



 **HGE**[&]

2020

ANNUAL REPORT



HG&E Board of Commissioners (from left): James A. Sutter, Francis J. Hoey III, and Robert H. Griffin

TO THE HONORABLE MAYOR, MEMBERS OF THE CITY COUNCIL, AND VALUED CUSTOMERS:

Submitted herewith is the One Hundred and Eighteenth Annual Report of the City of Holyoke Gas & Electric Department (HG&E) for the year ending December 31, 2020.

A global COVID-19 pandemic, its corresponding economic hardships, and an August tropical storm are just a few of the factors that resulted in a year of unprecedented disruptions. These events also highlighted the importance of the services that HG&E provides to the community. We supply the electricity and natural gas that support the health care industry, power local business, and facilitate online learning and work-from-home capabilities.

In spite of these significant challenges, HG&E employees remained focused on our mission. In early March, staff had to pivot to comply with CDC guidelines for our office work spaces and adjust field work protocols to ensure the health and safety of our employees, as well as the general public. HG&E offices were closed to the public on March 17, 2020, and remained closed through the end of the year to ensure public safety. Staff worked quickly to improve online offerings so that customer service would not be impacted and to allow all transactions to be completed without the need to physically enter the main office. Staff also pivoted to mitigate the impact of the pandemic on our customers by overhauling energy efficiency and economic development incentives to help reduce energy costs for customers, and worked diligently to establish payment plans for those customers experiencing economic hardship related to the pandemic.

HG&E's Telecom Division quickly facilitated work-from-home capability for all HG&E employees to ensure that work could be conducted remotely, without interruption. The Telecom Division also supported additional bandwidth requests from customers that saw their requirements increase significantly due to the pandemic.

HG&E's Gas Division was not able to perform all planned meter exchanges and atmospheric corrosion inspections, due to restrictions imposed on entering customer premises due to the pandemic. As a result, the Division focused on outside maintenance, cast iron replacements, and leak repairs. Significant progress was made during the year in reducing the number of system leaks. The Gas Division also initiated a multiyear plan to improve the safety and resiliency of all pressure regulator stations in the system.

The Electric Division continued to implement an aggressive maintenance and capital improvement plan that has enabled the Department to consistently outperform peers with respect to reliability metrics. The Division also maintained its RP3 (Reliable Public Power Provider) and SEP (Smart Energy Provider) designations from the American Public Power Association. In August, Tropical Storm Isaias battered the East Coast, causing significant damage along its path. HG&E's distribution system experienced significant damage that left over 1,000 customers without power at its peak. HG&E crews were able to restore power to all customers within just over 24 hours, even with following social distancing and other pandemic-related protocols.

In spite of all of the challenges faced in 2020, we are pleased to report that HG&E produced strong financial results, all while maintaining continuous customer service and some of the most competitive rates in the region. We are very proud of the great work done by our employees to maintain their focus on our mission in serving our customers.

We thank the city officials for their support and HG&E employees for their continued faithful service. We shall continue to work diligently to provide competitive rates, innovative and sustainable energy solutions, reliable service, and excellent customer care.

Respectfully,

Francis J. Hoey III, Commission Chairman
Robert H. Griffin, Commission Treasurer
James A. Sutter, Commission Secretary
James M. Lavelle, Manager

GAS DIVISION

MORATORIUM

In 2019, the Department was forced to institute a natural gas moratorium on all requests for new and increased gas load. Regionally the demand for natural gas is outpacing supply, and the gas distribution system operates at capacity during peak demand in the winter. The Department continues to evaluate options that will allow for the moratorium to be lifted; however, it is uncertain when, and if, the moratorium will be lifted.

PIPELINE SAFETY MANAGEMENT SYSTEM (PSMS)

In 2019, the Department committed resources toward enhancing a Pipeline Safety Management System (PSMS). Safety Management Systems (SMS) have proven to help other industries and the adoption of API RP1173, Pipeline Safety Management Systems (PSMS), will allow the Department to systematically manage pipeline safety and continuously measure progress to improve overall pipeline safety performance, awareness, and vigilance. As part of this process, the Department worked with regional organizations and SMS experts on generating a customized road map for implementation within our organization. The customized road map was completed in 2020, and the Department is now on its journey toward establishing PSMS, demonstrating our continued commitment to safety and enhancing its goal of zero incidents.

GAS SUPPLY AND FLOW CONTROL

The Department delivered 2,104,213 dekatherms (DTH) of gas throughout the year with a peak daily send-out of 15,591 DTH on January 17, 2020. Of that, 12,256 DTH was delivered over the pipeline and 3,335 DTH was supplemented by liquefied natural gas (LNG). HG&E continues to operate its LNG storage and vaporization system, providing the supplemental gas needed during the coldest winter days. LNG also serves as an emergency supply for the city.

In 2020, the Gas Division began a five-year plan to install tertiary protection at all gas regulating stations in the distribution system. This practice will further enhance the safety of the distribution system by reducing the risk of over-pressurization of the downstream gas system in the event of equipment failure. Of the Department's 17 regulating stations, seven locations are equipped with tertiary protection.

GAS MAINS AND SERVICES

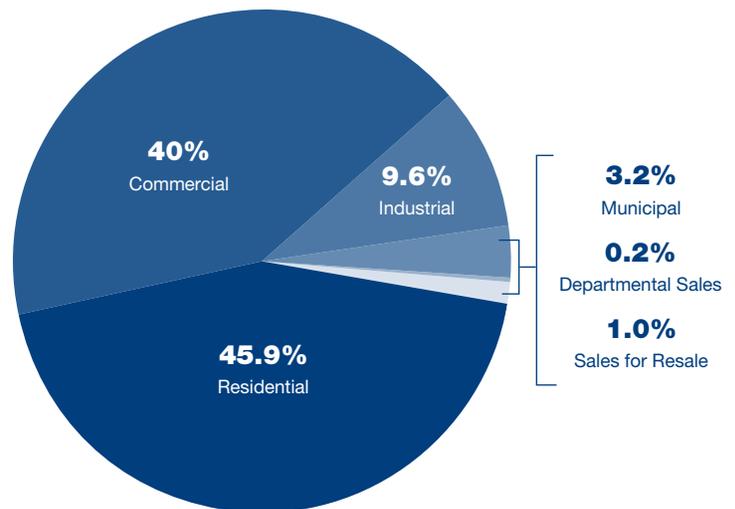
The Department continued its cast-iron main replacement efforts and abandoned over one-and-a-half miles of cast-iron pipes with new

plastic infrastructure on Adams Street, Clemente Street, Crescent Street, Middle Water Street, Sargeant Street, and South East Street. The new plastic mains are generally four, six, and eight inches in diameter.

Per HG&E's Distribution Integrity Management Plan (DIMP), implemented in August 2011, the Department is continuing efforts on an accelerated bare steel service replacement program. There are currently less than 900 bare steel gas services remaining in Holyoke, down from approximately 3,200 at the beginning of the program. At the conclusion of this program, all gas services will be constructed of either polyethylene plastic or cathodically protected coated steel. Bare steel services were installed from the early 1900s through the late 1960s.

In all, the Department installed over 7,200 feet of new main infrastructure and 140 replacement services and abandoned 18 inactive services. HG&E's natural gas distribution system now consists of 185 miles of mains and just under 8,500 service lines.

2020 GAS REVENUES





LEAK SURVEYS

The Department helps ensure the safety and reliability of the gas distribution system through an extensive series of compulsory and voluntary, comprehensive leak surveys. Each year, the Department conducts public building, mobile and walking flame ionization patrols, special monthly winter patrols, and vegetation observation surveys. The full-length walking survey over each individual gas service covered just under 4,500 lines in 2020, or about one-half of the service pipes in the system. The combined surveys accounted for the detection of 90 leaks, mostly minor. All leaks were investigated, prioritized, and repaired in accordance with applicable industry standards and regulations. At year end, the Department had zero leaks on file of environmentally significant impact.

SERVICE

The Department completed 2,441 appliance service calls for residential customers in Holyoke and Southamton during the year. These calls include boiler/furnace, water heater, and dryer repairs, as well as thermostat installations, when pandemic restrictions allowed. In addition, a total of 3,797 corrosion inspections were completed to evaluate the integrity of exposed service piping.



HYDRO DIVISION

HYDROELECTRIC FACILITIES

A number of projects were completed in 2020, which improved or contributed to the future generation capacity and reliability of the Department's hydroelectric facilities.

THESE PROJECTS INCLUDED:

Hadley Falls #2 New Runner: The Department performed an analysis for an upcoming rehabilitation maintenance overhaul on the unit that was commissioned in 1983. During an outage conducted in August 2020, it was confirmed that the existing turbine runner is suitable for reuse and therefore will not need replacement during the upcoming maintenance rehabilitation outage, planned over the next few years.

Canal System Log Boom: The Department worked with a consultant to redesign the existing canal log boom with design efforts for a new, stronger boom that better excludes debris. A contract was signed for the fabrication of the new log boom sections with construction efforts slated for summer 2021.

Chemical Station Unit #2: The unit, disassembled in 2019, has been fully restored with rehabilitated components. Unit 2 had the stator rewound, rotor refurbished, and new wicket gates installed along with other ancillary component replacement. The two units at the station will be tested and returned to service in the first quarter of 2021. The outage at the station included an electrical and controls system upgrade. The two units are now equipped with new generator and feeder protection relays, excitation system, HMI, SCADA controls, and auxiliary battery systems.

OTHER PROJECTS:

Annual Spring and Fall Canal Inspections: Assessments of canals and canal walls, including overflows, intakes, penstocks, powerhouses, and tailraces, were completed during shutdowns.

Log Pond Cove: HG&E continued efforts to control water chestnuts in Log Pond Cove.

Boatlock Feed Gates 3 and 4: Replaced feed gate operators.

Riverside A/B Building: Replaced roof on lower office.

Fishway System: Replaced eel attraction water supply on South Hadley side of dam and made safety improvements to the collection system area.

MAJOR COMPLIANCE ISSUES ADDRESSED, 2020:

Relicensing of City Units #1, #2, and #3: FERC issued new, 30-year licenses for the City #1, #2, and #3 units on April 2, 2020.

Applications for License Surrender: In 2019, the Department completed efforts associated with decommissioning the Albion A, Albion D, and Nonotuck units. The final surrender order for the Albion A, Albion D, and Nonotuck units is expected to be determined by FERC in early 2021.

In 2020, FERC approved the Department's application to decommission the Beebe Holbrook unit. Concrete plugs to cap the penstock of this unit were installed during the fall canal outage, in addition to filling of the existing penstock with flowable fill. The final surrender order for the unit is expected to be determined by FERC in 2021.

Robert E. Barrett Fishway Operations: In 2020, HG&E continued its partnership with Holyoke Community College (HCC) for the collection of data on the number of species passed at the Robert E. Barrett Fishway. There was a reduced HCC staff level due to pandemic-related restrictions. Activities included biological sampling, trapping and loading of shad, trapping of shortnose sturgeon and Atlantic salmon, and observations of lift operations and eel passage.



Texon Mill Park, South Hadley, MA



Abigail Alers, Storekeeper

The fishlift at the Robert E. Barrett Fishway assists migrating fish to reach spawning areas above the Holyoke Dam. HG&E's fish passage facility was the first and most successful fishlift on the Atlantic coast. It comprises two fish elevators, which carry migrating fish up and beyond the dam.

The passage of anadromous and resident fish species that were observed and monitored in the lift system this year included:

AMERICAN SHAD	362,244
ATLANTIC SALMON	0
BLUEBACK HERRING	763
GIZZARD SHAD	64
SEA LAMPREY	33,739
SHORTNOSE STURGEON	18
STRIPED BASS	423

2020 FISH PASSAGE

In addition to the fishlift, there are a total of three eel ramp passage facilities on both the Holyoke and South Hadley shores below the dam. The number of American eels counted at the eel ramps in 2020 was 17,689.

In 2020, the public viewing facility at the Barrett Fishway was not open to the public due to pandemic-related restrictions and guidance.

2020 HG&E SHAD DERBY

The annual HG&E Shad Derby offers both adult and youth fishing enthusiasts the opportunity to enjoy the recreational benefits of the Connecticut River. Due to pandemic-related restrictions and guidance, the Shad Derby was cancelled in 2020.



ELECTRIC DIVISION

17L Holyoke Substation

ELECTRIC OPERATIONS

In 2020, a number of projects were completed that will increase the reliability of the Department's electric substation and transmission infrastructure.

THESE PROJECTS INCLUDED:

Distribution Arc Flash Tripping: In order to ensure the safety of field personnel during maintenance and switching operations, arc flash tripping (i.e. "Hot Line Tag") was implemented on all protective relays at Ingleside and North Canal Substations. This reduces the relay tripping time and hence the resulting exposure to hazardous arcs to personnel performing live line work. Hot Line Tag is now available on all Department distribution circuits. Planned improvements in 2021 include addition of remote (SCADA) operation, and additional Hot Line Tag points on line reclosers, which reduce the amount of load exposed to a trip.

Power Transformer Corrosive Sulfur Mitigation: Four power transformers at Ingleside, Riverside, Holyoke, and Cobble Mountain Substations, which had previously tested positive for corrosive sulfur, were mitigated. This involved processing the oil through a vacuum dehydration system and adding an oil passivator to retard future insulation degradation, and in the case of the Riverside transformer and Holyoke load tap changer, replacing the oil entirely. This will extend the life of these critical assets.

Electric Station Offices Feasibility Study: A study to assess the feasibility of relocating the Electric Operations offices and work spaces to the Electric Station turbine room was completed. The existing offices

are currently located in the Flume Building of the Electric Station, which was built in 1870 and has structural issues. By relocating the offices, this building could be demolished, freeing up the space for more productive use. The study indicated that the office relocation is feasible, albeit at a relatively high cost due to the nature of the required construction and existing layout of the turbine room. A 2021 project will assess additional options on the property to ensure the most cost-effective solution is chosen.

Preventative Maintenance: As part of the Department's preventative maintenance (PM) plan, major maintenance and testing were performed on various substation and plant equipment throughout the year. In summary, 185 maintenance orders were completed, including major maintenance and/or testing on:

- Four 115kV circuit breakers at Ingleside and North Canal Substation,
- Sixteen medium voltage vacuum circuit breakers at Holyoke Substation,
- Three power transformers at Hadley Falls and Highland Substation,
- Two 48 VDC station battery systems at Highland and Walnut Substations,
- Five NERC regulated communication system components on the 1657 Line at Ingleside Substation,
- Five low voltage secondary network protectors, and
- Six 115kV voltage transformers at North Canal Substation.

Support for electric distribution and hydro during the year included the preparation of 293 switching orders with clearances issued for planned

and emergency medium- and high-voltage work, assistance with the design, testing, and commissioning of several medium-voltage automatic transfer switches and motor-operated air break switches, as well as assistance with the interconnection processes and protection of various diesel, solar, and battery energy storage projects. Maintenance/repair operations were also performed as required on distribution and hydro equipment, including inspections of line reclosers, sectionalizers, and capacitor switching controls. Support was again provided for the city-owned flood control pumping stations in the form of emergency maintenance and pumping operations, as required.

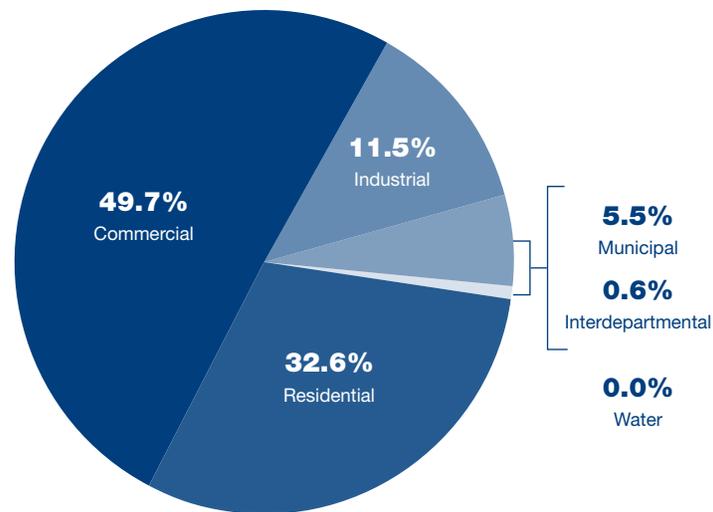
ELECTRIC DISTRIBUTION

In 2020, HG&E continued to make important investments in the electric distribution system. Some of the major investments included the replacement of approximately 12,000' of 500 MCM Cu underground primary cable on the 52W1 and 52W7 circuits between Holyoke Substation and the intersection of South Street and Northampton Street. This included the installation of two new padmounted air switchgear for sectionalizing purposes. A new air break switch with provisions for remote operation was installed along with the replacement of approximately 250' of 350 MCM Cu underground cable to re-establish a tie point between the H1 and H3 circuits at the intersection of Lincoln Street and Northampton Street.

The Department continued work that began in 2016 involving the removal or replacement of existing vacuum switches in manholes. The project will involve eventually replacing all 94 existing 15 kV vacuum switches located in various manholes throughout the city. These switches are used to isolate circuits for the purposes of load shifting, outage restoration, and/or maintenance work. Twelve more vacuum switches were removed or replaced with air break switches and/or padmounted air switchgear throughout the year, bringing the total to 51 since 2016. The Department will be using automated padmount, oil-filled switches that will eventually replace some of the remaining vacuum switches in the field. These new switches will also provide automation to isolate faulted sections of circuit more quickly and provide control of these devices from remote locations.

Backyard pole lines in the areas serviced mainly from Highland Substation were constructed in the 1950s and 1960s. The aging infrastructure has created reliability and access issues, which is a liability to the overall system. Based on reliability data, tree trimming expenses, and known hazard areas, locations with backyard facilities were reviewed in 2018. The Department reviewed options to prioritize removal of primaries from backyards to best align with other capital projects.

2020 ELECTRIC DIVISION REVENUES



There were 32 services – 19 single family and 13 multifamily dwellings – that were relocated from the backyard to the street in locations including Nonotuck Street, Beacon Avenue, Jefferson Street, Elliott Street, Taylor Street, Morgan Street, Sycamore Street, Allyn Street, and Dartmouth Street. This work will provide customers with a more reliable electric service, as well as protection from potential safety hazards and electrical code violations. Additionally, these measures will reduce some of the tree trimming and outage costs for the Department.

This year began the start of converting the last of the eight remaining 4.8 kV circuits originating from Walnut and Highland Substations. This multiyear project will upgrade infrastructure, include automated switchgear, provide fault isolation points to all laterals, and increase the operating voltage to 13.8 kV, reducing system losses. The W2 and W3 circuits originating from Walnut Substation were the first two circuits completed this year. This area included Suffolk Street between Elm Street and Pine Street, as well as Dwight Street between Walnut Street and Pleasant Street. There were 25 poles replaced, approximately 4,000' of underground primary cable, 2,350' of overhead primary wire, 675' of overhead secondary wire, and 200' of underground secondary installed, and numerous termination cabinets and padmounted switchgear installed that will help improve reliability in the area.

In 2020, 65 transformers were replaced as part of our ongoing age-based asset replacement program. This program is a proactive approach to replacing assets in the field found to

be beyond the expected asset life before a problem arises that causes an outage. Transformers of at least 40 years in age have been initially targeted to be replaced as part of this project. A net 497.5 kVA was removed from the system as a result of the program.

Over the years, crews have identified various network vault covers and manholes that have been found to be in poor condition, both structurally and operationally. These manholes, some as old as 107 years, are difficult to work in and/or have facilities that are unable to be supported by existing manhole walls. One such manhole, located on High Street at the intersection of High Street and Appleton Street, was replaced and enlarged to better accommodate crews, as well as existing and future cabling and accessories within the manhole. Two vault covers that are used to cover our network transformers were replaced on Heritage Street and the Korean Veterans Plaza near the City Hall Annex. These vault covers will allow for easier access into network vaults and ease of replacing transformers.

There was one multiyear MassDOT project that began in 2019 and was completed this year to improve local infrastructure. This project, located on Front Street, Heritage Street, and Dwight Street between High Street and Front Street, involved repaving the streets and sidewalks, as well as installing new decorative lighting along the roadway. Street lighting infrastructure along the east side of Front Street and on Dwight Street was completed, including the installation of 19 street light poles and fixtures.

Improvements were made to the outage notification process that increased efficiencies in the way customers are notified of a planned electrical outage. The Everbridge Emergency Management System, in conjunction with our GIS and CIS, was utilized to notify customers via phone of upcoming planned electrical outages. This type of automated notification reduced the need to manually create and deliver outage tags and tying up significant resources. On average, approximately 70% of all outage notifications were successfully confirmed and/or delivered, given the phone numbers stored within our current billing system.

A number of preventative maintenance activities continued throughout the year. Testing was performed on 30 new and used transformers, 27 pole-top units, and three padmount units. HG&E also performed 280 manhole inspections and 660 wood pole inspections throughout various areas of the city. Stray voltage testing of approximately 20% of the city was completed in the South Holyoke, Flats, and Churchill sections of the city. There were 175 padmount transformers and 16 termination cabinets on various circuits inspected by the Department line crew. Annual visual inspections on all three transmission lines were performed using drones to ensure reliable operation of the transmission

system. Infrared inspections were performed on all distribution circuits throughout the city. There were seven transformers upgraded or replaced due to overload conditions, leaking, and/or poor condition. Enhanced wildlife protections were installed on various pieces of equipment throughout the city, which continued to reduce outage time in 2020.

HG&E initiated new electric services for the Avalon Lounge and Game Café on Dwight Street, Trulieve on North Bridge Street, and the former Holyoke Die Cut Card Company building on Dwight Street that will be used for future businesses, resulting in a net additional connected load of 5500 kVA. Service upgrades were performed at 102-120 High Street to accommodate future new businesses, Aegis Energy on Jackson Street, and at the former Sears Auto Center on Lower Westfield Road, resulting in an additional connected load of 650 kVA. There were two new condominium complexes constructed: one on an available lot at the intersection of South Street and Russell Terrace and the other, Library Commons, from the renovation of multiple abandoned apartment buildings, resulting in a connected load of 600 kVA. There were also seven new homes constructed on available lots on Dwight Street, Longfellow Road, Old Easthampton Road, County Road, Temple Street, and Hampden Street that required new electric services resulting in an additional connection load of 25 kVA.

In summary, for 2020, HG&E set 140 poles and removed 94. A net 1,832 kVA connected load was added to the distribution system. Some 31,384 circuit feet of underground cable was installed, while 15,048 was removed. Similarly, 22,519 circuit feet of overhead wire was installed, while 28,169 was removed. Approximately 7,215 feet of PVC conduit was installed. There was a net increase of one contract light and 35 streetlights.

RELIABILITY

Reliability statistics allow the Department to track service reliability and compare data from year to year with other municipal and private utilities. There are four statistics used to define the length and frequency of interruptions to customers, system availability, and the number of customers impacted by both unscheduled outages alone, as well as unscheduled and scheduled outages combined (see chart, below).

The Department has maintained the American Public Power Association's (APPA's) Reliable Public Power Provider (RP3) designation since 2011. An RP3 designation is a sign of a utility's dedication to operating an efficient, safe, and reliable distribution system. Being recognized by the RP3 program demonstrates to community leaders, governing board members, suppliers, and service providers a utility's commitment to its

employees, customers, and community. The Department has been a Diamond member, the highest awarded designation, since 2015.

In addition to the RP3 designation, the Department has also maintained the Certificate of Excellence in Reliability award from APPA since its inception in 2015. This award recognizes the Department for having achieved excellence in reliability by significantly outperforming the electric industry national average and achieving a ranking in the top quartile of system outage duration from national reliability data collected by the Energy Information Administration (EIA).

METERING

In 2020, the Department continued its advanced metering infrastructure (AMI) system rollout to support commercial and industrial billing as well as future distribution automation. The Department installed 1,223 AMI meters, which included replacing 33 drive-by and non-automated reading meters. These meters were not providing any outage notification and/or interval meter data. In addition, the Department replaced 1,190 single phase automatic meter reading (AMR) with AMI meters for the safety of hard-to-access locations and to facilitate the mesh network communication paths back to the field routers.

In conjunction with the Department's Fixed Network AMR system, these metering technologies provide outage notification from electric meters, tampering diagnostics for electric and gas meters, interval meter data, and instantaneous meter reads. This technology allows the Department to perform certain tasks remotely, such as successions, when opening or closing an account. The metering group has utilized custom reports to track down inactive meters showing consumption, validate meter removals, and detect malfunctioning meters to reduce lost revenue and maintain system accuracy. The AMI system provides the Department with the capability to remotely disconnect and reconnect electric meters. In addition, the enhanced meter data provides kVAR/kVA intervals and minimum/maximum/average voltage data every five minutes.

In 2020, the AMR system had an average daily read rate of 99.71%, with an initial design of 99%. At the end of 2020, the overall remote read capability for the Department was 99.98%, which includes all electric meters without radio frequency capability.

In order to obtain, manage, and store all meter data now available from meters in the field, the Department procured Meter Data Management System (MDMS) services to collect meter data from the FN, AMI, and ION metering systems. The MDMS will provide the validation, editing, and estimation (VEE), which are not performed in the Department's homegrown MDM application.

The homegrown MDM application only stores five-minute kW interval data while the MDMS will store all kWh, kVARh, and kVA readings and intervals, as well as voltage data in five-minute increments. This system will increase the accuracy of meter data used to calculate the transformer and feeder loading and eventually will allow the Department to track and reduce system losses.

In 2019, the Department finished upgrading the Holyoke 17L substation, which included a new switchgear lineup with ION multifunction meters for each feeder. Previous panel meters did not provide an easy way to capture interval data, so ION meters were included to provide the necessary meter data to perform feeder analyses as well as communicate with the Department's SCADA system. However, the ION meters were not easily

UNSCHEDULED OUTAGES ONLY		
STATISTIC	2020	2019
ASAI	99.9865%	99.9945%
CAIDI	84.743 min	31.870 min
SAIDI	99.634 min	31.876 min
SAIFI	1.176 outages	1.000 outages

COMBINED OUTAGES		
STATISTIC	2020	2019
ASAI	99.9781%	99.9908%
CAIDI	90.224 min	38.967 min
SAIDI	144.808 min	50.863 min
SAIFI	1.605 outages	1.305 outages

Average System Availability Index (ASAI)

Represents how much of the time a customer actually has service available.

Customer Average Interruption Duration Index (CAIDI)

Represents the average time expected to restore service after a sustained interruption.

System Average Interruption Duration Index (SAIDI)

Defines the average interruption duration per customer served.

System Average Interruption Frequency Index (SAIFI)

Defines the average number of times that a customer's service is interrupted during a given year.

resettable during monthly readings, which increased the time needed to perform monthly inspections. To correct this issue, the Department created a method for the SCADA system to perform the reset remotely on all 21 ION meters, thus eliminating the need for Department personnel to perform this function.

A total of 21 generator, transformer, and station service high-end meters were tested at North Canal and Ingleside Substation, as well as Hadley Falls, Riverside, Boatlock, Chemical, Beebe, and Valley hydro stations. These meters are tested by the Meter Department on a biannual basis through the use of the Department's own portable test unit.

The Department updated 10 customer locations to increase revenue and metering accuracy. At six locations, the Department converted from instrument rated metering to self-contained metering. At the other four locations, current equipment was replaced with high accuracy current transformers due to either safety concerns or the current transformers being too high for the application.

Throughout the year, the metering group continued to support the credit department, performing delinquent customer ons and offs, tagging notifications, meter reads, and collections. In total, only 41 credit-related duties were performed in 2020, due to pandemic-related protocols.

In summary, there were a net total of 144 electric meters installed, 1,348 electric meters replaced, and 1,071 electric meters retired, having an average age of 13.83 years. There were a total of 1,027 electric meters tested and calibrated, one power quality check, 242 turn-ons and 256 turnoffs, 67 electric successions performed, and eight vacant consumption reports investigated for metering problems and/or theft of service. There were 30 current transformers installed and 22 current transformers removed; 12 of these current transformers were replacements of standard accuracy transformers with newer high-accuracy current transformers. There were three potential transformers installed and two potential transformers removed. In addition, three surge protectors were replaced due to warranty expiration. On the gas side, 603 meters were removed and tested, 599 meters were installed, 501 meters were sealed, and 258 meters were retired.

WHOLESALE POWER

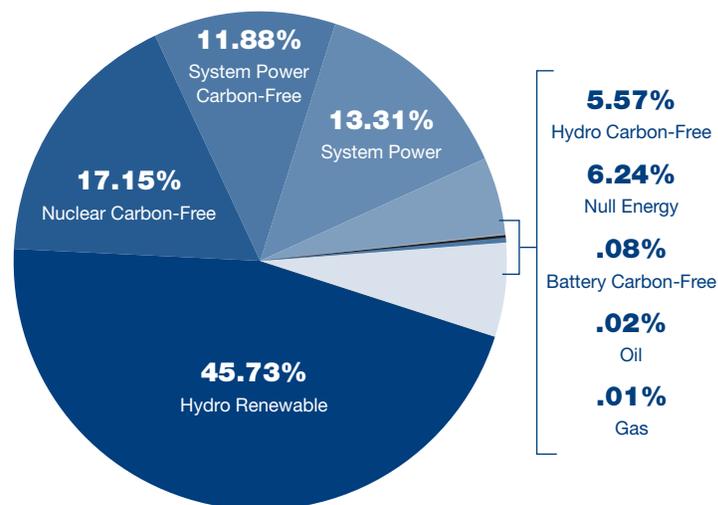
HG&E manages a diverse power supply portfolio. HG&E purchases power to meet the ever-changing electric loads and brings it into Holyoke from all over New England. HG&E monitors possible monthly and annual peak hours and actively institutes load reduction measures to lower HG&E's load and thus costs during these times. As part of the Energy Purchasing and Risk Management Plan, the Department monitors the available energy supply and sources on a daily basis to stabilize and ensure price certainty for the future cost of power. The Department purchases power on both a short-term and long-term basis to take advantage of the fluctuating market, manage the risk of rising prices, and increase the stability of future energy costs, thereby stabilizing rates for all customers while maintaining a clean energy supply.

HG&E is committed to protecting the environment and setting minimum percentages of non-carbon energy sold to its retail end-user customers. HG&E's goal is to maintain and increase clean energy within the fuel mix through sustainable, long-term business practices. For 2020 through 2035, HG&E will meet and exceed Greenhouse Gas (GHG) emission targets set by the state and will continue to generate and procure energy with the best interest of the ratepayers in mind.

In 2020, 41.66% of HG&E's power supply production came from generation that qualifies as renewable, according to definitions set forth by the Renewable Portfolio Standards within the New England states. Additionally, 25.17% of HG&E's production came from generators that produce solar, hydro and wind power, but which HG&E cannot claim as green energy because the renewable energy certificates (REC) are not owned by or retired with HG&E. The Null Energy Label is used to signify non-REC ownership. Only 19.43% of Null Energy total production served to meet a small portion (6.24%) of HG&E's electrical load in 2020, while the excess was sold to the market.

The pie chart shows Holyoke's supply by fuel type as a percent of electrical load from retail sales. The pie chart below can be collapsed into three categories through redistributing the Null Energy to applicable categories based on the previous-year NEPOOL Residual Mix emission values and is as shown in the pie chart on the next page.

HOLYOKE GAS & ELECTRIC DEPARTMENT 2020 ENERGY MIX AS PERCENTAGE OF RETAIL SALES



In 2020, 45.92% of HG&E's electric load was renewable and carbon-free, while an additional 36.06% was carbon-free and not renewable (nuclear, battery, carbon-free system power and hydro). Hence, 81.98% of HG&E's electrical load is considered carbon-free.

Numbers are finalized when the markets close in June.

POWER SUPPLY

2020 POWER SUPPLY RESOURCES

PROJECT NAME	FUEL TYPE	PROJECT START DATE	CONTRACT CAPACITY (kW-AC)		CONTRACT END DATE
			WINTER	SUMMER	
NYPA FIRM	HYDRO	1985	1,989	1,989	9/1/25
MILLSTONE 3 - MIX 1	NUCLEAR	1986	1,334	1,334	11/25/45 *
MILLSTONE 3 - PROJ 3	NUCLEAR	1986	2,325	2,325	11/25/45 *
SEABROOK - MIX 1	NUCLEAR	1990	147	147	3/15/50 *
SEABROOK - PROJ 4	NUCLEAR	1990	3,306	3,306	3/15/50 *
SEABROOK - PROJ 5	NUCLEAR	1990	408	408	3/15/50 *
HYDRO QUEBEC 1	N/A	1986	1,717	1,717	LOU **
HYDRO QUEBEC 2	N/A	1989	3,585	3,585	LOU **
NYPA PEAK	HYDRO	1985	426	426	9/1/25
STONYBROOK GT 2A	#2 OIL	1982	2,476	1,910	10/31/2040 ***
STONYBROOK GT 2B	#2 OIL	1982	2,413	1,850	10/31/2040 ***
HADLEY FALLS 1&2	HYDRO	1949	33,400	33,400	OWNED *
RIVERSIDE 8	HYDRO	1931	4,575	4,575	OWNED *
RIVERSIDE 4-7	HYDRO	1921	3,270	3,270	OWNED *
BOATLOCK	HYDRO	1924	3,313	3,313	OWNED *
HOLYOKE HYDRO/CABOT 1-2	HYDRO	1923	1,856	1,856	OWNED *
HOLYOKE HYDRO/CABOT 3	HYDRO	1940	450	450	OWNED * ****
HOLYOKE HYDRO/CABOT 4	HYDRO	1955	750	750	OWNED * ****
CHEMICAL	HYDRO	1935	1,600	1,600	OWNED *
BEEBE HOLBROOK	HYDRO	1948	205	205	OWNED * ****
SKINNER	HYDRO	1924	300	300	OWNED *
VALLEY HYDRO	HYDRO	2004	790	790	OWNED *
ALBION A	HYDRO	2004	281	281	OWNED * ****
ALBION D	HYDRO	2004	395	395	OWNED * ****
NONOTUCK	HYDRO	2004	472	472	OWNED * ****
OPEN SQUARE	HYDRO	2004	525	525	2/29/16 ****
HANCOCK WIND	WIND	2016	6,032	6,032	12/14/41
CONSTELLATION - MUELLER RD	SOLAR	2012	2,693	2,693	12/20/31 ****
CONSTELLATION - MEADOW ST	SOLAR	2012	793	793	12/20/31 ****
CITIZENS - COUNTY RD	SOLAR	2013	615	615	2/5/33 ****
HPP MA, LLC - RICAR	SOLAR	2015	792	792	10/1/40 ****
C2 ENERGY CAPITAL - DINN	SOLAR	2016	475	475	12/27/36 ****
C2 ENERGY CAPITAL - KELLY WAY I	SOLAR	2016	475	475	12/27/36 ****
JACKSON CANAL, LLC - AEGIS	SOLAR	2017	833	833	1/4/37 ****
GROWING HOLYOKE, LLC - GARY ROME	SOLAR	2017	666	666	1/6/37 ****
MT. TOM SOLAR, LLC - ENGIE	SOLAR	2017	4,988	4,988	2/7/37 ****
SCANNELL SOLAR, LLC - CONKLIN	SOLAR	2017	633	633	2/24/37 ****
GEEPV - RIVERSIDE A/B	SOLAR	2017	133	133	5/8/37 ****
GEEPV - WALNUT	SOLAR	2017	100	100	11/22/37 ****
SUNWEALTH - HADLEY MILLS	SOLAR	2017	336	336	12/31/37 ****
C2 ENERGY CAPITAL - KELLY WAY II	SOLAR	2018	475	475	6/4/38 ****
GEEPV - BOYS & GIRLS CLUB	SOLAR	2018	150	150	4/20/38 ****
GEEPV - JACKSON	SOLAR	2018	120	120	3/15/38 ****
GEEPV - YMCA	SOLAR	2018	167	167	12/17/38 ****
MT. TOM SOLAR, LLC - ENGIE	STORAGE	2019	3,000	3,000	5/31/38 ****

All capacity contracts follow the ISO New England calendar system.

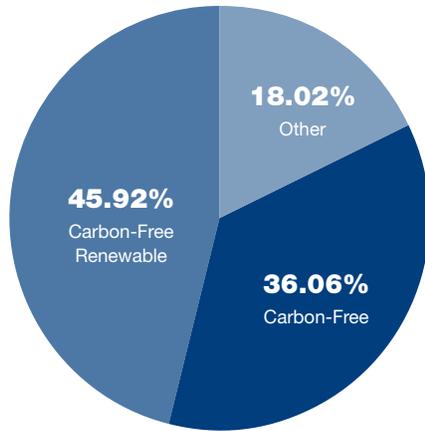
* Investments continue for the life of the unit (LOU)

** After 8/31/01, there is no firm energy contract, only capacity and entitlement, which continues for the life of the unit

*** In process of retiring assets

**** Load reducer

2020 ENERGY EMISSIONS CHART



In 2020, 45.92% is renewable and carbon-free, while an additional 36.06% is carbon-free (nuclear, battery, carbon-free system power and hydro). The Other category comprises 0.16% from limited carbon renewable resources, 17.89% of carbon emitting resources and 81.95% from system mix. Therefore, 81.98% of HG&E's electrical load is considered carbon-free. This percentage is slightly lower than 2019 carbon-free primarily because of lower electrical loads due to the effects of COVID-19 and less hydro projection due to lower water flows. Our load was down approximately 1.2%, and hydro generation was down approximately 23.6% as compared to 2019. These charts use draft NEPOOL Residual Mix values, as final emission data will only be available after this report goes to print.

The System Power represents various term length bilateral contracts comprising system mix within ISO-NE that were procured during the summer time frame. System Power Carbon-Free represents long-term, on-peak bilateral contracts with nuclear carbon-free certificates attached that will end in December 2035 and a long-term, around-the-clock bilateral contract from Hydro Quebec with carbon-free certificates attached that will end in October 2025.

During 2020, the Department proactively pursued and hosted low-cost carbon-free projects to secure and further enhance its energy portfolio. In 2020, HG&E contracted with our second utility-scale energy storage project totaling 4.99 MW/10 MWh with an expected commercial operation date in May 2021. This will be located across from our North Canal Substation.

HG&E currently hosts 28 solar projects (17 utility-scale, nine residential, and two commercial), with a corresponding output load of 17.886 MW-dc, allowing the Department to purchase power at a lower cost. Utility-scale projects resulted in 21,002 MWh of

load reduction, while residential and commercial customer solar resulted in 76,366 kWh of load reduction on the system in 2020. The harnessing of solar energy from these projects within Holyoke is offsetting the Department's demand and reducing future costs for all customers.

Beginning in February 2017, HG&E developed a Community Solar Program open to all residential customers who have chosen to participate (opt in) to the program. In 2020, 2,298 customers participated in this program. This program allows residential customers to receive the benefits of solar without the expense of installing a system at their location. The Mt. Tom Solar project, totaling 4.988 MW-ac (increased in output during 2019 from prior 4.50 MW-ac rating), and the Kelly Way 2 project, totaling 0.603 MW-ac, were designated as community solar projects. Load reduction from community-shared solar generated a total savings of \$96,106 to those participating in the program. Additionally in 2020, a total of \$20,085 was provided to the Holyoke Housing Authority from three solar systems (Aegis, Gary Rome, and Hadley Mills) that were set up under the Low or Moderate Income (LMI) Solar Program.

A total of 216,309 MWh of net generation was produced from the Department-owned hydro resources, which continued to help drive down the overall cost of power. During 2020, the hydro preference power credit to residential customers generated total savings of \$1,136,244 (\$1,083,365 from Department-owned hydro and \$52,879 from NYPA entitlements).

The hydroelectric system, including the Hadley Falls Dam and the Holyoke Canal hydro facilities, maintains Massachusetts Class I and II status, in addition to Maine Existing certifications. 10.91% of Hadley Falls 1 and 2 is MA Class I certified. All of the canal units with the exception of City 4J (which is 100% MA Class I) are MA Class II certified, and six canal units are certified with small percentages as MA Class I. Sale of these certificates resulted in \$2,093,340 of revenue to the Department in 2020.

HG&E proactively works throughout the year to improve reliability by maintaining and making upgrades to its 9.25 circuit miles of pool transmission facilities (PTF). Ensuring that all transmission lines and processes are up to date allows HG&E to meet its future needs and reduce transmission costs. Transmission Regional Network Service (RNS) rates increased 15.48% from \$111.94/kW-year to \$129.26/ kW-year in June 2020. The Department's RNS annual charge of \$6,988,895 was offset by 9.25 circuit miles of transmission infrastructure, with three transmission substations. With PTF revenues of \$4,116,567 and peak shaving solar and hydro offsets of \$890,052, in 2020 the Department's annual RNS charge was reduced to \$1,982,276.

Holyoke achieved Green Community status in 2010 and is committed to efficiency, conservation, and sustainability.

The Department's replacement of high-pressure sodium lights with more efficient light emitting diode (LED) lighting technology has, on average, reduced the city's streetlight consumption by 60%. The city has realized about \$400,000 in direct energy savings from these lights in 2020 compared to pre-LED street-lighting costs, although, when factoring in additional LED decorative and other lights added by the city to the capital investment list over the past several years, the total resulting savings was about \$121,000 in 2020.

HG&E has earned a Smart Energy Provider (SEP) designation from the American Public Power Association for demonstrating commitment to and proficiency in energy efficiency, distributed generation, and environmental initiatives that support a goal of providing low-cost, quality, safe, and reliable electric service. The SEP designation, which lasts for two years (December 1, 2019, to November 30, 2021) recognizes public power utilities for demonstrating leading practices in four key disciplines: smart energy program structure, energy efficiency and distributed energy programs, environmental and sustainability initiatives, and the customer experience. HG&E is one of only about 100 of approximately 2,000 public power utilities in the nation to receive such designation.

ENERGY EFFICIENCY AND ELECTRIFICATION

As mentioned in the Gas Division report, in January 2019, HG&E issued a natural gas moratorium, effectively discontinuing new or increased requests for natural gas services in HG&E's territory. In efforts to keep HG&E's carbon footprint low, and to encourage the installation of clean, efficient, electric heat pump sources, the Department launched a Cool Homes – High Efficiency Central AC and Heat Pump Rebate Program in November 2019.

Significant progress was made in 2020 regarding efforts revolving around energy efficiency and electrification. Being a major focus and part of HG&E's long-term goals and understanding climate change concerns, HG&E hired an energy efficiency coordinator and technical support engineer to lead these efforts and revamp HG&E's programs to align them with the industry and customer needs. HG&E also developed a Green Team, made up of employees from different divisions, to strategize our energy efficiency efforts and initiatives for both residential and commercial customers.

Beginning in January 2020, HG&E launched an incentive program for customers owning Electric Vehicles (EVs). Under this program, HG&E offers a free Level 2 fast charger in exchange for the customer agreeing to charge in the off-peak hours. For customers who already owned a Level 2 fast charger,

HG&E offers a onetime bill credit of \$450. Customers also receive a \$10/month credit by complying with the terms of the program. Through this program, customers are rewarded for shifting their energy usage outside of peak periods, when energy prices are the highest.

In addition to the program mentioned above, HG&E launched a new website dedicated to educating customers about EVs. This includes basic information about how EVs work, benefits, charging technology, incentives and rebates, local dealerships, and costs associated with purchasing and owning an EV. This website also includes a hotline that connects customers with EV professionals for any questions they may have about EVs in general or specific topics. As part of this outreach effort, HG&E is providing EV specialist training to local dealerships. HG&E also developed an EV strategy that outlines plans to convert its fleet to EVs and well as the deployment of commercial charging stations.

HG&E plans to continue to revise and improve its energy efficiency programs and initiatives in 2021 to further promote energy and emissions reduction. Several new and enhanced rebate programs are being explored for 2021 that will help reach these goals. These programs include increased rebate levels and incentives for fossil fuel heating system conversions to cleaner technology (e.g., air source heat pumps, ground source heat pumps, etc.).



TELECOMMUNICATIONS

HG&E's commercial network, now in its 21st year of operation, provides high-speed Internet and network connectivity via fiber-optic lines to business-class customers located in Holyoke, Chicopee, downtown Springfield, and throughout the Pioneer Valley. Both the Department itself and the city receive services from the network. The service platforms are industry-standard Carrier Ethernet and Internet Protocol (IP), supporting speeds up to 10 Gbps (gigabits per second).

TELECOMMUNICATIONS HELP DESK

HG&E administers a centralized help desk, accepting support calls from customers and internal staff. As a telecom utility, HG&E offers 24x7 network monitoring services and an on-call support structure to ensure maximum network uptime, as well as the best possible customer experience.

The help desk received 1,646 tickets — 1,030 for HG&E Department employees, 616 for commercial customers. Of the 1,646 trouble reports received, 1,589 tickets were resolved in 2020.

COMMERCIAL NETWORK UPGRADES

As customers' needs grow and application requirements evolve, HG&E's network investments continue as well. In 2020, HG&E completed key improvements in the carrier transport network by adding two 100G-capable core transport switches, and updating critical network management platforms. Additionally, HG&E completed a feasibility assessment plan, taking a further step in the evaluation of a Holyoke fiber-to-the-home project.

COMMERCIAL NETWORK EXPANSION

In 2020, the Department continued fiber-optic Wide Area Networking (WAN) services throughout the Pioneer Valley. Within this service territory, HG&E is focused on providing fiber-optic WAN services for large, complex institutions. For example, HG&E provides support for a regional institution with six locations, offering 10 Gbps of bandwidth and carrier Ethernet over fiber connecting all locations. Local support, network performance, and reliability are some of the factors that contribute to our customer loyalty.

CARRIER INTERCONNECTION

In 2020, HG&E further developed interconnection relationships with regional fiber Ethernet carriers, in order to service core customers with locations outside of the existing footprint. These interconnections allow HG&E the flexibility to provide additional services outside of the previous service boundaries. HG&E interconnected to a new fiber vendor in order to provide private LAN service to new customer locations throughout Northern Connecticut.

HG&E is a next-generation provider, having designed, engineered, and implemented full IPv6 Internet routing and peering with upstream Internet carriers. In 2020, the Telecom Division continued to scale into its two primary wholesale Internet feeds running at 10 Gbps each. Currently, HG&E has an Internet capacity of 20 Gbps, positioning itself for the future addition of a third Internet feed, to provide additional capacity demand, and service redundancy.

UTILITY OPERATIONS NETWORK UPGRADE

In addition to maintaining commercial network customers, the Division continued its support for the design, operation, and maintenance of HG&E's internal operations network and information intelligence needs. In 2019, the Department refreshed the entire utility operations network; this was phase one of a three phase plan. Phase one included the network core switching and routing at HG&E's Suffolk Street and Walnut Street facilities, with two 100 Gbps interconnects, and a data center mesh using a combination of 100 Gbps and 40 Gbps interconnects. The total project is expected to be completed by the end of 2021.

In 2020, HG&E continued to upgrade servers and applications in the existing Dell data center compute and storage architecture. The new Veeam Backup solution was put into place, using local storage repository Wasabi Object Cloud and Tape Library, for its short- and long-term backups. The Enterprise phone system was

upgraded to utilize our Dell data center compute and storage architecture, and allow for more diversity between our two data centers and prepare for other features. HG&E provisioned software, and in some cases provided new hardware, in order for employees to work from home through VPN access during the pandemic. HG&E was able to provide solutions to accommodate the unique ways in which our employees needed to collaborate with each other, as well as vendors and contacts outside of HG&E.

CYBERSECURITY

As cyber-threats continue to evolve, both internally and externally, HG&E remains committed to continually improving its cybersecurity posture. Pursuant to these goals, HG&E maintains an umbrella cyber-threat detection and mitigation system at its Internet gateways. This system provides blanket attack protection, in real time, to all HG&E Internet subscribers and users. HG&E also performs regular user awareness training and vulnerability testing to ensure compliance with cybersecurity policies and best practices.

WHOLESALE BROADBAND SERVICES

HG&E continued its development and execution of a last-mile strategy and wholesale service offerings, including the continued scaling of the residential wholesale broadband platform. Leveraging its current network infrastructure, HG&E is supporting several communities that sought to build their own networks, but needed an experienced network operator. HG&E is in a unique position to help communities achieve their broadband goals. As of 2020, HG&E has a network operator or ISP presence in nine rural and local communities. HG&E utilizes the Massachusetts Broadband Institute (MBI) regional fiber-optic network and Crown Castle Fiber to connect with these rural communities.



Holyoke students learn about conservation, natural gas, and electric safety.

GOODWILL

Community involvement is a central belief of the public power philosophy, and the Department is proud of the role it takes in making Holyoke a better place to call home. Due to the pandemic and associated restrictions, many events were cancelled or postponed in 2020. Key community events that are typically underwritten by HG&E like the Hispanic Family Festival, the St. Patrick's Day Parade, and the Holyoke Fireworks were cancelled.

In total, \$84,374 in sponsorships and \$8,996 in labor was provided for nonprofit causes.



**CORNELIUS J. MORIARTY JR.
SCHOLARSHIP FOR CADET ENGINEERS**

The Cadet Engineer program is dedicated to the memory of our late commission chairperson, Cornelius J. Moriarty, Jr. He often noted that the admission of new students into the program was one of the most rewarding actions that the commission made each year.

The program offers aid to Holyoke students who are pursuing Bachelor of Science degrees in engineering. John (Jack) Shea and Benjamin Richter were admitted as the 2020 cadets.

ECONOMIC DEVELOPMENT

In 2020, the Department provided \$83,362 in additional discounts to businesses that have relocated or expanded within the city under the Economic Development Discount Program. This program provides an additional 10% off participants' gas and electric bills for a three-year period.

The Department also offers a similar program for residential customers, under which first-time Holyoke home buyers can receive an additional 10% off of their first three years of gas and electric bills. In 2020, \$107,889 was provided under this program.

CONTRIBUTION	AMOUNT
Nonprofit Sponsorships	\$88,374
Nonprofit Labor	\$8,996
Cadet Engineer Scholarship	\$45,000
Payment in Lieu of Taxes	\$1,250,966
Municipal Payment Discounts	\$330,791
Discounted Street Lighting	\$400,053
Economic Development Discount	\$83,362
New Homeowner Discount	\$107,889
Energy Conservation Assistance	\$634,105
TOTAL COMMUNITY SUPPORT	\$2,949,536



Holyoke Gas and Electric
(Enterprise and Fiduciary Funds of the
City of Holyoke, Massachusetts)

Financial Statements and
Supplementary Information

December 31, 2020 and 2019

**Holyoke Gas and Electric
(Enterprise and Fiduciary Funds of the City of Holyoke, Massachusetts)**

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December 31, 2020 and 2019

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Independent Auditors' Report

To the Utility Commission
Holyoke Gas and Electric

We have audited the accompanying financial statements of Holyoke Gas and Electric and Holyoke Gas and Electric OPEB Trust, enterprise fund and fiduciary fund, respectively, of the City of Holyoke, Massachusetts, as of and for the years ended December 31, 2020 and 2019, and the related notes to the financial statements, as listed in the table of contents. Hereafter the funds will collectively be referred to as "Holyoke Gas and Electric."

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Holyoke Gas and Electric's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Holyoke Gas and Electric's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Holyoke Gas and Electric as of December 31, 2020 and 2019, and the respective changes in financial position and cash flows, where applicable, for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1, the financial statements present only the Holyoke Gas and Electric enterprise and fiduciary funds and do not purport to, and do not, present fairly the financial position of the City of Holyoke, Massachusetts, as of December 31, 2020 and 2019 and the respective changes in financial position or cash flows, where applicable, for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information as listed in the table of contents be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming opinions on the financial statements as a whole. The supplementary information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplemental information is fairly stated in all material respects in relation to the financial statements as a whole.

Baker Tilly US, LLP

Madison, Wisconsin
April 30, 2021

Management's Discussion and Analysis

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

The management of Holyoke Gas & Electric (HG&E) offers all persons interested in the financial position of the utility this narrative overview and analysis of the utility's financial performance during the years ending December 31, 2020, 2019 and 2018. You are invited to read this narrative in conjunction with the utility's financial statements.

Financial Highlights

- Operating revenues for the utility decreased by \$2,400,676, or 3%, in 2020. Electric operating revenues decreased by \$148,686, or .3% percent, which was mainly due to the impacts of the COVID-19 pandemic. Residential sales were up 6.80% over 2019 due to remote work and school arrangements while both commercial and industrial sales were down 1.95% and 7.31% respectively, due to pandemic related business interruptions. Gas operating revenues decreased by \$2,251,990, or 10%. The decrease in gas revenues was due to an overall warmer winter in 2020 as well as the impacts of the pandemic on business operations. Unit (Mcf) sales were down 10% from 2019.
- Fuel expenses decreased by \$3,340,188 or 11% in 2020. Electric fuel expenses decreased by \$1,337,428 or 7%. The decrease was a result of an election by the Department to utilize \$3,354,839 in rate stabilization reserves to offset increases in overall power supply costs during the year. The purpose of this stabilization reserve is to ensure that the Department's electric rates remain stable under various market conditions. Gas fuel expenses decreased by \$2,067,917 or 20% due to lower consumption and an overall lower cost of gas per unit during the year.
- Non-fuel expenses increased by \$1,438,888 or 5%, in 2020. The non-fuel increase from 2019 was primarily due to a \$576,328 or 12% increase in the Department's actuarially calculated pension expense. Maintenance costs were also higher in 2020 as a result of rising costs and additional maintenance and repair work undertaken during the year. The increase was offset by a \$446,896, or 40% decrease in the Department's actuarially calculated OPEB expense as a result of the Department's ongoing efforts to fund this obligation.
- Depreciation expense increased by \$267,850, or 3% in 2020 as a result of ongoing capital improvement and replacement projects undertaken by the Department.
- Other revenues decreased by \$3,277,858, or 47% in 2020 due to the performance of the Department's investment portfolios. Market performance in 2020 resulted in overall investment gains of \$3,692,671 compared with higher investment gains of \$6,535,167 in 2019. In addition, the Department received \$415,000 in grant money in 2019 that further contributed to overall higher other revenue last year.
- The Departments' total net position increased by \$10,008,753, or 10% in 2020 from the combined activities of HG&E, Holyoke Solar Cooperative, and the Massachusetts Clean Energy Cooperative. This increase was due to overall strong operating results combined with the strong performance of Department's investment accounts in 2020.

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Overview of the Financial Statements/Using This Report

The HG&E Commission is a three member board comprised of three local citizens. Nominated by the mayor and approved by the city council, each member has a six year term when approved. One member comes up for re-appointment every two years on a rotating schedule. HG&E provides Electric, Gas and Telecommunications services to the City of Holyoke.

The gas division has a distribution system that covers the City and the eastern portion of Southamptton, Massachusetts. There are approximately 12,000 meters and 185 miles of main pipes. The division also operates a Liquefied Natural Gas plant that is used to meet peak demand during the winter months. In addition to these services, gas and electric appliance repair is offered to the customers.

The electric division operates and maintains five substations, 162+ miles of pole lines, 46+ miles of underground distribution, 9.25 miles of overhead transmission, 2,539 transformers and 4,147 streetlights. There are approximately 18,000 electric customers.

HG&E also owns and operates over 50 MW of hydro-electric generation capacity within the City of Holyoke. The Holyoke Gas & Electric Hydroelectric system, including the Hadley Falls Dam and the Holyoke Canal hydro facilities, generated a total of 216,309 MWh of net generation which continued to help drive down the overall cost of power.

The Department is a member of the Massachusetts Municipal Wholesale Electric Company (MMWEC), a public corporation and a political subdivision of the Commonwealth of Massachusetts. Through MMWEC, HG&E has partial ownership (entitlements) to the following projects; Stony Brook Peaking Unit, Millstone Unit # 3 and Seabrook Nuclear Power Station.

In addition to offering some of the lowest electric rates in the Commonwealth, in 2020, 45.92 % of HG&E's electricity sold at retail was renewable and 81.98 % of HG&E's electricity sold at retail is considered carbon free.

Other

Please refer to the table of contents for the various sections included in this report. The utility is a self-supporting entity and follows enterprise fund reporting; accordingly, the financial statements are presented using the economic resources measurement focus and the accrual basis of accounting. Enterprise fund statements offer short- and long-term financial information about the activities and operations of the utility.

- The Statement of Net Position includes all of the utility's assets, deferred outflows of resources, liabilities, and deferred inflows of resources and provides information about the nature and amount of investments in resources and the obligations to creditors. This statement provides the basis for evaluating the capital structure and assessing the liquidity and financial flexibility of the utility.
- The Statements of Revenues, Expenses, and Changes in Net Position provide an indication of the utility's financial health.
- The Statements of Cash Flows report the cash provided and used by operating activities, as well as other cash sources such as investment income and cash payments for repayment of bonds and capital additions.

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Utility Financial Analysis

An analysis of the utility's financial position begins with a review of the Statements of Net Position, and the Statements of Revenues, Expenses and Changes in Net Position report information. These two statements report the utility's net position and changes therein. The utility's net position, the difference between assets, deferred outflows of resources, liabilities, and deferred inflows of resources, is key to measuring the financial health of the utility. Over time, increases or decreases in the net position value are an indicator of whether the financial position is improving or deteriorating. However, it should be noted that the financial position can also be affected by other non-financial factors, including economic conditions, customer growth, climate conditions and new regulations.

A summary of the utility's Statements of Net Position is presented below in Table 1.

Table 1
Condensed Statements of Net Position

	<u>2020</u>	<u>2019</u>	<u>Restated 2018</u>
Assets			
Current and other assets	\$ 107,152,462	\$ 103,767,689	\$ 104,048,300
Capital assets	<u>165,901,737</u>	<u>165,826,054</u>	<u>161,890,376</u>
Total assets	<u>273,054,199</u>	<u>269,593,743</u>	<u>265,938,676</u>
Deferred Outflows of Resources	<u>9,306,976</u>	<u>12,860,608</u>	<u>9,259,989</u>
Long-term debt outstanding	79,746,222	85,406,296	90,900,224
Other liabilities	<u>48,683,635</u>	<u>55,469,067</u>	<u>55,201,311</u>
Total liabilities	<u>128,429,857</u>	<u>140,875,363</u>	<u>146,101,535</u>
Deferred Inflows of Resources	<u>47,212,617</u>	<u>44,896,040</u>	<u>46,611,463</u>
Net investment in capital assets	93,140,978	87,911,628	81,123,246
Restricted for debt service	6,384,669	8,072,066	7,490,357
Unrestricted	<u>7,193,054</u>	<u>726,254</u>	<u>(6,127,937)</u>
Total net position	<u>\$ 106,718,701</u>	<u>\$ 96,709,948</u>	<u>\$ 82,485,666</u>

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Current and other assets increased by \$3,384,773 or 3.3% in 2020. This increase was the result of a \$1,581,882 increase in customer accounts receivable which was mostly due to the economic impacts of the pandemic on the Departments customers. The Departments' investment accounts also increased in value during the year due to favorable market performance. This increase in value was offset by the utilization of rate stabilization reserve funds in response to higher power supply costs in 2020.

Net Capital assets increased by \$75,683 or .05 % in 2020. The Department continued with its aggressive capital improvement and replacement plan during 2020, investing \$8,302,522 into capital. That increase, however, was offset by the recording of annual depreciation expense of \$7,968,632 and the retirement of \$220,465 in assets that were not yet fully depreciated as part of the Department's ongoing efforts to identify obsolete assets that are no longer in service.

Long-term debt outstanding decreased by \$5,660,074 or 7% in 2020 due to scheduled debt repayments during the year.

Other liabilities decreased by \$6,785,432 or 12% in 2020 primarily due to a \$7,664,808 decrease in the Department's actuarially determined net Pension and OPEB liabilities. Those decreases were offset by increases to the Department's accounts payable balance at year end due to the timing of receipt and payment of some larger invoices as well as an increase in the Department's compensated absences liability as a result of less employees taking time off during 2020 due to the ongoing COVID-19 pandemic.

Change in Net Position

Net investment in capital assets, which are discussed more in the capital assets section, increased by \$5,229,350 or 6% in 2020 as a result of continued plant replacements, additions and pay down of debt associated with the ongoing capital improvement plan

Net position restricted for debt service decreased by \$1,687,397 or 21% due a reduction in the required balance of collateral accounts for the Department's bonds and notes payable.

Unrestricted net position is the net amount of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not "invested in capital assets" or "restricted for debt service". Unrestricted assets increased \$6,466,800 in 2020.

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Table 2
Condensed Statement of Revenue, Expenses, and Changes in Net Position

	<u>2020</u>	<u>2019</u>	<u>Restated 2018</u>
Operating Revenues	\$ 70,420,865	\$ 72,821,541	\$ 75,378,339
Operating Expenses	<u>62,829,374</u>	<u>64,462,824</u>	<u>64,736,310</u>
Operating income	<u>7,591,491</u>	<u>8,358,717</u>	<u>10,642,029</u>
Other Revenues (Expenses)	<u>3,668,228</u>	<u>6,946,087</u>	<u>(4,778,812)</u>
Change in net position before transfers	<u>11,259,719</u>	<u>15,304,804</u>	<u>5,863,217</u>
Transfers	<u>(1,250,966)</u>	<u>(1,080,522)</u>	<u>(1,080,680)</u>
Change in net position	<u>10,008,753</u>	<u>14,224,282</u>	<u>4,782,537</u>
Net Position, Beginning	96,709,948	82,485,666	85,472,694
Cumulative Effect of a Change in Acct. Principle	-	-	<u>(7,769,565)</u>
Net Position, Ending	<u>\$ 106,718,701</u>	<u>\$ 96,709,948</u>	<u>\$ 82,485,666</u>

Note: 2018 was restated to correct an error related to the calculation of the net pension liability and related deferrals.

As previously noted, the Statement of Net Position shows the change in financial position. The specific nature or source of these changes then becomes more evident in the Statements of Revenues, Expenses and Changes in Net Position as shown above in Table 2.

During 2020, operating revenues decreased \$2,400,676 or 3%. This decrease in revenue was due to a combination of lower electric and gas consumption for the year due to an overall warmer winter in 2020 as well as the impacts of the pandemic on business operations.

Operating expenses decreased by \$1,633,450 or 2.5% overall. This was due to decreased fuel costs (\$3,340,188), an increase in operating and maintenance costs (\$1,438,888) and higher depreciation expenses (\$267,850) discussed in the financial highlights section.

The Departments' total net position increased by \$10,008,753 or 10% in 2020 from the combined activities of HG&E, Holyoke Solar Cooperative, and the Massachusetts Clean Energy Cooperative discussed in more detail in the financial highlights section.

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Table 3
Condensed Statements of Cash Flows

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Cash Flows From Operating Activities	<u>\$ 11,763,524</u>	<u>\$ 15,160,508</u>	<u>\$ 20,377,685</u>
Cash Flows From Investing Activities	<u>7,577,856</u>	<u>10,287,902</u>	<u>(1,758,788)</u>
Net Cash Used in Noncapital Financing Activities	<u>(1,250,966)</u>	<u>(1,080,522)</u>	<u>(1,080,680)</u>
Cash Flows From Capital and Related Financing Activities	<u>(15,478,727)</u>	<u>(21,528,729)</u>	<u>(14,487,489)</u>
Increase in cash and cash equivalents	2,611,687	2,839,159	3,050,728
Cash and Cash Equivalents, Beginning	<u>74,615,274</u>	<u>71,776,115</u>	<u>68,725,387</u>
Cash and Cash Equivalents, Ending	<u>\$ 77,226,961</u>	<u>\$ 74,615,274</u>	<u>\$ 71,776,115</u>
Noncash Financing Activity			
Change in costs recoverable in future - pollution	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 50,466</u>
Loss on retirement of fixed assets	<u>\$ 220,461</u>	<u>\$ 849,614</u>	<u>\$ 150,529</u>
Amortization of premium on bonds payable	<u>\$ 810,815</u>	<u>\$ 846,374</u>	<u>\$ 843,983</u>

Cash flows from operating activities decreased by \$3,396,984, primarily because of a decrease in cash received from customers of \$6,144,779 and a decrease in cash paid to suppliers of \$3,786,674. The decrease in cash received from customers was a result of lower sales and an increase in customer receivable balances due to the ongoing pandemic. Cash paid to suppliers decreased by \$3,786,674 as a result of lower overall operating expenses in 2020.

Cash flows from investing activities decreased by \$2,710,046. Investment income was lower in 2020 than 2019 as a result of market performance during the year.

Cash flows from capital and related financing activities decreased by \$6,050,002 in 2020. The decrease is mainly due to increased capital expenditures in 2019 as a result of phase 2 of the 17L substation project. The decrease is offset by normal cash payments on plant and equipment as well as payments on bonds and notes.

Cash and cash equivalents increased by \$2,611,687.

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Table 4
Capital Assets – Electric

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Capital Assets			
Land	\$ 4,405,918	\$ 4,405,918	\$ 4,804,065
Plant, property and equipment	<u>213,017,345</u>	<u>210,185,015</u>	<u>203,105,275</u>
Total capital assets	217,423,263	214,590,933	207,909,340
Construction Work in Progress	1,398,177	566,833	120,251
Less accumulated depreciation	<u>(81,128,271)</u>	<u>(76,350,857)</u>	<u>(72,042,300)</u>
Net capital assets, electric	<u>\$ 137,693,169</u>	<u>\$ 138,806,909</u>	<u>\$ 135,987,291</u>

Electric plant, property and equipment increased by \$2,832,330 or 1% in 2020 as a result of ongoing replacements of the electric division's substation, transmission and distribution infrastructure.

Construction work in progress increased by \$831,344 primarily due the ongoing work related to the upgrade of hydro chemical station, unit #2 and the canal log boom replacement project.

Table 5
Capital Assets – Gas

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Capital Assets			
Land	\$ 236,856	\$ 214,304	\$ 214,304
Plant, property and equipment	<u>58,215,845</u>	<u>56,695,316</u>	<u>54,313,384</u>
Total capital assets	58,452,701	56,909,620	54,527,688
Construction Work in Progress	900,057	143,880	41,474
Less accumulated depreciation	<u>(31,144,190)</u>	<u>(30,034,355)</u>	<u>(28,666,077)</u>
Net capital assets, gas	<u>\$ 28,208,568</u>	<u>\$ 27,019,145</u>	<u>\$ 25,903,085</u>

Gas plant, property and equipment increased by \$1,520,529 or 3% in 2020 due to ongoing replacements of bare steel and cast iron services and mains.

Further details on capital assets are included in Note 3.

Holyoke Gas & Electric

Management's Discussion and Analysis (Unaudited)
Years Ended December 31, 2020, 2019 and 2018

Long-Term Debt

As of December 31, 2020, Holyoke Gas & Electric had \$58,640,000 in bonds payable as well as \$15,603,733 in notes payable. The bonds and notes have decreased \$3,953,333 and \$853,437 since 2019. No new long term debt was issued during 2020.

Details of the existing debt are included in Note 7.

Currently Known Facts/Economic Conditions

The ongoing COVID-19 pandemic resulted in overall lower consumption for the year with commercial and industrial customers facing pandemic related business interruptions. Additionally, the Department saw an increase in delinquent accounts receivable balances as a result of a pandemic related shut off moratorium and economic hardships facing customers. In spite of these challenges, the Department produced strong financial results and continues to work with customers experiencing economic hardships to establish payment plans. HG&E continues its aggressive maintenance and capital improvement program to upgrade its infrastructure in order to maintain system reliability performance objectives for all facets of the operation.

Contacting Utility's Financial Management

This financial report is designed to provide our customers, investors and creditors with a general overview of the Utility's finances. If you have questions about this report, or need additional financial information, contact Holyoke Gas & Electric Department at 99 Suffolk St, Holyoke Massachusetts 01040 or (413) 536 9300.

Holyoke Gas and Electric

Statements of Net Position

December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Assets		
Current Assets		
Cash and investments	\$ 21,638,639	\$ 18,065,585
Restricted assets:		
Redemption account	2,760,424	2,708,028
Customer accounts receivable, net	8,967,064	7,385,182
Note receivable, current portion	512,097	485,961
Materials and supplies	3,019,112	3,226,403
Fuel for electric generation and gas in storage	591,807	734,652
Prepaid expense	2,911,152	3,022,689
Other receivables	2,631,293	1,630,879
	<u>43,031,588</u>	<u>37,259,379</u>
Noncurrent Assets		
Restricted assets:		
Accounts required under bond indenture/note payable	8,192,749	8,729,577
Customers' deposits	1,602,639	1,467,273
Note receivable, after one year	6,908,536	7,420,633
Hi-Lite assistance loans	1,588,961	1,653,849
Other assets:		
Purchased power accounts	380,556	374,534
Rate stabilization accounts	44,491,344	45,757,388
Costs recoverable in future, pollution	37,700	120,000
Other investments	188,390	188,390
Intangible assets	729,999	796,666
Capital assets:		
Plant, property and equipment in service	275,875,964	271,500,553
Construction in progress	2,298,234	710,713
	<u>278,174,198</u>	<u>272,211,266</u>
Less accumulated depreciation	<u>(112,272,461)</u>	<u>(106,385,212)</u>
	<u>165,901,737</u>	<u>165,826,054</u>
Net capital assets		
	<u>230,022,611</u>	<u>232,334,364</u>
Total noncurrent assets		
	<u>273,054,199</u>	<u>269,593,743</u>
Deferred Outflows of Resources		
OPEB related amounts	403,079	519,542
Pension related amounts	8,903,897	12,341,066
	<u>9,306,976</u>	<u>12,860,608</u>
Total deferred outflows of resources		

See notes to financial statements

Holyoke Gas and Electric

Statements of Net Position
December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Liabilities		
Current Liabilities		
Accounts payable	\$ 6,098,235	\$ 4,808,368
Accrued liabilities	667,532	949,294
Current portion, accrued compensated absences	429,982	253,732
Accrued environmental costs	67,700	120,000
Liabilities payable from restricted assets:		
Current portion, leases, bonds and notes payable	4,830,904	4,839,963
Customers' deposits	1,290,386	1,191,208
Accrued interest	1,242,600	1,324,404
	<u>14,627,339</u>	<u>13,486,969</u>
Long-Term Liabilities and Credits		
Bonds payable, long-term	54,710,000	58,640,000
Plus premium on bonds payable	5,502,488	6,313,303
	<u>60,212,488</u>	<u>64,953,303</u>
Bonds payable, net		
	<u>60,212,488</u>	<u>64,953,303</u>
Notes payable, long-term	14,702,830	15,613,030
Accrued compensated absences	3,426,592	3,310,708
Net OPEB liability	2,700,503	5,807,616
Unearned revenue	2,782,163	2,871,654
Reserve fund for note receivable	148,291	444,737
Net pension liability	29,829,651	34,387,346
	<u>113,802,518</u>	<u>127,388,394</u>
Total long-term liabilities and credits		
	<u>113,802,518</u>	<u>127,388,394</u>
Total liabilities	<u>128,429,857</u>	<u>140,875,363</u>
Deferred Inflows of Resources		
Regulatory deferral	3,366,251	1,259,255
Pension related amounts	4,343,415	1,700,130
OPEB related amounts	1,587,942	639,806
Rate stabilization reserve	37,915,009	41,269,849
	<u>47,212,617</u>	<u>44,869,040</u>
Total deferred inflows of resources		
	<u>47,212,617</u>	<u>44,869,040</u>
Net Position		
Net investment in capital assets	93,140,978	87,911,628
Restricted for debt service	6,384,669	8,072,066
Unrestricted	7,193,054	726,254
	<u>106,718,701</u>	<u>96,709,948</u>
Total net position	<u>\$ 106,718,701</u>	<u>\$ 96,709,948</u>

See notes to financial statements

Holyoke Gas and Electric

Statements of Revenues, Expenses and Changes in Net Position
Years Ended December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Operating Revenues		
Gas charges for service	\$ 20,372,041	\$ 22,624,031
Electric and telecommunications charges for service	<u>50,048,824</u>	<u>50,197,510</u>
Total operating revenues	<u>70,420,865</u>	<u>72,821,541</u>
Operating Expenses		
Gas operation and maintenance	17,640,543	18,977,971
Depreciation, gas plant and equipment	<u>1,706,839</u>	<u>1,637,012</u>
Total gas operating expenses	<u>19,347,382</u>	<u>20,614,983</u>
Electric and telecommunications operation and maintenance	37,220,199	37,784,071
Depreciation, electric and telecom plant and equipment	<u>6,261,793</u>	<u>6,063,770</u>
Total electric and telecommunications operating expenses	<u>43,481,992</u>	<u>43,847,841</u>
Total operating expenses	<u>62,829,374</u>	<u>64,462,824</u>
Operating Income		
Gas	1,024,659	2,009,048
Electric and telecommunications	<u>6,566,832</u>	<u>6,349,669</u>
Total operating income	<u>7,591,491</u>	<u>8,358,717</u>
Other Revenues (Expenses)		
Investment income, net of fees	2,751,502	3,269,429
Net gain (loss) on investments	3,692,671	6,535,167
Interest expense	(2,750,949)	(2,942,318)
Miscellaneous income (expense)	747,389	1,422,492
Amortization of intangible assets	(66,667)	(66,667)
Net gain (loss), plant retirements	(634,491)	(1,259,680)
Net gain, merchandise jobbing	9,440	66,531
Taxes, other	<u>(80,667)</u>	<u>(78,867)</u>
Total other revenues (expenses)	<u>3,668,228</u>	<u>6,946,087</u>
Change in net position before transfers	11,259,719	15,304,804
Transfers		
Payment in lieu of taxes, City of Holyoke	<u>(1,250,966)</u>	<u>(1,080,522)</u>
Change in net position	10,008,753	14,224,282
Net Position, Beginning	<u>96,709,948</u>	<u>82,485,666</u>
Net Position, Ending	<u>\$ 106,718,701</u>	<u>\$ 96,709,948</u>

See notes to financial statements

Holyoke Gas and Electric

Statements of Cash Flows

Years Ended December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Cash Flows From Operating Activities		
Cash received from customers	\$ 68,633,896	\$ 74,778,675
Cash paid to suppliers	(40,662,277)	(44,448,951)
Cash paid to employees	(16,208,095)	(15,169,216)
	<u>11,763,524</u>	<u>15,160,508</u>
Net cash flows from operating activities		
Cash Flows From Investing Activities		
Proceeds from sale of investments	688,797	3,014,979
Purchase of investments	(41,076)	(220,845)
Investment income (loss), net of fees	6,444,174	9,804,596
Proceeds from (repayment of) margin credit account	-	(2,771,987)
Repayments on notes receivable	485,961	461,159
	<u>7,577,856</u>	<u>10,287,902</u>
Net cash flows from investing activities		
Cash Flows From Noncapital Financing Activities		
Payment in lieu of taxes and other property taxes	(1,250,966)	(1,080,522)
	<u>(1,250,966)</u>	<u>(1,080,522)</u>
Net cash flows from noncapital financing activities		
Cash Flows From Capital and Related Financing Activities		
Net investment in plant, property and equipment	(7,086,138)	(13,069,362)
Payments on bonds and notes payable	(4,806,771)	(4,647,554)
Interest paid on bonds, notes and leases payable	(3,585,818)	(3,811,813)
	<u>(15,478,727)</u>	<u>(21,528,729)</u>
Net cash flows from capital and related financing activities		
Increase in cash and cash equivalents	2,611,687	2,839,159
Cash and Cash Equivalents, Beginning	<u>74,615,274</u>	<u>71,776,115</u>
Cash and Cash Equivalents, Ending	<u>\$ 77,226,961</u>	<u>\$ 74,615,274</u>
Supplemental Noncash Financing Activity		
Loss on retirement of fixed assets	<u>\$ 220,461</u>	<u>\$ 849,614</u>
Amortization of premium on bonds payable	<u>\$ 810,815</u>	<u>\$ 846,374</u>

See notes to financial statements

Holyoke Gas and Electric

Statements of Cash Flows

Years Ended December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Schedule of Reconciliation of Operating Income to		
Net Cash Provided by Operating Activities		
Operating income	\$ 7,591,491	\$ 8,358,717
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	7,968,632	7,595,290
Amortization of regulatory deferral	37,782	127,267
Nonoperation Income	609,495	1,343,489
Changes in operating assets and liabilities:		
(Increase) decrease in:		
Accounts receivable	(1,581,882)	920,383
Materials and supplies	207,291	(390,542)
Fuel for electric generation and gas in storage	142,845	(28,637)
Prepaid expense	111,537	(630,429)
Other receivables	(969,824)	(348,871)
Hi-Lite assistance and Constellation loans	64,888	333,876
Accounts payable	1,447,132	(1,169,660)
Customers' deposits	99,178	(166,028)
Accrued liabilities	(464,880)	(507,453)
Accrued compensated absences	292,134	235,367
Rate stabilization related deferrals	(3,354,840)	
Pension and OPEB related deferrals and liabilities	(519,755)	(512,519)
Accrued environmental costs	82,300	258
Total adjustments	<u>4,172,033</u>	<u>6,801,791</u>
Net cash provided by operating activities	<u>11,763,524</u>	<u>15,160,508</u>
Reconciliation of Cash and Cash Equivalents to the		
Statements of Net Position		
Cash and investments	21,638,639	18,065,585
Redemption account	2,760,424	2,708,028
Accounts required under bond indenture/note payable	8,192,749	8,729,577
Customer deposits	1,602,639	1,467,273
Purchased power accounts	380,556	374,534
Rate stabilization accounts	44,491,344	45,757,388
Other investments	188,390	188,390
Total cash and investments	79,254,741	77,290,775
Less noncash equivalents	<u>(2,027,780)</u>	<u>(2,675,501)</u>
Cash and cash equivalents	<u>\$ 77,226,961</u>	<u>\$ 74,615,274</u>

See notes to financial statements

Holyoke Gas and Electric OPEB Trust

Statements of Fiduciary Net Position - Fiduciary Fund
December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Assets		
Noncurrent Assets		
Investments	\$ 17,141,692	\$ 13,280,806
Total assets	<u>\$ 17,141,692</u>	<u>\$ 13,280,806</u>
Net Position		
Net Position Restricted for OPEB	<u>\$ 17,141,692</u>	<u>\$ 13,280,806</u>

See notes to financial statements

Holyoke Gas and Electric OPEB Trust

Statements of Changes in Fiduciary Net Position - Fiduciary Fund
Years Ended December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Additions		
Employer contributions	\$ 2,118,769	\$ 1,979,744
Investment income (loss)	1,792,024	1,906,420
Employee contributions, direct payment of member benefits	406,537	390,796
Employer contributions, direct payment of member benefits	<u>589,998</u>	<u>579,319</u>
Total additions	<u>4,907,328</u>	<u>4,856,279</u>
Deductions		
Benefit payments, including refunds of member contributions	996,535	970,115
Advisory fees	<u>49,907</u>	<u>40,392</u>
Total deductions	1,046,442	1,010,507
Net increase in net position	<u>3,860,886</u>	<u>3,845,772</u>
Net Position, Beginning	<u>13,280,806</u>	<u>9,435,034</u>
Net Position, Ending	<u>\$ 17,141,692</u>	<u>\$ 13,280,806</u>

See notes to financial statements

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

1. Summary of Significant Accounting Policies

The accounting policies of Holyoke Gas and Electric (Department) conform to accounting principles generally accepted in the United States of America as applicable to governmental units. The accepted standard-setting body for establishing governmental accounting and financial reporting principles is the Governmental Accounting Standards Board (GASB).

Reporting Entity

The financial statements present information on the activities of the Department, an enterprise fund of the City of Holyoke, Massachusetts (the City) and its component units, Holyoke Solar Cooperative and Massachusetts Clean Energy Cooperative Corporation.

The Department provides gas, electric, hydro and telecommunications services to its customers, substantially all of whom are local residents and commercial and industrial businesses. Approximately 71 percent and 69 percent of the Department's revenues were derived from its electric division in 2020 and 2019, respectively.

Blended Component Units

The Holyoke Solar Cooperative (Solar Coop) is a cooperative organized in Massachusetts, in December 2010 and is owned by the Department (its original Member). Solar Coop engages in transactions associated with the purchase, acquisition, distribution, sale, resale, supply and disposition of energy or energy-related services to wholesale or retail customers. The Solar Coop is included in the enterprise fund. The Solar Coop does not issue separate financial statements.

The Massachusetts Clean Energy Cooperative Corporation (Clean Energy Coop) was organized in Massachusetts, in March 2013. The initial members are the Department and the Massachusetts Municipal Wholesale Electric Company (MMWEC). The business of the Clean Energy Coop is managed by the board of directors, a majority of which consist of members of the Department's management or Commission. The Clean Energy Coop was formed to finance, purchase, own, lease or otherwise acquire, hold and use property; transact any business associated with the property; and the purchase, acquisition, generation, transformation, distribution, sale, resale, supply and provision of energy and telecommunications products and services, which will include, but is not limited to, the purchase and sale of the electrical capacity of the Hadley Falls Station hydroelectric generator unit #1 in Holyoke. The Clean Energy Coop is included in the enterprise fund. Separately issued financial statements of the Clean Energy Coop may be obtained from the Department's office.

The Cooperatives are organized under Chapters 157 and 164: Section 47C of the State of Massachusetts Statutes and are subject to the same federal and state laws and regulations applicable to municipal lighting plants or other public entities that provide those services.

All intercompany account balances and transactions have been eliminated in the basic financial statements.

Other Post-Employment Benefit (OPEB) Trust

The OPEB Trust fund is a fiduciary fund that is used to account for and report resources that are required to be held in trust for the members and beneficiaries of the OPEB plan. The OPEB Trust was established in October 2014.

See notes to financial statements

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Rate Regulation

The rates of the Department are approved by the Department's Board of Commissioners. Rate schedules are filed with the Massachusetts Department of Public Utilities (DPU). While the DPU exercises general supervisory authority over the Department, the rates are not subject to DPU approval.

Measurement Focus, Basis of Accounting and Financial Statement Presentation

The Department is presented as an enterprise and fiduciary fund of the City. Enterprise and fiduciary funds are used to account for operations that are financed and operated in a manner similar to private business or when the governing body has decided that the determination of revenues earned, costs, incurred and net income is necessary for management accountability. The OPEB trust fund is used to report resources that are held in trust by the Department for the members and beneficiaries of the defined benefit postemployment welfare plan. The financial statements have been presented using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has been incurred.

In March 2018, the GASB issued Statement No. 88 - *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. This statement defines debt for purposes of disclosure in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings and direct placements. The Department adopted this statement effective January 1, 2019.

In June 2018, the GASB issued Statement No. 89 – *Accounting for Interest Cost Incurred Before the End of a Construction Period*. This statement establishes requirements for interest cost incurred before the end of a construction period. The Department adopted this statement effective January 1, 2018.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources and Net Position

Deposits and Investments

Cash and Cash Equivalents

For purposes of the statement of cash flows, the Department considers all highly liquid investments with an initial maturity of three months or less when acquired to be cash equivalents.

Holyoke Gas and Electric

Notes to Financial Statements

Year Ended December 31, 2020

Investments

Investments totaling \$20,390 represent the cost of the Department's equity in New England HydroTransmission Corporation and New England Hydro-Transmission Electric Company. These investments represent 0.2653 percent (percent) of the issued common stock of these untraded companies. In addition, the Department has invested \$168,000 with the Public Utility Mutual Insurance Company (PUMIC). See Note 13 for additional information related to PUMIC. These investments are carried at original cost.

Investments in debt and equity securities are recorded at fair value (See Note 2).

Investments of the fiduciary fund are limited to investing in assets as a prudent investor would, by considering purposes, terms, distribution requirements and other circumstances of the trust.

Restricted Assets

Mandatory segregations of assets are presented as restricted assets. Such segregations are required by bond agreements and other external parties. Current liabilities payable from these restricted assets are so classified.

Designated Accounts

Purchased power funds are on deposit with Massachusetts Municipal Wholesale Electric Company (MMWEC) to pay for energy and related services as required under existing agreements.

The Department established a rate stabilization reserve which will be used for rate stabilization in the development of future rates and allow the Department to remain competitive under various market conditions by either purchasing replacement power or using reserves to mitigate the Department's exposure. Each year the Department determines the amount to be charged or credited to the reserve. The Department has set aside funds which will be used to offset these reserves. The reserve balances at December 31, 2020 and 2019 are \$37,915,009 and 41,269,849, respectively and are reported as deferred inflows of resources. In 2020, the Department transferred a balance of \$3,354,840 from deferred inflows of resources and reduced purchased power expense by the same amount. This was due to a combination of lower electric revenue from customers due to the impact of the COVID-19 pandemic on overall demand as well as higher overall power costs during the year.

Accounts Receivable

Accounts receivable are stated net of an allowance for uncollectible accounts of \$749,267 and \$515,204 at December 31, 2020 and 2019, respectively. Management provides for probable uncollectible amounts through a charge to earnings and a credit to the valuation allowance based on its collection history and its assessment of the current status of individual accounts. Balances that are still outstanding after management has used reasonable collection efforts are written off through a charge to the valuation allowance and a credit to accounts receivable.

Hi-Lite Assistance Loans

Hi-Lite assistance loans are receivables from residential and commercial customers for loans used to make energy efficient improvements to their property, secured by municipal liens. Loan amounts and terms vary based on the project type but are generally 3 to 5 years with 0 percent interest.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Materials, Supplies and Fuel

Materials, supplies and fuel are valued at the lower of cost or market utilizing the average cost method. All materials are intended to be used in operations and are not intended for resale.

Prepaid Expense

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items. This includes the purchase of prepaid power.

Plant, Property and Equipment

Capital assets are generally defined as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of five years. Additions to and replacements of plant, property and equipment are recorded at cost or the estimated acquisition value at the time of contribution. The cost of plant, property and equipment retired, less accumulated depreciation and salvage, is charged against revenue in the year retired. The cost of repairs and minor renewals is charged to maintenance expense.

Intangible Assets

Intangible assets are recorded at cost. Intangible assets subject to amortization include a franchise area fee to sell the electrical output associated with the December 2001 hydroelectric project purchase. Franchise fees are being amortized on a straight-line basis over the remaining lives of the respective licenses.

Line of Credit, Margin Credit Account

The Department is able to draw funds through the use of a margin account with their investment advisor. The investments held in the Department's investment account with their investment advisor are considered collateral for the borrowing. If the investments in the margin account decline in value, so does the value of the collateral supporting the borrowing and, as a result, the investment advisor may take action, such as issue a margin call or sell investments or other assets held in any of the Department's accounts held with the investment advisor. These funds received are recorded as a current liability and the subsequent investment as a restricted asset. In 2019 the Department paid off the margin account resulting in a zero balance as of December 31, 2019. The margin line of credit is still open and available for the Department to use in the future.

Environmental Matters

Expenditures that result from the remediation of an existing condition caused by past operations and that do not contribute to current or future revenues are expensed. Liabilities are recognized for remedial activities when the cleanup is probable and the cost can be reasonably estimated. A related asset for pollution costs recoverable in future has been recorded according to the General Standards of Accounting for the Effects of Regulation included in GASB Statement No. 62 *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Pensions

For purposes of measuring the net pension liability and deferred outflows of resources related to pensions and pension expense, information about the fiduciary net position of the City of Holyoke Retirement System ("the plan") and additions to/deductions from the plan's fiduciary net position have been determined on the same basis as they are reported by the plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms, investments are reported at fair value.

Net OPEB Liability

For purposes of measuring the net OPEB liability, deferred outflows and inflow of resources related to OPEB and OPEB expense, information about the fiduciary net position of the City of Holyoke's OPEB Plan ("the plan") administered to Department employees through the Department's Trust and additions to/deductions from the plan's fiduciary net position have been determined on the same basis as they are reported by the plan. For this purpose, the plan recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Deferred Outflow of Resources

A deferred outflow of resources represents a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense) until that future time.

Energy Tax

The Department is required to collect, on behalf of the State of Massachusetts, an energy tax based on 6.25 percent of gross sales to its commercial customers. The Department's policy is to exclude these energy taxes from revenue when collected and expenses when paid and instead, record the collection and payment of energy taxes through a liability account.

Compensated Absences

Substantially all employees receive compensation for vacations, holidays, illness and certain other qualifying absences. The number of days compensated in the various categories of absence is based generally on length of services. Compensated absences, which have been earned but not paid, have been accrued in the accompanying consolidated financial statements, based on current rates of pay.

Long-Term Obligations

Long-term debt and other obligations are reported as liabilities. Bond premiums are being amortized using the effective-interest method over the lives of the bonds. The balance at year-end for premiums is shown as an increase in the liability section of the statement of net position.

Unearned Revenues

In prior years, the Department collected charges from customers that will be used to pay for future pollution remediation costs. In the event that fees collected are in excess of actual pollution remediation costs, these charges may require refunds to customers and are therefore classified as a liability on the statement of net position. The Department stopped collecting charges from customers on January 1, 2019 as management believes the amounts collected to date are sufficient to cover future pollution remediation costs.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Regulatory Deferral

Regulatory deferral amounts represent reimbursements on infrastructure projects and customer/developer contributions that will be depreciated and recognized as revenue in matching amounts over future periods.

Deferred Inflows of Resources

A deferred inflow of resources represents an acquisition of net position that applies to a future period and, therefore, will not be recognized as an inflow of resources (revenue) until that future time. Rate stabilization reserves are reported as deferred inflows of resources for regulated business-type activities.

Net Position

The difference between assets, deferred outflows of resources, liabilities and deferred inflows of resources is net position. There are three components of net position: net investment in capital assets, restricted for debt service and unrestricted.

Net investment in capital assets consists of capital assets, less accumulated depreciation, reduced by the outstanding balances of any bonds, mortgages, notes or other borrowings that are attributable to the acquisition, construction or improvement of those assets.

Net position is restricted when constraints placed on its use are either: (1) externally imposed by creditors [such as through debt covenants], grantors, contributors or laws or regulations of other governments; or (2) imposed by law through constitutional provisions or enabling legislation. The Department's restricted net position as of December 31, 2020 and 2019 is related to the bond debt fund requirements, collateral required under note payable and funds reserved for payments on note receivable.

Unrestricted net position represents the net amount of assets and liabilities that are not "invested in property, plant and equipment" or "restricted for debt service."

When both restricted and unrestricted resources are available for use, it is the Department's policy to use restricted resources first, then unrestricted resources as they are needed.

Revenues and Expenses

Revenue Recognition

The Department distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Department's principal ongoing operations. The principal operating revenues of the Department are charges to customers for sales and services. Operating expenses for an enterprise fund includes the cost of sales and services, administrative expenses and depreciation on capital assets. All revenues and expenses not making this definition are reported as nonoperating revenues and expenses.

Operating revenues are recognized on the basis of cycle billings rendered monthly, net of discounts. Revenues are not accrued for services delivered beyond such cycle billing dates.

Holyoke Gas and Electric

Notes to Financial Statements

Year Ended December 31, 2020

Discounts reported for the year ended December 31, 2020 and 2019 that have directly reduced operating revenue in the statement of revenue, expenses and changes in net position are as follows:

	<u>2020</u>	<u>2019</u>
Gas	\$ 1,954,291	\$ 2,219,609
Electric	<u>3,889,456</u>	<u>3,794,308</u>
Total	<u>\$ 5,843,747</u>	<u>\$ 6,103,917</u>

Expense Allocation

Expenses associated with a particular division of the Department are charged to that division. For the years ended December 31, 2020 and 2019, shared expenses including administrative and supporting costs are allocated to each division as follows:

Gas	35.0 %
Electric and telecommunications	65.0 %

Depreciation

Depreciation is recorded on a straight-line basis using an annual rate of 3 percent of depreciable plant, property and equipment in service. The rate is in accordance with Massachusetts Department of Public Utilities regulations.

Effect of New Accounting Standards on Current Period Financial Statements

GASB has approved GASB Statement No. 87, *Leases*, Statement No. 91, *Conduit Debt Obligations*, Statement No.92, *Omnibus 2020*, Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*, Statement No. 96, *Subscription-Based Information Technology Arrangements*, and Statement No. 97, *Certain Component Units Criteria, and Accounting and Financial Reporting For Internal Revenue Code Section 457 Deferred Compensation Plans – An Amendment of GASB Statements No. 14 and No. 84, and a Supersession of GASB Statement No. 32.*

When they become effective, application of these standards may restate portions of these financial statements.

Comparative Data

Certain amounts presented in the prior year data may have been reclassified in order to be consistent with the current year's presentation.

2. Deposits and Investments

The Department participates in a cash and investment pool maintained by the city. In addition, the Department holds certain cash separately from the pool.

Custody and use of restricted assets are subject to requirements and restrictions imposed under contractual agreements, bond indentures and the General Laws of the Commonwealth of Massachusetts and are not available for normal operating purposes. Postemployment benefit funds have been segregated by the Department to cover certain healthcare and life insurance benefits (See Note 11).

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

The Department invests various funds in debt and equity securities held by Flynn Financial Partners Ltd. and US Bank. All investments must be made in securities or deposits as authorized by Massachusetts General Laws, Chapter 44, Sections 54, 55 and 55B. Investments are stated at fair value.

The Department's deposits and investments as of December 31, 2020 were comprised of the following:

	Statement Balances	Carrying Value	Associated Risks
Demand deposits	\$ 12,451,152	\$ 12,389,095	Custodial credit risk
U.S. agencies, implicitly guaranteed	1,519,184	1,519,184	Credit risk, custodial credit risk, interest rate risk, concentration of credit risk
Mutual funds, bond funds	5,522,855	5,522,855	Credit risk, interest rate risk
Mutual funds, other than bond funds	59,503,400	59,503,400	N/A
Certificates of deposit (CD), negotiable	320,207	320,207	Credit risk, custodial credit risk, interest rate risk
	<hr/>	<hr/>	
Total, Department	79,316,798	79,254,741	
	<hr/>	<hr/>	
OPEB Trust, demand deposits	31	31	Custodial credit risk
OPEB Trust, mutual funds, bond funds	1,188,219	1,188,219	Credit risk, Interest rate risk
OPEB Trust, mutual funds, other than bond funds	15,953,442	15,953,442	N/A
	<hr/>	<hr/>	
Total OPEB Trust	17,141,692	17,141,692	
	<hr/>	<hr/>	
Grand total	\$ 96,458,490	\$ 96,396,433	
	<hr/>	<hr/>	
Reconciliation to statement of net position:			
Cash and investments		\$ 21,638,639	
Redemption account		2,760,424	
Accounts required under bond indenture/notes payable		8,192,749	
Customer deposits		1,602,639	
Purchased power accounts		380,556	
Rate stabilization accounts		44,491,344	
Other investments		188,390	
OPEB Trust, statement of fiduciary net position (separate financial statement)		<hr/> 17,141,692	
Total		<hr/> \$ 96,396,433	

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

The Department's deposits and investments at as of December 31, 2019 were comprised of the following:

	Statement Balances	Carrying Value	Associated Risks
Demand deposits	\$ 13,180,867	\$ 13,455,180	Custodial credit risk
U.S. agencies, implicitly guaranteed	2,085,801	2,085,801	Credit risk, custodial credit risk, interest rate risk, concentration of credit risk
Mutual funds, bond funds	5,519,716	5,519,716	Credit risk, interest rate risk
Mutual funds, other than bond funds	55,724,033	55,724,033	N/A
Certificates of deposit (CD), negotiable	506,045	506,045	Credit risk, custodial credit risk, interest rate risk
	<hr/>	<hr/>	
Total, Department	77,016,462	77,290,775	
	<hr/>	<hr/>	
OPEB Trust, demand deposits	23,905	23,905	Custodial credit risk
OPEB Trust, mutual funds, bond funds	1,582,085	1,582,085	Credit risk, Interest rate risk
OPEB Trust, mutual funds, other than bond funds	11,674,816	11,674,816	N/A
	<hr/>	<hr/>	
Total OPEB Trust	13,280,806	13,280,806	
	<hr/>	<hr/>	
Grand total	<u>\$ 90,297,268</u>	<u>\$ 90,571,581</u>	
Reconciliation to statement of net position:			
Cash and investments		\$ 18,065,585	
Redemption account		2,708,028	
Accounts required under bond indenture/notes payable		8,729,577	
Customer deposits		1,467,273	
Purchased power accounts		374,534	
Rate stabilization accounts		45,757,388	
Other investments		188,390	
OPEB Trust, statement of fiduciary net position (separate financial statement)		<hr/> 13,280,806	
Total		<u>\$ 90,571,581</u>	

Deposits in each local and area bank are insured by the FDIC in the amount of \$250,000 for time and savings accounts (including NOW accounts) and \$250,000 for demand deposit accounts (interest-bearing and noninterest-bearing). In addition, if deposits are held in an institution outside of the state in which the government is located, insured amounts are further limited to a total of \$250,000 for the combined amount of all deposit accounts.

The Securities Investor Protection Corporation (SIPC), created by the Securities Investor Protection Act of 1970, is an independent government-sponsored corporation (not an agency of the U.S. government).

SIPC membership provides account protection up to a maximum of \$500,000 per customer, of which \$100,000 may be in cash. \$500,000 of the Department's investments and \$500,000 of the OPEB Trust investments are covered by SIPC. Additionally, through Lloyds of London, accounts have securities coverage subject to a \$600 million aggregate firm limit. Coverage limits per customer are not available. The value of investments subject to Lloyds of London coverage was \$855,699 in 2020 and \$1,511,100 in 2019 for the Department; and \$0 in 2020 and 2019 for the OPEB trust.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Fair Value

The Department categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The valuation methods for recurring fair value measurements as of December 31, 2020 and 2019 are as follows:

- Institutional bond quotes for U.S. government agency securities and state and local bonds
- Quoted market prices for identical assets for mutual funds, bond funds and mutual funds, other than bond funds
- Quoted market prices for similar assets for certificates of deposits

The valuation levels for investments held as of December 31, 2020 and 2019 are as follows:

Investment Type	2020			
	Level 1	Level 2	Level 3	Total
U.S. agencies, implicitly guaranteed	\$ -	\$ 1,519,184	\$ -	\$ 1,519,184
Mutual funds, bond funds	5,522,855	-	-	5,522,855
Mutual funds, other than bond funds	59,503,400	-	-	59,503,400
Certificate of deposit	-	320,207	-	320,207
Total, HGE	65,026,255	1,839,391	-	66,865,646
OPEB Trust, mutual funds, bond funds	1,188,219	-	-	1,188,219
OPEB Trust, mutual funds, other than bond funds	15,953,442	-	-	15,953,442
Total, OPEB Trust	17,141,661	-	-	17,141,661
Grand total	\$ 82,167,916	\$ 1,839,391	\$ -	\$ 84,007,307

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Investment Type	2019			
	Level 1	Level 2	Level 3	Total
U.S. agencies, implicitly guaranteed	\$ -	\$ 2,085,801	\$ -	\$ 2,085,801
Mutual funds, bond funds	5,519,716	-	-	5,519,716
Mutual funds, other than bond funds	55,724,033	-	-	55,724,033
Certificate of deposit	-	506,045	-	506,045
Total, HGE	61,243,749	2,591,846	-	63,835,595
OPEB Trust, mutual funds, bond funds	1,582,085	-	-	1,582,085
OPEB Trust, mutual funds, other than bond funds	11,674,816	-	-	11,674,816
Total, OPEB Trust	13,256,901	-	-	13,256,901
Grand total	\$ 74,500,650	\$ 2,591,846	\$ -	\$ 77,092,496

Custodial Credit Risk

Deposits

Custodial credit risk is the risk that the Department's deposits may not be returned to the Department. Uninsured, uncollateralized, deposits subject to custodial credit risk were \$4,632,848 in 2020 and \$5,111,619 in 2019.

Investments

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Department will not be able to recover the value of their investments or collateral securities that are in the possession of an outside party. The Department's investment policy addresses credit risk by defining allowable investments.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Department does not have a formal investment policy that limits investment maturities.

At December 31, 2020 and 2019, the Department's investments were as follows:

Investment Type	2020			
	Fair Value	Maturity in Years		
		Less Than 1	1-4	5-10
U.S. agencies, implicitly guaranteed	\$ 1,519,184	\$ 135,853	\$ 962,420	\$ 420,911
Mutual funds, bond funds	5,522,855	5,522,855	-	-
OPEB - Mutual funds, bond funds	1,188,219	1,188,219	-	-
CDs, negotiable	320,207	99,510	220,697	-
Total	\$ 8,550,465	\$ 6,946,437	\$ 1,183,117	\$ 420,911

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Investment Type	2019			
	Fair Value	Maturity in Years		
		Less Than 1	1-4	5-10
U.S. agencies, implicitly guaranteed	\$ 2,085,801	\$ 591,408	\$ 1,238,282	\$ 256,111
Mutual funds, bond funds	5,519,717	5,519,717	-	-
OPEB - Mutual funds, bond funds	1,582,084	1,582,084	-	-
CDs, negotiable	506,045	197,322	308,723	-
Total	<u>\$ 9,693,647</u>	<u>\$ 7,890,531</u>	<u>\$ 1,547,005</u>	<u>\$ 256,111</u>

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Department does not have a separate formal policy regarding credit risk.

As of December 31, 2020 and 2019, the Department's investments were rated as follows:

Investment Type	2020		
	Standard & Poor's	Moody's Investment Service	Composite
U.S. agencies, implicitly guaranteed	AA+	AAA	N/A
Mutual funds, bond funds	N/A	N/A	B to BBB
OPEB - Mutual funds, bond funds	N/A	N/A	B to BBB
CDs, negotiable	N/A	N/A	N/A

Investment Type	2019		
	Standard & Poor's	Moody's Investment Service	Composite
U.S. agencies, implicitly guaranteed	AA+	AAA	N/A
Mutual funds, bond funds	N/A	N/A	B to BBB
OPEB - Mutual funds, bond funds	N/A	N/A	B to BBB
CDs, negotiable	N/A	N/A	N/A

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the Department's investment in a single issuer. In 2020 and 2019, there were no investments in any one issuer that represented greater than 5 percent of total investments.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

3. Plant, Property and Equipment

Plant, property and equipment as of December 31, 2020 consist of the following:

	Balance January 1, 2020	Increase	Decrease	Balance December 31, 2020
Utility plant not being depreciated:				
Gas:				
Land	\$ 214,304	\$ 22,552	\$ -	\$ 236,856
Construction in progress	143,880	2,696,176	1,939,999	900,057
	<u>358,184</u>	<u>2,718,728</u>	<u>1,939,999</u>	<u>1,136,913</u>
Electric/telecommunications:				
Land	4,405,918	-	-	4,405,918
Construction in progress	566,833	3,503,877	2,672,533	1,398,177
	<u>4,972,751</u>	<u>3,503,877</u>	<u>2,672,533</u>	<u>5,804,095</u>
Total utility plant not being depreciation	<u>5,330,935</u>	<u>6,222,605</u>	<u>4,612,532</u>	<u>6,941,008</u>
Utility plant being depreciated:				
Gas:				
Plant investment	52,979,511	1,877,417	299,095	54,557,833
Office furniture and equipment	1,713,683	84,850	151,742	1,646,791
Transportation and communication equipment	1,627,158	144,306	164,537	1,606,927
Other	374,964	58,187	28,857	404,294
	<u>56,695,316</u>	<u>2,164,760</u>	<u>644,231</u>	<u>58,215,845</u>
Electric/telecommunications:				
Plant investment	200,228,686	3,969,059	959,672	203,238,073
Office furniture and equipment	3,707,562	157,079	471,362	3,393,279
Transportation and communication equipment	5,494,990	401,587	245,640	5,650,937
Other	753,777	-	18,721	735,056
	<u>210,185,015</u>	<u>4,527,725</u>	<u>1,695,395</u>	<u>213,017,345</u>
Total utility plant being depreciated	<u>266,880,331</u>	<u>6,692,485</u>	<u>2,339,626</u>	<u>271,233,190</u>

Note: Immaterial differences may exist due to rounding.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

	Balance January 1, 2020	Increase	Decrease	Balance December 31, 2020
Less accumulated depreciation:				
Gas:				
Plant investment	\$ (27,200,101)	\$ (1,495,952)	\$ 245,887	\$ (28,450,166)
Office furniture and equipment	(1,180,212)	(49,706)	151,742	(1,078,176)
Transportation and communication equipment	(1,368,389)	(124,748)	164,538	(1,328,599)
Other	(285,653)	(30,454)	28,858	(287,249)
	<u>(30,034,355)</u>	<u>(1,700,860)</u>	<u>591,025</u>	<u>(31,144,190)</u>
Electric/telecommunications:				
Plant investment	(68,604,408)	(5,669,803)	792,417	(73,481,794)
Office furniture and equipment	(2,544,288)	(172,035)	471,362	(2,244,961)
Transportation and communication equipment	(4,705,084)	(427,358)	245,640	(4,886,802)
Other	(497,077)	(36,358)	18,721	(514,714)
	<u>(76,350,857)</u>	<u>(6,305,554)</u>	<u>1,528,140</u>	<u>(81,128,271)</u>
Total accumulated depreciation	<u>(106,385,212)</u>	<u>(8,006,414)</u>	<u>2,119,165</u>	<u>(112,272,461)</u>
Total utility plant being depreciated, net:				
Gas	26,660,961	463,900	53,206	27,071,655
Electric	133,834,155	(1,777,826)	167,255	131,889,074
	<u>160,495,116</u>	<u>(1,313,926)</u>	<u>220,461</u>	<u>158,960,729</u>
Total utility plant, net:				
Gas	27,019,148	3,182,625	1,993,205	28,208,568
Electric	138,806,906	1,726,051	2,839,788	137,693,169
Net capital assets	<u>\$ 165,826,054</u>	<u>\$ 4,908,676</u>	<u>\$ 4,832,993</u>	<u>\$ 165,901,737</u>

Note: Immaterial differences may exist due to rounding.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Plant, property and equipment as of December 31, 2019 consist of the following:

	Balance January 1, 2019	Increase	Decrease	Balance December 31, 2019
Utility plant not being depreciated:				
Gas:				
Land	\$ 214,304	\$ -	\$ -	\$ 214,304
Construction in progress	41,474	2,684,438	2,582,032	143,880
	<u>255,778</u>	<u>2,684,438</u>	<u>2,582,032</u>	<u>358,184</u>
Electric/telecommunications:				
Land	4,804,065	-	398,148	4,405,917
Construction in progress	120,251	3,405,999	2,959,417	566,833
	<u>4,924,316</u>	<u>3,405,999</u>	<u>3,357,565</u>	<u>4,972,751</u>
Total utility plant not being depreciation	<u>5,180,094</u>	<u>6,090,437</u>	<u>5,939,597</u>	<u>5,330,935</u>
Utility plant being depreciated:				
Gas:				
Plant investment	51,084,154	2,197,321	301,963	52,979,512
Office furniture and equipment	1,426,916	286,767	-	1,713,683
Transportation and communication equipment	1,478,603	174,439	25,884	1,627,158
Other	323,712	51,252	-	374,964
	<u>54,313,384</u>	<u>2,709,779</u>	<u>327,847</u>	<u>56,695,316</u>
Electric/telecommunications:				
Plant investment	193,920,128	8,539,749	2,231,191	200,228,686
Office furniture and equipment	3,191,743	515,819	-	3,707,562
Transportation and communication equipment	5,297,445	197,545	-	5,494,990
Other	695,959	57,819	-	753,778
	<u>203,105,274</u>	<u>9,310,932</u>	<u>2,231,191</u>	<u>210,185,015</u>
Total utility plant being depreciated	<u>257,418,659</u>	<u>12,020,711</u>	<u>2,559,039</u>	<u>266,880,331</u>

Note: Immaterial differences may exist due to rounding.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

	Balance January 1, 2019	Increase	Decrease	Balance December 31, 2019
Less accumulated depreciation:				
Gas:				
Plant investment	\$ (26,014,874)	\$ (1,426,937)	\$ 241,710	\$ (27,200,101)
Office furniture and equipment	(1,175,794)	(4,418)	-	(1,180,212)
Transportation and communication equipment	(1,217,766)	(170,036)	19,413	(1,368,389)
Other	(257,642)	(28,011)	-	(285,653)
	<u>(28,666,076)</u>	<u>(1,629,402)</u>	<u>261,123</u>	<u>(30,034,355)</u>
Electric/telecommunications:				
Plant investment	(64,954,015)	(5,434,992)	1,784,599	(68,604,408)
Office furniture and equipment	(2,524,588)	(19,700)	-	(2,544,288)
Transportation and communication equipment	(4,098,185)	(606,899)	-	(4,705,084)
Other	(465,513)	(31,565)	-	(497,078)
	<u>(72,042,300)</u>	<u>(6,093,156)</u>	<u>1,784,599</u>	<u>(76,350,857)</u>
Total accumulated depreciation	<u>(100,708,377)</u>	<u>(7,722,558)</u>	<u>2,045,722</u>	<u>(106,385,212)</u>
Total utility plant being depreciated, net:				
Gas	25,647,308	1,080,377	66,724	26,660,961
Electric	131,062,971	3,217,776	446,592	133,834,155
	<u>156,710,279</u>	<u>4,298,154</u>	<u>513,317</u>	<u>160,495,116</u>
Total utility plant, net:				
Gas	25,903,088	3,764,816	2,648,757	27,019,147
Electric	135,987,287	6,623,776	3,804,157	138,806,906
Net capital assets	<u>\$ 161,890,376</u>	<u>\$ 10,388,591</u>	<u>\$ 6,452,914</u>	<u>\$ 165,826,054</u>

Note: Immaterial differences may exist due to rounding.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

4. Note Receivable

	<u>2020</u>	<u>2019</u>
Note receivable from Holyoke Solar, LLC (separate nonrelated entity) due to the Solar Coop in monthly installments of \$74,191 including interest at 5.25 percent, secured by the Solar Installation Property, matures December 2031.	\$ 7,420,633	\$ 7,906,594
Less amount due within one year	<u>(512,097)</u>	<u>(485,961)</u>
Note receivable, due after one year	<u>\$ 6,908,536</u>	<u>\$ 7,420,633</u>

The remaining interest due on the loan is approximately \$2.3 million. The Holyoke Solar, LLC note and security agreement also requires the borrower to establish a Reserve Account to be held in an interest-bearing savings account equal to no less than 6 months of principal and interest debt service payments. The Solar Coop shall use the Reserve Account to cure any failure of the borrower to pay when due any principal or interest payment. If the Reserve Account is not used by the Solar Coop during the first 6 years, the Reserve Account shall be decreased to no less than 2 months of principal and interest debt service payments. The Reserve Account was established with a required balance of \$444,737. The account balances at December 31, 2020 and 2019 were \$148,271 and \$453,021, respectively.

5. Other Receivables

Other receivables, all due within one year, consist of the following as of December 31, 2020 and 2019:

	<u>2020</u>	<u>2019</u>
Springfield Water and Sewer	\$ 54,353	\$ 45,545
Massachusetts Department of Transportation	848,331	380,188
Accrued interest receivable	8,920	15,681
Miscellaneous other receivables	<u>1,719,689</u>	<u>1,189,465</u>
Total	<u>\$ 2,631,293</u>	<u>\$ 1,630,879</u>

6. Intangible Assets

		<u>2020</u>	
<u>Life in Years</u>		<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>
2001 franchise fees	30	\$ 2,000,000	\$ 1,270,001
		<u>2019</u>	
<u>Life in Years</u>		<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>
2001 franchise fees	30	\$ 2,000,000	\$ 1,203,334

Aggregate amortization expense was \$66,667 for the years ended December 31, 2020 and 2019. Estimated annual aggregate amortization expense is \$66,667 for the five years subsequent to 2020.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

7. Long-Term Obligations

General obligation bonds, issued through the City of Holyoke Original issue amount is \$30,532,000 and date of issue is April 2012. Bonds mature annually 2013-2031. Interest rates from 2.0 percent to 5.0 percent.	\$ 20,390,000
Revenue bonds, Massachusetts Clean Energy Cooperative Corporation - Series 2013. Original issue amount is \$49,885,000 and date of issue is April 2013. Bonds mature annually 2015-2032. Interest rates range from 3.0 percent to 5.0 percent.	38,250,000
Clean Renewable Energy Bond, Boatlock Hydroelectric Station Project – 2009 Series A. Original issue amount is \$2,500,000 and date of issue is January 2009. Bonds mature annually 2010-2020. Interest rate of 1.5. Secured by revenues of the Department	-
Less amount due within one year	<u>(3,930,000)</u>
Bonds payable, due after one year	<u>\$ 54,710,000</u>

Principal maturing and interest payments are anticipated to be as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Years ending December 31:			
2021	\$ 3,930,000	\$ 2,783,675	\$ 6,713,675
2022	4,085,000	2,626,475	6,711,475
2023	4,275,000	2,437,875	6,712,875
2024	4,455,000	2,256,625	6,711,625
2025	4,680,000	2,033,875	6,713,875
2026-2030	26,915,000	6,648,984	33,563,984
2031-2033	<u>10,300,000</u>	<u>720,250</u>	<u>11,020,250</u>
Total	<u>\$ 58,640,000</u>	<u>\$ 19,507,759</u>	<u>\$ 78,147,759</u>

The Department outstanding revenue bonds contain

1. a provision that in the event of default not remedied, the Trustee may declare the principal of all the Bonds then Outstanding and interest accrued thereon to be immediately due and payable
2. a provision that in the event of default not remedied, upon demand of the Trustee, all monies, securities and funds held by the Cooperative and pledged under the Bond Resolution and after receipt thereof, all revenues from the net capability of the Hadley Falls facility.

Revenue Bonds are payable solely from and secured solely by, the Revenues of MCEC derived from the sale of the Net Capability of the Hadley Falls Facility.

The Department outstanding General Obligation Bonds do not contain event of default and / or termination provisions with possible finance-related consequences.

Holyoke Gas and Electric

Notes to Financial Statements

Year Ended December 31, 2020

The Department is required to satisfy certain bond covenant requirements in connection with the bonds payable. In addition, the notes payable from direct placement detailed on the following page also have funding requirements. The following funds are required as part of the bond and note agreements:

	<u>2020</u>	<u>2019</u>
Revenue bonds:		
Debt service reserve fund	\$ 4,575,461	\$ 4,575,461
Redemption account:		
Reserve and contingency fund	603,799	551,153
Principal account	1,212,500	1,155,000
Bond interest fund	944,125	1,001,875
Clean renewable energy bond:		
Debt service reserve fund	<u>260,202</u>	<u>259,423</u>
Subtotal related to bonds	<u>7,596,087</u>	<u>7,542,912</u>
Notes payable:		
Collateral account	3,208,815	4,554,678
Reserve fund	<u>148,271</u>	<u>453,021</u>
Subtotal related to notes	<u>3,357,086</u>	<u>5,007,699</u>
Total funds required under bond indenture/ note payable	<u>\$ 10,953,173</u>	<u>\$ 12,550,611</u>
Notes payable:		
Note payable to bank, secured by all assets of the Holyoke Solar Cooperative, monthly payments of \$6,346 including interest at 4.47 percent, matures in September 2031.	\$ 648,037	
Note payable to bank, secured by all assets of the Holyoke Solar Cooperative, monthly payments of \$29,820 including interest at 4.00 percent, matures in September 2031.	3,128,611	
Note payable to bank, secured by all assets of the Holyoke Solar Cooperative, monthly payments of \$29,470 including interest at 3.40 percent, matures in September 2031. A pledge of securities as collateral, with a value of \$3,208,815 at December 31, 2020 is also required under this note.	3,208,815	
Note payable to bank, secured by revenues of the Department with a lien on all business assets on Holyoke Solar Cooperative and a pledge of the service contract between the Department and Holyoke Solar Cooperative, monthly payments of \$54,667 including interest at 3.30 percent, matures in April 2038.	8,618,271	
Less amount due within one year	<u>(900,904)</u>	
Notes payable, due after one year	<u>\$ 14,702,830</u>	

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Principal maturing and interest payments are anticipated to be as follows:

Years ending December 31:	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2021	\$ 900,904	\$ 548,382	\$ 1,449,286
2022	934,752	514,534	1,449,286
2023	969,880	479,406	1,449,286
2024	1,005,059	444,227	1,449,286
2025	1,044,126	405,160	1,449,286
2026-2030	5,839,325	1,407,106	7,246,431
2031-2035	3,439,305	501,787	3,941,092
2036-2039	1,470,383	60,294	1,530,677
Total	<u>\$ 15,603,734</u>	<u>\$ 4,360,896</u>	<u>\$ 19,964,630</u>

The outstanding notes from direct placements contain:

1. a provision that in an event of default, outstanding amounts become immediately due and payable and/or;
2. a provision that in an event of default, the borrower shall reimburse the bank for any reasonable cost incurred by the Bank in connection to the collection and enforcement of the provisions of the loan agreement and/or;
3. a provision that in the event of default, all deposits, securities and other property in the possession of the bank belonging to the borrower shall be treated as collateral to secure payment of the notes and;
4. a provision that in the event of default, the entire outstanding principle balance of the notes shall bear interest, from the date of default at the default rate of 5 percent.

Changes in Long-Term Liabilities

Long-term liability activities for the years ended December 31, 2020 are as follows:

	<u>Balance January 1, 2020</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance December 31, 2020</u>	<u>Current Portion</u>
Long-term bonds and loans:					
Bonds payable	\$ 62,593,334	\$ -	\$ 3,953,334	\$ 58,640,000	\$ 3,930,000
Premium on bonds	6,313,303	-	810,815	5,502,488	-
Notes payable	16,457,171	-	853,437	15,603,734	900,904
Leases payable	42,488	-	42,488	-	-
Total long-term bonds and loans	85,406,296	-	5,660,074	79,746,222	4,830,904
Other long-term liabilities:					
Net pension liability	34,387,346	-	4,557,695	29,829,651	-
Compensated absences	3,564,439	292,135	-	3,856,574	429,982
Net OPEB liability	5,807,616	-	3,107,113	2,700,503	-
Environmental costs	120,000	-	52,300	67,700	67,700
Unearned revenue	2,871,654	-	89,491	2,782,163	-
Reserve fund for note receivable	444,737	-	296,446	148,291	-
Total long-term liabilities	<u>\$ 132,602,088</u>	<u>\$ 292,135</u>	<u>\$ 13,763,119</u>	<u>\$ 119,131,104</u>	<u>\$ 5,328,586</u>

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Long-term liability activities for the years ended December 31, 2019 are as follows:

	<u>Balance January 1, 2019</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance December 31, 2019</u>	<u>Current Portion</u>
Long-term bonds and loans:					
Bonds payable	\$ 66,386,667	\$ -	\$ 3,793,333	\$ 62,593,334	\$ 3,953,334
Premium on bonds	7,159,677	-	846,374	6,313,303	-
Notes payable	17,270,335	-	813,164	16,457,171	844,141
Leases payable	83,545	-	41,057	42,488	42,488
	<u>90,900,224</u>	<u>-</u>	<u>5,493,928</u>	<u>85,406,296</u>	<u>4,839,963</u>
Total long-term bonds and loans					
Other long-term liabilities:					
Net pension liability	25,930,197	8,457,149	-	34,387,346	-
Compensated absences	3,329,073	488,250	252,884	3,564,439	253,732
Net OPEB liability	8,900,872	-	3,093,256	5,807,616	-
Environmental costs	120,000	-	-	120,000	120,000
Unearned revenue	2,970,744	-	99,090	2,871,654	-
Reserve fund for note receivable	444,737	-	-	444,737	-
	<u>444,737</u>	<u>-</u>	<u>-</u>	<u>444,737</u>	<u>-</u>
Total long-term liabilities	<u>\$ 132,592,847</u>	<u>\$ 8,945,399</u>	<u>\$ 8,939,157</u>	<u>\$ 132,602,088</u>	<u>\$ 5,213,695</u>

Revenue Debt

The Department has pledged future revenues, net of certain operating expenses to repay revenue bonds issued in 2013. Proceeds from the bonds provided financing for improvements to the Hadley Falls generating station. The bonds are payable solely from revenues generated by the power purchase agreement with MMWEC through 2032. Annual principal and interest payments on the bonds are expected to require 100 percent of the Clean Energy Coop future gross revenues from MMWEC. The principal and interest remaining to be paid on the bonds is \$51,754,500. Principal and interest paid in 2020 and 2019 were \$4,313,750 and \$4,312,550, respectively. Total customer net revenues in 2020 and 2019 were \$4,313,500 and \$4,313,150, respectively. Customer revenues began in 2015 to coincide with the first bond principal payment due.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

8. Blended Component Units

The following schedules provide details of the blended component units' balances, activities and eliminations.

Combining Schedule of Net Position December 31, 2020

	HGE	Holyoke Solar	Mass Clean Energy	Eliminations	Totals
Assets					
Current assets:					
Cash and investments	\$ 14,099,598	\$ 7,430,534	\$ 108,507	\$ -	\$ 21,638,639
Restricted assets:					
Redemption account	-	-	2,760,424	-	2,760,424
Customer accounts receivable, net	8,955,661	11,403	-	-	8,967,064
Note receivable, current portion	-	512,097	-	-	512,097
Materials and supplies	3,019,112	-	-	-	3,019,112
Fuel for electric generation and gas in storage	591,807	-	-	-	591,807
Prepaid expense	2,911,148	-	35,212,948	(35,212,944)	2,911,152
Other receivables	2,625,558	5,735	-	-	2,631,293
Total current assets	32,202,884	7,959,769	38,081,879	(35,212,944)	43,031,588
Noncurrent assets:					
Restricted assets:					
Accounts required under bond indenture/note payable	260,202	3,357,086	4,575,461	-	8,192,749
Customers' deposits	1,602,639	-	-	-	1,602,639
Other receivables, after one year	-	6,908,536	-	-	6,908,536
Hi-Lite assistant loans	1,588,961	-	-	-	1,588,961
Advances to other funds	431,000	8,618,273	-	(9,049,273)	-
Other assets:					
Purchased power accounts	380,556	-	-	-	380,556
Rate stabilization accounts	44,491,344	-	-	-	44,491,344
Costs recoverable in future, pollution	37,700	-	-	-	37,700
Other investments	188,390	-	-	-	188,390
Intangible assets	729,999	-	-	-	729,999
Capital assets:					
Plant, property and equipment in service	275,875,964	-	-	-	275,875,964
Construction in progress	2,298,234	-	-	-	2,298,234
Total capital assets	278,174,198	-	-	-	278,174,198
Less accumulated depreciation	(112,272,461)	-	-	-	(112,272,461)
Net capital assets	165,901,737	-	-	-	165,901,737
Total noncurrent assets	215,612,528	18,883,895	4,575,461	(9,049,273)	230,022,611
Total assets	247,815,412	26,843,664	42,657,340	(44,262,217)	273,054,199
Deferred Outflows of Resources					
OPEB related amounts	403,079	-	-	-	403,079
Pension related amounts	8,903,897	-	-	-	8,903,897
Total deferred outflows	9,306,976	-	-	-	9,306,976

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Combining Schedule of Net Position December 31, 2020

	HGE	Holyoke Solar	Mass Clean Energy	Eliminations	Totals
Liabilities					
Current liabilities:					
Accounts payable	\$ 6,076,412	\$ 21,823	\$ -	\$ -	\$ 6,098,235
Accrued liabilities	667,532	-	-	-	667,532
Current portion, accrued compensated absences	429,982	-	-	-	429,982
Current portion, accrued environmental costs	67,700	-	-	-	67,700
Liabilities payable from restricted assets:					
Current portion, bonds and notes payable	1,505,000	900,904	2,425,000	-	4,830,904
Customers' deposits	1,290,386	-	-	-	1,290,386
Accrued interest	298,476	-	944,124	-	1,242,600
Total current liabilities	10,335,488	922,727	3,369,124	-	14,627,339
Long-term liabilities:					
Bonds payable, long term Plus unamortized premium on bonds payable	18,885,000	-	35,825,000	-	54,710,000
	1,449,663	-	4,052,825	-	5,502,488
Net bonds payable	20,334,663	-	39,877,825	-	60,212,488
Notes payable, long-term	-	14,702,830	-	-	14,702,830
Accrued compensated absences	3,426,592	-	-	-	3,426,592
Net OPEB liability	2,700,503	-	-	-	2,700,503
Unearned revenue	37,995,107	-	-	(35,212,944)	2,782,163
Advances from other funds	8,618,273	148,291	431,000	(9,049,273)	148,291
Net pension liability	29,829,651	-	-	-	29,829,651
Total long-term liabilities	102,904,789	14,851,121	40,308,825	(44,262,217)	113,802,518
Total liabilities	113,240,277	15,773,848	43,677,949	(44,262,217)	128,429,857
Deferred Inflows of Resources					
Regulatory deferral	3,366,251	-	-	-	3,366,251
Pension related amounts	4,343,415	-	-	-	4,343,415
OPEB related amounts	1,587,942	-	-	-	1,587,942
Rate stabilization reserve	37,915,009	-	-	-	37,915,009
Total deferred inflows of resources	47,212,617	-	-	-	47,212,617
Net Position					
Net investment in plant, property and equipment	144,062,074	-	-	(50,921,096)	93,140,978
Restricted for debt service	(38,273)	2,456,182	3,966,761	-	6,384,669
Unrestricted (deficit)	(47,354,306)	8,613,634	(4,987,370)	50,921,096	7,193,054
Total net position (deficit)	\$ 96,669,495	\$ 11,069,816	\$ (1,020,610)	\$ -	\$ 106,718,701

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Combining Schedule of Revenues, Expenses and Changes in Net Position Year Ended December 31, 2020

	HGE	Holyoke Solar	Mass Clean Energy	Eliminations	Consolidated Total
Operating Revenues	\$ 70,420,865	\$ 320,605	\$ 4,313,500	\$ (4,634,105)	\$ 70,420,865
Operating Expenses					
Operation and maintenance	56,370,788	169,921	2,954,138	(4,634,105)	54,860,742
Depreciation, plant and equipment	7,968,632	-	-	-	7,968,632
Total operating expenses	64,339,420	169,921	2,954,138	(4,634,105)	62,829,374
Operating income	6,081,445	150,684	1,359,362	-	7,591,491
Nonoperating Other Revenues (Expenses):					
Investment income, net of fees	2,200,488	868,606	11,624	(329,216)	2,751,502
Net gain (loss) on investments	3,029,101	620,660	42,910	-	3,692,671
Interest expense	(1,132,397)	(616,088)	(1,331,680)	329,216	(2,750,949)
Miscellaneous income (expense)	778,529	104,109	-	(135,249)	747,389
Amortization of intangible assets	(66,667)	-	-	-	(66,667)
Net gain (loss), disposal of assets	(634,491)	-	-	-	(634,491)
Net gain, merchandise jobbing	9,440	-	-	-	9,440
Taxes, other	(215,916)	-	-	135,249	(80,667)
Total other revenues (expenses)	3,968,087	977,287	(1,277,146)	-	3,668,228
Change in net position before transfers	10,049,532	1,127,971	82,216	-	11,259,719
Transfers					
Payments in lieu of taxes, City of Holyoke	(1,250,966)	-	-	-	(1,250,966)
Change in net position	8,798,566	1,127,971	82,216	-	10,008,753
Net Position (Deficit), Beginning	87,870,929	9,941,845	(1,102,826)	-	96,709,948
Net Position (Deficit), Ending	\$ 96,669,495	\$ 11,069,816	\$ (1,020,610)	\$ -	\$ 106,718,701

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Condensed Combining Schedule of Cash Flows Year Ended December 31, 2020

	<u>HGE</u>	<u>Holyoke Solar</u>	<u>Mass Clean Energy</u>	<u>Eliminations</u>	<u>Total</u>
Net Cash Flows From (Used in)					
Operating activities	\$ 7,232,680	\$ 237,074	\$ 4,293,770	\$ -	\$ 11,763,524
Investing activities	5,289,203	2,234,119	54,534	-	7,577,856
Noncapital financing activities	(1,250,966)	-	-	-	(1,250,966)
Capital and related financing activities	<u>(9,746,034)</u>	<u>(1,418,943)</u>	<u>(4,313,750)</u>	<u>-</u>	<u>(15,478,727)</u>
Net increase (decrease) in cash and cash equivalents	1,524,883	1,052,250	34,554	-	2,611,687
Cash and Cash Equivalents, Beginning	<u>58,892,080</u>	<u>8,313,356</u>	<u>7,409,838</u>	<u>-</u>	<u>74,615,274</u>
Cash and Cash Equivalents, Ending	<u>\$ 60,416,963</u>	<u>\$ 9,365,606</u>	<u>\$ 7,444,392</u>	<u>\$ -</u>	<u>\$ 77,226,961</u>

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

The following schedules provide details of the blended component units' balances, activities and eliminations.

Combining Schedule of Net Position December 31, 2019

	HGE	Holyoke Solar	Mass Clean Energy	Eliminations	Totals
Assets					
Current assets:					
Cash and investments	\$ 11,839,667	\$ 6,099,569	\$ 126,349	\$ -	\$ 18,065,585
Restricted assets:					
Redemption account	-	-	2,708,028	-	2,708,028
Customer accounts receivable, net	7,378,063	7,119	-	-	7,385,182
Note receivable, current portion	-	485,961	-	-	485,961
Materials and supplies	3,226,403	-	-	-	3,226,403
Fuel for electric generation and gas in storage	734,652	-	-	-	734,652
Prepaid expense	3,022,689	-	37,147,356	(38,147,356)	3,022,689
Other receivables	1,623,621	7,258	-	-	1,630,879
Total current assets	27,825,095	6,599,907	40,981,733	(38,147,356)	37,259,379
Noncurrent assets:					
Restricted assets:					
Accounts required under bond indenture/note payable	259,423	3,894,693	4,575,461	-	8,729,577
Customers' deposits	1,467,273	-	-	-	1,467,273
Other receivables, after one year	-	7,420,633	-	-	7,420,633
Hi-Lite assistant loans	1,653,849	-	-	-	1,653,849
Advances to other funds	431,000	8,965,301	-	(9,396,301)	-
Other assets:					
Purchased power accounts	374,534	-	-	-	374,534
Rate stabilization accounts	45,757,388	-	-	-	45,757,388
Costs recoverable in future, pollution	120,000	-	-	-	120,000
Other investments	188,390	-	-	-	188,390
Intangible assets	796,666	-	-	-	796,666
Capital assets:					
Plant, property and equipment in service	271,500,553	-	-	-	271,500,553
Construction in progress	710,713	-	-	-	710,713
	272,211,266	-	-	-	272,211,266
Less accumulated depreciation	(106,385,212)	-	-	-	(106,385,212)
Total capital assets	165,826,054	-	-	-	165,826,054
Total noncurrent assets	216,874,577	20,280,627	4,575,461	(9,396,301)	232,334,364
Total assets	244,699,672	26,880,534	45,557,194	(47,543,657)	269,593,743
Deferred Outflows of Resources					
OPEB related amounts	519,542	-	-	-	519,542
Pension related amounts	12,341,066	-	-	-	12,341,066
Total deferred outflows	12,860,608	-	-	-	12,860,608

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Combining Schedule of Net Position December 31, 2019

	HGE	Holyoke Solar	Mass Clean Energy	Eliminations	Totals
Liabilities					
Current liabilities:					
Accounts payable	\$ 4,746,910	\$ 36,781	\$ -	\$ -	\$ 4,783,691
Customers' deposits	1,191,208	-	-	-	1,191,208
Accrued liabilities	949,294	-	-	-	949,294
Current portion, accrued compensated absences	253,732	-	-	-	253,732
Current portion, accrued environmental costs	120,000	-	-	-	120,000
Accrued charges, current	24,677	-	-	-	24,677
Liabilities payable from restricted assets:					
Current portion, bonds and notes payable	1,685,822	844,141	2,310,000	-	4,839,963
Accrued interest	322,529	-	1,001,875	-	1,324,404
Total current liabilities	9,294,172	880,922	3,311,875	-	13,486,969
Long-term liabilities:					
Bonds payable, long term	20,390,000	-	38,250,000	-	58,640,000
Plus unamortized premium on bonds payable	1,646,158	-	4,667,145	-	6,313,303
Net bonds payable	22,036,158	-	42,917,145	-	64,953,303
Notes payable, long-term	-	15,613,030	-	-	15,613,030
Accrued compensated absences	3,310,708	-	-	-	3,310,708
Net OPEB liability	5,807,616	-	-	-	5,807,616
Unearned revenue	41,019,010	-	-	(38,147,356)	2,871,654
Advances from other funds	8,965,301	444,737	431,000	(9,396,301)	444,737
Net pension liability	34,387,346	-	-	-	34,387,346
Total long-term liabilities	115,526,139	16,057,767	43,348,145	(47,543,657)	127,388,394
Total liabilities	124,820,311	16,938,689	46,660,020	(47,543,657)	140,875,363
Deferred Inflows of Resources					
Regulatory deferral	1,259,255	-	-	-	1,259,255
Pension related amounts	1,700,130	-	-	-	1,700,130
OPEB related amounts	639,806	-	-	-	639,806
Rate stabilization reserve	41,269,849	-	-	-	41,269,849
Total deferred inflows of resources	44,869,040	-	-	-	44,869,040
Net Position					
Net investment in plant, property and equipment	142,104,074	-	-	(54,192,446)	87,911,628
Restricted for debt service	(63,106)	4,163,558	3,971,614	-	8,072,066
Unrestricted (deficit)	(54,170,039)	5,778,287	(5,074,440)	54,192,446	726,254
Total net position (deficit)	\$ 87,870,929	\$ 9,941,845	\$ (1,102,826)	\$ -	\$ 96,709,948

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Combining Schedule of Revenues, Expenses and Changes in Net Position Year Ended December 31, 2019

	HGE	Holyoke Solar	Mass Clean Energy	Eliminations	Consolidated Total
Operating Revenues	\$ 72,821,541	\$ 301,821	\$ 4,313,150	\$ (4,614,971)	\$ 72,821,541
Operating Expenses					
Operation and maintenance	58,263,567	159,976	2,953,470	(4,614,971)	56,762,042
Depreciation, plant and equipment	7,700,782	-	-	-	7,700,782
Total operating expenses	65,964,349	159,976	2,953,470	(4,614,971)	64,462,824
Operating income	6,857,192	141,845	1,359,680	-	8,358,717
Nonoperating Other Revenues (Expenses)					
Investment income, net of fees	2,639,163	95,043	44,432	(365,209)	3,269,429
Net gain (loss) on investments	5,783,051	677,682	74,434	-	6,535,167
Interest expense	(1,220,978)	(670,880)	(1,415,669)	365,209	(2,942,318)
Miscellaneous income (expense)	1,280,338	280,294	-	(138,140)	1,422,492
Amortization of intangible assets	(66,667)	-	-	-	(66,667)
Net gain (loss), disposal of assets	(1,259,680)	-	-	-	(1,259,680)
Net gain, merchandise jobbing	66,531	-	-	-	66,531
Taxes, other	(217,007)	-	-	138,140	(78,867)
Total other revenues (expenses)	7,004,751	1,238,139	(1,296,803)	-	6,946,087
Change in net position before transfers	13,861,943	1,379,984	62,877	-	15,304,804
Transfers					
Payments in lieu of taxes, City of Holyoke	(1,080,522)	-	-	-	(1,080,522)
Change in net position	12,781,421	1,379,984	62,877	-	14,224,282
Net Position (Deficit), Beginning	75,089,508	8,561,861	(1,165,703)	-	82,485,666
Net Position (Deficit), Ending	\$ 87,870,929	\$ 9,941,845	\$ (1,102,826)	\$ -	\$ 96,709,948

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Condensed Combining Schedule of Cash Flows Year Ended December 31, 2019

	<u>HGE</u>	<u>Holyoke Solar</u>	<u>Mass Clean Energy</u>	<u>Eliminations</u>	<u>Total</u>
Net Cash Flows From (Used in)					
Operating activities	\$ 10,334,790	\$ 457,196	\$ 4,368,522	\$ -	\$ 15,160,508
Investing activities	5,953,633	2,223,317	2,110,952	-	10,287,902
Noncapital financing activities	(1,080,522)	-	-	-	(1,080,522)
Capital and related financing activities	<u>(13,948,696)</u>	<u>(3,267,483)</u>	<u>(4,312,550)</u>	<u>-</u>	<u>(21,528,729)</u>
Net increase (decrease) in cash and cash equivalents	1,259,205	(586,970)	2,166,924	-	2,839,159
Cash and Cash Equivalents, Beginning	<u>57,632,875</u>	<u>8,900,326</u>	<u>5,242,914</u>	<u>-</u>	<u>71,776,115</u>
Cash and Cash Equivalents, Ending	<u>\$ 58,892,080</u>	<u>\$ 8,313,356</u>	<u>\$ 7,409,838</u>	<u>\$ -</u>	<u>\$ 74,615,274</u>

9. Retirement Plans

General Information About the Pension Plan

Substantially all full-time employees participate in the Holyoke Contributory Retirement System, a cost sharing multiple employer defined benefit public employee retirement system. The system is partially funded by employee contributions. The plan provides pension benefits, deferred allowances and death and disability benefits. Retirement allowance is based on the following factors: age, length of creditable service, level of salary and group classification. Age at retirement and group classification determine a benefit rate. Percentages are specified in Chapter 32 of the Massachusetts General Laws. Participants may elect to receive their retirement in one of three optional forms of payment.

Member employers are required by state statutes to make contributions to the plan. Contributions are determined by the Commonwealth of Massachusetts Division of Public Employee Retirement Administration (PERA).

Covered employees are required by state statute to contribute a fixed percentage of their earnings into the plan. The percentage varies from 5 to 9 percent depending upon date of hire. All employees hired after January 1, 1979 contribute an additional 2 percent on all gross regular earnings over \$30,000 per year.

Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by Chapter 176 of the Acts of 2011 and Chapter 139 of the Acts of 2012.

The plan issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained by writing or calling the plan as follows:
Attn: Cheryl Dugre, Executive Director, Holyoke Retirement Board, City Hall Annex - Room 207, Holyoke, Massachusetts 01040, 413 534 2179.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Pension Liabilities, Pension Expense and Deferred Outflows of Resources Related to Pensions

At December 31, 2020, the Department reported a liability of \$29,829,651, for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2019 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 2020. No material changes in the assumptions or benefit terms occurred between the actual valuation date and the measurement date. The Department's proportion of the net pension liability was based on the Department's share of appropriations of the pension plan relative to the appropriations of all participating employers. At December 31, 2020 the Department's proportion was 23.0413940 percent which was an increase of 0.289777 percent from its proportion measured as of January 1, 2020.

At December 31, 2019, the Department reported a liability of \$34,387,346, for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2018 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 2018 and rolled forward to December 31, 2018. No material changes in the assumptions or benefit terms occurred between the actual valuation date and the measurement date. The Department's proportion of the net pension liability was based on the Department's share of appropriations of the pension plan relative to the appropriations of all participating employers. At December 31, 2018 the Department's proportion was 22.751617 percent which was an increase of 0.884845 percent from its proportion measured as of January 1, 2018.

For the year ended December 31, 2020 and 2019, the Department recognized pension expense of \$5,468,094 and \$4,891,766, respectively.

At December 31, 2020, the Department reported deferred outflows and deferred inflows of resources from the following sources:

	2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Net differences between projected and actual earnings on pension plan	\$ -	\$ 3,184,890
Differences between projected and actual experiences	-	1,158,525
Changes of actuarial assumptions	3,169,362	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,789,198	-
Employer contributions subsequent to the measurement date	3,945,337	-
Total	<u>\$ 8,903,897</u>	<u>\$ 4,343,415</u>

Holyoke Gas and Electric

Notes to Financial Statements

Year Ended December 31, 2020

At December 31, 2019, the Department reported deferred outflows and deferred inflows of resources from the following sources:

	2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Net differences between projected and actual earnings on pension plan	\$ 4,556,756	\$ -
Differences between projected and actual experiences	-	1,691,007
Changes of actuarial assumptions	1,693,714	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,132,223	9,123
Employer contributions subsequent to the measurement date	<u>3,958,373</u>	<u>-</u>
Total	<u>\$ 12,341,066</u>	<u>\$ 1,700,130</u>

Deferred outflows related to pension resulting from the Department's employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2020. \$3,945,337 is reported for the Department. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Years ending December 31:	
2021	\$ 344,517
2022	74,940
2023	1,018,477
2024	(822,789)
2025	-
Thereafter	<u>-</u>
Total	<u>\$ 615,145</u>

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.25%
Salary increases	4:00 - 4.50%
Investment rate of return	7.25%
Cost of living adjustments	3% of first \$14,000
Pre-retirement	RP-2014 Blue Collar Employee Mortality Table set forward one year for females projected generationally using Scale MP-2017
Healthy retiree	RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year for females projected generationally using Scale MP-2017
Disabled retiree	RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year projected generationally using Scale MP-2017

The investment rate of return was 7.50%, and the cost of living adjustments were 3% of the first \$12,000 for the actuarial valuation as of January 1, 2018, rolled forward to December 31, 2018. All other assumptions were the same.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

The long term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2020 and 2019 are summarized in the following table:

Asset Class	2020	2019
	Long-Term Expected Real Rate of Return	Long-Term Expected Real Rate of Return
Domestic equity	6.15 %	6.16 %
International developed markets equity	6.78	6.69
International emerging markets equity	8.65	9.47
Core fixed income	1.11	1.89
Real estate	4.33	4.58
Hedge fund, GTAA, risk parity	3.19	3.68
Private equity	9.99	10.00

Discount Rate

The discount rate used to measure the total pension liability was 7.25 and 7.50 percent for December 31, 2020 and December 31, 2019 respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and the City of Holyoke Retirement system contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Department, calculated using the discount rate of 7.25 percent, as well as what the Department's net pension liability would be if it were calculated using a discount rate that is 1- percentage point lower or 1-percentage point higher than the current rate.

The sensitivity analysis as of December 31, 2020 follows:

	1% Decrease to Discount Rate (6.25%)	Current Discount Rate (7.25%)	1% Increase to Discount Rate (8.25%)
The Department's proportionate share of the net position liability	\$ 41,804,343	\$ 29,829,651	\$ 19,752,086

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

The sensitivity analysis as of December 31, 2019 follows:

	1% Decrease to Discount Rate (6.50%)	Current Discount Rate (7.50%)	1% Increase to Discount Rate (8.50%)
The Department's proportionate share of the net position liability	\$ 45,244,497	\$ 34,387,346	\$ 25,224,257

10. Other Postemployment Benefits, Holyoke Gas and Electric

General Information About the OPEB Plan

Plan Description

As part of the Department's Fiduciary Funds, the Department's policy is to provide certain healthcare and life insurance benefits to eligible retirees, their dependents or their survivors through the City of Holyoke's single employer postemployment welfare benefit plan.

The Department created a trust in 2014 to administer these benefits. The trust accounts for the portions of the active members retirees' premiums paid by the Department for health insurance, dental coverage and life insurance. Since the Department has established a separate trust to segregate assets to fund the their portion of the City of Holyoke's single employer plan, the disclosures that follow, are consistent with an agent multiemployer plan.

Benefits Provided

Medical and prescription drug benefits are provided to all eligible retirees through a variety of plans offered by Blue Cross Blue Shield of Massachusetts and Health New England. The Holyoke Gas and Electric Department also pays 50 percent of the retiree life insurance premium and 50 percent of the dental premium (non-Medicare retirees only).

Employees covered by benefit terms at December 31, 2020 and 2019, the following employees were covered by the benefit terms:

	2020	2019
Inactive plan members or beneficiaries currently receiving benefit payments	191	189
Active plan members	148	142
Total members	<u>339</u>	<u>331</u>

Contributions

For the year ended December 31, 2020 and 2019, the Department's average contribution rate was 19.77 percent and 19.51 percent of covered-employee payroll. Plan members are not required to contribute to the plan.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Investments

Investment Policy

It is the policy of the Department to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. Investments are limited to investing in assets as a prudent investor would, by considering purposes, terms, distribution requirements and other circumstances of the trust. The following were the Department's investment allocations as of December 31, 2020 and 2019:

Asset Class	2020 Allocation	2019 Allocation
Mutual funds, ETFs and closed-end funds	99.99 %	99.82 %
Cash and cash equivalents	0.01	0.18
Total	100.00 %	100.00 %

Net OPEB Liability

The Department's net OPEB liability was measured as of December 31, 2020 and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2020.

The components of the net OPEB liability of the Department at December 31, 2020 and 2019, were as follows:

	2020	2019
Total OPEB liability	\$ 19,842,195	\$ 19,088,422
Plan fiduciary net position	17,141,692	13,280,806
Department's net OPEB liability	\$ 2,700,503	\$ 5,807,616
Plan fiduciary net position as a percentage of the total OPEB liability	86.39 %	69.58 %

Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of December 31, 2020, using the following actuarial assumptions, applied to all periods included in the measurement:

Discount rate	6.25%
Salary increases	Service-related increases for Group 1: 6.0% per year decreasing over 9 years to 4.25% per year Service-related increases for Group 4: 7.0% per year decreasing over 6 years to 4.75% per year
Investment rate of return	6.25%
Non-Medicare medical/prescription drug cost	5.50% per year graded down by the Getzen model to an ultimate rate of 4.04% per year
Healthcare cost trend rates	
Medicare medical/prescription drug cost	5.50% per year graded down by the Getzen model to an ultimate rate of 4.04% per year
Healthcare cost trend rates	
Dental/administrative	5.50% per year graded down by the Getzen model to an ultimate rate of 4.04% per year
Healthcare cost trend rates	
Mortality rates	PubG.H-2010 Mortality Table with MP-2020 Projection Scale

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Below are the actuarial assumptions from the January 1, 2019 actuarial valuation.

Discount rate	6.25%
Salary increases	Service-related increases for Group 1: 6.0% per year decreasing over 9 years to 4.25% per year Service-related increases for Group 4: 7.0% per year decreasing over 6 years to 4.75% per year
Investment rate of return	6.25%
Non-Medicare medical/prescription drug cost	6.00% per year graded down by the Getzen model to an ultimate rate of 3.84% per year
Healthcare cost trend rates	
Medicare medical/prescription drug cost	6.00% per year graded down by the Getzen model to an ultimate rate of 3.84% per year
Healthcare cost trend rates	
Dental/administrative	6.50% per year graded down by the Getzen model to an ultimate rate of 3.84% per year
Healthcare cost trend rates	
Mortality rates	PubG.H-2010 Mortality Table with MP-2018 Mortality Scale

The long term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2020 and 2019 are summarized in the following table:

Asset Class	2020	2019
	Long-Term Expected Real Rate of Return	Long-Term Expected Real Rate of Return
Closed-end funds	6.25 %	6.25 %

Discount Rate

The discount rate is a blend of the long-term expected rate of return on OPEB Trust assets and a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rate of AA/Aa or higher as shown in the Bond Buyer 20-Bond General Obligation Index (2.12 percent and 2.74 percent as of December 31, 2020 and 2019, respectively). The blending is based on the sufficiency of projected assets to make projected benefit payments.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Changes in Net OPEB Liability

	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balance at December 31, 2019	\$ 19,088,422	\$ 13,280,806	\$ 5,807,616
Changes for the year:			
Service cost	500,313	-	500,313
Interest	1,162,953	-	1,162,953
Differences between expected and actual experience	(269,324)	-	(269,324)
Changes in assumptions	(50,171)	-	(50,171)
Contributions, employer	-	2,708,768	(2,708,768)
Contributions, employee	406,537	406,537	-
Net investment income	-	1,792,023	(1,792,023)
Benefit payments	(996,535)	(996,535)	-
Administrative expense	-	(49,907)	49,907
Net changes	<u>753,773</u>	<u>3,860,886</u>	<u>(3,107,113)</u>
Balance at December 31, 2020	<u>\$ 19,842,195</u>	<u>\$ 17,141,692</u>	<u>\$ 2,700,503</u>
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balance at December 31, 2018	\$ 18,335,906	\$ 9,435,034	\$ 8,900,872
Changes for the year:			
Service cost	518,484	-	518,484
Interest	1,119,602	-	1,119,602
Differences between expected and actual experience	(222,610)	-	(222,610)
Changes in assumptions	(83,641)	-	(83,641)
Contributions, employer	-	2,559,063	(2,559,063)
Contributions, employee	390,796	390,796	-
Net investment income	-	1,906,420	(1,906,420)
Benefit payments	(970,115)	(970,115)	-
Administrative expense	-	(40,392)	40,392
Net changes	<u>752,516</u>	<u>3,845,772</u>	<u>(3,093,256)</u>
Balance at December 31, 2019	<u>\$ 19,088,422</u>	<u>\$ 13,280,806</u>	<u>\$ 5,807,616</u>

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the Department, as well as what the Department's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower (5.25 percent) or 1-percentage-point higher (7.25 percent) than the current discount rate:

The sensitivity analysis as of December 31, 2020 follows:

	<u>1% Decrease (5.25%)</u>	<u>Discount Rate (6.25%)</u>	<u>1% Increase (7.25%)</u>
Net OPEB liability	\$ 5,619,938	\$ 2,700,503	\$ 343,866

The sensitivity analysis as of December 31, 2019 follows:

	<u>1% Decrease (5.25%)</u>	<u>Discount Rate (6.25%)</u>	<u>1% Increase (7.25%)</u>
Net OPEB liability	\$ 8,445,334	\$ 5,807,616	\$ 3,654,161

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability of the Department, as well as what the Department's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

The sensitivity analysis as of December 31, 2020 follows:

	<u>1% Decrease</u>	<u>Healthcare Cost Trend Rates</u>	<u>1% Increase</u>
Net OPEB liability	\$ 237,987	\$ 2,700,503	\$ 5,784,770

The sensitivity analysis as of December 31, 2019 follows:

	<u>1% Decrease</u>	<u>Healthcare Cost Trend Rates</u>	<u>1% Increase</u>
Net OPEB liability	\$ 1,820,502	\$ 5,807,616	\$ 10,827,580

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

OPEB Expense and Deferred Outflows of Resources Related to OPEB

For the year ended December 31, 2020 and 2019, the Department recognized OPEB expense of \$666,254 and \$1,113,151. At December 31, 2020 and 2019, the Department reported deferred outflows of resources related to OPEB from the following sources.

	2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Net differences between projected and actual earnings on pension plan	\$ 154,846	\$ 375,864
Changes of actuarial assumptions	248,233	97,999
Net differences between projected and actual investment earnings on pension plan investment	-	1,114,079
Total	<u>\$ 403,079</u>	<u>\$ 1,587,942</u>

	2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Net differences between projected and actual earnings on pension plan	\$ 199,587	\$ 185,159
Changes of actuarial assumptions	319,955	69,569
Net differences between projected and actual investment earnings on pension plan investment	-	385,078
Total	<u>\$ 519,542</u>	<u>\$ 639,806</u>

Deferred outflows of resources related to OPEB will be recognized in OPEB expense as follows:

Years ending December 31:	
2021	\$ (216,869)
2022	(216,869)
2023	(439,638)
2024	(236,176)
2025	(48,837)
Thereafter	<u>(26,474)</u>
Total	<u>\$ (1,184,863)</u>

Funding Policy

The Department is not required to provide funding for OPEB, other than the pay-as-you go amount necessary to provide current benefits to retirees and eligible beneficiaries/dependents. The cost of providing these benefits was \$970,115 for 189 retirees in 2019 and \$996,535 in 2020 for 191 retirees. In 2019 and 2020, the Department contributed assets into a separate legal trust, Holyoke Gas and Electric OPEB Trust, for the payment of future OPEB obligations. Contributions were \$ 2,118,770 in 2020 and \$1,979,744 in 2019.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

11. Related-Party Transactions

The Massachusetts Clean Energy Cooperative (Clean Energy Coop) signed a power sales contract in April 2013 with its member Massachusetts Wholesale Electric Company (MMWEC). Through this contract, MMWEC will purchase the net electrical capacity of the Hadley Falls Facility from the Clean Energy Coop at a monthly charge as defined in the contract. There were no sales to MMWEC during 2020 and 2019.

There is also an agency contract between the Clean Energy Coop and MMWEC, whereby MMWEC will act as agent for the Clean Energy Coop in the performance of its administrative obligations.

The Department transacted business with Tighe & Bond for engineering services in the amount of \$101,844 in 2020 and \$10,915 in 2019. One of the Department's commissioners has a financial interest in this company, requiring disclosure.

12. Commitments and Contingences

Purchased Power Contracts

Short-Term Power

On a continuing basis, the Department enters into several short-term power supply contracts for either the purchase or sale of capacity, energy, renewable certificates or ancillary services with various suppliers. This includes bilateral purchases to meet Department's shortfall position during the summer months of 2021 through 2026, where commitments were made by end of 2020 in the amount of \$143,635 for 2021 and \$488,763 for the period from 2022-2026.

Massachusetts Renewable Energy Certificates (RECs)

On a continuing basis, the Department enters into REC contracts for the sale of Massachusetts Class I, Massachusetts Class II and Maine Existing RECs from its hydro units. These commitments were made by the end of 2020. The summary of the resulting revenues to the Department by year and based on the total certificates sold is shown in the table below:

Contract Date	2020		2021		2022		2023		2024	
	Revenues	Total Certificates	Revenues	Total Certificates	Revenues	Total Certificates	Revenues	Total Certificates	Revenues	Total Certificates
2020	483,550	20,700	1,210,281	47,750	835,125	30,000	621,563	21,000	220,100	7,050

Canal Hydro Power

In November 2013, the Department entered into an agreement to provide electricity to the Open Square facility and purchase any excess electricity from the operation of the Open Square D and G wheels at a monthly charge as defined in the agreement. The Department does not have any liability associated with these energy purchases as any excess energy beyond contract water rights is at Department discretion under terms with the customer are currently on a month to month basis.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Solar Power

In December 2010, the Department, through its subsidiary Holyoke Solar Cooperative, signed a 20-year solar Power Purchase Agreement (PPA) with Holyoke Solar, LLC. The Department has agreed to purchase the electricity produced by two grid-connected solar power facilities which will vary between \$265,000 and \$425,000 annually. After the initial term, this agreement can be renewed for two consecutive five-year terms. In conjunction with this PPA, the Department is leasing, to Holyoke Solar, LLC, the property on which the solar power facility is located at \$100 per usable acre per year for the first 20 years. After the initial term under the PPA, the rate shall be \$3,000 per usable acre per year subject to a 2.5 percent annual escalation.

In June 2011, the Department signed a 20-year solar Power Sales Agreement with Rivermoor-Citizens Holyoke, LLC. The Department agreed to purchase the electricity produced by the photovoltaic solar electric generation system for an annual payment of between \$48,000 - \$72,000 beginning in February 2013. After the initial term, this agreement shall automatically renew for successive one-year terms, up to a maximum of ten such renewal terms, unless terminated by either party.

In December 2014, the Department signed a 25-year solar Power Sales Agreement with Healthy Planet Partners, LLC. The annual energy payment will vary between \$54,200 and \$61,200 over a twenty-five (25) year contract term beginning October 2015.

The Department contracted for several 20-year solar PPA's during 2015 and 2016 with various solar developers and executed interconnection only agreements with a few others. Two C2 Special Solutions Group solar projects had Commercial Operation Date (COD) of December 2016 under twenty (20) year PPA's signed in October 2015- with annual total energy payments that will vary between \$101,000 and \$104,000. The Department contracted for several 20-year solar PPA's with various solar developers. Below is a summary for each solar project, which became commercial in 2017 or 2018.

<u>Date of PPA</u>	<u>System Name</u>	<u>Annual Energy Payment</u>	<u>Commercial Operation Date</u>
July 2016	Mt. Tom Solar	\$303,460 to \$335,460 over term	02/03/17
October 2016	AEGIS	\$48,366 to \$53,466 over term	01/04/17
October 2016	Gary Rome	\$37,943 to \$41,944 over term	01/06/17
December 2016	Conklin	\$47,745 to \$49,689 over term	02/24/17
January 2017	Riverside Roof	\$7,686 to \$10,012 over term	05/08/17
June 2017	Walnut Roof	\$7,686 to \$9,616 over term	11/22/17
June 2017	Hadley Mills	\$22,915 to \$28,902 over term	12/29/17
September 2017	Jackson Street	\$7,987 to \$8,786 over term	03/15/18
November 2017	Boys & Girls Club	\$11,531 to \$12,683 over term	04/20/18
October 2015 and reassigned December 2017	Kelly Way 2	\$50,547 to \$51,792 over term	06/04/18
March 2018	YMCA	\$12,907 to \$13,940 over term	12/21/18

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Long-Term Power Transactions

In December 2011, the Department signed a ten-year contract with Nextera Energy Power Marketing to purchase on-peak physical energy each year at an estimated cost of \$2,400,000. For the one (1) year remaining to the contract, the total future commitment is \$2,412,544. In August 2018, the Department extended this contract for another eight (8) years at an estimated cost of \$16,211,846. In November 2020, the Department extended this contract for another six (6) years from January 2030 through December 2035 at an estimated cost of \$11,846,265.

In September 2018, the Department executed a thirty-seven (37) month contract starting October 1, 2019 and ending October 31, 2022 with Nextera Energy Power Marketing for around-the-clock energy. The annual energy payment will be around \$1,427,927 and for the 22 months remaining to the contract, the total future commitment is \$2,609,901. At the same time, the Department executed a 37-month First Amendment to the above contract with the Massachusetts Green High Performance Computing Center, Inc. locking in the Energy Only piece of the rate and extending the term to cover this transaction.

In November 2020, the Department extended this contract with NextEra Energy Power Marketing for another four (4) years from November 2022 through October 2026 and acquired clean nuclear tags with the purchase at an estimated cost of \$5,700,004.

In October 2020, the Department executed a five (5) year around-the-clock physical power and Hydro Quebec System Mix clean energy Tags contract starting November 2020 and ending October 2025 with Hydro Quebec through MMWEC. The annual energy payment will be around \$911,101 and for the 58 months remaining to the contract, the total future commitment is \$4,403,218.

In December 2013, the Department signed a twenty-five (25) year PPA for energy and capacity out of the Hancock Wind Project, located in Hancock County, Maine. The annual energy payment will be about \$813,200 for this project that had an estimated commercial operation date of December 2016.

In October 2015, the Department contracted with MMWEC to participate in a new MMWEC owned simple cycle 55 MW peaking unit located in Peabody, MA through the Predevelopment phase.

All requirements have been completed in order to participate in the ISO-NE 2021/22 Forward Capacity Auction (FCA) which was held on February 5, 2018. The Department contracted with MMWEC in 2017 prior to the FCA to participate in this project for up to the life of unit with expected COD beginning June 2022. HG&E's estimated portion of construction costs is approximately \$9,100,000. As the project is MMWEC owned, the Department will not carry project debt on its books. The annual total costs will vary between \$355,784 and \$380,237 over the thirty (30) estimated year life of unit.

In December 2015, the Department contracted with Scuderi Clean Energy, LLC under a twenty (20) year PPA for output from a natural gas generating facility. Expected Commercial Operation is unknown at this time. The Department mitigated market and development risk by ensuring interconnection costs are born by other party and that rates under PPA are discounted to full wholesale energy and resulting load reduction cost savings (where and if applicable).

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

In September 2017, the Department contracted with Mt. Tom Solar, LLC under a twenty (20) year PPA for a lithium-ion battery-based energy storage system (ESS) located at the Mt Tom Solar facility. Testing and limited operation was completed in 2018 with fixed capacity payments beginning in June 2018. The Commercial Operation date was achieved in March 2019 after all city permitting. The annual fixed capacity payment will be \$360,000 and for the 18.5 years remaining to the contract, the total future commitment is \$6,300,000.

In February 2020, HG&E contracted with Holyoke BESS, LLC under a fifteen (15) year PPA. This is our second utility-scale energy storage project totaling 4.99 MW / 12 MWh with an expected commercial operation date in May 2021. This will be located across from our North Canal Substation. This will act as a load reducer to lower capacity and transmission costs. The annual capacity and transmission savings will be split between parties. The annual Department Payment will be around \$648,318 and the total future commitment will be around \$9,724,764.

Long-Term Capacity Transaction

In January 2016, the Department contracted with PSEG through MMWEC under a five (5) year Capacity Load Obligation Transfer contract. This capacity hedge begins June 1, 2019 and ends May 31, 2024 and protects against rising capacity costs in ISO-NE's Rest of System capacity zone in which the Department is located. The annual capacity payment will be \$1,395,000 per year and for the 3.4 years remaining to the contract, the total future commitment is \$4,766,250.

Massachusetts Municipal Wholesale Electric Company

The Department is a Participant in certain Projects of the Massachusetts Municipal Wholesale Electric Company (MMWEC), a public corporation and a political subdivision of the Commonwealth of Massachusetts, created as a means to develop a bulk power supply for its Members and other utilities. MMWEC is authorized to construct, own or purchase ownership interests in and to issue revenue bonds to finance, electric facilities (Projects). MMWEC has acquired ownership interests in electric facilities operated by other entities and also owns and operates its own electric facilities. MMWEC operates the Stony Brook Intermediate Project and the Stony Brook Peaking Project, both fossil-fueled power plants. MMWEC has the Nuclear Mix No 1 Project, Nuclear Project Three, Nuclear Project Four, Nuclear Project Five and Project Six, which comprise an 11.6 percent ownership interest in the Seabrook Station nuclear generating unit operated by NextEra Energy Seabrook, LLC and a 4.8 percent ownership interest in the Millstone Unit 3 nuclear unit, operated by Dominion Nuclear Connecticut, Inc. The operating license for Seabrook Station extends to March 15, 2050. The operating license for the Millstone Unit 3 nuclear unit extends to November 25, 2045.

On July 19, 2019, MMWEC sold its 3.7 percent interest in the W.F. Wyman Unit No. 4 plant, which is operated and owned by its majority owner, FPL Energy Wyman IV, LLC.

MMWEC sells all of the capability (Project Capability) of each of its Projects to its Members and other utilities (Project Participants) under Power Sales Agreements (PSAs). The Light Department has entered into PSAs with MMWEC. Under the PSAs the Department is required to make certain payments to MMWEC payable solely from Municipal Light Department revenues. Among other things, the PSAs require each Project Participant to pay its pro rata share of MMWEC's costs related to the Project, which costs include debt service on the revenue bonds issued by MMWEC to finance the Project. In addition, should a Project Participant fail to make any payment when due, other Project Participants of that Project may be required to increase (step-up) their payments and correspondingly their Participant's share of that Project's Project Capability. Project Participants have covenanted to fix, revise and collect rates at least sufficient to meet their obligations under the PSAs. Each Participant is unconditionally obligated to make payments due to MMWEC whether or not the Project(s) is completed or operating and notwithstanding the suspension or interruption of the output of the Project(s).

Holyoke Gas and Electric

Notes to Financial Statements

Year Ended December 31, 2020

Pursuant to the PSAs, the MMWEC Project Participants are liable for their proportionate share of the costs associated with decommissioning the plants, which costs are being funded through monthly Project billings. Also, the Millstone and Seabrook Project Participants are liable for their proportionate share of the uninsured costs of a nuclear incident that might be imposed under the Price-Anderson Act (Act). Originally enacted in 1957, the Act has been renewed several times. In July 2005, as part of the Energy Policy Act of 2005, Congress extended the Act until the end of 2025.

As of July 1, 2019, MMWEC has no debt service obligations outstanding relating to the Projects. MMWEC is involved in various legal actions. In the opinion of management, the outcome of such litigation or claims will not have a material adverse effect on the financial position of the company.

The total capital expenditures and annual capacity, fuel and transmission costs (which include debt service, operations and maintenance and decommissioning expenses as discussed above) associated with the Department's Project Capability of the Projects in which it participates for the years ended December 31, 2020 and 2019, respectively are listed in the table below:

Projects	Percentage Share	Total Capital Expenditures 2020	Capacity, Fuel and Transmission Billed 2020	Capacity, Fuel and Transmission Billed 2019
Stony Brook Peaking Project	2.8342 %	\$ 1,714,270	\$ 107,051	\$ 103,414
Sony Brook Intermediate Project	0.0000	-	-	-
Nuclear Mix No. 1, Seabrook	7.2615	739,043	34,057	39,647
Nuclear Mix No. 1, Millstone	7.2615	4,461,210	431,421	425,792
Nuclear Project No. 3, Millstone	6.3500	9,513,862	756,156	748,399
Nuclear Project No. 4, Seabrook	6.1180	18,428,098	766,231	894,356
Nuclear Project No. 5, Seabrook	2.9821	2,432,288	95,860	111,842
Project No. 6, Seabrook	0.0000	-	-	-
		<u>\$ 37,288,771</u>	<u>\$ 2,190,776</u>	<u>\$ 2,323,450</u>

Telecommunications Contracts

The Department has entered into long-term contracts for dedicated point-to-point data lines and Internet Access services from several companies. These contracts have three-year terms.

In 2020, The Department entered into a five year contract with Cooley Dickinson Hospital to provide Colocation Services. The Department also entered into a five year contract with PeoplesBank to increase their Internet from 100M to 200M.

In 2019, The Department entered into a five-year contract renewal with Cross Roads a division of Chicopee Electric Light to increase wholesale internet from 2 gigs to 3 gigs. The Department also entered into a five-year contract renewal with PeoplesBank to provide router management.

In 2018, the Department entered into a five-year contract with Cross Roads a division of Chicopee Electric Light and a one-year contract with Fiber Sonic a division of South Hadley Electric Light.

In 2017, the Department entered into a five-year contract with Fiber Connect, LLC to provide network operator services.

In 2002, the Department entered into a lease with Fiber Technologies Networks, LLC (Fibertech) for use of the Department's fiber optic lines. The lease provides for an annual payment per route mile for 20 years with an option to renew for an additional five years.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

The Department has long-term contracts which range from one to five years with customers for telecommunications services.

Environmental Protection and Other Issues

In 1990, the Massachusetts Department of Environmental Protection (MDEP) sent a notice of responsibility to the Department and other parties regarding the presence of coal tar on property known as the gas works, adjacent to the Connecticut River. An investigation of the site has revealed concentrations of contaminants on the site and MDEP classified the area as a priority site. A second notice of responsibility was issued in September 1993 for gas tar deposits in the Connecticut River, effectively separating the gas works into a land site and a river site.

Effective February 2003, the Department increased the gas rates in order to collect additional dollars for clean-up of the gas works site and is accruing amounts, based on management's best estimate of the probable and reasonably estimable costs related to this clean-up. The current estimate for the remaining clean-up of only the land site is approximately \$67,700. No estimate is currently available for the river site. However, the cost of clean-up may be significant and material to the financial statements. The measurement of the accrual for remediation costs is subject to uncertainty, including the evolving nature of environmental regulations and the difficulty in estimating the extent and type of remediation activity that will be utilized. The Department is also in negotiations with another counterparty under a similar order to fund part of the clean-up efforts. A final agreement as to the cost-sharing methodology between the parties has not been reached. The impact of these negotiations may be material to the financial statements but cannot be estimated.

Sources of Labor Supply

Fifty-eight percent of the Department's labor force is covered under a collective bargaining agreement between the City of Holyoke Gas and Electric Department and the Holyoke Municipal Gas, Light & Power Guild, Inc. The agreement expires March 31, 2023.

Line of Credit, Margin Account

As of December 31, 2020, the Department had funds of \$0.00 on an open line of credit facility (securitized by portfolio assets on deposit) from our investment adviser, LPL Financial. During the FY 2019, the Department fully paid off the December 31, 2018 balance of \$2,771,987. While currently at \$0, the Department does, from time to time, access this line if and where beneficial. The current interest rate on the line of credit is 3.25 percent, which is a negotiated 4.5 percent discount off of LPL's base lending rate for balances over \$1,000,000. The base interest rate, while stable for the past 4 years, may be subject to change at any time and is based upon commercially recognized interest rates, industry conditions relating to extension of credit and general market conditions.

13. Risk Management

Claims and Judgments

The Department is exposed to various risks of loss related to torts; theft of, damage to or destruction of assets; errors and omissions; workers compensations; and health care of its employees. The Department participates in a public entry risk pool called the PUMIC to provide coverage for the above-mentioned risks except for workers compensation. The following details the coverage through the PUMIC. Settled claims have not exceeded the risk pool coverage in any of the past three years. There were no significant reductions in coverage compared to the prior year.

Holyoke Gas and Electric

Notes to Financial Statements
Year Ended December 31, 2020

Public Entity Risk Pool

Public Utility Mutual Insurance Company (PUMIC)

The PUMIC is a liability insurance company, which is owned by its members. The PUMIC was formed in 1997 to provide general insurance to members of the Public Utility Risk Management Association (PURMA). PURMA is a 501(c)(6) not-for-profit association whose members include municipal utilities and rural cooperatives.

The PUMIC is self-insured up to a maximum of \$1,000,000 of each insurance risk. Losses paid by the PUMIC plus administrative expenses will be recovered through premiums to the participating pool of municipal utilities and rural cooperatives.

Management of each organization consists of a board of directors comprised of representatives elected by the participants. The Department has an employee participating as a board member in each of the organizations.

Financial statements of PUMIC and PURMA can be obtained directly from PUMIC's offices.

The initial investment in PUMIC is refundable upon withdrawal from the organization and has been reported at the original amount of \$168,000.

For general liability purposes, the Department is self-insured up to \$50,000, has self-insurance trust coverage in the amount of \$500,000 and general liability insurance through the risk pool for \$500,000 to \$25,000,000 per occurrence. The Department was also self-insured for workers compensation up to \$250,000 per occurrence through December 31, 2014. The Department has since moved to commercial insurance for workers compensation.

14. Subsequent Events

The Department evaluated subsequent events through April 30, 2021, the date that the financial statements were available to be issued, for events requiring recording or disclosure in the financial statements. No events requiring disclosure were noted.

REQUIRED SUPPLEMENTARY INFORMATION

Holyoke Gas and Electric

Schedule of Proportionate Share of the Net Pension Liability (Unaudited)
 City of Holyoke Retirement System
 Last 10 Fiscal Years*

The required supplementary information presented below represents the proportionate information for the enterprise funds included in this report.

	2020	2019	2018	2017	2016	2015
Holyoke Gas and Electric's proportion of the net pension liability	23.0413940%	22.7516170%	21.8667720%	21.0663720%	20.7392330%	20.4671670%
Holyoke Gas and Electric's proportionate share of the net pension liability	\$ 29,829,651	\$ 34,387,346	\$ 25,930,197	\$ 30,715,656	\$ 30,700,334	\$ 27,426,467
Holyoke Gas and Electric's covered employee payroll	12,976,188	12,629,315	11,779,347	11,381,012	10,862,753	10,776,026
Plan fiduciary net position as a percentage of the total pension liability	71.79%	64.90%	71.67%	64.26%	62.55%	64.47%

* The amounts presented for each fiscal year were determined as of the calendar year-end that occurred within the fiscal year.

Schedule of Contributions - Pension
 City of Holyoke Retirement System
 Last 10 Fiscal Years *

The required supplementary information presented below represents the proportionate information for the enterprise funds included in this report.

	2020	2019	2018	2017	2016	2015
Contractually required contributions	\$ 3,983,422	\$ 3,958,373	\$ 3,856,839	\$ 3,711,165	\$ 3,596,091	\$ 3,526,919
Contributions in relation to the contractually required contributions	(3,983,422)	(3,958,373)	(3,856,839)	(3,711,165)	(3,596,091)	(3,526,919)
Contributions deficiency (excess)	-	-	-	-	-	-
Holyoke Gas and Electric's covered-employee payroll	12,794,112	12,976,188	12,629,315	11,779,347	11,381,012	10,862,753
Contributions as a percentage of covered-employee payroll	31.13%	30.50%	30.54%	31.51%	31.60%	32.47%

* The amounts presented for each fiscal year were determined as of the calendar year-end that occurred within the fiscal year.

Holyoke Gas and Electric

Schedule of Changes of the Net OPEB Liability (Unaudited)

City of Holyoke Retirement System

Last 10 Fiscal Years *

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total OPEB Liability				
Service Cost	\$ 500,313	\$ 518,484	\$ 594,872	\$ 526,946
Interest Cost	1,162,953	1,119,602	1,008,278	998,426
Differences between expected and actual experience	(269,324)	(222,610)	289,069	-
Changes of assumptions	(50,171)	(83,641)	463,399	-
Benefit payments, including refunds of member contributions	<u>(589,998)</u>	<u>(579,319)</u>	<u>(574,584)</u>	<u>(824,241)</u>
Net change in total OPEB liability	753,773	752,516	1,781,034	701,131
Total OPEB Liability, Beginning	<u>19,088,422</u>	<u>18,335,906</u>	<u>16,554,872</u>	<u>15,853,741</u>
Total OPEB Liability, Ending	<u>\$ 19,842,195</u>	<u>\$ 19,088,422</u>	<u>\$ 18,335,906</u>	<u>\$ 16,554,872</u>
Plan Fiduciary Net Position				
Contribution, employer	\$ 2,708,768	\$ 2,559,063	\$ 1,774,584	\$ 2,024,241
Net investment income (loss)	1,742,116	1,866,028	(593,694)	840,362
Benefit payments, including refunds of member contributions	<u>(589,998)</u>	<u>(579,319)</u>	<u>(574,584)</u>	<u>(824,241)</u>
Net change in fiduciary net position	3,860,886	3,845,772	606,306	2,040,362
Plan Fiduciary Net Position, Beginning	<u>13,280,806</u>	<u>9,435,034</u>	<u>8,828,728</u>	<u>6,788,366</u>
Plan Fiduciary Net Position, Ending	<u>\$ 17,141,692</u>	<u>\$ 13,280,806</u>	<u>\$ 9,435,034</u>	<u>\$ 8,828,728</u>
Net OPEB Liability				
Net OPEB liability	\$ 2,700,503	\$ 5,807,616	\$ 8,900,872	\$ 7,726,144
Plan's fiduciary net position as a percentage of the total OPEB liability	86.39%	69.58%	51.46%	53.33%
Covered-employee payroll	13,698,697	13,115,000	12,520,427	12,187,515
Net OPEB liability as a percentage of covered-employee payroll	19.71%	44.28%	71.09%	63.39%

* The amounts presented for each fiscal year were determined as of the calendar year-end that occurred within the fiscal year. GASB Statement No. 74 was implemented effective January 1, 2017, and therefore only four years are available for disclosure.

Holyoke Gas and Electric

Schedule of Contributions - Other Post-Employment Benefits (Unaudited)

City of Holyoke Retirement System

Last 10 Fiscal Years *

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Actuarially determined contribution	\$ 1,279,538	\$ 1,732,455	\$ 1,974,179	\$ 1,978,662
Contributions in relation to the actuarially determined contribution	<u>2,708,768</u>	<u>2,559,063</u>	<u>1,774,584</u>	<u>2,024,241</u>
Contribution deficiency (excess)	<u>\$ (1,429,230)</u>	<u>\$ (826,608)</u>	<u>\$ 199,595</u>	<u>\$ (45,579)</u>
Covered-employee payroll	13,698,697	13,115,000	12,520,427	12,187,515
Contributions as a percentage of covered-employee payroll	19.77%	19.51%	14.17%	16.61%

* The amounts presented for each fiscal year were determined as of the calendar year-end that occurred within the fiscal year. GASB Statement No. 74 was implemented effective January 1, 2017, and therefore only four years are available for disclosure.

Holyoke Gas and Electric

Notes to Required Supplementary Information – Pensions (Unaudited)
Year Ended December 31, 2020

Changes of benefit terms: Effective January 1, 2020 the Cost of Living Adjustment (COLA) base was increased from \$12,000 to \$14,000. There were no changes of benefit terms for any participating employer in the City of Holyoke Retirement System for the years 2015 – 2019.

Changes of assumptions:

The following changes were effective January 1, 2020:

- > The investment return assumption was lowered from 7.50% to 7.25

The following changes were effective January 1, 2018:

- > Salary increases was lowered from 4.25% - 4.75% to 4.00% - 4.50%
- > The inflation assumption was lowered from 3.50% - 3.25%
- > The investment return assumption was lowered from 7.625% to 7.50%
- > The mortality assumption for healthy retirees changed from RP-2000 Healthy Annuitant Mortality Table projected using Scale BB2D from 2009, to RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year for females projected generationally using Scale MP-2017
- > The mortality assumption for disabled retirees changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015, to RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year projected generationally using Scale MP-2017

The following changes were effective January 1, 2016:

- > The investment return assumption was lowered from 7.75% to 7.625%
- > The mortality assumption for non-disabled participants was changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale AA from 2010 to the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2009
- > The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010 to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015.

Holyoke Gas and Electric

Notes to Required Supplementary Information – Other Post Employment Benefits (Unaudited)
Year Ended December 31, 2020

Factors significantly affecting trends in the amounts reported:

Inflation	3.50% for FY2020 - FY2017 Service-related increases for Group 1: 6.0% per year decreasing over 9 years to 4.25% per year for FY2020 - FY2017
Salary increases	Service-related increases for Group 4: 7.0% per year decreasing over 6 years to 4.75% per year for FY2020 – FY2017
Investment rate of return	6.25% for FY2020 – FY2017
Healthy Mortality Rates	PubG.H-2010 Mortality Table with MP-2020 Projection Scale for FY2020. PubG.H-2010 Mortality Table with MP-2018 Mortality Scale for FY2019 and FY2018. RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2009 for FY2017.

Significant Methods and assumptions used in calculating actuarially determined contributions:

Valuation Date	Actuarially determined contribution for fiscal year ending December 31, 2020 was determined with the December 31, 2020 actuarial valuation. The fiscal year ending December 31, 2019 and 2018 were both determined with the December 31, 2018 actuarial valuation. The fiscal year ending December 31, 2017 was determined with the June 30, 2015 actuarial valuation.
Actuarial cost method	Entry Age Actuarial Cost Method for FY2020 – FY2018. Projected Unit Credit Method for FY2017.
Amortization method	Level percent of payroll for FY2020 – FY2017
Remaining amortization period	6 years from December 31, 2020 for FY2020. 6 years from December 31, 2018 for FY2019 and FY2018. 7 years from December 31, 2015 for FY2017.
Asset valuation method	Market value for FY2020 – FY2017
Discount rate	6.25% for FY2020 – FY2017
Inflation	3.50% for FY2020 - FY2017
Health care trend rates*	5.5% per year graded down by the Getzen model to an ultimate rate of 4.04% per year for FY2020. 6.00% per year graded down by the Getzen model to an ultimate rate of 3.84% per year for FY2019. 6.50% per year graded down by the Getzen model to an ultimate rate of 3.84% per year for FY2018. 10.0%, then 7.5% decreasing by 0.5% for 5 years to an ultimate level of 5.0% per year for FY2017.
<i>Non-Medicare medical/prescription drug</i>	5.5% per year graded down by the Getzen model to an ultimate rate of 4.04% per year for FY2020. 6.00% per year graded down by the Getzen model to an ultimate rate of 3.84% per year for FY2019. 5.5%, then 7.5% decreasing by 0.5% for 5 years to an ultimate level of 5.0% per year for FY2018. 10.0%, then 7.5% decreasing by 0.5% for 5 years to an ultimate level of 5.0% per year for FY2017.
<i>Medicare medical/prescription drug</i>	5.5% per year graded down by the Getzen model to an ultimate rate of 4.04% per year for FY2020. 6.00% per year graded down by the Getzen model to an ultimate rate of 3.84% per year for FY2019. 5.0% for FY2018 and FY2017.
<i>Dental/Administrative</i>	Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend for FY2020 – FY2017.
<i>Contributions</i>	

*Trends reflect known increases for the first year

S U P P L E M E N T A R Y I N F O R M A T I O N

Holyoke Gas and Electric

Schedules of Operating Revenues and Expenses - Gas Division
Years Ended December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Operating Revenues		
Residential	\$ 9,412,029	\$ 9,992,516
Commercial	8,194,170	9,532,673
Industrial	1,977,948	2,106,098
Municipal	665,127	746,206
Departmental sales	48,033	69,244
Sales for resale	205,870	280,649
Uncollectible accounts	(131,136)	(103,355)
	<u>20,372,041</u>	<u>22,624,031</u>
Total operating revenues	<u>\$ 20,372,041</u>	<u>\$ 22,624,031</u>
Cost of Gas Sold		
Purchases, natural gas	\$ 7,608,977	\$ 9,135,176
Liquid natural gas processed	365,725	862,926
Environmental response	89,491	99,087
Supplies and expenses	180,572	215,493
	<u>8,244,765</u>	<u>10,312,682</u>
Total cost of gas sold	<u>\$ 8,244,765</u>	<u>\$ 10,312,682</u>
Distribution		
Salaries and wages:		
System control and load dispatch	\$ 361,080	\$ 355,607
Supervision and engineering	378,896	362,527
Customer installation	591,865	637,254
Operation	687,982	594,329
Maintenance	1,097,490	1,002,134
Supplies and expenses	1,791,820	1,275,404
	<u>4,909,133</u>	<u>4,227,255</u>
Total distribution	<u>\$ 4,909,133</u>	<u>\$ 4,227,255</u>
Customer Accounts		
Salaries and wages:		
Meter reading	\$ 60,955	\$ 64,458
Accounting and collection	134,301	136,487
Supplies and expenses	79,250	81,794
	<u>274,506</u>	<u>282,739</u>
Total customer accounts	<u>\$ 274,506</u>	<u>\$ 282,739</u>
General and Administrative		
Salaries	\$ 973,850	\$ 918,036
Pensions and benefits	2,344,229	2,288,852
Insurance	131,242	142,741
General supplies and expenses	762,818	805,666
	<u>4,212,139</u>	<u>4,155,295</u>
Total general and administrative	<u>\$ 4,212,139</u>	<u>\$ 4,155,295</u>

Holyoke Gas and Electric

Schedules of Operating Revenues and Expenses - Electric and Telecommunications Divisions
Years Ended December 31, 2020 and 2019

	<u>2020</u>	<u>2019</u>
Operating Revenues		
Electric sales:		
Residential	\$ 14,698,372	\$ 13,761,888
Commercial	22,418,614	22,864,402
Industrial	5,198,569	5,608,409
Municipal	2,500,549	2,721,583
Interdepartmental	252,274	274,277
Water	6,300	6,300
Renewable energy revenue	2,093,340	2,061,618
Cobble Mountain operation, net	718,030	611,416
Telecommunication sales	2,490,235	2,529,281
Uncollectible accounts, electric/hydro	(326,952)	(241,664)
Uncollectible accounts, telecommunications	(507)	-
Total operating revenues	<u>\$ 50,048,824</u>	<u>\$ 50,197,510</u>
Cost of Electricity/Steam/Water Sold		
Purchases, electricity	\$ 10,488,314	\$ 13,039,813
Salaries and wages:		
Production	1,308,001	1,265,944
Maintenance	1,644,030	1,514,180
Supplies and expenses	2,873,315	2,501,500
Cost of water sold	385,223	738,610
Total cost of electricity/steam/water sold	<u>\$ 16,698,883</u>	<u>\$ 19,060,047</u>
Electric Transmission		
Salaries and wages	\$ 886,127	\$ 681,834
Supplies and expenses	277,956	166,027
Transmission by others	2,464,002	1,682,142
Total electric transmission	<u>\$ 3,628,085</u>	<u>\$ 2,530,003</u>
Distribution		
Electric:		
Salaries and wages:		
Lines, equipment and street lights	\$ 3,003,706	\$ 2,715,117
Customer installations	275,883	217,181
Supplies and expenses	3,268,958	3,105,706
Telecommunications distribution	1,630,395	1,611,214
Total distribution	<u>\$ 8,178,942</u>	<u>\$ 7,649,218</u>
Customer Accounts		
Salaries and wages:		
Meter reading	\$ 108,770	\$ 125,394
Accounting and collection	249,415	253,476
Supplies and expenses	134,681	163,066
Total customer accounts	<u>\$ 492,866</u>	<u>\$ 541,936</u>
General and Administrative		
Electric:		
Salaries	\$ 1,776,744	\$ 1,736,824
Pensions and benefits	4,898,821	4,943,853
Insurance	506,895	508,401
General supplies and expenses	1,802,132	1,541,112
Telecommunications general and administrative	746,877	774,202
Total general and administrative	<u>\$ 9,731,469</u>	<u>\$ 9,504,392</u>

