Work Management System (WMS) to manage capital and maintenance work through the job lifecycle. More sophisticated WMS systems can interface with other company systems and applications such as system mapping, inventory, payroll, and plant accounting.

HSUD has a rudimentary WMS that it uses to record and track new service orders as well as work orders for certain repairs.[49] The utility generally creates a formal work order only when it involves dispatching a crew. Routine outage restoration work that can be accomplished by the serviceman with straightforward methods (e.g., taking a limb off a wire or throwing a switch) is not recorded. The same is true for on-the-spot corrective maintenance work. The priority for operations personnel on a day-to-day basis is responding to trouble reports and restoring outages. As such, one of the most telling indicators of a significant manpower shortage is the size of a utility's backlog of work orders and service orders. Operations personnel that spend a lot of time responding to blue sky day outages and other system troubles have less time for routine work orders. HSUD's backlog as of February 2025 is summarized in the next table.[50]

Summary of Work/Service Order Backlog

Order Type	Current Backlog
Outside Lights - New	99
Outside Light - Repair	1,427
Streetlight Repair	132
New Construction	323
Temporary to Permanent	31

[48] The report contains numerous photographs illustrating some of these issues, see TVPPA Report, pp. 67-74.
[49] While we did not formally assess the capabilities of the WMS, we believe they are insufficient to support common utility activities such as project management, estimating, field crew coordination, and advanced reporting.
[50] Response to MPSC 1-19, Bates No. 1502. Detailed lists of these orders were provided in Bates No. 1503-1569.

Long waits for new service installations and for repairs to non-working outside lights were the subject of many of the customer complaints that Silverpoint reviewed. Operations management generally prioritizes work/service orders on a first-come, first-served basis, dependent upon the severity of the job, weather, and other factors. During our interviews, HSUD's Superintendent acknowledged that there was no way they would ever catch up on their backlog with only two crews.[51] Significant backlogs are, however, not a recent issue. The TVPPA Report recommended that HSUD consider utilizing contractor resources to alleviate their backlog of work orders. HSUD has taken little action in that regard, ostensibly due to financial constraints. There appears to be a lack of urgency in resolving the huge backlog of non-working outside lights—HSUD continues to bill customers for these lights while incurring no cost to fix them.

Operational Support Systems and Technology

HSUD is considerably behind its peers in terms of current technology to support operational and maintenance activities on its electric distribution system. The most recent rudimentary map of the HSUD electric system is at least sixteen years old. It is also apparently missing, as no one was able to produce it during our investigation.[52] Both the TVA and TVPPA reports recommended that HSUD implement up-to-date mapping capabilities. This is a high priority concern, since without accurate and up to date system maps, line workers are less confident about circuit configuration and power flow while attempting to make repairs and reestablish power. The result is that outage restorations can take significantly longer.

Good utility practice dictates the use of Geographic Information System (GIS) mapping technology to produce detailed and accurate maps of the distribution system. GIS mapping allows a utility to visualize the electric distribution network, including overhead and underground lines, transformers, and other assets as well as the exact location of individual customers.[53] This enables better understanding of the network's topology and spatial relationships. GIS mapping is useful for a variety of purposes including system planning, asset management, maintenance tracking, and workflow efficiency. Detailed GIS maps are especially important during widespread outage events, particularly when foreign crews are working on site. As of now, HSUD is still without a system map, out of date or otherwise. Although the acquisition of a proper mapping system has reportedly been discussed, the General Manager indicated that no funds are currently available to do so.[54]

Two years ago, the TVA Report recommended that HSUD improve crew communications in the field during restorations. Although the utility had a relatively new radio system, employees preferred not to use it.[55] Despite having invested the utility's limited funds in a new system, management apparently lacked the discipline and follow-through to mandate its use. Communication between operations personnel still takes place today primarily by cell phone.[56] On a radio system, all employees can hear crosstalk about ongoing work activities across the

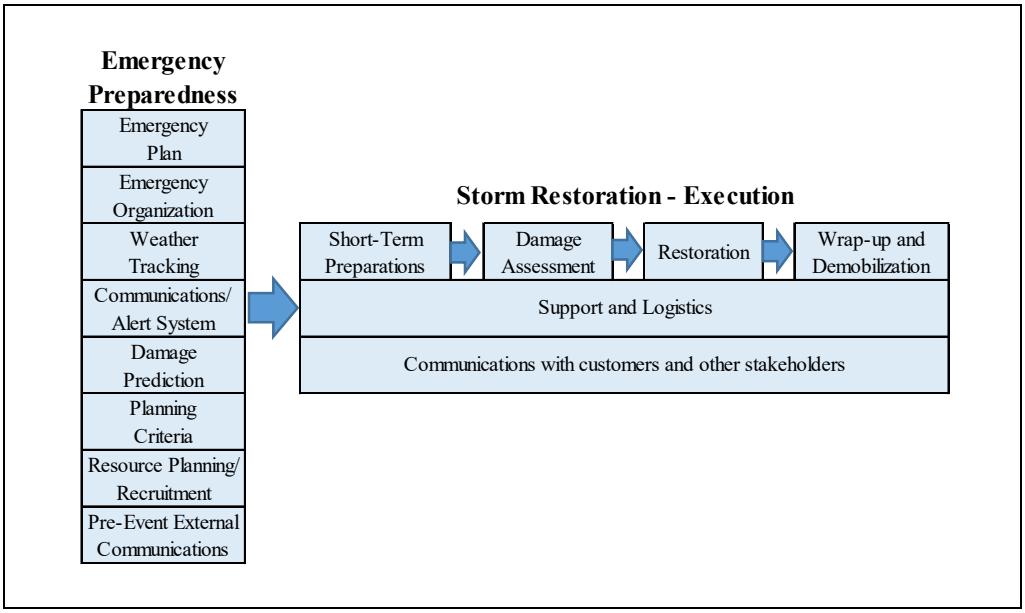
[51] April 29 Transcript, p. 230.
[52] Response to MPSC 1-10.
[53] An illustrative example of a street-level utility system view from a GIS mapping system is shown in Appendix E.
[54] April 29 Transcript, p. 90.
[55] TVPPA Report, p. 15.
[56] April 29 Transcript, pp. 279-281.

system such as upcoming re-energizing of lines. Crew members can therefore more readily identify and communicate concerns to others on the system so that problematic or dangerous conditions can be avoided. They can know where everyone is on the system and be less dependent on operations management to coordinate efforts. With cell phones, only the two people on the phone know what work is currently being done. While this practice is problematic during normal workdays, it is quite unacceptable during large scale events—cell phone reliability during power outages can be inconsistent and as such should never be relied upon during emergencies.

4. Emergency Preparedness and Outage Response

Most electric utilities maintain an emergency response plan (ERP) that describes the procedures and resources needed to handle significant service disruptions. These plans detail how to restore power, prioritize critical facilities, and ensure public safety, and normally address a variety of scenarios including widespread storm-related outages. An ERP should encompass all aspects of the response process, from pre-event planning and alerts through ramp down and return to normal operations, as illustrated in the graphic below. A plan should reflect good utility practices such as clearly defined roles and responsibilities and detailed information and guidelines about the processes by which personnel prepare for, respond to, and manage emergency conditions. One example is a communications plan that outlines how information will be shared during all phases of the emergency and that assigns responsibilities for communicating with customers, governmental agencies, and the media.

Storm Response Preparation and Execution



The ERP communications plan should include current, up-to-date contact information for employees, critical customers, and emergency-related state and local agencies. It should organize mutual aid contact information for neighboring utilities, tree crews, line contractors, and suppliers of lodging, fuel, materials, equipment, and the like. Other ERP components should include damage assessment procedures, orientation information for mutual assistance crews, and documentation of

operational and safety procedures. Good utility practice requires annual training drills that allow these plans to be exercised under different emergency scenarios.

GIS mapping and a reliable radio communication system are essential technologies for properly supporting emergency response operations at utilities of almost any size. Additional tools such as an outage management system (OMS) linked to the mapping system are useful but not mandatory for smaller municipal and cooperative utilities.[57]

The TVA and TVPPA reports highlighted the fact that HSUD had no ERP, and both urged the utility to develop one. During our investigation, Silverpoint requested a copy of HSUD's current emergency response and restoration plan. What we received was an eighty-plus page, forty-five-year-old ERP by a cooperative utility association to which HSUD does not and never did belong.[58] This document was provided by City leadership, apparently believing it was somehow relevant. It is perhaps not surprising that HSUD still has no formal ERP since it lacks most of the fundamental components, such as a system map necessary for orienting foreign crews and formally documented operating and safety procedures such as lockout/tagout.[59]

Beyond having no ERP, HSUD was generally unable to describe to us its storm preparedness and response practices.[60] HSUD did note, however, that the typical process for securing mutual aid is for the General Manager to reach out to local utilities for assistance.[61] This protocol was apparently not followed after the recent tornado, however, when City leadership refused to hire mutual aid crews from New Albany already secured by the General Manager and instead pursued and contracted with other resources.

The poor reliability of the HSUD distribution system coupled with the perceived inadequacy of its restoration performance have been a concern for some time. Widespread and prolonged power outages due to severe weather in April 2022 ultimately triggered an investigation by TVA. The unprecedented number of customer complaints that TVA received following the February 2023 ice storm led the agency to also examine the response to that event. The resulting March 2023 TVA Report identified several factors contributing to the utility's long delays in restoring power, including unreliable crew communications, a lack of up-to-date system maps and real-time outage information, and the absence of any formal storm recovery procedures. Without a system map, for example, mutual aid crews could only work safely during daylight hours. The report also noted that the extensive damage to the HSUD system from these severe weather events was undoubtedly exacerbated by the relatively poor condition of the system as well as the lack of adequate vegetation management.

The TVA Report stated that mutual assistance crews were reluctant to work on the HSUD system after the February 2023 storm due to significant concerns about safety. Some LPCs were not

[57] An OMS is specialized software that helps the utility manage power outages, enabling them to efficiently detect, analyze, and restore power to affected customers to minimize down time and improve service reliability.
[58] Response to MPSC 1-41, Bates No. 1383-1465.
[59] The TVPPA Report noted that HSUD has no formal procedures for damage assessment or outage restoration and no orientation materials for outside crews; the utility also conducts no routine storm response exercises or drills.
[60] Response to MPSC 1-40. HSUD did note that one foreman is always on call to respond to potential emergencies.
[61] Response to MPSC 1-42.

comfortable sending their personnel to work on power restoration efforts because of the overall condition of the system. This was a clear vote of no confidence by the utility's peers on the operational and managerial capabilities of HSUD. MEMA ultimately designated a general manager from a neighboring utility to lead the response.[62] In its report, TVA recommended that HSUD meet with the LPCs that supported the restoration after the ice storm to gain insights into the challenges faced on its system. To our knowledge, the utility never did so.

The inefficiencies and potential safety issues inherent in HSUD's everyday operational practices for handling small outages become much more obvious in the context of larger scale events. For example, as discussed earlier, HSUD permits its employees to utilize potentially unreliable cell phones rather the utility's radio system while working on the system. In lieu of lockout/tagout procedures, HSUD relies instead on word-of-mouth communication among senior operations management to coordinate work and prevent potentially serious injuries. It similarly relies on their years of system knowledge and experience to compensate for the absence of any system maps. Lacking an OMS, HSUD office personnel track customer outage call information in a spreadsheet that operations management must then interpret to estimate the location, cause, and extent of system outages.[63] These operational practices, when coupled with numerous widespread outages and many foreign crews on the system, are unacceptable.

C. Preventative Maintenance

Lack of adequate maintenance can have a significant impact on service reliability and can also compromise worker productivity and safety. The 2023 TVPPA Report highlighted the absence of any meaningful proactive maintenance at HSUD's five substations and on its overhead lines, and urged the utility to design and implement formal inspection and preventative maintenance programs.[64] The TVPPA Report also emphasized the utility's obvious neglect of vegetation management, with dozens of photographs illustrating the extreme incursion of vegetation across the entire system.[65] The TVA and TVPPA reports both strongly recommended that HSUD implement an effective right-of-way vegetation management program on an expedited basis.

Any electric utility, regardless of size, should have preventative maintenance plans in place that are designed to support safe and reliable operation of the distribution system. Inspection and maintenance programs, policies, and procedures should meet applicable standards and reflect good utility practices applicable to each system component. Typical aspects of such programs are summarized in the next table.

[62] TVA Report, p. 7.
[63] Response to MPSC 1-20. If effectively managed, this manual process can be sufficient, although arguably less so for widespread events.
[64] In a similar vein, the TVA Report recommended that HSUD conduct a full inspection of its distribution system assets, document maintenance needs, and develop a plan to correct the identified issues.
[65] TVPPA Report, pp. 44-51; see also selected photographs on pp. 52, 54, and 55-65.

Typical Prev entative and Routine Maintenance Programs

Substations	• Weekly visual inspection; infrared testing annually • Transformer inspections annually, including fans/pumps/compressors • Annual battery maintenance • Transformer oil samples annually • Transformer testing • Breaker testing • In-service relay maintenance and trip test
Vegetation Management	• Trimming on cycle per vegetation management plan with hot spot trimming where needed • Spraying/mowing program for ground vegetation
Distribution Overhead Lines	• Visual inspection of all facilities on a regular cycle
Distribution Wood Poles	• Pole inspection on a regular cycle by a contractor (spot checked)
Line Reclosers and Sectionalizers	• Annual visual inspection • Bypass/operate recloser; test hotline tag; battery check/self-test

Capacitor Banks and Voltage Regulators	• Annual visual inspection and functional tests:
	  • Banks – replace blown fuses/failed units
	  • Regulators – operate, exercise switch, and reset drag hands

Gang-operated switches	• Switches exercised and operation documented on a regular cycle to ensure operable when needed
Distribution Underground System	• Pad mounted equipment checked on a regular cycle to ensure level and no cables exposed
Large Customer Metering	• Inspection of current/potential transformer wiring and connections • Multipliers verified annually
AMI Metering System	• Data collectors inspected on a regular schedule

The structure of a utility's inspection and maintenance program is normally designed by its engineering staff or outside consultants. Most entail scheduled maintenance and inspection activities that are time-based. Some utilities use their work management system to track and schedule these maintenance and inspection activities. Most utilize a database or similar application to track their inspection, preventative maintenance, and analytical results. Consistent with good utility practice, any corrective maintenance items identified during routine inspection programs for substation equipment and the overhead system should be tracked. Because of manpower shortfalls or cost cutting measures, utilities sometimes end up accumulating a large backlog of relatively minor maintenance items. Even though each deficiency by itself may not be significant, their combined effect could be felt during large scale weather events.

During its investigation, Silverpoint examined the extent to which HSUD addressed the maintenance-related issues raised in the TVPPA Report and assessed its current preventative maintenance activities.[66] In this section of the report, we discuss three categories of routine and preventative maintenance: (1) vegetation management, (2) substation maintenance, and (3)

[66] Preventative maintenance practices are distinct from the reactive maintenance activities discussed in the operations section of this chapter.

maintenance of overhead lines and associated equipment. Silverpoint addresses maintenance associated with HSUD's metering system in a later section where we discuss metering, billing, and customer service.

1. Vegetation Management

Vegetation management (VM) is the process of controlling and maintaining vegetation within areas designated for utility infrastructure such as power lines or substations. This type of maintenance is crucial for ensuring the reliable and safe delivery of electric service, for preventing outages, and for minimizing the risks associated with overgrown vegetation. VM entails more than just tree trimming, it includes management of ground vegetation in rights-of-way as well as in and around substations.

Formal VM planning is standard utility practice, and most utilities develop multi-year plans. While larger utilities can sometimes have forestry experts or arborists on staff to design their VM programs, many utilities rely on outside experts to develop and update their plans. VM plans reflect decisions about tree trimming standards (e.g., desired clearances) that can vary for different portions of the system (e.g., single phase vs. three phase circuits). While several states have mandatory tree trimming standards for utilities, there are none in Mississippi.[67] VM plans also reflect intended trim cycles, which dictate how often the entire system is trimmed. Typical utility trim cycles range from three to six years and are largely driven by the growth rate of native tree species. Formal VM plans contain similar parameters governing maintenance of ground vegetation such as frequency of mowing and spraying. They can also incorporate additional initiatives such as aggressive removal programs to address hazardous trees.

Well-designed VM plans strike a proper balance between cycle trimming and "hot spot" trimming. Hot spot trimming focuses on areas where vegetation poses the highest risk of causing outages or other hazards. It is particularly helpful for managing portions of the system between cycles that have faster growing trees. Good utility practice for VM planning includes analysis of worst performing feeders and of outage causes to help prioritize trimming. Most plans describe how much work will be performed by third-party contractors versus in-house crews and document the utility's approach for ensuring contractor compliance with desired standards.

If properly designed and executed, a VM plan can significantly reduce the frequency and duration of tree-related outages during blue sky conditions and help to reduce damage during extreme weather events. Standard VM plans are, however, preventative in nature and intended for utilities that have consistently maintained their systems over time. For a system like HSUD that is already significantly overgrown, a more aggressive and costly remediation plan is needed to reclaim the system on an expedited two-to-three-year timeline to first restore proper utility rights-of-way. Only then can a more traditional VM plan be applied. In the TVPPA Report, investigators estimated the cost of reclaiming the overgrown HSUD system at over $10 million. HSUD had no VM plan at the time of the TVPPA and TVA Reports and still has none today.[68]

[67] For example, New Jersey recently expanded its standards requiring removal of tree canopies above feeders within the lockout zone (from the substation out to the first set of protection devices) to help minimize large-scale outages.
[68] Response to MPSC 1-35.

Silverpoint was unable to obtain any records of the utility's past spending levels for VM. We did, however, confirm that several years ago City leadership had discontinued all VM work being performed by an outside contractor.[69] HSUD's own in-house VM crew continued to perform clearing for new service work and tree work related to outage restoration, as well as hot spot trimming as directed by operations management. HSUD personnel indicated that little to no progress to date has been made in addressing the overgrown system first documented in the TVPPA Report.[70]

During our investigation, we learned that in late 2023, the City requested that its own consultant obtain proposals for VM work. In a December 2023 letter to City leadership, the consultant described bids from two contractors in response to an RFP.[71] The bids were for right-of-way circuit trimming over 537 circuit miles— roughly one-third of HSUD's system—over a three-year period (i.e., a nine-year trim cycle). During interviews, HSUD's operations management indicated that one contractor crew is currently performing spot trimming on the system—not the circuit trimming described in the bids—at their direction. HSUD's General Manager indicated that he had seen a VM contract but could provide no specifics. Neither he nor operations management were involved in the City's solicitation process or subsequent negotiations.[72] Silverpoint repeatedly requested the current VM contract as well as the earlier RFP but they were never provided.[73] Our impression was that this information had been intentionally withheld. While the City received bids for circuit trimming VM on a nine-year cycle—clearly insufficient to reclaim the system—it may have instead contracted for something even less impactful.

Earlier this year, Silverpoint's lead investigator (who was also principal investigator on the TVPPA Report) revisited the HSUD service area, finding it still very overgrown. He did, however, observe something baffling—each of the two-dozen or so exact locations he had photographed for the TVPPA Report had been recently cut or trimmed. Adjacent areas in a similar or even worse condition remained untouched. It may be that City leadership believes this irrational approach to VM somehow demonstrates their compliance with TVPPA Report recommendations.

2. Substation Maintenance

Substations are a critical part of a utility's electric distribution system and contain the most expensive equipment on the entire system. A single substation transformer, for example, can cost more than one million dollars. Substations serve as crucial hubs for transforming voltage, switching circuits, and distributing power. At HSUD, high voltage power supplied by TVA is stepped down by substation transformers to lower voltages that are then distributed to customers. Protective devices in the substation such as circuit breakers and relays help prevent damage to equipment from overloads, short circuits, and other faults and ensure the overall safety of the system.

[69] April 29 Transcript, pp. 272-274.
[70] April 29 Transcript, p. 252.
[71] Response to MPSC 1-35, Bates No. 1342-1343.
[72] April 29 Transcript, pp. 247-254.
[73] April 29 Transcript, p. 252-255.

Because catastrophic failure of substation equipment can result in extremely long outages, it is vital that the condition of this equipment be routinely assessed. To that end, substation equipment contains a variety of indicators and monitoring devices. Transformers, for example, have oil level indicators as well as gauges that monitor oil and winding temperatures. Sulfur hexafluoride (SF6) gauges on breakers and circuit switchers indicate the ability of the equipment to operate under emergency conditions. Station batteries have voltage and electrolyte level monitors, and breakers and voltage regulators have counters that record how often equipment has operated. Good utility practice entails routinely tracking and analyzing data from these monitoring devices to identify trends so that issues may be rectified before they become serious enough to cause damage or an outage.

Good utility practice for substation maintenance also includes regular visual inspections to check for such conditions as oil or other fluid leaks, for broken material that may indicate potential damage to insulators or bushings, and for evidence of nesting birds and associated predators.[74] Proper substation housekeeping is also important, including keeping the station free of vegetation and removing old equipment that can be a source of contamination from oil leakage.

Transformers are filled with oil that dissipates heat produced by the transformer's core and windings, preventing overheating and ensuring optimal performance. In addition to routine monitoring, substation transformers should also be subjected to regular oil sampling and other specialized tests to help assess the condition of their internal workings. Oil testing determines the amount of water and other substances that are in the oil. Water in transformer oil is a serious issue—it degrades insulation properties, potentially leading to transformer failure. Oil testing kits are typically provided free of charge by the insurance company covering the transformer.

Two years ago, the TVPPA Report highlighted the absence of any meaningful inspection and preventative maintenance work at HSUD substations. The report documented issues that were identified during substation visits such as broken or non-working gauges, low battery fluid levels, and disabled voltage regulators. Housekeeping at HSUD's substations was poor, with old transformers and destroyed equipment still stored on site.[75] During this review, the investigator found significant problems that could have potentially led to catastrophic equipment failure. At the North Holly Springs substation, for example, the SF6 gas pressure in a 161 kV circuit switcher—the principal protective device in the station—was very low. This device would not have been able to operate had an outage occurred during this time. In fact, any attempt by this circuit switcher to operate would likely have resulted in an explosion and significant damage to the station. At the Ashland substation, an alarm sounded during the visit, indicating low nitrogen pressure in one of the power transformers.[76]

Later, the lead investigator for the TVPPA Report confirmed that the utility was not performing any oil sample testing. While the City's insurance company had provided test kits for four transformers, HSUD's operations personnel had not gotten around to providing the samples. It was unclear when these kits were provided and why there were only four, given that the utility has

[74] Birds and their predators such as snakes can pose serious problems for electrical substations and their bus work, including expensive equipment damage, power outages, and dangerous working conditions.
[75] See TVPPA Report substation photographs, pp. 52-65.
[76] TVPPA Report, pp. 39-40.

eleven transformers. One possible implication is that some of the most expensive equipment on the HSUD system is no longer being insured.

The TVPPA Report recommended that HSUD develop a system of inspections and preventative maintenance for its substations. After nearly two years, this has still not been done, although the utility has begun some rudimentary inspection activities. During our investigation, Silverpoint learned that one of HSUD's foremen was recently given the responsibility for substation maintenance. He typically visits each substation more than once a week and performs visual inspections, checks and refills batteries, and records readings on nitrogen levels and breaker operations. Beyond that, no analysis is performed with the data that are collected. Despite the significant risk, transformer oil testing is still not being performed.[77]

3. Maintenance of Overhead Distribution Lines

An electric utility's overhead distribution system is composed of many types of equipment and materials. For that system to remain highly reliable for many decades under all weather conditions, it must be maintained according to a defined plan and schedule. Preventative maintenance programs for the overhead system should be consistent with good utility practice for each category of equipment, including poles, pole top transformers, voltage regulators, capacitor banks, switches, and surge arrestors. The TVPPA Report recommended that HSUD develop this system of inspections and preventative maintenance nearly two years ago, but this has still not been done.[78]

Wood poles, for example, are a major component of the overhead line system, but they decay over time. Good utility practice requires a comprehensive inspection and maintenance program to ensure the safety, reliability, and structural integrity of these poles. Problems are not necessarily easy to spot as they can often exist below ground. Most utilities utilize outside contractors to perform scheduled testing and inspection of poles at appropriate intervals. Poles that do not meet the minimum criteria to remain in service, or that are expected to fall below that level before the next testing cycle, are flagged for follow-up work. Beyond testing, utilities sometimes perform other proactive maintenance such as applying preservatives or coatings to deter insects or protect against weather conditions as appropriate. According to operations personnel, HSUD had utilized outside contractor Osmose to perform pole testing and treatment work on the system. That practice was, however, abandoned many years go.[79] As such, there are an unknown number of suspect or danger poles at unknown locations across the HSUD system, clearly impacting overall reliability. Only poles that have been seriously damaged by storms or other events such as vehicular accidents are currently being replaced.

Silverpoint was unable to obtain any information about the level of spending by HSUD for preventative maintenance on its overhead distribution, although we suspect it has been minimal. The consequences of ignoring inspection and maintenance on every component of the distribution system can be significant. Copper wire conductors, for example, can become brittle and easily fail

[77] April 29 Transcript, pp. 176-184.
[78] Response to MPSC 1-34; April 29 Transcript, p. 64. The TVPPA Report also recommends that HSUD develop an inspections and preventative maintenance program for utility vehicles and special equipment.
[79] April 29 Transcript, p. 244.

during storm events. Aluminum conductors, with a steel core subject to rusting, can also severely weaken. HSUD incurs an additional charge on its monthly invoice from TVA during some months of the year due to its capacitors not being maintained and on-line when needed. Overall, system reliability suffers due to lack of preventative maintenance on overhead lines.

In addition to routine maintenance, well-run utilities encourage their operations personnel to undertake relatively quick and straightforward maintenance tasks as they drive by and observe issues on the overhead system. At HSUD, operations employees rarely make such on-the-spot repairs. Instead, they generally report issues after returning to the office so that they can be resolved later.[80] Based on the lack of formal preventative maintenance programs, however, it is likely these issues fall through the cracks and are never actually resolved.

D. System Planning and Analysis

An electric distribution system incorporates many key components that work together to deliver electricity to the end user. These include substation transformers, distribution circuits (lines), circuit breakers, and switches, as well as other protective and control devices. Within substations, transformers step down the voltage of electricity delivered by the transmission system. Primary distribution feeders extend from substations in different directions, eventually connecting to pole top or pad mounted transformers from which individual customers can be served. Circuit breakers protect the system from overloads and short circuits by interrupting the flow of electricity when a fault is detected, while switches control the flow of electricity and isolate sections of the system for maintenance or in the case of faults.

Utilities normally design their distribution systems so that they will continue to operate in a stable fashion even after the loss of an important facility like a substation. These systems incorporate layers of redundancy, allowing utilities to redirect power as needed to continue to serve customers in the event of a disruption. To that end, utilities define and maintain certain engineering and construction standards, operating guidelines, and material and equipment specifications to ensure the safe and reliable operation of the system. Well-managed utilities also conduct regular system planning studies to determine what improvements may be needed in the future to continue meeting service quality and reliability objectives.

Lack of sufficient planning can significantly impact the reliability of an electric distribution system. The TVPPA Report noted that HSUD's last system planning study was done in 2009, and recommended that HSUD commission a new one from a qualified firm to determine what upgrades or rebuilds to its existing system infrastructure may be required.[81] The report also highlighted HSUD's lack of any outage and reliability-related data analysis that is standard practice across the industry.[82] During our investigation, Silverpoint examined the extent to which HSUD addressed these issues.

[80] April 29 Transcript, p. 245.
[81] TVPPA Report, p. 7.
[82] TVPPA Report, p. 13.

In this section, we discuss system planning, the overall condition of the HSUD system, and the adequacy of the City's capital investment in electric utility infrastructure. We also discuss data collection and analysis practices related to reliability, outages, and other system operations issues.

1. System Planning and Investment

Good utility practice dictates planning for reliability to ensure that the distribution system can withstand disruptions such as the loss of a major circuit. Distribution system planning involves assessing current system infrastructure and assets, forecasting future demand, and determining necessary upgrades or expansions to meet that demand according to established reliability standards. System planning studies typically examine a horizon of ten years or more, which provides engineers with greater flexibility in considering possible alternative approaches and capital investments.

Utility planners use sophisticated computer models that incorporate information on current infrastructure such as transformer ratings, conductor size, circuit lengths, and location of special equipment like capacitor banks and regulators. These models reflect the utility's operating and engineering standards such as maximum allowable equipment loadings under normal and emergency conditions. Once built, these models can be used to evaluate a distribution system in many ways. Capacity analysis, for example, identifies expected future violations to operating and engineering standards as forecasted customer load and peak demand increases. It is a risk-based contingency analysis that highlights potential future problems that could jeopardize the stability and reliability of the system.

Other types of study include an analysis of voltage drop, the purpose of which is to ensure that customers at the end of a circuit receive the proper voltage level to operate equipment, appliances, and other electrical loads. The coordination of protective devices such as circuit breakers, reclosers, and fuses is another type of system study, although one that is part art and part science. These devices are meant to work together to limit the number of customer interruptions when an outage event occurs. All three of these planning studies are necessary for the HSUD system.

Large utilities often update their distribution system planning studies every year, particularly if they are experiencing significant load growth. Utilities with small systems such as HSUD or with low load growth may be able to conduct a study less often, but at least every five to seven years. Many utilities perform system planning studies using in-house engineering expertise. However, in the case of smaller utilities like HSUD, these studies are typically performed by consulting engineering firms having the specialized expertise to properly evaluate the system and make the appropriate recommendations.

The last system study of the HSUD system in 2009 was performed by an engineering firm well-known for this type of work among TVA-served utilities. No study has been performed since. Sixteen years is too long to operate a system without an up-to-date study considering the age of equipment, projected customer load, and other pertinent parameters. HSUD is unable to properly identify the source of reliability issues or the need for substation enhancements. Without a more recent analysis of its system, the utility is likely unaware of areas where lines are overloaded during hot or cold weather or where voltage is not within acceptable limits. Significant overload situations

have likely been avoided thus far only because of the relatively slow growth in the HSUD service territory.

Silverpoint expected to review the 2009 study to determine the extent to which HSUD has kept up with recommended system upgrades and other capital investments. As background for that review, Silverpoint requested additional technical details about the configuration of the distribution system such as station design, transformer ratings, and feeder configuration at each of the HSUD substations. HSUD was unable to provide this information.[83] Silverpoint asked HSUD to describe its electric distribution system planning process and to provide relevant engineering design criteria, standards, and specifications (e.g. substation loading criteria). HSUD could provide none of this information.[84] Utility management was also unable to provide information on the utility's system growth in terms of the number of customers or peak demand.[85]

Silverpoint was informed that the City's Mayor had taken possession of the 2009 study.[86] Despite repeated requests, we were never provided with the opportunity to examine it. We believe this was intentional. Had we reviewed the 2009 study, we would be better able to assess (1) what improvements and changes outside engineers determined were needed to maintain adequate service quality and reliability, and (2) which of the recommended projects and capital investments have and have not been made. The only major system improvement that we could confirm had been completed since the study was the construction of the Ashland Substation in 2017.[87]

During interviews with operations personnel, Silverpoint inquired about a significant line construction project originating at the North Holly Springs substation that had been abandoned after significant expense. According to HSUD, this line was originally meant to provide an additional feed to the Red Banks area and was being constructed by HSUD crews when they had time to work on it. With an increasing workload and fewer crews, the utility was now unable to continue the project. When asked why the project had not simply been completed using contractors, HSUD operations management indicated that the line was not actually needed, as there are already two sources of feed to that area.[88] If true, then HSUD had mistakenly spent limited capital resources that could have been better spent elsewhere. Alternatively, it is possible that this enhancement was recommended by the utility's former engineering consultants to address reliability and power quality issues in the Red Banks area, which has been the source of many customer complaints to the Commission. The line project is most likely incomplete because of the City's lack of resources to fund additional utility crews or outside contractors to finish it.

According to HSUD, the condition of its system infrastructure is good, although the utility was never able to provide any documentation to support this opinion.[89] In our view, there are serious issues with the current HSUD distribution system. For example, transformers at the South Holly Springs substation are at least sixty years old with condition issues, and the North Holly Springs

[83] Response to MPSC 1-11.
[84] Response to MPSC 1-12.
[85] Response to MPSC 1-8 and April 29 Transcript, pp. 48-51.
[86] April 29 Transcript, pp. 120-123.
[87] Response to MPSC 1-27, Bates No. 1338.
[88] April 29 Transcript, pp. 112-119.
[89] Response to MPSC 1-23 and MPSC 1-24.

substation is still partially out of service due to an explosion several years ago. The TVPPA Report estimated the cost to rectify the issues at these two substations at nearly $15 million.[90] At the time of the TVPPA Report, the sub-transmission system normally used to serve the Slayden substation had been down for at least two years. It has still not been fully repaired.[91]

There is also a troubling lack of preparation and planning. HSUD has no backup transformers for any of its substations (except Slayden) although lead times for replacement transformers can exceed twelve months. In the event of a transformer failure at one of its five substations, HSUD has no formal contingency plans for serving load from adjacent substations. The utility also has no arrangements in place to secure temporary mobile transformers, nor has it determined whether they can be accommodated at each substation. As a result, in the event of a major transformer failure, customers face the possibility of an outage that can extend for weeks or even months.

Capital Investment

At a typical utility, distribution system planning is a key input to its annual capital budgeting process. Projects required to reinforce or replace infrastructure to maintain or improve reliability and service quality generally constitute the lion's share of total yearly capital spending. Silverpoint asked HSUD to describe its capital project planning process and provide its most recent capital project planning studies. It was unable to do so in any detail.[92] HSUD was also unable to provide information on its capital spending levels over the last several years.

It has already been well established that HSUD's capital investments have been insufficient to support safe and reliable service for the utility's customers. The TVA Report, for example, maintains that HSUD has been investing in its system assets at one-tenth the rate of comparable LPCs.[93] The reliability of HSUD's distribution system and the adequacy of its electric service have clearly been impacted by many years of such underinvestment. The recent TVA Complaint makes clear that the City has severely limited the utility's capital investments. It has instead channeled a portion of the revenue from HSUD's electric customers toward making PILOT payments that fund the City's municipal budget.[94] In our view, there is little question that sufficient capital investments in the HSUD system have not been made for quite a long time.

2. Outage, Reliability, and Operational Analysis

Analysis of system outages and reliability is an intrinsic part of good utility practice for ensuring adequate quality of service. Electric utilities measure system reliability with key metrics, the most common being System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), and Customer Average Interruption Duration Index (CAIDI). SAIFI measures the relative frequency of system outages, i.e., the average number of times a customer experiences an outage during the year. SAIDI indicates the total number of minutes of interruption an average customer experiences in a year. CAIDI represents the average

[90] TVPPA Report, pp. 6-7.
[91] April 29 Transcript, p. 329.
[92] Response to MPSC 1-13. During interviews, HSUD accounting personnel confirmed there are no long-term capital studies although accounting produces a proposed one-year capital budget by department for review by City leadership.
[93] TVA Report, p. 9.
[94] TVA Complaint, p. 14.

time to restore service.[95] These metrics reflect system reliability during normal, blue-sky conditions and generally exclude outages during large-scale events. Perhaps not surprisingly, HSUD operations management is unfamiliar with these measures.[96]

According to HSUD, the quality of its electric service is good both inside and outside the City, although the utility was unable to provide any documentation to support that opinion.[97] The large volume of customer complaints along with other anecdotal evidence indicate otherwise, although there are no hard data or statistics available to confirm it either way. In that regard, the TVPPA Report highlights HSUD's failure to collect data about system outages that would allow it to better analyze them, and to monitor system reliability by developing the kind of metrics that are standard to the industry.[98] Those deficiencies remain. Although HSUD initially tracks some information in a spreadsheet when an outage is first reported, it does not retain it.[99]

Larger utilities normally utilize their OMS to capture data on system outages and restoration times, which helps streamline their reliability analysis. Smaller utilities like HSUD without an OMS can still calculate reliability metrics using manual tracking and alternative software tools. Whether automated or manual, the tracking of outage-related data is critical for analyzing the reliability of the system. Outage root cause analysis, which examines factors such as equipment failure, weather, and human error, allows a utility to pinpoint underlying causal issues that can be addressed to help prevent future occurrences and improve grid reliability.[100] The analysis can also support the assessment of potential system resiliency improvements that enable the system to more quickly recover from interruptions.[101]

Tracking year-over-year data on outages and reliability metrics provides necessary feedback to a utility (and its customers) on progress being made towards minimizing both the number and size of outages. The adage "you can't improve what you don't measure" applies here. Without reliability metrics and other system information, data driven process improvement is not possible. Many utilities utilize feeder reliability statistics, outage causes, and data on affected customers to assess system performance not only by individual circuit, but also by segment. More granular reliability data allows a utility to better focus its capital improvements, such as worst performing feeder programs.

In addition to regular system planning studies, most utilities also conduct other operational analyses that help improve day-to-day operations as well as inform the selection and prioritization of capital projects. Storm hardening studies, for example, evaluate opportunities to improve system

[95] CAIDI is calculated as the total minutes of customer interruptions divided by the total number of interruptions. It is a key factor in measuring customer satisfaction.
[96] April 29 Transcript, pp. 161-162.
[97] Response to MPSC 1-25.
[98] TVPPA Report, p. 13.
[99] Response to MPSC 1-15, MPSC 1-20, and MPSC 1-21. HSUD's AMI metering system has only limited outage reporting capability, and the information is supposedly not very timely or reliable.
[100] At many utilities, tree-related incidents are the leading cause of outages as measured by total hours of customer interruption, but in terms of absolute number of outages, equipment failure is often a principal cause.
[101] Reliability and resilience are different but related. The former focuses on preventing failures while the latter focuses on improving how well a system can bounce back from them.

resiliency through maintenance-related activities such as enhanced vegetation management or with capital investments like adaptive relaying and more manual ties between circuits.

In addition to its lack of outage and reliability analysis, HSUD has also failed to perform the kind of operational analysis needed to better understand the underlying causes for its significant line losses, which are in the range of ten percent.[102] According to the TVA Report, HSUD's line losses are 75% higher than similar LPCs, which translates to approximately $465,000 per year in lost revenue.[103] Line losses are the difference between the total kilowatt hours of energy purchased from a supplier such as TVA and the total amount sold to customers. At HSUD, likely causes for such high losses include unbilled revenue due to theft and poorly maintained metering installations as well as system condition issues such as vegetation contact with overhead lines.[104]

E. Metering, Billing, and Customer Service

Many utilities have replaced their traditional meters with an advanced metering infrastructure system. These AMI systems offer numerous potential benefits to the utility and its customers including more accurate and timely billing, reduced labor costs through elimination of meter readers, remote connection/disconnection capabilities, and improved outage management. An AMI system consists of several interconnected components. Smart meters automatically collect and transmit information on customer usage at predetermined intervals. Data collectors spaced across a utility's territory gather data from multiple smart meters and transmit it over a two-way communications network. The communications network transmits data from smart meters to a utility's head-end data collection system and vice versa.[105] The head-end system, in turn, interfaces with a utility's customer information and billing systems.

HSUD implemented an AMI system roughly twelve years ago, and experienced problems almost from the start. A significant portion of the roughly 1,000 customer complaints that Silverpoint reviewed during its investigation referred to large, late, or confusing bills. We believe the root cause of most of these billing issues was the utility's metering system. As of this writing, HSUD's AMI communications network has been completely out of service for nearly three months. All meters must now be read manually, and billing is extremely delayed.

In this section, Silverpoint discusses metering, customer service, and billing. Operations management oversees the metering function. The metering group includes a foreman, meter readers, and a meter technician knowledgeable about AMI system components. Two years ago, the TVPPA Report recommended that HSUD supplement current staff with in-house expertise in either engineering or radio frequency networks to properly support the AMI metering system, but HSUD did not do so.[106] The customer service and billing functions are managed by utility office

[102] April 29 Transcript, p. 103.
[103] TVA Report, p. 9.
[104] For example, current transformer/potential transformer metering installations, typically used for very large customers, can experience issues over time and record only a fraction of actual customer usage. HSUD fails to perform regular inspection and maintenance of such installations (April 29 Transcript, pp. 110-111).
[105] These communications networks typically use radio frequency signals, cellular networks, or broadband connections to transmit data.
[106] TVPPA Report, pp. 7-8.

personnel. HSUD does not have its own customer information and billing systems and instead utilizes software functionality provided by Central Service Association (CSA).[107]

1. HSUD's Metering System

HSUD implemented its AMI metering system around 2013. The system was provided under a contract with GE and includes GE smart meters as well as a communications network from Trilliant. Customer meter data flow over the Trilliant network to a router in the City's IT room, where data are communicated over a virtual private network (VPN) to a GE router that then sends a data file to the CSA billing system. In addition to the GE electric meters, the network also transfers data from HSUD's gas and water meters that were secured from a different manufacturer. While the AMI system was designed to perform several other functions such as outage reporting, this functionality has never been used to any appreciable extent.[108]

Although the system was originally specified with 100 data collectors, the City opted to save costs and instead contract for only 70. A few additional collectors were later added to address blind spots and improve performance, although at its best the system was only able to successfully read 90% of the meters. Under the contract, GE provided smart meters for new customers but not for replacing damaged ones. Initially, HSUD replaced non-working meters from its existing inventory of GE spares and sent smart meters back to GE for repair if they were still under warranty. In 2015, GE sold its meter manufacturing business to Aclara Technologies (Aclara). Aclara eventually started replacing non-working GE meters with its own smart meters, although these meters did not work with the Trilliant network. More recently, HSUD began replacing non-working meters from its old stock of non-AMI meters that must be read manually. It also began replacing functional smart meters with faded digital screens that could no longer be read by customers or HSUD meter readers.

The read rate of the HSUD metering system has been steadily deteriorating. AMI smart meters can communicate with nearby meters, which then act as relays to help transmit data back to a data collector. This creates a path where data can hop from one meter to another until it reaches a designated data collection point. The more meters that are replaced, the more difficult it becomes for the remaining smart meters to find a path to be picked up by the data collectors. HSUD is reportedly replacing meters at the rate of roughly five per day.

Maintenance of data collectors has always been the responsibility of HSUD. In order to effectively communicate, this equipment is located high above the ground, normally at the top of distribution poles, making it vulnerable to lightning. Servicing the collectors requires a special bucket truck with a 90-foot reach. While HSUD originally had such a vehicle, it was out of service for a considerable time due to a wreck. HSUD ultimately retired the truck but could not resume repairs until a new one was finally purchased. Given low staffing levels, operations management also has less flexibility to divert line crews to make such repairs.

[107] CSA, headquartered in Tupelo, provides technology and employee benefit solutions to its member utilities.
[108] Unless otherwise noted, information about the operation and performance of the metering system was obtained during a phone interview with HSUD's meter technician on May 16, 2025.

In the early years of the system, HSUD had replacement parts in its warehouse for data collection equipment, however that is no longer the case. If a device fails, it must be removed from service and sent off for repairs, which typically takes two or three months. The consequence of the City's decision to cut corners on the number of data collectors is that the network cannot effectively pick up the slack when one device goes out of service. At last count, seven data collectors were not working.[109] As the number of failed devices increased, system performance deteriorated to the point that by earlier this year, 30% of meters could not be read automatically. Given the increasing level of manual meter reading required, HSUD hired an additional meter reader and contracted for supplemental resources.

HSUD has faced several operating challenges with its metering system over the years that its management has poorly handled. Roughly five years ago, for example, an update to the smart meter communications configuration was botched so that they could no longer communicate with the network. Aclara was eventually able to load the update, however there was a 2 ½ month period in which the utility could not send out bills. Customers ultimately received extremely large bills.

More recently, GE changed its Cisco router to Fortinet, which meant the City and CSA also needed to change their routers and establish another VPN tunnel to transfer data. CSA promptly updated its router so that it could receive meter data from GE. HSUD did not. Instead, IT decided it wanted to rebuild the connection so that data from the Trilliant network no longer had to go through the City's IT room—but apparently never got around to it. While this communication mismatch situation was going on, GE reportedly ended its relationship with HSUD for business reasons. There appears to be no path forward to stand the system back up as currently configured. It is our understanding that Trilliant has offered to set up equipment to again allow data transfer that would cost approximately $300,000 and take two months to complete. In the meantime, all meters must be read manually at significant expense.

During our interviews, HSUD's General Manager stated that the GE contract had been changed at some point, although he was unable to provide specifics. The implication was that there may have been a renegotiation of terms, ostensibly to reduce costs.[110] Silverpoint requested copies of the original contract and all amendments. Our intention was to clarify what changes occurred regarding responsibility for maintenance, repair, and installation of GE meters as well as other network equipment. Most of what was provided were duplicate copies of the same contract, some executed, some not. Any documents related to an amendment did not explain clearly what was being changed or the cost impact.[111] The General Manager maintained that the GE contract ended in February of this year.[112] This issue remains unclear, however, as accounting personnel indicated that HSUD was still paying GE per-meter charges for reading the meters.[113]

According to local press, HSUD recently recommended to City leadership that it purchase a new Nighthawk metering system at a cost of approximately $3.5 million, although no action was taken

[109] GE has a network interface monitor it used to identify devices that were not working. Since the end of HSUD's relationship with GE earlier this year, the utility no longer has this type of visibility into its system.
[110] Transcript from April 30, 2025 Interviews with HSUD Personnel (April 30 Transcript), pp. 77-78 and 113-115.
[111] Bates No. 1867-2884.
[112] April 30 Transcript, p. 67.
[113] April 30 Transcript, pp. 105-107.

on that request. Why the utility's IT person was involved in advocating for a new system that the City cannot possibly afford rather than properly configuring the utility's router is unclear. The phrase "fiddling while Rome burns" comes to mind. The General Manager later informed us that the City has been looking at the Nighthawk system since 2022.[114]

Good utility practice means making informed, responsible decisions and responding proactively to operational challenges. HSUD's approach to its metering system has been just the opposite.

2. Customer Service and Billing

Silverpoint obtained a broad overview of the customer service function through brief interviews with utility personnel and a series of information requests. HSUD phone operators handle general calls, record customer-reported outages, and work to resolve customer issues when possible. Customer service personnel focus on resolving billing issues and addressing more complex customer inquiries. For certain types of questions or complaints, office personnel create a service order requesting that operations investigate the issue, and customer service updates the customer on status as needed.[115] During particularly busy times such as during outages, the entire office staff including accounting pitches in as would be expected at a small utility.

HSUD uses an outside contact center service, Cooperative Resource Center, Inc. (CRC), to handle customer inquiries, outage reporting, and crew dispatch during non-business hours.[116] HSUD provides CRC with contact information for the operations person on call each day for after-hours emergencies. For each customer call, the vendor creates a ticket that can be printed by HSUD from a link with CRC. HSUD also receives a call log from CRC in the morning summarizing customer inquiries and outage reports. When Silverpoint noted that some customers have complained about difficulty reporting outages after hours, HSUD acknowledged that there have been issues at times with CRC either not answering or dropping calls.[117]

Silverpoint also obtained a general overview of HSUD's billing function. HSUD has 46 billing routes that are grouped into eight control groups for meter reading and data processing purposes. Billing personnel generate route sheets that are in turn distributed to meter readers by their supervisor. These route sheets list all electric, gas, and water meters that require an actual in-person read. Meter readers have four or five days to accomplish readings and enter the data into their Itron field collection devices. The billing group loads the Itron data into the customer management and billing (CMB) system, owned by CSA, to merge with AMI readings already in the system. CMB generates a list of possible exceptions that all need to be reviewed and resolved (such as with a meter reread) before the billing process can continue. Customers with inaccessible meters will ultimately receive estimated bills.

After all exceptions are resolved, the CMB system generates preliminary bills and an error report flagging individual items for billing personnel to review and resolve (e.g., zero or very large balances). Once all issues are addressed, an amended billing file for the control group is then sent

[114] April 30 Transcript, pp. 99-100.
[115] April 30 Transcript, pp. 49-53 and response to MPSC 1-49, Bates No. 1590.
[116] CRC is a nationwide provider, cooperatively owned and operated, serving more than 500 utilities in 47 states.
[117] April 30 Transcript, pp. 15-20 and response to MPSC 1-50, Bates No. 1591.

to the billing team at CSA for review. After processing by CSA, the file is then forwarded to the bill printer, CSG. HSUD billing personnel review and approve sample bills before CSG prints and mails out the bills for the entire control group. HSUD billing personnel post the bills in the CMB system and proceed on to the next control group.[118]

Some of the complaints received by the Commission refer to bills that were received by the customer after the payment due date. With the increasing number of meters that must be manually read, extensive delays in the entire meter reading and billing cycle are highly likely. It is unclear to what extent the protocol of resolving all exceptions in a control group before sending out bills is exacerbating that problem. This practice could be necessary due to limitations of the CMB system that cannot be changed, but if it is merely a convention adopted by HSUD then it should be discontinued.

[118] Response to MPSC 1-45, Bates, No. 1587-1589 and April 30 Transcript, pp. 89-90.

IV. Conclusions and Recommendations

Silverpoint's investigation of HSUD encompassed a broad range of areas including system operations, vegetation management and other preventative maintenance, emergency preparedness and response, system planning and analysis, and support functions such as metering and billing. The shortcomings we identified during our review are consistent with the kind of reliability, service quality, and billing-related issues raised in customer complaints to the Commission. There were some recurring themes—inadequate management or technical/engineering expertise, reactive versus proactive maintenance practices, insufficient planning and analysis, and questionable choices that appear to have been influenced by the City's lack of financial resources. The current death spiral of the utility's AMI metering system, for example, was brought on by a combination of poor decision-making, negligent maintenance, and management's inability to respond to operational challenges.

Mississippi Code § 77-3-21 states that the Commission may, after a hearing, issue an order finding that HSUD does not render "reasonably adequate electric service." Silverpoint strongly supports such a ruling. We believe this conclusion was readily apparent two years ago based on the TVA and TVPPA reports and the sheer volume of complaints from the utility's customers. Our report merely confirms it. The same problems persist. The operations group is seriously understaffed, and the backlog of work orders continues to grow. HSUD's entire distribution system remains horribly overgrown. The reliability of substations and other system assets is still seriously compromised from years of neglected maintenance and inadequate capital investment. Service quality continues to erode.

Mississippi Code § 77-3-21 states that a Commission order may specify the ways in which the utility has failed to render adequate service and then require that these failures be corrected within a specific time frame. Silverpoint strongly urges the Commission not to pursue that path. As we have documented throughout this report, HSUD and the City have consistently failed to implement any of the commonsense, pragmatic recommendations they have been offered to improve the quality and reliability of electric service. They appear incapable of doing so, financially or otherwise. Giving them more time would be folly and worse yet, exceedingly cruel to their customers.

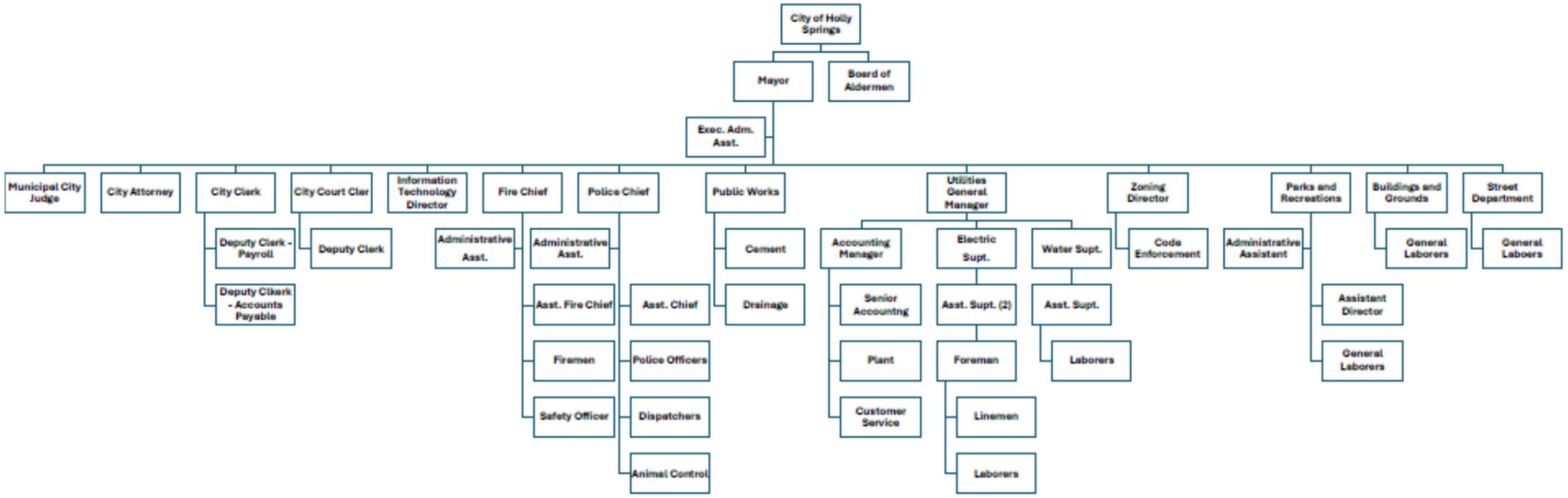
Instead, Silverpoint recommends that the Commission also find, per the language of Mississippi Code § 77-3-22, that the utility is "unable or unwilling to adequately serve its customers." In terms of inability, we believe our report makes clear that the City and HSUD lack sufficient technical, operational, and management expertise to effectively reverse the downward trajectory this electric system has been on for some time. A renaissance of that kind is akin to building a utility from scratch. It will require sophisticated engineering and a comprehensive system plan implemented by a seasoned management and operations team. It will also require significant capital funds the City simply does not have.

In terms of unwillingness, the TVA Complaint clearly documents the City's refusal to adequately invest in its electric utility distribution system. For decades, City leadership systematically drained utility resources through excessive PILOT payments, continuing to milk a starving cash cow to fund its other municipal expenses. In that context, Silverpoint suggests the Commission also find,

per § 77-3-22, that the City's management of its electric system is "grossly inefficient, irresponsible or unresponsive to the needs of its customers."

Mississippi Code § 77-3-22 does not mandate specific steps upon a finding that the City and HSUD are unable or unwilling to adequately serve customers. It does describe one option, in which the Commission petitions a court to place the electric utility system in receivership. In our view, it may be quite difficult to find an entity willing to act as receiver for the HSUD electric utility, i.e., to "fix" the system and then potentially give it back to the City. This option begs the question of where the funds for such a turnaround would come from.

Silverpoint recommends the Commission temporarily put the receivership path in abeyance and instead sponsor a focused yet brief initial feasibility study to determine if an alternative negotiated solution may be possible. Potential scenarios for evaluation include: (1) an outright sale of electric utility assets to another municipal or cooperative utility, (2) conversion to a cooperative structure, potentially affording access to low-interest rate loans, and (3) eminent domain/condemnation. A significant infusion of financial resources and a highly skilled management team will be required to effectuate meaningful change, therefore assessing their availability will be an important part of identifying potential viable alternatives.


City of Holly Springs
Mayor
Board of Aldermen
Exec. Adm. Asst.
Municipal City Judge
City Attorney
City Clerk
Deputy Clerk - Payroll
Deputy Clkerk - Accounts Payable
City Court Cler
Deputy Clerk
Information Technology Director
Administrative Asst.
Fire Chief
Administrative Asst.
Asst. Fire Chief
Firemen
Safety Officer
Police Chief
Asst. Chief
Police Officers
Dispatchers
Animal Control
Public Works
Cement
Drainage
Utilities General Manager
Accounting Manager
Senior Accountng
Plant
Customer Service
Electric Supt.
Asst. Supt. (2)
Foreman
Linemen
Laborers
Water Supt.
Asst. Supt.
Laborers
Zoning Director
Code Enforcement
Parks and Recreations
Administrative Assistant
Assistant Director
General Laborers
Buildings and Grounds
General Laborers
Street Department
General Laboers

MISSISSIPPI LEGISLATURE
2024 Regular Session
To: Energy
By: Senator(s) Whaley, Blackwell, Younger, Parker

Senate Bill 2453

AN ACT TO AMEND SECTION 77-3-21, MISSISSIPPI CODE OF 1972, TO AUTHORIZE THE COMMISSION TO CANCEL A MUNICIPALITY'S CERTIFICATE TO PROVIDE SERVICE GREATER THAN ONE MILE OUTSIDE ITS CORPORATE BOUNDARIES UPON A FINDING THAT THE MUNICIPALITY DID NOT PROVIDE REASONABLY ADEQUATE SERVICE; TO AMEND SECTION 77-3-22, MISSISSIPPI CODE OF 1972, TO INCLUDE MUNICIPALLY OWNED OR OPERATED ELECTRIC UTILITIES PROVIDING SERVICE GREATER THAN ONE MILE OUTSIDE OF MUNICIPAL BOUNDARIES; AND FOR RELATED PURPOSES.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MISSISSIPPI:

SECTION 1. Section 77-3-21, Mississippi Code of 1972, is amended as follows:

77-3-21. The commission may, after a hearing had upon due notice, make such findings as may be supported by proof as to whether any utility holding a certificate under the provisions of this article is rendering reasonably adequate service in any area covered by such utility's certificate. In the event the commission finds that such utility is not rendering reasonably adequate service the commission may enter an order specifying in what particulars such utility has failed to render reasonably adequate service and order that such failure be corrected within a reasonable time, such time to be fixed in such order. If the utility so ordered to correct such a failure fails to comply with such order of the commission and the commission finds that cancellation of its certificate would be in the best interest of the consuming public served by the holder of the certificate,

its certificate for the area affected may be revoked and cancelled by the commission.

Prior to any municipality exercising the power of eminent domain as provided in Section 77-3-17, the commission shall determine that the certificate of public convenience and necessity granted to the utility pursuant to Section 77-3-13 for the service area wherein such facilities are located, shall be cancelled as provided in this section. Nothing in this paragraph shall be construed to include service for water and sewage.

Notwithstanding Section 77-33-1(1), the commission shall have jurisdiction to investigate whether any municipality that holds a certificate to provide service greater than one (1) mile outside its municipal boundaries is providing reasonably adequate service. Following a hearing and upon making such a finding, the commission shall have full authority to enter any order authorized under this section, including canceling the certificate for the area that extends beyond the municipalities' boundaries.

SECTION 2. Section 77-3-22, Mississippi Code of 1972, is amended as follows:

77-3-22. Notwithstanding Section 77-3-1(1), if the commission determines that any privately owned water and/or sewer system, or any municipally owned or operated electric utility providing service greater than one (1) mile outside its municipal boundaries and within its jurisdiction is unable or

unwilling to adequately serve its customers or has been actually or effectively abandoned by its owner, or that its management is grossly inefficient, irresponsible or unresponsive to the needs of its customers, the commission or its designated representative may petition the Chancery Court of the First Judicial District of Hinds County or the chancery court of any county wherein the public utility does business for an order attaching the assets of the privately owned water and/or sewer system or municipally owned or operated electric utility and placing such * * * system under the sole control and responsibility of a receiver. If the court determines that the petition is proper in all respects and finds, after a hearing thereon, the allegations contained in the petition are true, it shall order that the * * * system be placed in receivership. The court, in its discretion and in consideration of the recommendation of the commission or its designated representative, may appoint a receiver who shall be a responsible individual, partnership, corporation or political subdivision knowledgeable in water * * *, sewer or electric service affairs and who shall maintain control and responsibility for the operation and management of the affairs of such * * * system. The receiver shall operate the * * * system so as to preserve the assets of the * * * system and to serve the best interests of its customers. The receiver shall be compensated from the assets of the * * * system in an amount to be determined by the court.

Control of and responsibility for the * * * system shall remain in the receiver until the court determines that it is in the best interests of the customers that the * * * system be returned to the owner, transferred to another owner or assumed by another * * * operator, system or public service corporation. If the court, after hearing, determines that control of and responsibility for the affairs of the * * * system should not be returned to the legal owner thereof, the receiver may proceed to liquidate the assets of such * * * system in the manner provided by law.

In any court-initiated receivership for a municipally owned or operated electric utility providing service greater than one (1) mile outside its municipal boundaries, the receiver shall assume the responsibilities and obligations of the municipality with regard to any existing wholesale power contract.

Mississippi laws and Mississippi Rules of Civil Procedure generally applicable to receivership shall govern receiverships created under this section.

This section is in addition to the provisions of Section 77-3-21.

SECTION 3. This act shall take effect and be in force from and after July 1, 2024.

Mississippi Code 1972 (2023)
Title 77 - PUBLIC UTILITIES AND CARRIERS (§§ 77-1-1 — 77-NEW-NEW-004)
Chapter 3 - REGULATION OF PUBLIC UTILITIES (§§ 77-3-NEW — 77-3-809)
Article 1 - CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY; RATES; SERVICE (§§ 77-3-NEW — 77-3-99)
Section 77-3-21 - Hearing on adequacy of service afforded by certificate holder
Universal Citation:
MS Code § 77-3-21 (2023)

The commission may, after a hearing had upon due notice, make such findings as may be supported by proof as to whether any utility holding a certificate under the provisions of this article is rendering reasonably adequate service in any area covered by such utility's certificate. In the event the commission finds that such utility is not rendering reasonably adequate service, the commission may enter an order specifying in what particulars such utility has failed to render reasonably adequate service and order that such failure be corrected within a reasonable time, such time to be fixed in such order. If the utility so ordered to correct such a failure fails to comply with such order of the commission and the commission finds that cancellation of its certificate would be in the best interest of the consuming public served by the holder of the certificate, its certificate for the area affected may be revoked and cancelled by the commission.

Prior to any municipality exercising the power of eminent domain as provided in Section 77-3-17, the commission shall determine that the certificate of public convenience and necessity granted to the utility pursuant to Section 77-3-13 for the service area wherein such facilities are located, shall be cancelled as provided in this section. Nothing in this paragraph shall be construed to include service for water and sewage.

Notwithstanding Section 77-3-1(1), the commission shall have jurisdiction to investigate whether any municipality that holds a certificate to provide service greater than one (1) mile outside its municipal boundaries is providing reasonably adequate service. Following a hearing and upon making such a finding, the commission shall have full authority to enter any order authorized under this section, including canceling the certificate for the area that extends beyond the municipalities' boundaries.

Codes, 1942, § 7716-05; Laws, 1956, ch. 372, § 5; Laws, 1987, ch. 353, § 4; Laws, 1992, ch. 417, § 2, eff. 4/29/1992. Amended by Laws, 2024, ch. 315, SB 2453,§ 1, eff. 4/8/2024.

Mississippi Code 1972 (2023)
Title 77 - PUBLIC UTILITIES AND CARRIERS (§§ 77-1-1 — 77-NEW-NEW-004)
Chapter 3 - REGULATION OF PUBLIC UTILITIES (§§ 77-3-NEW — 77-3-809)
Article 1 - CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY; RATES; SERVICE (§§ 77-3-NEW — 77-3-99)
Section 77-3-22 - Placement of privately owned water and sewer systems in receivership; conditions
Universal Citation:
MS Code § 77-3-22 (2023)

Notwithstanding Section 77-3-1(1), if the commission determines that any privately owned water and/or sewer system, or any municipally owned or operated electric utility providing service greater than one (1) mile outside its municipal boundaries and within its jurisdiction is unable or unwilling to adequately serve its customers or has been actually or effectively abandoned by its owner, or that its management is grossly inefficient, irresponsible or unresponsive to the needs of its customers, the commission or its designated representative may petition the Chancery Court of the First Judicial District of Hinds County or the chancery court of any county wherein the public utility does business for an order attaching the assets of the privately owned water and/or sewer system or municipally owned or operated electric utility and placing such system under the sole control and responsibility of a receiver. If the court determines that the petition is proper in all respects and finds, after a hearing thereon, the allegations contained in the petition are true, it shall order that the system be placed in receivership. The court, in its discretion and in consideration of the recommendation of the commission or its designated representative, may appoint a receiver who shall be a responsible individual, partnership, corporation or political subdivision knowledgeable in water, sewer or electric service affairs and who shall maintain control and responsibility for the operation and management of the affairs of such system. The receiver shall operate the system so as to preserve the assets of the system and to serve the best interests of its customers. The receiver shall be compensated from the assets of the system in an amount to be determined by the court.

Control of and responsibility for the system shall remain in the receiver until the court determines that it is in the best interests of the customers that the system be returned to the owner, transferred to another owner or assumed by another operator, system or public service corporation. If the court, after hearing, determines that control of and responsibility for the affairs of the system should

not be returned to the legal owner thereof, the receiver may proceed to liquidate the assets of such system in the manner provided by law.

In any court-initiated receivership for a municipally owned or operated electric utility providing service greater than one (1) mile outside its municipal boundaries, the receiver shall assume the responsibilities and obligations of the municipality with regard to any existing wholesale power contract.

Mississippi laws and Mississippi Rules of Civil Procedure generally applicable to receivership shall govern receiverships created under this section.

This section is in addition to the provisions of Section 77-3-21.

Laws, 1992, ch. 417, § 10; Laws, 1995, ch. 367, § 1, eff. 3/15/1995. Amended by Laws, 2024, ch. 315, SB 2453,§ 2, eff. 4/8/2024.

Mississippi Public Service Commission

August 27, 2024

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Mr. Wayne C. Jones
General Manager
Holly Springs Utility Department
P.O. Box 520
Holly Springs, MS 39635
w.jones@hsutilitiesms.gov

RE: Docket No. 2024-AD-37

Dear Mr. Jones,

As you were previously advised, the Commission has initiated an investigation into the adequacy of the electric service provisioned by Holly Springs Utility Department ("HSUD"), pursuant to Miss. Code Ann. § 77-3-21 (as amended on April 8, 2024). As a part of the investigation, the Commission retained Silverpoint Consulting, LLC ("Silverpoint") to audit of HSUD's operations and management.

On August 13 and 20, Silverpoint emailed HSUD, attempting to coordinate a kick-off call to, among other things, explain administrative protocols and discuss the treatment of confidential information. HSUD, however, wholly failed to respond. For this reason, Silverpoint unilaterally set the telephone conference for Monday, August 26, 2024, at 2:00 p.m. and circulated call-in information. At no time prior to scheduled call did HSUD advise of its inability to participate. The telephone conference proceeded as scheduled without the participation of HSUD. I, along with Ms. Stephanie Vavro of Silverpoint and Mr. Tom Suggs of Middle Tennessee Electric Corporation, were present on the call. As HSUD did not participate in the telephone conference, the Agendas are attached hereto for review and consideration.

At this time, the Silverpoint team is preparing to travel to Holly Springs, Mississippi, to interview HSUD personnel and inspect certain documentation, The onsite visit will take place on September 10, 2024, and continue through September 12, 2024. Per Miss. Code

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P.O. BOX 1174 JACKSON, MISSISSIPPI 39215-1174
FAX (601) 961-5469

Ann. § 77-3-79, HSUD is required to provide the Commission "at all reasonable times" with "access to and the right to inspect and examine all accounts, records, memoranda, and property ..." These representatives will be traveling from out of town, thus it is imperative for HSUD to confirm in writing to me, via email at stephanie.taylor@psc.ms.gov, immediately, but in no event later than close of business on September 4, 2024, to confirm HSUD's cooperation with the planned, onsite visit.

Please be advised that HSUD's failure to confirm its cooperation on or before close of business on September 4, 2024, will result in the issuance of subpoenas in this Docket, which will summon all HSUD personnel to appear in the Commission Hearing Room located in Jackson, Mississippi, and command production of the documentation requested by Silverpoint for its audit.[1] Further, Miss. Code Ann. § 77-1-33 provides, in pertinent part, as follows:

> If any person duly summoned to appear and testify, or to bring and produce, as commanded, any book, paper, or document, without a lawful excuse, or shall refuse to answer any proper question propounded to him by the commission ... or if any person shall obstruct the commission ... such ... person shall be guilty of a misdemeanor, and upon conviction, shall be fined not more than One Thousand Dollars ($1,000.00), or be imprisoned in the county jail for a period not exceeding six (6) months, or both.

If you have any questions concerning this matter, please call or email me. My direct telephone number is (601) 961-5418.

Kindest regards,

Stephanie A. Taylor
MPSC Senior Attorney and
Designated Docket Monitor

cc: John K. Perry, Esq., City Attorney
w/enclosures
Ms. Stephanie Vavro, Silverpoint
w/o enclosures

[1] The Commission has subpoena power pursuant to Miss. Code Ann. § 77-3-49.

Agendas for First Set of On-Site Interview Sessions[119]

Interview Session on Distribution System Operations and Reliability

Silverpoint would like to schedule a full day technical session with HSUD personnel knowledgeable about the electric distribution system as well as the related operational and engineering functions—grid planning, design, capital construction, operations, maintenance, and storm restoration. During this session, the team would like to obtain a working knowledge of the design, construction, and operational characteristics of HSUD across its service territory. Our primary objective is to obtain an adequate context and framework for later, more detailed sessions that will focus on specific distribution system engineering and operational areas.

Overview of Electric System Design and Construction (est. two hours)

- General discussion of system layout, engineering design, and operating characteristics
- The distribution system planning process, engineering design criteria (e.g., radial vs. n-1 contingency, overhead construction classes), standards, and specifications
- Sub-transmission, distribution, and substation configurations and placement; feeder counts, lengths, and customers served; substations by type; interfaces with TVA/regional transmission
    - Extent of the use of SCADA, smart grid or other automation technologies (e.g., automatic sectionalizing, fused taps, remote control switching, circuit protection programs)
    - System strengths and weaknesses, reliability performance, and system vulnerabilities
    - System condition of substations and the overhead system inside and outside the City; current challenges (e.g., power quality, voltage, aging infrastructure)
    - Overview of capital spending, key projects, and construction efforts over the last several years
    - Principal operational systems, e.g., the outage management system (OMS), work order management, geospatial information system (GIS) and mapping capabilities.

Overview of System Operations, Maintenance and Reliability (est. three hours)

- How HSUD provides 24/7 operational and emergency coverage on its system
- Organizational structure and staffing of system operation function; asset management; overhead, underground, and substation maintenance; reliability; and restoration
- Past and current reliability practices and performance
- Overhead, underground, and substation inspection strategy/schedule; repair and maintenance practices (e.g., inspection programs, prioritization/tracking); standards and programs in place
- Vegetation management practices, standards, and spending levels; circuit miles and tree coverage in the territory
- Asset management methods and criteria (e.g., run to failure, condition versus time-base criteria, criteria for replacement)

[119] **Note: Silverpoint will be on site for three days to allow HSUD some flexibility in scheduling topical discussions.**

- Work order management process, prioritization, reporting, and backlogs (e.g., maintenance, service orders, new customers, troubleshooting)
- System reliability performance; outage history and recordkeeping methods; primary causes of outages during blue sky conditions and during major events; reliability metrics
    - Short-term reliability improvement plans and longer-term reliability and resilience/storm hardening improvement initiatives and programs
    - Benchmarking efforts; monitoring/evaluating best practices
    - Overview of storm preparation and response practices (e.g., response and restoration plans, in-house capabilities, use of mutual assistance/contractors, event timelines)
    - Walk-through of recent major events; damage by equipment type (e.g., three-phase, secondary, service drops), and location/characteristics (e.g., end of long feeders).

General (est. one hour)

- Organizational structure and reporting responsibility for HSUD in general and the electric group in particular
- Overview of current staffing levels, job functions and qualifications
- Delineation of which business-related functions (e.g., billing, IT, human resources) are performed within the HSUD electric department, within HSUD, or by the City
- Provision of utility support functions —facilities, materials management, fleet, and safety
- Extent of technical support from contractors, engineering/consulting firms and how utilized
- Overview of O&M and capital budgeting cycle, process, and responsibilities
- Changes in response to the October 2023 TVPPA report
- Types of operational documentation maintained and available; recordkeeping practices.

Documents/information that should be on hand to facilitate discussion include:

- Organization/staffing charts
- Geographically-oriented maps of distribution/sub-transmission systems showing voltage levels, line identifications, and substations; sample one-line diagrams
- Representative distribution circuit diagrams/maps; list of typical circuits in each service area; basic system statistics, (e.g., miles by voltage, wire strength, etc.)
- Standard substation designs and substation feeder configuration; specification guidelines
- Examples of system planning studies, capital project/planning studies, loss reduction studies
- Outage reports; outage cause codes with accompanying definitions
- Examples of distribution planning criteria, engineering standards, O&M procedures
- Sample operations-related reports (e.g., major event reports, annual reliability reports, maintenance backlog).

Interview Session on Customer Service, Metering and Billing Functions

Silverpoint would like to schedule a technical session with personnel knowledgeable about HSUD customer service-related and field service-related functions. During this session, the team would like to obtain a working knowledge of customer care and accounting, billing, meter reading, and other field services. Our primary objective is to obtain an adequate context and framework for later, more detailed sessions that will focus on specific functional areas.

Overview of Customer Service and Field Service Functions (est. 4 hours)

- Customer statistics (e.g., by rate class, by portion of service territory)
- Overview of how/where customer service functions—customer care/call center, customer accounting/billing, and credit/collections—are provided to HSUD customers
- Overview of how/where field service functions—meter reading, field collections, revenue protection—are provided to HSUD customers
- Organizational structure and staffing of individual customer service and field service functions and associated skill levels; job functions and qualifications
- Extent of technical support/outsourcing for customer service/field operations functions
- Overview of customer service-related information systems, support systems, and technologies including relevant call center support systems, customer information system (CIS)
- Overview of meter reading approach and technology; extent of AMI across its territory; recent changes; interface with billing systems
- Management initiatives and the extent of supervisory-level reporting; performance metrics tracked and history of performance levels
    - Call center practices, policies, and procedures during normal and emergency operations
    - Billing processes and procedures; bill printing; billing statistics (accuracy, timeliness)
    - General credit/collections practices, policies, and procedures
    - Revenue protection procedures and practices
    - Performance metrics for customer service functions; recent performance levels
    - Benchmarking programs and spending levels; monitoring/evaluating emerging best practices
    - Customer survey practices; customer complaint process and recent experience
    - Walkthrough of sample management/performance reports and metrics (e.g., bill timeliness)
    - Types of operational documentation maintained and available; recordkeeping practices.

Documents/information that should be on hand to facilitate discussion include:

- Organization/staffing charts
- Samples of management/performance reports, performance metrics and statistics.

BEFORE THE MISSISSIPPI PUBLIC SERVICE COMMISSION

MISSISSIPPI PUBLIC SERVICE COMMISION
Complainant

v. **DOCKET NO. 2024-AD-37**

CITY OF HOLLY SPRINGS
EM 003-0055-01
Respondent

IN RE: INVESTIGATION INTO ADEQUACY OF ELECTRIC SERVICE BEING PROVIDED BY HOLLY SPRINGS UTILITY DEPARTMENT

FIRST SET OF DATA REQUESTS PROPOUNDED TO CITY OF HOLLY SPRINGS

MPSC 1-1 Please describe the current organizational structure of HSUD, including employee names and job titles. Alternatively, produce HSUD's organization chart if the chart contains the information requested herein.

MPSC 1-2 Please state, for the last ten (10) years, the number of employees (or full-time equivalents) employed each year in each major function for (a) the HSUD Electric Department, and (b) HSUD.

MPSC 1-3 Please provide the current job description for each position in the HSUD Electric Department and specify the minimum qualifications for each.

MPSC 1-4 Please provide, for the last ten (10) years, the number of electric operations personnel in the lineman, groundman, serviceman, and foreman roles.

MPSC 1-5 Please list the individuals who have served as HSUD's general manager over the last ten (10) years, the date range of their service in that position, and their qualifications for that role.

MPSC 1-6 Please identify the entity responsible for utility business-related functions (*i.e.*, accounting, billing, human resources, IT) whether HSUD Electric Department, HSUD, or the City.

MPSC 1-7 Please provide a detailed breakdown of the HSUD Electric Department (a) budgeted and actual O&M spending and (b) budgeted and actual capital spending in each of the last five (5) years, including a list of capital projects each year giving the status of each.

MPSC 1-8 Please provide the number of customers and the peak demand for each of the past ten (10) years, both inside and outside of the corporate limits of the

City of Holly Springs. Alternatively, produce any and all documents, including, but not limited to, graphs and charts, showing the level of customer and/or demand growth in the HSUD Electric Department over the past ten (10) years.

MPSC 1-9 Please provide the following information about the electric system serving HSUD customers:

- A description of the system in terms of the number/location of TVA delivery points, number of substations and substation transformers, number and type of breakers, miles of lines, customers per mile, and customers per breaker;
- A description of the portion of the system identified in this Request that is within the corporate limits of the City of Holly Springs;
- A description of the system operating voltages; and,
- Identification of transmission/sub-transmission lines, substation breakers or transformers serving HSUD customers but not owned by HSUD, if any.

MPSC 1-10 Please produce geographically-oriented maps of the HSUD distribution/sub-transmission system, showing voltage levels, line identifications, and substations, along with representative distribution circuit diagrams/maps, one-line diagrams, and basic system statistics (*i.e.*, miles by voltage, wire strength).

MPSC 1-11 Please provide a description of the station design, transformer ratings and feeder configuration for each of the HSUD electric substations.

MPSC 1-12 Please describe the HSUD electric distribution system planning process, engineering design criteria, standards, and specifications (*i.e.*, guying charts, transformer sizing and fusing charts, substation loading criteria); provide the most recent system planning study and maps, explain the scope of the study, and indicate who performed it.

MPSC 1-13 Please describe the HSUD capital project planning process and produce the most recent capital project planning studies.

MPSC 1-14 Please give an overview of the O&M and capital budgeting cycle, process, and responsibilities.

MPSC 1-15 Please describe, in detail, HSUD's electric system outage reporting and repair process and associated workflow, including what documentation is maintained by HSUD in each stage of the work process. Please produce examples of such documents.

MPSC 1-16 Please describe, in detail, the work order process, including what documentation is maintained by HSUD in each stage of the process by both

customer service and operations groups. Please produce examples of such documents.

MPSC 1-17 Please describe, in detail, the new service request process and associated workflow. Please produce an example of each and every document, currently used to facilitate the new service request process, that is generated and/or maintained by HSUD and/or the City of Holly Springs.

MPSC 1-18 Please describe HSUD's current timeline for completing a customer request for (a) new service to a residence, (b) new service to a commercial building, and (c) new security lights.

MPSC 1-19 Please describe the HSUD Electric Department process for prioritizing work/service orders. Please produce the current backlog of work orders for (a) maintenance, (b) service orders, (c) new customers, and (d) troubleshooting.

MPSC 1-20 Please describe, in detail, the processes of outage reporting and restoration. Please produce an example of each and every document, currently used to facilitate these processes, that are generated and/or maintained by HSUD and/or the City of Holly Springs.

MPSC 1-21 Please describe the HSUD process for capturing outage data and for calculating system performance metrics, including outage cause codes with accompanying definitions. Please identify and list the primary causes of outages during blue sky conditions and during major events.

MPSC 1-22 Please describe the electric system reliability performance for the last five (5) years. Please produce any and all associated reliability metric statistics for the last five (5) years.

MPSC 1-23 Please describe the strengths, weaknesses, and vulnerabilities of the HSUD distribution system, including, but not limited to, issues of power quality, voltage, and infrastructure.

MPSC 1-24 Please describe the system condition of substations and the overhead system, both inside and outside of the corporate limits of the City of Holly Springs. Please produce any and all documentation which tends to support your description.

MPSC 1-25 Please describe the quality of service provided to customers located within and outside of the corporate limits of the City of Holly Springs (*i.e.*, voltage levels, sags, swells, and blinks). Please produce any and all documentation which tends to support your description.

MPSC 1-26 Please identify and describe the principal operational systems and technology in use at HSUD, including work order management, outage management, geospatial information system (GIS), mapping capabilities, smart grid/automation technologies, and SCADA. Please identify and describe the current technologies used to monitor system performance and/or reliability.

MPSC 1-27 Please provide the level of electric system capital spending, key projects, and construction efforts over the last ten (10) years.

MPSC 1-28 Please describe HSUD's process for managing the maintenance and operation of the electric distribution system, including the metrics for measuring performance. Please produce an example of each and every document currently used in this process, including, but not limited to, management/performance reports, that is generated and/or maintained by HSUD and/or the City of Holly Springs.

MPSC 1-29 Please describe the type and level of technical and engineering support that is provided by contractors and engineering/consulting firms (a) currently, and (b) in each of the last five (5) years.

MPSC 1-30 Please describe how HSUD provides 24/7 operational and emergency coverage on its electric distribution operating system (*i.e.,* crew size/type, number of shifts, dispatch/prioritization).

MPSC 1-31 Please describe the organizational structure and staffing of the electric system (a) system operations function, (b) substation maintenance function, and (c) overhead maintenance function; describe the number and constituents of crews.

MPSC 1-32 Please describe HSUD's short-term reliability improvement programs and results over the past five (5) years. Please describe HSUD's longer-term reliability and resilience/storm hardening improvement initiatives and programs, including project schedules and timelines.

MPSC 1-33 Please describe HSUD's inspection strategy and schedule for overhead and substation facilities by asset type. Please produce any and all documentation which tends to support your description.

MPSC 1-34 Please describe HSUD's repair and maintenance practices for overhead and substation facilities by asset type (*i.e.,* poles, station breakers, transformers). Please produce any and all documentation which tends to support your description.

MPSC 1-35 Please describe HSUD's vegetation management practices and standards, including, but not limited to, the level of in-house personnel and equipment

available to perform vegetation management work, HSUD's prioritization of its vegetation management work, and the process of selection for third-party vegetation management firms. Please produce the most recent vegetation management plan.

MPSC 1-36 Please describe the general terms of the contracts with third-party vegetation management firms that HSUD and/or the City of Holly Springs engaged within the last two (2) years, including the scope of the work to be completed by such firms. Please describe how HSUD oversees contractors to ensure efficient completion of the assigned work.

MPSC 1-37 Please describe vegetation management spending and miles cleared over the last five (5) years.

MPSC 1-38 Please state whether HSUD has recorded rights-of-way across its entire service territory, both within and outside the corporate limits of the City of Holly Springs.

MPSC 1-39 Please describe HSUD's asset management method(s) or approach(es) to determining replacement (*i.e.,* run to failure, condition versus time-based), Please produce any and all supporting documentation, including, but not limited to, asset aging studies. Please explain how HSUD uses the results of its maintenance and inspection programs to support its replacement decisions.

MPSC 1-40 Please describe storm preparedness and response practices and the related responsibilities of HSUD employees.

MPSC 1-41 Please produce a copy of the most current emergency response/restoration plan and identify who developed the plan and who is responsible for keeping the plan up to date.

MPSC 1-42 Please describe the process for securing outside assistance for outage events, including existing mutual aid agreements, logistical support (*i.e.,* rooms, meals, staging, outside equipment) and onboarding of contractors and outside crews (*i.e.,* point of contact, lockout/tagout, mapping, work assignment, recording requirements).

MPSC 1-43 Please describe HSUD's process for recording information required for the purposes of receiving FEMA reimbursement after a major outage event (*i.e.,* number of poles down and transformers replaced, contracting for outside crews, debris cleanup).

MPSC 1-44 Please describe what changes have been made by HSUD in response to the TVPPA report.

MPSC 1-45 Please describe, in detail, HSUD's meter reading process and the billing process, including a description of the flow of usage data to customer information and billing systems.

MPSC 1-46 Please describe HSUD's process for addressing and resolving (a) direct customer complaints, (b) PSC-forwarded customer complaints, and (c) customer billing inquiries and discrepancies, identifying personnel responsible for handling these complaints.

MPSC 1-47 Please describe HSUD's customer service call center practices, policies, and procedures during normal and emergency conditions.

MPSC 1-48 Please describe HSUD's process for managing the quality of its customer service-related functions (*i.e.,* customer care/call center, customer accounting/billing, credit/collections, complaint handling) and provide examples of associated management/performance reports and metrics.

MPSC 1-49 Please describe the role of CSA in supporting the HSUD customer service, customer accounting/billing, and related functions, including the extent to which any CSA service problems or technical issues have contributed to the utility's on-going chronic metering/billing issues.

MPSC 1-50 Please describe how HSUD provides 24/7 customer service support during normal and emergency conditions.

MPSC 1-51 Please describe the configuration of the current AMI system, including an explanation for the system's inability to provide reliable and complete usage data for all customers.

MPSC 1-52 Please describe how field service functions such as meter reading, field collections, revenue collection, turn ons/turn-offs are provided and identify which HSUD personnel perform these functions.

MPSC 1-53 Please describe the nature and extent of outside/third-party support for the HSUD customer service, billing, and meter reading functions.

MPSC 1-54 Please describe HSUD's revenue protection practices and estimate the level of losses occurring through theft or other forms of intentional bypass.

MPSC 1-55 Due to an inordinate number of customer complaints about late, missing, high, and incorrect bills, please explain how HSUD intends to resolve its metering and billing issues to ensure accurate billing.

MPSC 1-56 Due to multiple customer complaints about lack of responsiveness by HSUD personnel to inquiries regarding late, missing, high, and incorrect bills (*i.e.*, Case No. 3227997 dated 06/06/24; Case No. 3227945 dated

06/02/24; Case No. 3228815 dated 08/28/24; Case No. 3229045 dated 09/12/24), please explain why the customer's complaints were not addressed and the apparent deviation from reasonable normal customer service practices.

MPSC 1-57 Due to a customer complaint about a delay in power turn-off in which the customer indicated he had not received a bill for the four (4) or five (5) years he lived at that location (Case No. 229334 dated 07/09/24), please explain why this customer was never billed.

MPSC 1-58 Due to numerous customer complaints regarding long wait times to receive new service (*i.e.,* Case No. 3228756 dated 08/26/24; Case No. 3227966 dated 06/03/24; and Case No. 229462 dated 07/17/24), please explain the reason for the long delays in these cases, including any deviation from normal new service work order processes and timelines. Indicate whether these service orders have since been completed and if not, whether they are reflected in HSUD's work order backlog lists.

MPSC 1-59 Due to numerous customer complaints about outside/security lights being out of service for an extended time although the customer is still billed for the service (*i.e*., Case No. 3227634 dated 05/03/24; Case No. 3227629 dated 05/03/24; Case No. 3227555 dated 04/17/24; Case No. 229729 dated 08/19/24; Case No. 229681 dated 08/13/24; Case No. 229615 dated 08/06/24; Case No. 3227891 dated 05/30/24; and Case No. 229394 dated 07/12/24), please provide the following:

- A statement as to whether the repairs associated with these complaints have been completed to date, and if so, when;
- An explanation for the long delays in these cases, including reason(s) for the deviations from normal work order processes, timelines, and communication protocols; and,
- A statement as to whether incomplete repairs associated with any complaint listed above are reflected in HSUD's work order backlog list.

MPSC 1-60 Due to a significant number of customer complaints about long delays in completing repairs or ignoring reported issues altogether (*i.e.,* Case No. 3227892 dated 05/30/24; Case No. 229750 dated 08/21/24; Case No. 3227922 dated 06/01/24; Case No. 3227606 dated 04/29/24; Case No. 229972 dated 09/05/24; Case No. 230018 dated 09/11/24; Case No. 3228521 dated 07/29/24; Case No. 229084 dated 06/13/24; Case No. 3228450 dated 07/18/24; and Case No. 3228519 dated 07/29/24), please provide the following:

- An explanation for ignoring or delaying repairs in these cases and for deviating from the utility's normal work order processes, timelines, and communication protocols;

- An explanation of how HSUD determines which issues will be addressed and which will not; and,
- A statement of the status of these complaints and whether needed repairs are reflected in HSUD's work order backlog lists.

MPSC 1-61 Due to customer complaints about service reliability and power quality issues outside of the corporate limits of the City of Holly Springs, and specifically in the Red Banks area (*i.e.,* Case No. 3228554 dated 08/01/24; Case No. 3228333 dated 07/09/24; Case No. 3228153 dated 06/24/24; Case No. 3228145 dated 06/24/24; and Case No. 229560 dated 07/30/24), please provide the following:

- An explanation for the on-going power quality and low voltage issues on this portion of the system since at least June of this year; and,
- An explanation for the poor system condition (*i.e.,* sagging wire) or poor vegetation management practices (*i.e.*, incorrect right-of-way clearing) which were not addressed.

MPSC 1-62 Due to customer complaints about service quality (power surges and outages) resulting in damage to customer appliances and equipment (*i.e.*, Case No. 3227684 dated 05/09/24; Case No. 3227633 dated 05/03/24; Case No. 229354 dated 07/10/24; Case No. 3228373 dated 07/10/24; and Case No. 229029 dated 06/06/24), please provide the following:

- A statement as to whether, how, and when these complaints were resolved by HSUD or the City of Holly Springs, and if not, why;
- An explanation of HSUD's practices and/or procedures relating to complaints arising out of power surges and outages causing damage to customer appliances and equipment; and,
- A statement as to whether HSUD or the City of Holly Springs has replaced or provided reimbursement for damaged customer equipment or appliances in the last ten (10) years, and if so, a description of the specific circumstances under which this decision was made.

MPSC 1-63 Due to customer complaints that specifically indicate issues with HSUD's vegetation management practices (*i.e.,* Case No. 3228603 dated 08/14/24; Case No. 3228588 dated 08/09/24; Case No. 3228269 dated 07/03/24; and Case No. 3228193 dated 06/26/24), please state how the utility's current vegetation management plan has or will address the issues raised in these complaints.

MPSC 1-64 Due to a customer complaint related to power quality that describes unsafe work practices by HSUD (Case No. 3228344 dated 07/09/24), please provide your response to this complaint and produce any and all documentation which tends to support your response.

MPSC 1-65 Please sign and date the attached Exhibit A and submit same, together with your responses to these data requests.

ORDERED, the City of Holly Springs shall furnish copies of its responses within forty-five (45) days of the date of service.

ORDERED, this, the _____ day of November 2024.

MISSISSIPPI PUBLIC SERVICE COMMISSION

[S E A L]

BY: _____
Chris Brown, Chairman
Northern District Commissioner

CERTIFIED: This day, a true copy of this original document has been served upon the party herein and the Mississippi Public Utilities Staff in accordance with RP 6.122.

Dated: _____

_____
KATHERINE COLLIER, Executive Secretary

BEFORE THE MISSISSIPPI PUBLIC SERVICE COMMISSION

MISSISSIPPI PUBLIC SERVICE COMMISION
Complainant

v. **DOCKET NO. 2024-AD-37**

CITY OF HOLLY SPRINGS
EM 003-0055-01
Respondent

IN RE: INVESTIGATION INTO ADEQUAY OF ELECTRIC SERVICE BEING PROVIDED BY HOLLY SPRINGS UTILITY DEPARTMENT

SECOND SET OF DATA REQUESTS PROPOUNDED TO CITY OF HOLLY SPRINGS

MPSC 2-1 The TVPPA Report (hereinafter referred to as "Report") states that the North Holly Springs Substation had been partially out of service since roughly 2018 due to an explosion affecting one of the two power transformers at the station. (See Report, pp. 5-6 and, for photos, p. 53.)

- Has the substation been returned to full service? If so, when, how, and at what cost?

- If not, explain why not. Has any third-party inspection been performed? If so, what is the estimated cost and timeline to repair or replace the transformer?

MPSC 2-2 The Report states that the 46kV sub-transmission system (transformers, breakers, and circuitry) normally used to serve the Slayden Substation from South Holly Springs had been down for at least two (2) years as of the time of the report, noting that this was a serious vulnerability that could result in outages of weeks if not longer. (See Report, p. 6.)

- Has this circuitry been completely repaired and placed back in service? If so, when, how, and at what cost? If not, explain why not.

- Has any outside engineering firm provided an estimated cost and timeline to repair and place the circuit back in service? If so, please provide.

- Did HSUD or an outside consultant conduct a study of how the Slayden Substation area would be served if the remaining 46kV line out of

Coldwater Substation failed while the 46kV line is/was out of service? If not, why not? If so, provide the study.

MPSC 2-3 The Report indicates that there was no voltage regulation being performed at the North Holly Springs Substation and South Holly Springs Substation at either the transformer or feeder levels. The Report notes that voltage must be kept within proper ranges to avoid damage to customer equipment. (See Report, p. 39.)

- Has HSUD installed voltage regulation at these substations? If so, how, when, and at what cost? If not, why not?

- Has HSUD or an outside firm developed an estimated cost and timeline to install such equipment at these substations? If so, please provide.

MPSC 2-4 The Report discusses equipment-related issues at the South Holly Springs Substation. (See Report, p. 7 and, for photos, p. 55.)

A. Regarding the transformers at issue in the report:

  - Are these units being tested and maintained on a regular basis consistent with standard utility practice? If not, why not?

  - Given the age of these units, has HSUD developed a plan for replacement? If not, why not? If so, provide the estimated cost and timeline for doing so.

B. Regarding the monitoring devices at the station marked as bad or out of service:

  - How long have such devices been out of service and are they still out of service?

  - If in service, when were they repaired or replaced and at what cost?

  - If not in service, has HSUD or an outside firm developed a plan to repair or replace these devices? If not, why not? If so, provide the estimated cost and timeline for doing so.

MPSC 2-5 The Report states that restoring proper rights-of-way to the necessary standard on the HSUD system would require roughly Ten Million Dollars ($10,000,000.00) in vegetation management work over a two-to-three-year time frame. (See Report, pp. 5-6 and, for photos, pp. 44-51.) Explain how

much of this work has been completed since the Report was issued and at what cost.

MPSC 2-6 The Report indicates that HSUD had no system mapping or similar tool to track how many customers are involved in outages. (See Report, p. 7.)

- Has HSUD implemented a real-time or other type of mapping system? If so, when, how, and at what cost? If not, explain why not.

- Has any outside firm provided an estimated cost and timeline to implement a mapping system? If so, please provide.

MPSC 2-7 The Report indicates that HSUD had no spare transformers and had no formal process in place to secure mobile transformers from another source in the event of failure. (See Report, p 6.)

- Has HSUD made any arrangements for mobile transformers of appropriate size for each of its substations? If so, please explain. If not, why not?

- Did HSUD or an outside consultant assess the impact on outage duration of having no pre-arranged process to secure a mobile transformer in the event of a transformer failure at a given substation? If so, please provide the study.

MPSC 2-8 The Report indicates HSUD had no documented or scheduled mechanical inspections, preventative maintenance, or maintenance logs for general vehicles, digger derrick trucks, trailers, and miscellaneous vehicles. (See Report, p. 9.)

- Has HSUD since implemented a system of inspections and preventative maintenance for its fleet? If so, please describe. If not, why not?

- Has HSUD estimated the cost and timeline to bring existing equipment up to date on maintenance? If so, please provide.

MPSC 2-9 Has HSUD addressed the vehicle safety-related concerns identified in the Report (see Report, pp. 29-31 and, for photos, pp. 71-74) as part of an overall vehicle inspection and maintenance program?

MPSC 2-10 The Report indicates that maintenance at HSUD is extremely deficient to non-existent. (See Report, p. 37).

- Has HSUD implemented documented maintenance and inspection schedules? If so, please describe and provide. If not, why not?

- Has HSUD or its consultants developed a plan to complete the backlog of all required maintenance? If not, why not? If so, provide the estimated cost and timeline for doing so.

- Does the utility maintain records of all plant assets requiring maintenance? If so, provide examples. If not, why not?

MPSC 2-11 The Report indicates that the existing emergency generator for the HSUD main office is either not functional or too small to carry the necessary load. While the investigator was on site, the department could not carry out its duties during an outage. (See Report, p. 28.)

- Has HSUD installed an appropriately sized emergency generator at the HSUD to keep the office in service during an outage to the circuit feeding the area? If so, how, when, and at what cost?

- If not, why not? Does HSUD, at least, have a plan to install such a generator? If so, provide the estimated cost and timeline for doing so.

MPSC 2-12 The person(s) providing the information and/or documents requested in these data requests must execute Exhibit A and submit the same, together with these responses. If more than one (1) person prepared these responses, each person with knowledge must sufficiently identify in Exhibit A to which of the responses the person is certifying.

ORDERED, the City of Holly Springs shall furnish copies of its responses within thirty (30) days of the date of service.

ORDERED, this, the _____day of March 2025.

MISSISSIPPI PUBLIC SERVICE COMMISSION

[S E A L] **BY:** _____

Chris Brown, Chairman
Northern District Commissioner

CERTIFIED: This day, a true copy of this original document has been served upon the party herein and the Mississippi Public Utilities Staff in accordance with RP 6.122.

Dated: _____

_____
KATHERINE COLLIER, Executive Secretary

Example of a Street-level View from a GIS Mapping System

Source: https://etap.com/product/gis-for-electric