



# 2013

2013 ANNUAL REPORT



*Above the Holyoke Dam, Holyoke, MA*





To the Honorable Mayor, Members of the City Council, and our Valued Customers:

Submitted herewith is the One Hundred and Eleventh Annual Report of the City of Holyoke Gas & Electric Department (HG&E) for the year ending December 31, 2013.

HG&E continued to offer some of the lowest utility rates in the region in 2013, while continuing an aggressive capital improvement program, and maintaining system reliability performance above industry averages. Two major credit rating agencies also upgraded HG&E's credit rating to A+, affirming the Department's overall strong financial performance.

HG&E continued to make investments in its hydro plant and to execute power purchase agreements for other forms of renewable energy, expanding its portfolio of cost-competitive clean energy. In 2013, over 68% of the electricity sold by the Department came from renewable resources and over 95% of electricity sold was carbon-free, far exceeding the Commonwealth's renewable portfolio standard requirements. In addition, HG&E continues to offer an aggressive energy conservation assistance program and is on target to help the City reduce municipal energy consumption by 20% in accordance with the Green Communities Act objectives.

The Electric Division continued to modernize the Department's distribution system for increased reliability with cable replacements and voltage conversions. Additionally, HG&E completed the second phase of a three-year project to replace all streetlights with new light emitting diode (LED) streetlight fixtures, which provide more direct light, reduce HG&E maintenance costs, and provide significant savings for the City through improved efficiency.

In 2013, the Gas Division continued an aggressive pace of adding new services and upgrading existing infrastructure. As customers continue to take advantage of the lower cost of natural gas compared to oil, a total of 109 gas service lines were installed for new customers. The Department also continued its ongoing infrastructure improvement program and replaced 4,457 feet of cast iron mains with new plastic pipes. We performed over 800 free winter heating system startups for customers.

The Telecommunications Division continued to expand the reach of fiber optic Internet and commercial network services, and continued its support for the City of Holyoke network operations.

We thank the City officials and Department employees for their continued faithful service to HG&E. We will continue to work diligently to provide our customers with reliable utility services at competitive rates, backed by an unprecedented dedication to customer service.

Respectfully,

Francis J. Hoey III, Commission Chairman

Robert H. Griffin, Commission Treasurer

James A Sutter, Commission Secretary

James M. Lavelle, Manager

# GAS DIVISION



*One of the biggest stories of 2013 was the cold weather. There were 6,408 degree days, well above the 10-year average of 6,161.*

## **NEW SERVICES**

In 2013, the Department installed 109 natural gas service lines to new customers. The Department also replaced 289 existing older services in Holyoke by burying new plastic pipe or inserting it through older existing steel lines. The Department abandoned 15 service lines in Holyoke that were no longer needed.

As per HG&E's Distribution Integrity Management Plan (DIMP) that was implemented in August 2011, the Department embarked on a 10-year bare steel service replacement program. There are currently approximately 2,536 bare steel gas services remaining in the Holyoke, down from the approximately 3,200 at the beginning of the program. Bare steel services were installed from the early 1900s through the late 1960s. At the conclusion of this replacement program, all gas services will be constructed of either polyethylene plastic or coated steel.

## **NEW AND REPLACEMENT MAINS**

The Department continued its cast iron main replacement efforts and replaced a total of 4,457 feet of small diameter, wrought iron and cast iron pipes with new plastic pipe on Highland Avenue, Pearl Street, Central Park Drive, Pleasant Street, and Magnolia Avenue. An additional 382 feet of pipe was abandoned off of Beaulieu Street. The new plastic mains are generally four or six inches in diameter.

The Department installed a new 6" plastic gas main on a portion of Mountain Road and 2" plastic mains on West Cherry Street and Reservation Road.

In Southamptton, the Department extended the gas main on Strong Road, Laurie Drive, Sara Lane, and Gilbert Road.

The Holyoke/Southampton natural gas distribution system now consists of over 180 miles of mains, 7,800 service lines, and 10,650 active gas meters.

## **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 more than 3,800 lines in 2013, or about one-half of the service pipes in the system. The combined surveys accounted for the detection of 140, mostly minor, underground leaks. All leaks were investigated and prioritized. A total of 69 underground leaks were repaired and/or eliminated in 2013, and the remainder were

monitored throughout the year or scheduled for repair, consistent with the applicable safety regulations.

### **OTHER PREVENTATIVE MAINTENANCE: CORROSION MITIGATION**

The Department continued its aggressive program to mitigate corrosion on its coated steel piping systems. In 2013, professional inspections were made of all 78 of the cathodically protected systems, and the 26 coated steel services longer than 100 feet.

### **GAS SUPPLY AND FLOW CONTROL**

The Department delivered 2,187,257 DTH of gas in 2013, with a peak send-out of 17,177 DTH on January 23, 2013. Of that, 12,488 DTH was delivered over the pipeline and 4,689 DTH was supplemented by LNG. 2013 was a colder year with 6,408 degree days, which is above the 10-year average of 6,161.

HG&E continues to operate its Liquefied Natural Gas (LNG) storage and vaporizing system, providing the extra gas needed during the coldest winter days and as an emergency supply for the entire city if needed.

The second phase of a three-year replacement of the telemetry system, which monitors and transmits gas system pressure data, was completed. The system was installed at an additional five regulator stations and tied in to the SCADA system.

The regulator station at Hampden Street and Lincoln Street was completely rebuilt to accommodate increased load. This station was moved out of the intersection for easier maintenance and will provide continued reliable gas supply to the neighborhood.

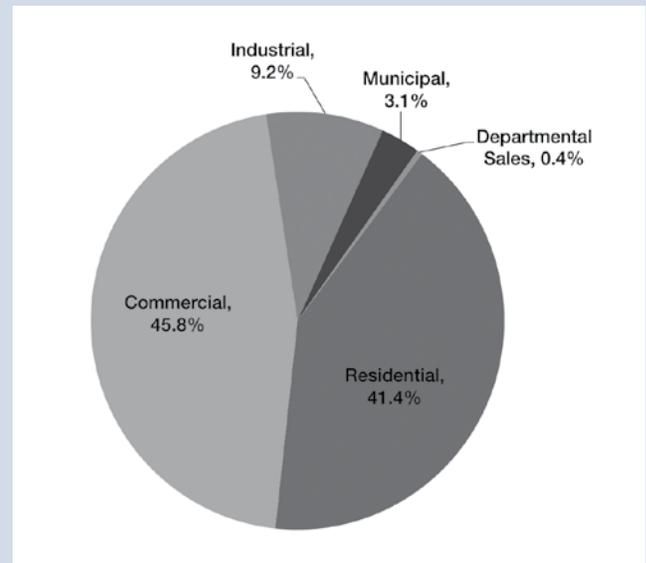
### **SERVICE**

The Department completed 3,340 appliance repair service calls for customers in Holyoke and Southhampton during the year. These calls included boiler /furnace, water heater and dryer repairs and thermostat installations. In addition, 1,941 gas meters were changed to comply with the state mandated seven-year meter exchange requirement. A total of 8,414 service orders were completed for gas and electric meter turn-ons and turn-offs. The Department also invested in 567 total hours of training on new heating equipment that is being brought to the market.

### **GAS WORKS**

The Department operated its two tar removal systems during the year. The Tailrace system, which intercepts dense non-aqueous phase liquid (DNAPL) coal tar before it can migrate beneath the river, collected 1,205 gallons of tar for the year, bringing the total to 10,734

### **2013 Gas Division Revenues**



gallons. The tar is collected and then sent off site for disposal. The second system is on the site itself, and pumps DNAPL in a similar fashion as the Tailrace area recovery system. The on-site DNAPL only collected 9 gallons of tar in 2013 bringing the total to 219 gallons.

### **River Sediment Remediation: Northeast Utilities**

In 2012, Holyoke Water Power's (HWP) submitted a revised Method 3 Risk Characterization for all remaining tar deposits in Site Portions 1 and 2 (SP-1, SP-2) of the river. The risk characterization showed that there is no ecological or human health risk for a majority of the coal tar deposits. In 2013, the Massachusetts Department of Environmental Protection approved the Risk Characterization. HWP is developing plans for the final remediation that is required. SP-1 starts at the dam and extends to just south of Riverside Station and SP-2 starts at Riverside Station and extends to the 391 Connecticut River Bridge.

# ELECTRIC PRODUCTION HYDRO



*Significant progress was made this year in the design and evaluation of downstream fish passage options for the Hadley Falls intake at the Holyoke Dam.*

## HYDROELECTRIC FACILITIES

A number of projects were completed which improved or will contribute to future generation capacity and reliability of the Department's hydroelectric facilities. These projects included:

**Harris Projects:** As part of a Strategic Plan, the Department is working towards a reduction in generators in the abandoned Harris Mill complexes. In 2013, HG&E surrendered the Federal Energy Regulatory Commission (FERC) License for the Gill Mill D Wheel and the Mt. Tom Unit. The project consisted of concrete capping the penstocks for each of these units. The Department retains the water rights for the retired units. Additionally, the Department is preparing plans to surrender the FERC license for the Nonotuck and Albion A and D units which were decommissioned as planned.

**Grant Award for Boatlock Station Unit 2 Runner:** On June 27, 2011, HG&E received a Notice of Award from the Massachusetts Clean Energy Center as a grant in an amount not to exceed \$300,000 towards the replacement of a turbine runner for Boatlock Station Unit 2. The partially completed runner is scheduled for delivery in February 2014 with installation in 2015 following the Hadley 1 overhaul project.

**Hadley Falls Unit 1 Modernizing Plans:** In 2013, plans to upgrade Hadley Unit 1 were developed in consideration of alternatives to the increased energy production in conjunction with the evaluation of the Hadley Station intake fish exclusion rack project currently in progress. Alternatives for maximizing the operating efficiency of the existing units include installation of new turbine runner, generator rewinds, and upgrading the station switchgear. In 2013, the design and bid package for Hadley Falls Unit #1 overhaul was completed. A contract is in place and long-lead items (generator, turbine blades, runner hub, and wicket gates) have been ordered and are in process of being fabricated.

**Hadley Station Downstream Fish Passage Project:** Significant progress is being made with regards to the design and evaluation of downstream fish passage options for the Hadley Falls intake at the Holyoke Dam. Bid specifications for the fabrication and installation are in progress. Pre-application permit meetings were held with Holyoke Conservation Commission, Massachusetts Department of Environmental Protection (MADEP), Natural Heritage & Endangered Species Program (NHESP). A consultation letter was sent to MHC and comments were received.

**Other capital improvements were made to several facilities, including the following:**

**Chemical Station:**

- Removed and reworked the thrust bearing cooler
- Disassembled, cleaned and re-installed thrust bearing

**#2 Overflow:**

- Fortified the tailrace passageway #2 & #3 with concrete

**#3 Overflow:**

- Pointed upstream walls
- Installed a de-icing system

**City #3:**

- Prepared bid package solicited for rewinding generator
- Upgraded the former Chemical Unit #1 Kaplan positioner which was installed at City #3 as new gate positioner
- Upgraded station electrical service
- Re-babbitted turbine guide bearing

**Riverside Unit #4 & 5:**

- New excitation
- Upgraded PLC and controls systems
- Overhauled Riverside #4 guide bearing

**Boatlock Station:**

- Installation of new oil/water separator
- Performed concrete repair on South Hadley abutment wall

**Riverside:**

- Removed and installed a new 7X transformer

**Rubber Bladder #3 Repair:** Rubber Bladder #3 experienced a loss of pressure due to a tear in the rubber dam material. Once flashboards were installed a determination as to the extent of the repair was made and cold splice patches on the internal and external were installed and then hot vulcanized.

**PRODUCTION: COMPLIANCE ACTIVITIES**

The Department has a number of technical agreements and environmental requirements mandated through the FERC and MADEP. The Hydro Division mission includes balancing hydroelectric generation with purposeful environmental stewardship while protecting valuable natural, cultural, and scenic resources and providing public recreation facilities. The Department strives to have an economically viable project while fulfilling the environmental mandates with which HG&E must comply.

**Major compliance issues addressed in 2013 included:**

**10th Part 12D Inspection:** Continued implementation of tasks associated with the 2012 FERC Part 12 inspections including:

stability analysis of the first level canal dike, Boatlock Station and Overflow(s) 1-3; a dive inspection survey of the Canal Gatehouse structure, dam apron, Hadley Falls unit #2 tailrace gates; and repairs to the Hadley unit #1 fill gate which were completed in the summer of 2014.

**Flood Control Improvement Projects:** The Department prepared applications for the Hazard Mitigation Grant Program offered through the Federal Emergency Management Agency (FEMA). In 2011, the Massachusetts Emergency Management Agency recommended the HG&E applications to FEMA. Funding for the projects planned at the Holyoke Gatehouse and Riverside Station will result in a federal project share cost of 75% amounting to \$152,700 at the Gatehouse Project and \$84,225 at Riverside Station. The flood control improvement projects are essential to protecting the Department's hydroelectric generating assets. A contract to fabricate and deliver the new structures has been awarded.

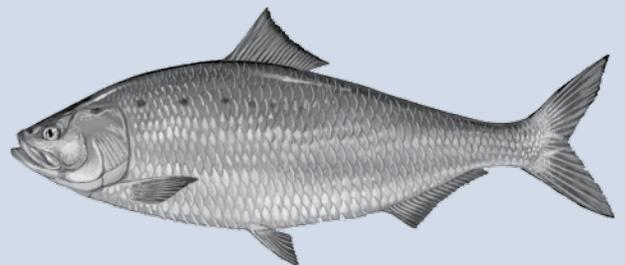
**Texon Demolition:** Demolition is expected to be completed in the summer of 2014.

**PRODUCTION: ADDITIONAL ACTIVITIES**

**Environmental Projects Included:**

- Monitoring of invasive plant species along the impoundment and on-going efforts to control water chestnut in Log Pond Cove.
- Certificate of Completion (COC) from the local Conservation Commission for work completed at Slimshad Point in Holyoke in 2012.
- Annual water quality monitoring of project operations.

**Partnership with Holyoke Community College (HCC):** In 2013, HG&E continued its partnership with HCC for the collection of data on the number of fish and species passed at the Robert E. Barrett Fishway. Activities included: biological sampling, trapping and loading of shad; trapping of shortnose sturgeon and Atlantic Salmon; and observations of lift operations and the eel passage.



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# SHAD DERBY *Daily* SCOREBOARD

## SENIOR DIVISION

## JUNIOR DIVISION

WEIGHT	
1	5LB 5 oz
2	5LB 2 1/2 oz
3	5LB 0 1/2 oz
4	5LB 0 1/2 oz
5	4LB 15 1/2 oz
6	4LB 15 1/2 oz
7	4LB 15 oz
8	4LB 15 oz
9	4LB 14 1/2 oz
10	4LB 14 oz

HEAVIEST TO DATE  
 5LB 5 oz

HEAVIEST TO DATE  
 5LB 4 oz

WEIGHT	
5LB 4 oz	1
4LB 15 oz	2
4LB 13 1/2 oz	3
4LB 13 1/2 oz	4
4LB 13 oz	5
4LB 11 1/2 oz	6
4LB 11 oz	7
4LB 7 oz	8
4LB 7 oz	9
4LB 7 oz	10

Today's HEAVIEST SHAD WEIGHT

5LB 5 oz

## 2013 FISH PASSAGE

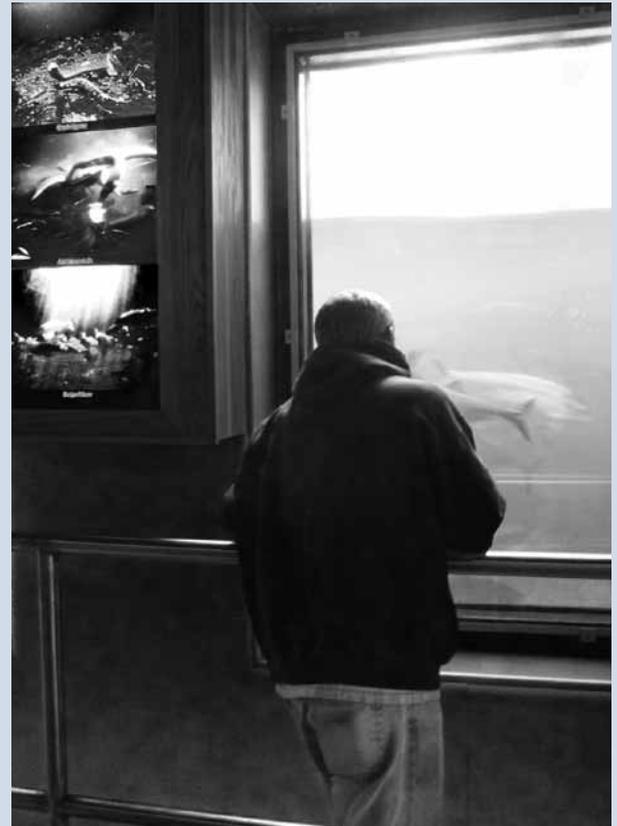
The fish lift at the Robert E. Barrett Fishway assists migrating fish to reach spawning areas above the Holyoke Dam. HG&E's fish passage facility was the first and most successful fish lift on the Atlantic coast. It is comprised of two fish elevators which carry migrating fish up and beyond the dam.

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

American Shad	392,967
Atlantic Salmon	68
Blueback Herring	976
Sea Lamprey	22,092
Striped Bass	250
Shortnose Sturgeon	3
Gizzard Shad	827

In addition to the fish passage facilities, there are eel ramp passage facilities on both the Holyoke and South Hadley shores below the dam. The number of American Eels counted at these ramps in 2013 was 13,629.

In 2013, the public viewing facility at the Fishway was open from May 8th through June 16th and attracted 10,041 visitors. The opportunity to view fish on their annual spring spawning run is a rare opportunity and demonstrates HG&E's commitment to Connecticut River stewardship and educational initiatives.



*Viewing room at HG&E's Robert E. Barrett Fishway*

# ELECTRIC DIVISION



*2013 was a busy year and included the final commissioning of the new North Canal Substation and the construction and commissioning of the Hadley Falls Generator Step Up Substation.*

*The linemen of HG&E, from right to left: Daniel Donoghue, Kenneth Atchison (Foreman), Matthew Atchison, Larry LaRoque, Glenn Cartwright, Alan Kwasnik (Foreman), Brian Wall (Foreman), Angel Maldonado Sr., Ryan McMahon, Patrick St. Lawrence, and Michael Costello (General Foreman)*

## **ELECTRIC OPERATIONS**

On April 11th, the 115 / 13.8 kV transformers and associated busses at North Canal Substation, were placed into service and commissioned. Load was transferred from Prospect Substation in Chicopee over to the new substation in May. By September, all remaining generation from Prospect was transferred to North Canal. This included the construction of two new underground 13.8 kV circuits to feed Riverside Hydro and two new overhead 34.5 kV circuits to feed Hadley Falls Hydro.

In addition to North Canal, construction and commissioning of the Hadley Falls generator step up (GSU) substation was completed. This allowed the Department to transfer the Hadley Falls hydro generation output to the North Canal 34.5 kV busses. Work included completion of all equipment testing including transformers, switchgear, and relays; installation of a fiber optic circuit to North Canal for relay communication; and erecting a self-supporting steel structure next to the Hadley Falls plant in order to redirect the generator leads into the new substation. The station was energized and commissioned on August 7th.

Other major projects that were completed in 2013 included the demolition of the old 13.8 kV / 4.8 kV Oakdale Substation in anticipation of its conversion into a switching station, installation of 16 multifunction meters (MFMs) on ten (10) Ingleside Substation 52W feeders and six (6) Highland 36H meters, and the commissioning of a thorough arc flash analysis study for all of the electrical equipment at the Electric Station to ensure personnel safety. The Department successfully completed the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) audit.

As part of the Department's Preventative Maintenance (PM) Plan, major maintenance and testing was performed on substation and plant equipment throughout the year.

## **ELECTRIC DISTRIBUTION**

Electric distribution system improvements in 2013 included the replacement of a 600' section of underground primary cable on Lindor Heights, a 300' section of underground primary cable on Center Street, an 1,800' section of overhead primary wire on N. Canal Street along the Third Level Canal, a 900' section of overhead primary wire on Lynwood Avenue and Shawmut Avenue for construction of a tie point between the H3 and H4 circuits, and a 320' section of secondary open wire with triplex wire that serves customers on Pine Street and Walnut Street.

Upon placing North Canal Substation on-line in late 2012, the Department completed its transfer of all distribution circuits from Prospect Substation to North Canal Substation. Six existing circuits were transferred to North Canal Substation from Prospect Substation. Two new circuits were also installed to re-feed the majority of the existing 17L6 circuit originating from Holyoke Substation and Riverside generating station. Approximately 2,200' of new underground cable was installed for these two new circuits. All overhead wire for the second circuit to the Hadley Falls generating station was replaced to accommodate the new 35 kV voltage class. Approximately one mile of 795 Al spacer cable was installed from North Canal Substation to the Hadley Falls generating step-up station as part of this upgrade.

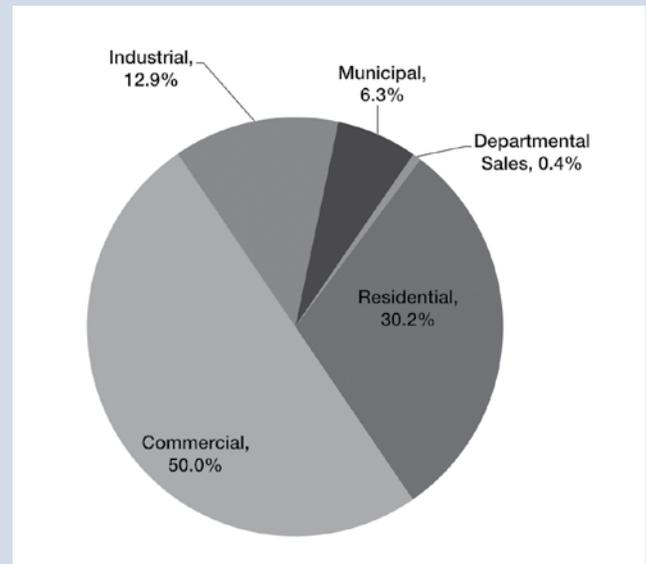
The first of a two-year project upgrading the uptown network distribution system in and around City Hall was completed. The upgrades included replacing approximately 2.5 miles of paper insulated lead cable (PILC) on the 17L12 and 17L14 circuits with new ethylene propylene rubber (EPR) insulated cable, ten network protectors with SCADA-ready connectivity, and lead wiping sleeves with standard bushing wells on existing network transformers. Network transformers were tested and refurbished with new gauges and connectors during this process.

The Department continued replacing high pressure sodium (HPS) lights with more efficient light emitting diode (LED) lighting technology. The second of a three-year plan for roadway fixtures was completed. LED roadway fixtures, on average, will reduce the City's street light consumption by approximately 60%, reduce Department maintenance costs, last 3-4 times longer than a typical HPS roadway fixture, and provide more uniform and direct lighting on City streets. There were a total of 1,100 LED roadway fixtures installed in the Highlands, Oakdale, Elmwood, and Springdale areas of the City. In addition, there were 135 decorative residential HPS fixtures that were replaced with equivalent LED fixtures.

Backyard overhead infrastructure on Vadnais Street was addressed to improve service reliability and reduce maintenance costs. Approximately 1,700' of new conduit and three new manholes were installed on Vadnais Street. New primary cable, seven new handholes for future service tap points, and one padmount transformer were installed. Services to two customers on Vadnais Street and nearby George Street were placed underground as part of the project.

The first of two voltage conversions at the West Holyoke Substation was completed this year. The WH1 circuit, which included the areas of Homestead Avenue between Westfield Road and Nicholls Drive, Fenton Street and Arden Street including any street in between, Sheehan Drive and Edbert Drive and any street in between, Memorial Drive, Memorial Circle, and Park Avenue, was converted from 4.8 kV to 13.8 kV. Approximately 3.5 circuit miles of wire and cable and 44

## 2013 Electric Division Revenues



wood poles were replaced as part of this project. This work included other reliability upgrades such as replacing all porcelain hardware with polymer and installing new crossarms, insulators, connectors, and fault indicators.

Cabling upgrades at the Castle Hill Apartments located off Mountain Park Access Road were completed that replaced infrastructure dating back to the early 1970s. Approximately 1,200' of underground primary cable was replaced and an additional 550' of new cable was installed as part of the new loop feed design for the complex. Two termination cabinets were also installed which eliminated existing manhole feed-thru components and allowed for the installation of fault indicators to reduce potential outage times in the future.

Massachusetts Department of Transportation (MassDOT) completed the replacement of the northbound bridge on Route 202 heading into South Hadley. As part of this project, the Department was required to relocate four existing street lights, re-feed the lights from a different source temporarily, and install new underground cable to feed the lights in their new locations, near the intersection of Beech and Lyman Streets and on the new bridge itself. As a result, street lighting and subsequent traffic flow were improved in this area. One existing manhole was also removed to accommodate footing of the new bridge.

The Department continued work on the implementation of its new Geographic Information System (GIS) mapping software for the electric distribution system. Another 28 overhead circuits and their associated devices, indicators, and identifiers were placed into GIS. This included all primary wire, secondary mains, services, meter locations, phase identification, and third party attachments. All new or relocated



*Serviceman Christopher Barney assisting HG&E Customers, Siobhan Sullivan and Jack Donoghue*

infrastructure can now be referenced on the map as an exact representation of how it exists in the field, including existing infrastructure. Existing paper records of manholes, secondary maps, conduit maps, and CAD one line drawings can also be accessed in GIS to provide additional assistance to engineering or line crew personnel.

Nine services on Brown Avenue, George Street, Hillview Road, Lincoln Street, Pleasant Street, Vadnais Street, and Williams Street were relocated from heavily overgrown areas with difficult accessibility to the street. This will provide these customers with more reliable electric service and also protection from potential safety hazards and safety code violations which will, in turn, reduce some tree trimming and outage costs for the Department.

A number of preventative maintenance activities continued throughout the year. Testing was performed on 77 new and used transformers. Inspections were performed on 270 manholes throughout various areas of the City and including stray voltage testing of approximately 20% of the City in the Ingleside, West Holyoke, Smiths Ferry, and Oakdale areas as well as the six streets in Southampton serviced by the Department. Infrared inspections were performed on all distribution circuits throughout the City. Annual visual inspections on all three transmission lines were performed by in-house staff to ensure reliable operation of the transmission system. There were 145 padmount transformers on various circuits inspected as well by in-house staff.

Reliability statistics allow the Department to track its service reliability and compare them from year to year with other municipal and private utilities. There are five statistics used to define the length and frequency of interruptions to customers, system availability, and the number of customers impacted by outages (see chart, above).

Four new or upgraded electric services, Holyoke Public Library on Chestnut Street, United Waste Management on Berkshire Street, Morgan School on S. Bridge Street, and Veterans Park on Dwight Street, were completed, resulting in a net additional connected load of 250 kVA. A utility-scale solar project was placed online, near the WHYN radio towers on County Road, resulting in a 750 kVA connected load. There were three new homes that required new electric services resulting in a connected load of 20 kVA. The new homes were constructed on available lots on Mueller Road, Chestnut Street, and Michelle Lane.

### Electric Distribution System Reliability Statistics

Statistic	2013	2012
<b>ASAI</b>	99.994%	<b>99.996%</b>
<b>CAIDI</b>	96.64 min	49.77 min
<b>SAIDI</b>	34.04 min	19.30 min
<b>SAIFI</b>	0.35 outages	0.39 outages
<b>MAIFI</b>	3.58 events	1.83 events

*Average System Availability Index (ASAI)*—represents how much of the time a customer actually has service available to them.

*Customer Average Interruption Duration Index (CAIDI)*—represents the average time expected to take 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.

*Momentary Average Interruption Frequency Index (MAIFI)*—defines the average number of momentary outages a customer may experience in a year.

### METERING

The Department completed its migration to the fixed network system and installed seven collector units that remotely read the Department's gas and electric AMR meters by forwarding meter and diagnostic data back to the data collection server. In addition, 130 repeaters were installed to expand coverage without additional backhaul costs. This system will provide outage notification for electric meters, tampering diagnostics for electric and gas meters, interval meter data, and instantaneous meter reads which will allow the Department to perform certain tasks remotely. The system integrates with the Department's mobile handheld system which can retrieve reads from meters on the edges of the network as well as gas meters in Southampton.

A total of 25 transformer, station service, and generation meters were tested to meet ISO-NE's OP-18 metering requirements. These included meters at the Ingleside, Holyoke, and Prospect substations and the City Hydro, Hadley Falls, Riverside, Chemical, Valley, Beebe Holbrook, and Harris generation stations. At the new Hadley Falls Substation, two meters were programmed and tested per ISO-NE's OP-18. The meters are tested on a biannual basis with the Department's portable test unit. At Open Square, a new high-end meter was installed to join the existing meters on the generators. Together they will provide real-time load profile and power quality information.

In-house meter personnel tested 154 CT rated services. This testing ensures that metering remains accurate and any issues are addressed in a timely fashion.

Throughout the year, the metering group supported the Customer Service Department by performing delinquent customer ons and offs, tagging notifications, meter reads, and collections. In total, 5,868 credit-related duties were performed in 2013.

In summary, there were a net total of 23 electric meters installed, 88 electric meters replaced, and 164 electric meters retired, having an average age of 14.14 years. A total of 284 electric meters were tested and calibrated, 104 voltage tests, 593 turn-ons and 429 turn-offs, and 2,218 electric successions performed, and 132 no- or low-consumption reports investigated for metering problems and/or theft of service. There were 18 current transformer installs, nine removals, and three potential transformers removed. On the gas side, 2,043 meters were removed and tested, 2,181 meters were installed, 2,790 meters were sealed, and 340 meters were retired.

## **WHOLESALE POWER**

As part of the Department's 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 to our future cost of power. The Department purchases its power on both a short-term and long-term basis to take advantage of the fluctuating market, decrease the risk of rising prices, and increase the stability of future energy costs to ensure stable low rates for our customers.

During 2013, the Department proactively pursued low cost "carbon-free" projects to further enhance its clean energy portfolio and negotiated with a wind developer to provide 6.032MW of low cost sustainable wind energy to Holyoke beginning in 2015.

The Department further enhanced its clean energy portfolio by promoting and negotiating solar contracts. A twenty-year Power Purchase Agreement with Citizens Solar executed on June 7, 2011 to purchase 100% of the solar output from a ground mounted solar project located within Holyoke on County Road, for 0.799 MW DC of solar power, began full operation in February 2013. This project produced 976 MWh of carbon-free power for the Department in 2013. HG&E's Constellation Solar Projects produced 5,354 MWh of carbon-free power for the Department in 2013.

On November 1, 2013, HG&E executed a two-year electric rate contract to purchase excess hydro power from a local hydro provider. Through this contract, HG&E purchased 1,563 MWh of low cost hydro power in 2013 from Open Square.

On December 20, 2011 HG&E executed a ten-year Power Transaction which included Nuclear Certificates. Year two of this transaction produced 40,800 MWh of carbon/emission-free power for the Department in 2013 and helped to stabilize rates for the Large Industrial contracted rate customers.

A total of 253,400 MWh of net generation was produced from the Department-owned hydro resources which continue to help drive down the overall cost of power. During 2013, the hydro preference power credits to our residential customers remained at 1.2¢/kWh throughout the year which generated total savings of \$1,194,728 to \$938,640 from Department-owned hydro and \$256,089 from NYPA entitlements.

The Holyoke Hydroelectric system including the Hadley Falls Dam and the Holyoke-owned hydro facilities located on the canal system was certified by the Low Impact Hydropower Institute (LIHI) effective January 1, 2012 allowing the Department to register for Massachusetts Class I and II status. Five (5) Massachusetts Class II Statement of Qualification Applications were submitted and approved by the DOER in April 2013. All of the canal units with the exception of Harris are MA Class II certified. Sale of these certificates resulted in \$848,347 of revenue to the Department in 2013.

On October 19, 2011, the Department took steps to formally retire its own gas/oil fired Holyoke 6 and Holyoke 8 steam turbines with an effective date of June 1, 2015. The ISO-NE Reliability Committee determined there was no reliability need for these resources. HG&E shed its capacity supply obligations and formally retired these units on March 8, 2013.

68.62% of the Department's 2013 generation is from renewable resources (hydro and solar) and 95.00% of its generation is carbon free (renewable and nuclear). The graph (right) summarizes the Department's resource mix by energy type. Note that System Power represents short-term bilateral contracts representative of system mix within ISO-NE that were procured during the summer time frame and the carbon free system power represents a long-term on peak bilateral contract with nuclear certificates attached.

# POWER SUPPLY

## 2013 Power Supply Resources

PROJECT NAME	FUEL TYPE	PROJECT START DATE	CONTRACT CAPACITY (kW)		CONTRACT END DATE
			WINTER	SUMMER	
<b>BASE UNITS</b>					
NYPA FIRM	HYDRO	1985	1,844	2,662	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	3/31/30 *
SEABROOK - PROJ 4	NUCLEAR	1990	3,306	3,306	3/31/30 *
SEABROOK - PROJ 5	NUCLEAR	1990	408	408	3/31/30 *
<b>INTERMEDIATE UNITS</b>					
HYDRO QUEBEC 1	N/A	1986	1,189	1,189	LOU **
HYDRO QUEBEC 2	N/A	1989	1,938	1,938	LOU **
W.F. WYMAN 4	#2 OIL	1978	4,199	4,152	LOU *
<b>PEAKING UNITS</b>					
HOLYOKE #6 & #8	#2 OIL, #6 OIL, GAS	1951	18,605	18,605	RETIRED 3/8/13 *
NYPA PEAK	HYDRO	1985	395	395	9/1/25
STONYBROOK GT 2A	#2 OIL	1982	2,476	1,910	LOU *
STONYBROOK GT 2B	#2 OIL	1982	2,413	1,850	LOU *
<b>RENEWABLE</b>					
HADLEY FALLS 1&2	HYDRO	1949	33,400	33,400	OWNED *
RIVERSIDE 8	HYDRO	1931	4,500	4,500	OWNED *
RIVERSIDE 4-7	HYDRO	1921	3,435	3,435	OWNED *
BOATLOCK	HYDRO	1924	3,094	3,094	OWNED *
HOLYOKE HYDRO / CABOT 1-4	HYDRO	1923	2,590	2,590	OWNED *
CHEMICAL	HYDRO	1935	1,480	1,480	OWNED *
BEEBE HOLBROOK	HYDRO	1948	205	205	OWNED *
SKINNER	HYDRO	1924	280	280	OWNED *
VALLEY HYDRO	HYDRO	2004	790	790	OWNED *
ALBION A	HYDRO	2004	281	281	OWNED *
ALBION D	HYDRO	2004	395	395	OWNED *
GILL D	HYDRO	2004	330	330	OWNED * ***
NONOTUCK	HYDRO	2004	472	472	OWNED * ***
OPEN SQUARE	HYDRO	2004	525	525	10/31/15
CONSTELLATION - MUELLER RD	SOLAR	2012	2693	2693	12/20/31 ****
CONSTELLATION - MEADOW ST	SOLAR	2012	793	793	12/20/31 ****
CITIZENS - COUNTRY RD	SOLAR	2013	615	615	2/5/33****

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 entitlement which continues for life of unit

\*\*\* Unit offline pending retirement

\*\*\*\* Load Reducer

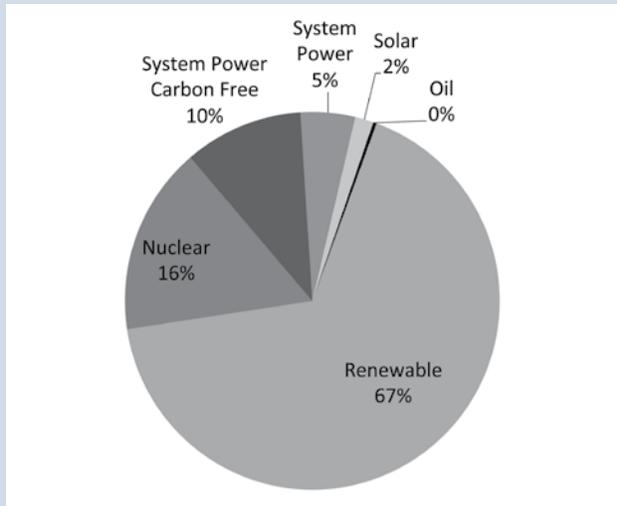


*Gas Distribution Crew Members, Brendan Flynn (bottom) and Kevin Fitzgerald (top) hard at work*

The Department's average annual carbon dioxide emissions per MWh for 2013 is 41.69 pounds, compared to an average of 768 pounds for New England. The chart (below) gives a summary of the Department's carbon footprint.

HG&E proactively works throughout the year to improve reliability by maintaining and making upgrades to its 9.2 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 reduces transmission costs. Transmission Regional Network Service (RNS) rates increased 13.4% from \$72.25485/kW-year to \$83.31819/kW-year in June 2013. The Department's RNS annual charge of \$4,990,101 was offset by 9.2 circuit miles of PTF revenues of \$2,537,973 and peak shaving solar offsets of \$98,701.50, reducing the Department's annual RNS charge to \$2,456,856.

### 2013 Sources of Annual Electric Supply



### 2013 Carbon Footprint

Fuel Type	Energy	CO <sup>2</sup> Emissions	
	(MWh)	(Tons)	(lbs CO <sub>2</sub> /MWh)
Oil	1,174	1,108	
Hydro	266,919	0	
Nuclear	64,237	0	
System Power Carbon Free	40,800	0	
System Power	18,736	7,193	
Solar	6,354	0	
<b>Total</b>	<b>398,221</b>	<b>8,301</b>	<b>41.69</b>



*HG&E Telecommunications serves the community (left to right): Kathleen Anderson, President of Greater Holyoke Chamber of Commerce; Steve Bouvier, HG&E Telecommunication Sales Executive; Maria Pagan, Director of the Holyoke Public Library*

# TELECOMMUNICATIONS



*In 2013, the  
Telecommunications  
Division completed  
a review and plans  
to implement a 10G  
network upgrade in  
the coming year.*

In 2013, the Department continued strong sales growth in fiber optic Internet, commercial network services, and hosted phone services through a third-party provider. The Department developed multiple Fiber Optic Wide Area Network (WAN) service contracts for customers with multi-location requirements. The Department completed a review and will begin implementing a 10G network upgrade in 2014. The Telecommunications Division continues to support other divisions within HG&E along with providing support for the City of Holyoke Information technology operations.

HG&E continued to assist the Massachusetts Broadband Institute (MBI) in the build out of a 1,300 route-mile fiber optic network throughout Western Massachusetts as directed by the State. The Department completed the Holyoke MBI build out in August 2013.

#### **Commercial Network Upgrades**

The commercial network, now in its fifteenth year of operation, provides high-speed 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 this network. The platforms are industry standard MetroE (Metropolitan Ethernet) and IP (Internet Protocol) supporting speeds up to 10 Gbps (Gigabit per second). Ongoing investment in this network continues as customer needs grow and application requirements evolve.

#### **Carrier Interconnection**

The Department has developed interconnect relationships with other fiber Ethernet carriers to service our core customers with locations outside of the footprint of Holyoke, Chicopee, Downtown Springfield, and the Pioneer Valley. HG&E has leveraged these high-speed interconnect arrangements to extend its networking value to the bulk of the Pioneer Valley.

#### **Utility Operations Network Upgrades**

In addition to provisioning and maintaining retail commercial network customers, the Department continued its support for the design, operation, and maintenance of the Department's internal operations network and information intelligence needs.

Improvements to the distribution elements of the operations network continued in 2013 with the installation of seven meter data collector sites for the Department's fixed wireless metering network project. Other major improvements included installation of fiber optics at several utility sites for telemetry.



*Lineman Glen Cartwright and Patrick St. Lawrence attend Holyoke Fire Department's Annual Halloween event*

# GOODWILL



*HG&E's Customer Service Representatives, from left to right: Katelyn McNulty, Elizabeth Nadeau, Jennifer Lopez, Amanda Gauthier, Jasmine Bustamante, Lisa Fournier, and Dina Parenteau*

*We're proud to give  
to the community.  
The Holyoke  
Fireworks are  
underwritten by  
Holyoke Gas  
& Electric.*

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.

In 2013, HG&E offered support to several major community events including the Hispanic Family Festival, the St. Patrick's Day Parade, and the Holyoke Fireworks, which is underwritten by the Department.

In total, over \$87,161 in sponsorships and over \$8,847 in labor was provided for nonprofit causes.

### **NEIL J. MORIARTY, JR. SCHOLARSHIP FOR CADET ENGINEERS**

The Cadet Engineer program is dedicated to the memory of our late Commission Chairperson, Neil 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 took each year.

The program offered aid to Holyoke students who are pursuing Bachelors of Science in Engineering. Jhonatan Escobar was admitted as a candidate for 2013.

### **ECONOMIC DEVELOPMENT**

In 2013, the Department provided \$101,859 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 percent off their 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

## 2013 Community Support

<b>Contribution</b>	<b>Amount</b>
<b>Nonprofit Sponsorships</b>	87,161
<b>Nonprofit Labor</b>	8,847
<b>Cadet Engineer Program</b>	52,500
<b>Payment in Lieu of Taxes</b>	1,080,940
<b>Municipal Payment Discounts</b>	318,928
<b>Discounted Street Lighting</b>	320,122
<b>Economic Development Discounts</b>	101,859
<b>New Homeowner Discounts</b>	66,259
<b>Energy Conservation Assistance</b>	1,114,911
<b>Total Community Support</b>	<b>\$3,151,527</b>

10 percent off of their first three years of gas and electric bills. In 2013, \$66,259 was provided under this program.

HG&E also promotes economic growth through our Commercial and Residential Energy Conservation Programs. These plans offer interest-free financial assistance to our customers while helping to make their homes and businesses more energy efficient. In 2013, the Department paid out over \$ 1,114,911 in zero-interest assistance to Holyoke home and business owners.

### **MUNICIPAL BENEFITS**

The Department contributed \$1,080,940 to the City of Holyoke's General Fund during 2013 as an in-lieu of tax payment. Payment discounts of \$318,928 were provided on the City's utility accounts. Beyond these direct financial benefits, HG&E continues to provide other valuable services to the City including: offering low-cost street lighting, low-cost maintenance on city-owned gas and electric equipment, and low municipal rates to City departments on their gas and electric accounts.



*Veterans Park lit up by new LED lights*

*Lester Halpern & Company P.C.*  
Certified Public Accountants

Thomas A. Terry CPA ♦ Betty Jane Bourdon CPA ♦ Mary-Anne S. Stearns CPA ♦ Robert B. McKay CPA ♦ Lester L. Halpern CPA Retired

**INDEPENDENT AUDITOR'S REPORT**

To The Commissioners  
City of Holyoke, Massachusetts  
Gas and Electric Department  
and Subsidiaries  
Holyoke, Massachusetts 01040

**Report on the Consolidated Financial Statements**

We have audited the accompanying consolidated financial statements of City of Holyoke, Massachusetts Gas and Electric Department and Subsidiaries, which comprise the consolidated statements of net position as of December 31, 2013 and 2012, and the related consolidated statements of revenues, expenses and changes in net position and cash flows for the years then ended, and the related notes to the consolidated financial statements.

**Management's Responsibility for the Consolidated Financial Statements**

Management is responsible for the preparation and fair presentation of these consolidated 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 consolidated financial statements that are free from material misstatement, whether due to fraud or error.

**Auditor's Responsibility**

Our responsibility is to express an opinion on these consolidated 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 consolidated financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated 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 entity'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 consolidated financial statements.

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

**Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of City of Holyoke, Massachusetts Gas and Electric Department and Subsidiaries as of December 31, 2013 and 2012, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 1, the consolidated financial statements present only the City of Holyoke, Massachusetts Gas and Electric Department and Subsidiaries and do not purport to, and do not, present fairly the financial position of the City of Holyoke, Massachusetts as of December 31, 2013 and 2012, the changes in its financial position or its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

**Report on Supplementary Information**

Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The consolidated information in Schedules 1 and 2 and the consolidating information in Schedules 3 and 4 are presented for purposes of additional analysis of the consolidated financial statements rather than to present the financial position, results of operations, and cash flows of the individual entities, and are not a required part of the consolidated 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 consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the consolidated financial statements as a whole.

Very truly yours,

*Lester Halpern & Company P.C.*

Certified Public Accountants

April 29, 2014



**CONSOLIDATED  
 STATEMENT  
 OF NET POSITION**

**DECEMBER 31, 2013  
 AND 2012**

See accompanying notes.

ASSETS	2013	2012
<b>Plant, Property and Equipment</b>		
Plant, Property and Equipment in Service	\$192,803,786	\$182,377,513
Construction in Progress	<u>9,819,789</u>	<u>6,689,943</u>
	202,623,575	189,067,456
<u>Less - Accumulated Depreciation</u>	<u>79,205,797</u>	<u>74,813,709</u>
<b>Total Plant, Property and Equipment</b>	<b><u>123,417,778</u></b>	<b><u>114,253,747</u></b>
<b>Restricted Assets</b>		
Funds Required Under Bond Indenture	34,897,138	253,892
Collateral Required Under Note Payable	4,838,258	5,328,685
Reserve for Note Receivable	447,536	446,321
Customers' Deposits	<u>643,158</u>	<u>629,979</u>
<b>Total Restricted Assets</b>	<b><u>40,826,090</u></b>	<b><u>6,658,877</u></b>
<b>Other Fund Reserves</b>		
Purchased Power Funds	2,712,690	2,573,980
Rate Stabilization Funds	39,945,065	25,751,958
Post Employment Benefit Funds	<u>3,090,397</u>	<u>2,917,526</u>
<b>Total Other Fund Reserves</b>	<b><u>45,748,152</u></b>	<b><u>31,243,464</u></b>
<b>Current Assets</b>		
Cash	5,144,168	3,107,315
Operating Cash Invested	5,908,782	5,214,165
Due from Other Funds	722,490	260,758
Accounts Receivable - Net of Reserve for Uncollectible Accounts of \$515,204 in 2013 and 2012	7,122,391	6,429,172
Accounts Receivable - City of Holyoke	486,901	366,323
Note Receivable - Current Portion	354,892	336,780
Materials and Supplies	3,147,618	3,082,806
Fuel for Electric Generation and Gas in Storage	1,007,523	1,096,643
Prepaid Expense	734,146	841,393
Other Receivables	<u>2,677,487</u>	<u>6,868,682</u>
<b>Total Current Assets</b>	<b><u>27,306,398</u></b>	<b><u>27,604,037</u></b>
<b>Other Assets</b>		
Other investments	188,390	199,505
Intangible Assets	1,196,666	1,263,332
Note Receivable - after one year	9,988,736	10,343,628
Other Receivables - after one year	<u>2,012,826</u>	<u>2,222,284</u>
<b>Total Other Assets</b>	<b><u>13,386,618</u></b>	<b><u>14,028,749</u></b>
<b>TOTAL ASSETS</b>	<b><u>\$250,685,036</u></b>	<b><u>\$193,788,874</u></b>
LIABILITIES AND NET POSITION	2013	2012
<b>Long-Term Liabilities</b>		
Bonds Payable - Long-term	\$79,365,000	\$30,850,334
Plus: Premium on Bonds Payable	<u>11,397,204</u>	<u>3,044,621</u>
	90,762,204	33,894,955
Notes Payable - Long-term	10,620,638	11,224,445
Leases Payable - Long term	72,781	151,962
Accrued Compensated Absences	2,679,805	2,575,559
Accrued Environmental Costs	397,846	
Accrued other Post Employment Benefits	4,176,425	4,004,265
Reserve Fund for Note Receivable	<u>444,737</u>	<u>444,737</u>
<b>Total Long-Term Liabilities</b>	<b><u>109,154,436</u></b>	<b><u>52,295,923</u></b>
<b>Current Liabilities</b>		
Accounts Payable	9,248,898	10,322,941
Current Portion Bonds, Notes and Leases Payable	2,051,724	2,032,682
Margin Credit Account		7,000,000
Customers' Deposits	494,001	517,657
Accrued Liabilities	769,620	527,770
Accrued Interest	1,598,649	423,437
Current Portion - Accrued Compensated Absences	250,119	227,979
Current Portion - Accrued Environmental Costs	245,000	174,182
Accrued Charges - Current	<u>311,423</u>	<u>77,442</u>
<b>Total Current Liabilities</b>	<b><u>14,969,434</u></b>	<b><u>21,304,090</u></b>
<b>Total Liabilities</b>	<b><u>124,123,870</u></b>	<b><u>73,600,013</u></b>
<b>Deferred Inflows of Resources</b>		
Rate Stabilization Reserve	<u>41,269,849</u>	<u>41,269,849</u>
<b>Net Position</b>		
Net Investment in Plant, Property and Equipment	30,082,537	72,644,676
Restricted for Debt Service	40,182,932	6,028,898
Unrestricted	<u>15,025,848</u>	<u>245,438</u>
<b>Total Net Position</b>	<b><u>85,291,317</u></b>	<b><u>78,919,012</u></b>
<b>TOTAL LIABILITIES AND NET POSITION</b>	<b><u>\$250,685,036</u></b>	<b><u>\$193,788,874</u></b>

CITY OF HOLYOKE, MASSACHUSETTS  
GAS AND ELECTRIC DEPARTMENT  
AND SUBSIDIARY

**CONSOLIDATED  
STATEMENT OF REVENUES,  
EXPENSES AND CHANGES  
IN NET POSITION**

**DECEMBER 31, 2013  
AND 2012**

See accompanying notes.

	2013			2012		
	Gas	Electric/ Telecommunications	Total	Gas	Electric/ Telecommunications	Total
<b>Operating Revenues</b>	<u>\$22,784,746</u>	<u>\$45,249,545</u>	<u>\$68,034,291</u>	<u>\$20,423,867</u>	<u>\$43,895,962</u>	<u>\$64,319,829</u>
<b>Operating Expenses</b>						
Cost of Power, Gas and Water sold	13,757,844	15,841,464	29,599,308	12,227,738	17,254,352	29,482,090
Transmission		3,841,984	3,841,984		3,087,317	3,087,317
Distribution	2,778,655	5,647,078	8,425,733	2,923,738	4,272,810	7,196,548
Customer Accounts	349,182	684,861	1,034,043	317,245	656,964	974,209
General and Administrative	2,976,459	7,455,698	10,432,157	3,385,767	8,147,940	11,533,707
Depreciation - Plant and Equipment	<u>1,184,831</u>	<u>4,115,612</u>	<u>5,300,443</u>	<u>1,105,334</u>	<u>3,563,234</u>	<u>4,668,568</u>
<b>Total Operating Expenses</b>	<u>21,046,971</u>	<u>37,586,697</u>	<u>58,633,668</u>	<u>19,959,822</u>	<u>36,982,617</u>	<u>56,942,439</u>
<b>Operating Income</b>	<u>\$1,737,775</u>	<u>\$7,662,848</u>	<u>9,400,623</u>	<u>\$464,045</u>	<u>\$6,913,345</u>	<u>7,377,390</u>
<b>Other Revenues (Expenses)</b>						
Investment Income - Net of Fees			2,546,373			2,098,891
Net Gain on Investments			428,046			1,723,545
Bond Interest Expense			(2,259,328)			(2,480,875)
Other Interest Expense			(563,379)			(528,204)
Miscellaneous Income - Net			1,139,687			1,608,043
Amortization			(66,667)			(87,282)
Debt Issue Costs			(714,086)			(1,285,375)
Impairment Loss - Harris Water Rights						(403,621)
Net Loss - Plant Retirements			(300,605)			(158,488)
Net Gain - Merchandise Jobbing			122,349			131,410
Mt. Tom Property Assessment Expense						(1,020,489)
Fish Rack Exclusion Expense			(2,200,000)			
Taxes - Other			(79,768)			(79,768)
<b>Total Other Revenues (Expenses)</b>			<u>(1,947,378)</u>			<u>(482,213)</u>
<b>Change in Net Position Before Operating Transfers</b>			7,453,245			6,895,177
Payment in Lieu of Taxes - City of Holyoke			<u>(1,080,940)</u>			<u>(1,080,940)</u>
<b>Change in Net Position</b>			6,372,305			5,814,237
<b>Net position - Beginning of Year</b>			<u>78,919,012</u>			<u>73,104,775</u>
<b>Net Position - End of Year</b>			<u>\$85,291,317</u>			<u>\$78,919,012</u>

**CONSOLIDATED  
STATEMENTS OF  
CASH FLOWS**

**DECEMBER 31, 2013  
AND 2012**

See accompanying notes.

	2013	2012
<b>Cash Flows from Operating Activities</b>		
Cash Received from Customers	\$69,331,363	\$62,117,477
Cash Paid to Suppliers	(41,206,033)	(41,694,354)
Cash Paid to Employees	<u>(11,591,196)</u>	<u>(10,765,666)</u>
<u>Net Cash Provided by Operating Activities</u>	<u>16,534,134</u>	<u>9,657,457</u>
<b>Cash Flows from Investing Activities</b>		
Proceeds from Sale of Investments	18,902,895	10,600,230
Purchase of Investments	(39,177,119)	(8,089,471)
Net transfer (to)/from Restricted Assets and Other Fund Reserves	(96,103)	11,220,721
Investment Income - Net of Fees	2,559,861	2,174,358
Decrease (increase) in Invested Cash Balances	(28,557,031)	566,516
Repayments on Notes Receivable	336,780	319,592
Deposit on Notes Receivable		444,737
Net payments Received from Customers	<u>284,047</u>	<u>138,274</u>
<u>Net Cash Provided by (Used in) Investing Activities</u>	<u>(45,746,670)</u>	<u>17,374,957</u>
<b>Net Cash Used in Noncapital Financing Activities</b>		
Increase in Due to/from Other Funds	(461,732)	(4,751,458)
Payment in Lieu of Taxes and Other Property Taxes	(1,160,708)	(1,160,708)
Other Non-operating Income	1,262,036	1,808,783
Other Interest Expense	<u>(399,256)</u>	<u>(441,220)</u>
<u>Net Cash Used in Noncapital Financing Activities</u>	<u>(759,660)</u>	<u>(4,544,603)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>		
Net Investment in Plant, Property and Equipment	(13,031,929)	(20,071,308)
Proceeds from Bonds and Notes Payable	58,840,377	33,712,782
Payments on Bonds, Notes and Leases Payable	(2,034,279)	(37,139,935)
Interest Paid on Bonds, Notes and Leases Payable	(1,851,034)	(2,437,355)
Net Proceeds from (Repayment of) Margin Account	(7,000,000)	7,000,000
Debt Issue Costs	(714,086)	(422,729)
Investment in Preliminary Investigation Charges	<u>(2,200,000)</u>	<u>(87,928)</u>
<u>Net Cash Provided by (Used in) Capital and Related Financing Activities</u>	<u>32,009,049</u>	<u>(19,446,473)</u>
<b>Increase in Cash</b>	<b>2,036,853</b>	<b>3,041,338</b>
Cash - Beginning of Year	<u>3,107,315</u>	<u>65,977</u>
<b>Cash - End of Year</b>	<b><u>\$5,144,168</u></b>	<b><u>\$3,107,315</u></b>
<b>Supplemental Cash Flow Information:</b>		
Total Interest Paid	<u>\$2,250,290</u>	<u>\$2,878,575</u>
<b>Supplemental Noncash Financing Activity:</b>		
Equipment Acquired Under Capital Lease		<u>\$182,978</u>

**CONSOLIDATED  
 SCHEDULE OF  
 RECONCILIATION OF  
 OPERATING INCOME TO  
 NET CASH PROVIDED BY  
 OPERATING ACTIVITIES**

**DECEMBER 31, 2013  
 AND 2012**

See accompanying notes.

	<b>2013</b>	<b>2012</b>
<b>Operating Income</b>	<u>\$9,400,623</u>	<u>\$7,377,390</u>
<b>Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities</b>		
Depreciation	5,300,443	4,668,568
Changes in Operating Assets and Liabilities		
(Increase) decrease - accounts receivable	(813,797)	(390,020)
- materials and supplies	(64,812)	(790,602)
- fuel for electric generation and gas in storage	89,120	280,823
- prepaid expense	107,247	(148,314)
- other receivables	1,839,780	(1,299,312)
Increase (decrease) - accounts payable	(543,855)	(699,250)
- customers' deposits	(23,656)	(8,986)
- accrued liabilities	241,850	(26,728)
- accrued compensated absences	126,386	178,032
- accrued other post employment benefits	172,160	1,389,176
- deferred rate stabilization costs		(883,441)
- accrued environmental costs	468,664	174,182
- accrued charges	<u>233,981</u>	<u>(164,061)</u>
<b>Total Adjustments</b>	<u>7,133,511</u>	<u>2,280,067</u>
<b>Net Cash Provided by Operating Activities</b>	<u>\$16,534,134</u>	<u>\$9,657,457</u>

**SCHEDULE OF OPERATING  
 REVENUES AND EXPENSES**

**GAS DIVISION**

**DECEMBER 31, 2013  
 AND 2012**

See accompanying notes.

	2013	2012
<b>Operating Revenues</b>		
Residential	\$9,442,297	\$7,885,991
Commercial	10,444,388	9,115,816
Industrial	2,097,461	1,768,759
Municipal	705,923	618,842
Departmental Sales	94,677	70,709
Sales for Resale		<u>963,750</u>
<u>Total Operating Revenues</u>	<u>\$22,784,746</u>	<u>\$20,423,867</u>
<b>Cost of Gas Sold</b>		
Purchases - Natural Gas	\$12,298,319	\$10,885,061
Liquid Natural Gas Processed	643,867	527,614
Environmental Response	575,250	575,250
Supplies and Expenses	<u>240,408</u>	<u>239,813</u>
<u>Total Cost of Gas Sold</u>	<u>\$13,757,844</u>	<u>\$12,227,738</u>
<b>Distribution</b>		
Salaries and Wages		
- system control and load dispatch	\$306,393	\$261,287
- supervision and engineering	253,325	302,660
- customer installation	519,445	482,132
- operation	544,330	483,179
- maintenance	584,397	514,096
Supplies and Expenses	<u>570,765</u>	<u>880,384</u>
<u>Total Distribution</u>	<u>\$2,778,655</u>	<u>\$2,923,738</u>
<b>Customer Accounts</b>		
Salaries and Wages		
- meter reading	\$77,550	\$74,430
- accounting and collection	133,953	150,593
Supplies and Expenses	44,670	29,786
Uncollectible Accounts	<u>93,009</u>	<u>62,436</u>
<u>Total Customer Accounts</u>	<u>\$349,182</u>	<u>\$317,245</u>
<b>General and Administrative</b>		
Salaries	\$729,637	\$730,892
Pensions and Benefits	1,549,378	1,953,306
Insurance	111,550	87,265
General Supplies and Expenses	<u>585,894</u>	<u>614,304</u>
<u>Total General and Administrative</u>	<u>\$2,976,459</u>	<u>\$3,385,767</u>



**SCHEDULE OF OPERATING  
 REVENUES AND EXPENSES**

**ELECTRIC DIVISION**

**DECEMBER 31, 2013  
 AND 2012**

See accompanying notes.

	2013	2012
<b>Operating Revenues</b>		
Residential	12,824,811	12,620,847
Commercial	21,268,016	20,786,686
Industrial	5,485,593	5,451,224
Municipal	2,677,068	2,578,264
Interdepartmental Sales	<u>272,753</u>	<u>248,945</u>
<b>Total Operating Revenues</b>	<b><u>\$42,528,241</u></b>	<b><u>\$41,685,966</u></b>
<b>Cost of Electricity Sold</b>		
Purchases - electricity - other	9,618,530	10,451,416
- hydro division		
Replacement Power	0	0
Fuel for Electric Generation	0	0
Salaries and Wages - production	81,861	91,500
- maintenance	257,857	294,129
Supplies and Expenses	<u>463,816</u>	<u>594,896</u>
<b>Total Cost of Electricity Sold</b>	<b><u>\$10,422,064</u></b>	<b><u>\$11,431,941</u></b>
<b>Transmission</b>		
Salaries and Wages	532,158	433,135
Supplies and Expenses	272,125	121,063
Transmission by Others	<u>3,037,701</u>	<u>2,533,119</u>
<b>Total Transmission</b>	<b><u>\$3,841,984</u></b>	<b><u>\$3,087,317</u></b>
<b>Distribution</b>		
Salaries and Wages - lines and equipment	1,977,689	1,619,959
- street lights and customer installations	231,764	215,498
Supplies and Expenses	<u>2,154,192</u>	<u>1,296,937</u>
<b>Total Distribution</b>	<b><u>\$4,363,645</u></b>	<b><u>\$3,132,394</u></b>
<b>Customer Accounts</b>		
Salaries and Wages - meter reading	129,221	138,748
- accounting and collection	248,770	279,673
Supplies and Expenses	82,504	55,487
Uncollectible Accounts	<u>222,855</u>	<u>181,499</u>
<b>Total Customer Accounts</b>	<b><u>\$683,350</u></b>	<b><u>\$655,407</u></b>
<b>General and Administrative</b>		
Salaries	1,358,429	1,304,335
Pensions and Benefits	2,850,238	3,153,954
Insurance	231,428	181,207
Supplies and Expenses	1,323,114	1,434,702
<b>Total General and Administrative</b>	<b><u>\$5,763,209</u></b>	<b><u>\$6,074,198</u></b>

CITY OF HOLYOKE, MASSACHUSETTS  
 GAS AND ELECTRIC DEPARTMENT  
 AND SUBSIDIARY

**SCHEDULE OF OPERATING  
 REVENUES AND EXPENSES**

**TELECOMMUNICATIONS  
 DIVISION**

**DECEMBER 31, 2013  
 AND 2012**

See accompanying notes.

	2013	2012
<b>Operating Revenues</b>		
Internet Sales	1,352,826	1,258,318
ATM Service	1,861	2,208
Fiber Lines	97,008	25,979
Dark Fiber Lease	232,909	103,775
Resold Teleco Lines	93,069	110,713
Network Services	70,234	70,493
Installation	283,857	8,146
City of Holyoke IT O&M	180,000	180,000
<u>Total Operating Revenue</u>	<u>\$2,311,764</u>	<u>\$1,759,632</u>
<b>Distribution</b>		
Salaries and Wages - supervision and engineering	410,180	319,725
- drafting	0	0
- maintenance	126,827	123,479
Internet Expense	188,440	204,703
Line Charges	206,850	143,839
Supplies and Expenses	246,260	282,034
<u>Total Distribution</u>	<u>\$1,178,557</u>	<u>\$1,073,780</u>
<b>Customer Accounts</b>		
Salaries and Wages - accounting and collection		
Supplies and Expenses	0	0
Uncollectible Accounts	1,254	1,557
<u>Total Customer Accounts</u>	<u>\$1,254</u>	<u>\$1,557</u>
<b>General and Administrative</b>		
Salaries	203,892	127,170
Pensions and Benefits	280,760	259,170
Insurance	7,168	6,433
Supplies and Expense	37,332	23,537
General Expense	49,685	46,541
<u>Total General and Administrative</u>	<u>\$578,837</u>	<u>\$462,851</u>

CITY OF HOLYOKE, MASSACHUSETTS GAS AND ELECTRIC DEPARTMENT AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
DECEMBER 31, 2013 AND 2012

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1. Summary of Significant Accounting Policies:

Reporting Entity and Principles of Consolidation - The consolidated financial statements present information on the activities of the Gas and Electric Department (the Department), an Enterprise Fund of the City of Holyoke, Massachusetts (the City) and its subsidiaries, Holyoke Solar Cooperative and Massachusetts Clean Energy Cooperative Corporation.

The Department provides gas, electric, water and telecommunications services to its customers, substantially all of whom are local residents and commercial and industrial businesses. Approximately 67% of the Department's revenues are derived from its electric division.

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 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. 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 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 consolidation.

Basis of Accounting and Regulation - The consolidated 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.

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.

Net Position - The difference between assets and liabilities is net position. There are three components of net position: net investment in property, plant and equipment, restricted for debt service, and unrestricted.

Net investment in property, plant and equipment, 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 Entities' restricted net position as of December 31, 2013 and 2012 are 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”.

Expense Allocation - Expenses associated with a particular division of the Department are charged to that division. For the years ended December 31, 2013 and 2012, shared expenses including administrative and supporting costs are allocated to each division as follows:

Gas	35.0%
Electric and Telecommunications	65.0%

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.

Plant, Property and Equipment - Additions to and replacements of plant, property and equipment are recorded at cost. 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.

The Department receives funding from various sources to cover some of the cost of construction projects the Department has in progress. It is the Department's policy to reduce the final cost of these assets by the amount of reimbursements received. Amounts recorded were \$1,083,681 and \$6,113,622 for the years ended December 31, 2013 and 2012, respectively.

Depreciation - Depreciation of \$5,300,443 in 2013 and \$4,668,568 in 2012 is computed using an annual rate of 3% of depreciable plant, property and equipment in service. The rate is in accordance with Massachusetts Department of Public Utilities regulations.

Materials, Supplies and Fuel - Materials, supplies and fuel are valued at average cost.

Revenue Recognition - 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. Discounts reported for the years ended December 31, 2013 and 2012 are as follows:

	<u>2013</u>	<u>2012</u>
Gas	\$1,981,813	\$1,689,850
Electric	<u>3,687,232</u>	<u>3,632,257</u>
	<u>\$5,669,045</u>	<u>\$5,322,107</u>

Income Taxes - Income of the Department and the Cooperatives is excluded from taxation by Section 115 of the United States Internal Revenue Code.

Investments - Investments totaling \$20,390 and \$31,505 in 2013 and 2012, respectively, represent the cost of the Department's equity in New England Hydro-Transmission Corporation and New England Hydro-Transmission Electric Company. These investments represent .2653 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). PUMIC was formed to provide general insurance to members of the Public Utility Risk Management Association (PURMA).

These investments are carried at original cost on the consolidated balance sheets. It was not practicable to estimate the fair value of these investments.

Investments in debt and equity securities are recorded at fair market value (See Note 5).

Interest Capitalized - The Department follows the policy of capitalizing interest as a component of the cost of plant, property and equipment in service constructed for its own use. During the years ended December 31, 2013 and 2012, there was no interest capitalized.

Intangible Assets - Intangible assets are recorded at cost. Intangible assets subject to amortization include customer contracts and franchise area fee associated with the December, 2001 hydroelectric project purchase. Customer contracts and franchise fees are being amortized on a straight-line basis over the remaining lives of the respective licenses.

Cash - For purposes of the consolidated statement of cash flows, cash includes cash on hand and cash in checking and money market accounts.

Accounts Receivable - Accounts receivable are stated at the amount management expects to collect from outstanding balances. 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.

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. Estimated liabilities are not discounted to present value.

Bond Premium - The Department and the Clean Energy Coop received more than the face value of the bonds issued in 2012 and 2013, resulting in bond premiums. This is due to the stated interest rate on the bonds exceeding the market interest rate at the time of issue. The premiums are being amortized using the effective-interest method over the lives of the bonds. The amortization of the premium reduces the amount that is charged to interest expense.

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.

Energy Tax - The Department is required to collect, on behalf of the State of Massachusetts, an energy tax based on 6.25% 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.

2. Plant, Property and Equipment:

Plant, property and equipment as of December 31, 2013 and 2012 consist of the following:

	<u>Balance</u> <u>December 31, 2012</u>	<u>Increases</u>	<u>Decreases</u>	<u>Balance</u> <u>December 31, 2013</u>
<u>Utility plant not being depreciated -</u>				
Gas -				
Land	\$ 288,804			\$ 288,804
Construction in progress	58,972	\$ 2,649,726	\$ (2,684,833)	23,865
	<u>347,776</u>	<u>2,649,726</u>	<u>(2,648,833)</u>	<u>312,669</u>
Electric/Telecommunications -				
Land	5,407,275	57,598	(25,000)	5,439,873
Construction in progress	6,630,971	9,515,408	(6,350,455)	9,795,924
	<u>12,038,246</u>	<u>9,573,006</u>	<u>(6,375,455)</u>	<u>15,235,797</u>
<u>Total utility plant not being depreciated</u>	<u>12,386,022</u>	<u>12,222,732</u>	<u>(9,060,288)</u>	<u>15,548,466</u>
<u>Utility plant being depreciated -</u>				
Gas -				
Plant investment	36,506,542	3,094,391	(99,194)	39,501,739
Office furniture and equipment	1,240,742	58,652		1,299,394
Transportation and communication equipment	1,151,227	54,225	(18,270)	1,187,182
Other	319,782	10,471		330,253
	<u>39,218,293</u>	<u>3,271,739</u>	<u>(117,464)</u>	<u>42,318,568</u>
Electric/Telecommunications -				
Plant investment	129,433,335	7,846,302	(903,681)	136,375,956
Office furniture and equipment	2,698,579	150,198		2,848,777
Transportation and communication equipment	4,663,953	171,883	(26,300)	4,809,536
Other	667,274	54,998		722,272
	<u>137,463,141</u>	<u>8,223,381</u>	<u>(929,981)</u>	<u>144,756,541</u>
<u>Total utility plant being depreciated</u>	<u>176,681,434</u>	<u>11,441,120</u>	<u>(1,047,445)</u>	<u>187,075,109</u>
<u>Less accumulated depreciation -</u>				
Gas -				
Plant investment	(19,906,820)	(974,385)	86,833	(20,794,372)
Office furniture and equipment	(924,294)	(55,150)		(979,444)
Transportation and communication equipment	(790,551)	(118,771)	18,270	(891,052)
Other	(151,130)	(28,243)		(179,373)
	<u>(21,772,795)</u>	<u>(1,176,549)</u>	<u>105,103</u>	<u>(22,844,241)</u>
Electric/Telecommunications -				
Plant investment	(47,639,446)	(3,596,533)	776,952	(50,459,027)
Office furniture and equipment	(1,861,883)	(147,527)		(2,009,410)
Transportation and communication equipment	(3,007,823)	(344,054)	26,300	(3,325,577)
Other	(531,762)	(35,780)		(567,542)
	<u>(53,040,914)</u>	<u>(4,123,894)</u>	<u>803,252</u>	<u>(56,361,556)</u>
<u>Total accumulated depreciation</u>	<u>(74,813,709)</u>	<u>(5,300,443)</u>	<u>908,355</u>	<u>(79,205,797)</u>
<u>Total utility plant being depreciated, net -</u>				
Gas	17,445,498	2,041,190	(12,361)	19,474,327
Electric	84,422,227	4,099,487	(126,729)	88,394,985
	<u>101,867,725</u>	<u>6,140,677</u>	<u>(139,090)</u>	<u>107,869,312</u>
<u>Total Utility Plant, Net -</u>				
Gas	17,793,274	4,690,916	(2,697,194)	19,786,996
Electric	96,460,473	13,672,493	(6,502,184)	103,630,782
	<u>\$114,253,747</u>	<u>\$18,363,409</u>	<u>\$ (9,199,378)</u>	<u>\$123,417,778</u>

In 2013 and 2012, the Department transferred the following amounts from construction in progress to utility plant:

	<u>2013</u>	<u>2012</u>
Gas	\$ 2,684,833	\$ 2,420,441
Electric/Telecommunications	<u>6,350,455</u>	<u>16,568,999</u>
	<u>\$ 9,035,288</u>	<u>\$18,989,440</u>

3. Cash and Restricted Assets:

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. 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. Rate stabilization funds are amounts set aside to be used to stabilize current and future power costs. Post employment benefit funds have been segregated by the Department to cover certain healthcare and life insurance benefits (See Note 18).

4. Due To/From Other Funds:

"Due to/from other funds" represents the amount by which the Department's equity in pooled cash differs from the expenditures paid and receipts collected by the City.

5. Investments in Debt and Equity Securities:

The Department and the Cooperatives (the Entities) invest various funds in debt and equity securities which are held in their respective names 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, which is the amount at which an investment could be exchanged in a current transaction between willing parties. Fair values are based on quoted market prices.

The Department's investment account is held as security for a margin loan account as described in Note 13, and one of the Solar Coop's investment accounts is held as security for a note payable as described in Note 11.

Net unrealized gain on investments at December 31, 2013 and 2012 is \$3,143,579 and \$2,743,719, respectively.

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Entities do not have a formal investment policy that limits investment maturities.

At December 31, 2013, the Department's and the Cooperatives' investments were as follows:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Maturity in Years</u>			
		<u>Less Than 1</u>	<u>1-5</u>	<u>6-10</u>	<u>Over 10</u>
Debt Securities:					
U.S. Government -					
Bonds and Notes	\$13,462,767	\$2,420,624	\$ 6,269,746	\$4,285,332	\$487,065
Corporate Bonds	8,113,606		8,113,606		
Municipal Bonds	839,322		496,905	201,281	141,136
	<u>22,415,695</u>	<u>\$2,420,624</u>	<u>\$14,880,257</u>	<u>\$4,486,613</u>	<u>\$628,201</u>
Other Investment Types:					
Equity Mutual Funds	17,985,894				
Fixed Income					
Mutual Funds	18,313,945				
Preferred Securities	243,000				
Cash and Cash					
Equivalents	<u>2,883,564</u>				
	<u>\$61,842,098</u>				

At December 31, 2012, the Department's and the Cooperatives' investments were as follows:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Maturity in Years</u>			
		<u>Less Than 1</u>	<u>1-5</u>	<u>6-10</u>	<u>Over 10</u>
Debt Securities:					
U.S. Government -					
Bonds	\$ 8,730,331	\$228,330	\$2,149,819	\$5,902,563	
Corporate Bonds	8,643,005	161,722	6,996,993	1,484,290	\$449,619
Municipal Bonds	357,958			93,109	264,849
	<u>17,731,294</u>	<u>\$390,052</u>	<u>\$9,146,812</u>	<u>\$7,479,962</u>	<u>\$714,468</u>
Other Investment Types:					
Equity Mutual Funds	8,078,772				
Fixed Income					
Mutual Funds	13,368,684				
Preferred Securities	250,400				
Cash and Cash					
Equivalents	<u>61,596</u>				
	<u>\$39,490,746</u>				

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

As of December 31, 2013 and 2012, the Entities' investments were rated as follows:

<u>Investment Type</u>	<u>2013</u>		<u>2012</u>	
	<u>Standard &amp; Poor's</u>	<u>Moody's Investment Service</u>	<u>Standard &amp; Poor's</u>	<u>Moody's Investment Service</u>
U.S. Government Bonds and Notes	AA+ to AA-	AAA to AAZ	AA+ to A	AAA to AA2
Corporate Bonds	AAA to BBB	AAA to BAA2	AAA to BBB	AAA to BAA2
Municipal Bonds	AA+ to AA-	AA2 to A2	AA to AA-	AA2 to AA3
Preferred Securities	BB+	Ba1	BB+	Ba1

Custodial Credit Risk -

Deposits - Custodial credit risk is the risk that the Department's deposits may not be returned to the Department. As of December 31, 2013 and 2012, \$2,883,564 and \$61,596, respectively, were uninsured and uncollateralized and subject to custodial credit risk.

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

Concentration of Credit Risk - Concentration of credit risk is the risk of loss attributed to the magnitude of the Entities' investment in a single issuer. At December 31, 2013 investments in any one issuer that represented greater than 5% of total investments included Federal National Mortgage Assn. (7.37%) and Federal Farm Credit Bank (5.34%).

The investments are included on the consolidated Statement of Net Assets as follows:

	<u>2013</u>	<u>2012</u>
Collateral required under note payable	\$ 4,838,258	\$ 5,328,685
Customers' deposits	665,455	627,578
Rate stabilization funds	39,593,924	25,402,792
Post employment benefit funds	3,090,397	2,917,526
Operating cash invested	5,908,782	5,214,165
Funds required under bond indenture	<u>7,745,282</u>	<u>5,214,165</u>
	<u>\$61,842,098</u>	<u>\$39,490,746</u>

In addition, rate stabilization funds of \$351,141 at December 31, 2013 and \$349,166 at December 31, 2012 are on deposit with and are invested through the Massachusetts Municipal Wholesale Electric Company (MMWEC). These funds are reported on the consolidated Statement of Net Assets at fair value.

6. Note Receivable:

	<u>2013</u>	<u>2012</u>
Note receivable from Holyoke Solar, LLC due to the Solar Coop in monthly installments of \$74,191 including interest at 5.25%, secured by the Solar Installation Property, matures December, 2031.	\$10,343,628	\$10,680,408
<u>Less - amount due within one year</u>	<u>354,892</u>	<u>336,780</u>
<u>Note Receivable - Due After One Year</u>	<u>\$ 9,988,736</u>	<u>\$10,343,628</u>

The note and security agreement also requires the borrower to establish a Reserve Fund 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 Fund to cure any failure of the borrower to pay when due any principal or interest payment. If the Reserve Fund is not used by the Solar Coop during the first 6 years, the Reserve Fund shall be decreased to no less than 2 months of principal and interest debt service payments. The Reserve Fund was established with a required balance of \$444,737 and the account balance at December 31, 2013 and 2012 was \$447,536 and \$446,321, respectively.

7. Other Receivables:

Other receivables consist of the following:

	<u>2013</u>	<u>2012</u>
Hi-Lite Program - receivable from customers for loans used to make energy efficient improvements to their property, secured by municipal liens	\$3,155,505	\$3,439,553
Department of Commerce		2,131,669
Accrued interest receivable	170,591	184,078
Miscellaneous other receivables	<u>1,364,217</u>	<u>3,335,666</u>
	4,690,313	9,090,966
<u>Less</u> - amount due in one year	<u>2,677,487</u>	<u>6,868,682</u>
<u>Other Receivables - After One Year (Hi-Lite Program)</u>	<u>\$2,012,826</u>	<u>\$2,222,284</u>

8. Intangible Assets:

		<u>2013</u>		<u>2012</u>	
	<u>Life in Years</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>
2001 Customer contracts and franchise costs	30	<u>\$2,000,000</u>	<u>\$803,334</u>	<u>\$2,000,000</u>	<u>\$736,667</u>

Aggregate amortization expense was \$66,667 and \$87,282 for the years ended December 31, 2013 and 2012, respectively. Estimated annual aggregate amortization expense is \$66,667 for the five years subsequent to 2013.

9. Rate Stabilization Reserve:

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 balance at December 31, 2013 and 2012 is \$41,269,849.

10. Bonds Payable:

	<u>2013</u>	<u>2012</u>
General Obligation Bonds - Issued through the City of Holyoke Date of issue: April, 2012 Bonds mature annually 2013-2031 Interest rates range from 2.0% - 5.0%	\$29,392,000	\$30,532,000
Revenue Bonds - Massachusetts Clean Energy Cooperative Corporation - Series 2013 Date of issue: April, 2013 Bonds mature annually 2015-2032 Interest rates range from 3.0% - 5.0%	49,885,000	
Clean Renewable Energy Bond - Boatlock Hydroelectric Station Project - 2009 Series A Date of issue: January, 2009 Interest rate: 1.5% Secured by revenues of the Department	<u>1,458,333</u>	<u>1,666,667</u>
	80,735,333	32,198,667
<u>Less</u> - amount due within one year	<u>1,370,333</u>	<u>1,348,333</u>
<u>Bonds Payable - Due After One Year</u>	<u>\$79,365,000</u>	<u>\$30,850,334</u>

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

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 1,370,333	\$ 3,626,402	\$ 4,996,735
2015	2,348,333	3,588,372	5,936,705
2016	3,418,333	3,521,047	6,939,380
2017	3,533,333	3,401,787	6,935,120
2018	3,678,334	3,252,918	6,931,252
2019-2023	20,036,667	13,956,439	33,993,106
2024-2028	24,525,000	9,038,275	33,563,275
2029-2032	<u>21,825,000</u>	<u>2,621,500</u>	<u>24,446,500</u>
	<u>\$80,735,333</u>	<u>\$43,006,740</u>	<u>\$123,742,073</u>

The Department is required to satisfy certain bond covenant requirements in connection with the bonds payable. The following funds are required as part of the Bond agreements:

	<u>2013</u>	<u>2012</u>
<u>Revenue Bonds</u>		
Project Fund	\$26,681,307	
Debt Service Reserve Fund	4,334,001	
Capitalized Interest Fund	3,411,281	
Reserve and Contingency Fund	215,762	
Bond Interest Fund	4	
<u>Clean Renewable Energy Bond</u>		
Debt Service Reserve Fund	<u>254,783</u>	<u>\$253,892</u>
	<u>\$34,897,138</u>	<u>\$253,892</u>

11. Notes Payable:

	<u>2013</u>	<u>2012</u>
Note payable to bank, secured by revenues of the Department, monthly payments of \$20,587 including interest at 5.25% through maturity date of October, 2018.	\$ 1,050,742	\$ 1,236,468
Note payable to bank, secured by all assets of the Holyoke Solar Cooperative, monthly payments of \$6,346 including interest at 4.47%, matures September, 2021 with a balloon payment due.	930,106	963,284
Note payable to bank, secured by all assets of the Holyoke Solar Cooperative, monthly payments of \$29,820 including interest at 4.00%, matures September, 2021 with a balloon payment due.	4,536,572	4,706,678
Note payable to bank, secured by all assets of the Holyoke Solar Cooperative, monthly payments of \$29,470 including interest at 3.40%, matures September, 2021 with a balloon payment due. A pledge of securities as collateral, with a value of \$4,838,258 at December 31, 2013 is also required under this note.	<u>4,705,428</u>	<u>4,893,341</u>
	11,222,848	11,799,771
<u>Less</u> - amount due within one year	<u>602,210</u>	<u>575,326</u>
<u>Notes Payable - Due After One Year</u>	<u>\$10,620,638</u>	<u>\$11,224,445</u>

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

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 602,210	\$ 432,477	\$ 1,034,687
2015	628,631	406,057	1,034,688
2016	655,158	379,529	1,034,687
2017	685,079	349,609	1,034,688
2018	673,998	319,514	993,512
2019-2021	<u>7,977,772</u>	<u>790,004</u>	<u>8,767,776</u>
	<u>\$11,222,848</u>	<u>\$2,677,190</u>	<u>\$13,900,038</u>

12. Capital Leases Payable:

	<u>2013</u>	<u>2012</u>
Equipment leases payable with interest rates ranging from 3.86% to 20.43%. The leases expire between December, 2012 and December, 2017 and are collateralized by various equipment.	\$151,962	\$260,984
<u>Less</u> - amount due within one year	<u>79,181</u>	<u>109,022</u>
<u>Leases Payable - Due After One Year</u>	<u>\$ 72,781</u>	<u>\$151,962</u>

The following is a schedule of future minimum lease payments under capital leases together with the present value of the net minimum lease payments as of December 31, 2013:

2014	\$ 85,994
2015	62,628
2016	7,728
2017	<u>7,728</u>
	164,078
<u>Less - amount representing interest</u>	<u>12,116</u>
Present value of future minimum lease payments	<u>\$151,962</u>

At December 31, 2013 and 2012, assets recorded under capital leases total \$400,501 and \$288,336, respectively, and accumulated depreciation on the leased assets total \$126,171 and \$48,242, respectively.

13. Margin Credit Account:

During 2012, the Department received funds through a margin account with LPL Financial LLC. The funds were secured by all securities and other property held in its investment account with Flynn Financial Partners Ltd. Interest was payable monthly up to 3.00 percentage points above the LPL Base Lending Rate. The outstanding balance of \$7,000,000 at December 31, 2012 was due on demand and repaid during 2013.

14. Changes in Long-Term Liabilities:

Long-term liability activities for the years ended December 31, 2013 and 2012 are as follows:

	Balance December 31, 2012	Additions	Reductions	Balance December 31, 2013	Current Portion
<u>Long-term bonds and loans:</u>					
Bonds payable	\$32,198,667	\$49,885,000	\$1,348,334	\$ 80,735,333	\$1,370,333
Premium on bonds	3,044,621	8,955,377	602,794	11,397,204	
Notes payable	11,799,772		576,924	11,222,848	602,210
Leases payable	<u>260,984</u>		<u>109,022</u>	<u>151,962</u>	<u>79,181</u>
	47,304,044	58,840,377	2,637,074	103,507,347	2,051,724
Compensated absences	2,803,538	354,365	227,979	2,929,924	250,119
Other post employment benefits	4,004,265	750,009	577,849	4,176,425	0
Environmental costs		642,846		642,846	245,000
Reserve fund for note receivable	<u>444,737</u>			<u>444,737</u>	<u>0</u>
<u>Total Long-Term Liabilities</u>	<u>\$54,556,584</u>	<u>\$60,587,597</u>	<u>\$3,442,902</u>	<u>\$111,701,279</u>	<u>\$2,546,843</u>
	Balance December 31, 2011	Additions	Reductions	Balance December 31, 2012	Current Portion
<u>Long-term bonds and loans:</u>					
Bonds payable	\$37,770,000	\$30,532,000	\$36,103,333	\$32,198,667	\$1,348,333
Premium on bonds		3,180,782	136,161	3,044,621	
Notes payable	12,766,829		967,057	11,799,772	575,327
Leases payable	<u>147,551</u>	<u>182,978</u>	<u>69,545</u>	<u>260,984</u>	<u>109,022</u>
	50,684,380	33,895,760	37,276,096	47,304,044	2,032,682
Compensated absences	2,625,506	346,836	168,804	2,803,538	227,979
Other post employment benefits	2,615,089	1,969,879	580,703	4,004,265	0
Reserve fund for note receivable		<u>444,737</u>		<u>444,737</u>	<u>0</u>
<u>Total Long-Term Liabilities</u>	<u>\$55,924,975</u>	<u>\$36,657,212</u>	<u>\$38,025,603</u>	<u>\$54,556,584</u>	<u>\$2,260,661</u>

15. Restatement of Net Position:

Management has implemented GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*, which became effective for the year ended December 31, 2013. GASB No. 65 recognizes certain items that were previously reported as assets and liabilities as outflows of resources (expenses) or inflows of resources (revenues). Therefore, debt issue costs which were previously reported as amortizable intangible assets are now being expensed in the year incurred. As required, the prior year financial statements have been restated to reflect the provisions of GASB No. 65.

A prior period adjustment was also recorded as of December 31, 2013 to reflect a receivable due from the Department of Commerce for reimbursement of expenses incurred during the year ended December 31, 2012 related to a specific construction project.

The previously issued financial statements as of and for the year ended December 31, 2012, have accordingly been restated from amounts previously recorded as indicated below:

Consolidated Statements of Net Position

	As Previously Reported	Adjustment	As Restated
Construction in progress	\$ 8,821,612	\$(2,131,669)	\$ 6,689,943
Other receivables	6,959,297	2,131,669	9,090,966
Intangible assets	1,671,485	(408,153)	1,263,332
Other assets	<u>176,744,633</u>		<u>176,744,633</u>
Total Assets	<u>\$194,197,027</u>	<u>\$ (408,153)</u>	<u>\$193,788,874</u>
Total Liabilities	<u>\$114,869,862</u>		<u>\$114,869,862</u>
Net investment in plant, property and equipment	72,644,676		72,644,676
Restricted for debt service	6,028,898		6,028,898
Unrestricted	<u>653,591</u>	<u>\$ (408,153)</u>	<u>245,438</u>
Total Net Position	<u>79,327,165</u>	<u>(408,153)</u>	<u>78,919,012</u>
Total Liabilities and Net Position	<u>\$194,197,027</u>	<u>\$ (408,153)</u>	<u>\$193,788,874</u>

Consolidated Statements of Revenues,  
Expenses and Changes in Net Position

	As Previously Reported	Adjustment	As Restated
Operating Revenues	\$64,319,829		\$64,319,829
Total Operating Expenses	<u>56,942,439</u>		<u>56,942,439</u>
Operating Income	<u>7,377,390</u>		<u>7,377,390</u>
Debt issue costs		\$(1,285,375)	(1,285,375)
Amortization	(964,504)	877,222	(87,282)
Other Revenues (Expenses)	<u>890,444</u>		<u>890,444</u>
Total Other Revenues (Expenses)	<u>(74,060)</u>	<u>(408,153)</u>	<u>(482,213)</u>
Change in Net Position Before Operating Transfers	7,303,330	(408,153)	6,895,177
Payment in lieu of taxes	<u>(1,080,940)</u>		<u>(1,080,940)</u>
Change in Net Position	6,222,390	(408,153)	5,814,237
Net position - beginning of year	<u>73,104,775</u>		<u>73,104,775</u>
Net Position - End of Year	<u>\$79,327,165</u>	<u>\$ (408,153)</u>	<u>\$78,919,012</u>

16. Operating Leases:

In January, 2009, the Department entered into a five year lease for three copiers. Current monthly payments are \$428. The lease was extended for one year and has a fair market value purchase option.

During 2010, the Department entered into two five year lease agreements for copiers. Monthly payments are \$408. The leases expire in 2015.

Lease expense for the years ended December 31, 2013 and 2012 was \$72,527 and \$84,757, respectively. Future minimum lease payments are as follows:

2014	\$ 10,029
2015	<u>2,792</u>
	<u>\$ 12,821</u>

17. Electric Power Purchases:

Electric Power Purchases were as follows:

	<u>2013</u>	<u>2012</u>
Country Solar	\$ 46,475	
MMWEC - NYPA	182,511	\$ 187,439
MMWEC - Wyman No. 4	312,930	213,405
MMWEC - Nuclear Mix No. 1	2,348,421	2,296,957
MMWEC - Nuclear Project No. 3	2,305,253	2,473,822
MMWEC - Stony Brook/Peaking	98,315	100,710
MMWEC - Special Project 2006A		4,760
NEPEX - net of sales	553,301	105,279
Open Square	60,489	52,666
Holyoke Solar, LLC	145,490	141,021
Short-term power supply - net of Hydro sales	<u>3,565,345</u>	<u>4,875,357</u>
	<u>\$9,618,530</u>	<u>\$10,451,416</u>

18. Retirement Plans:

Contributory Plan - Substantially all full-time employees participate in the Holyoke Contributory Retirement System, a cost sharing multiple employer 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). The Department's contributions charged to expense for the years ended December 31, 2013, 2012 and 2011 are \$3,242,309, \$2,973,199 and \$2,704,682, respectively. The Department's contributions for the years ended December 31, 2013, 2012 and 2011 was 20%, 20% and 21%, respectively, of the total contributions for all employers covered by the plan.

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% on all gross regular earnings over \$30,000 per year. Employee contributions for the years ended December 31, 2013, 2012 and 2011 are \$1,010,052, \$951,134 and \$833,016, respectively.

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.

Noncontributory Plan - Employees hired prior to January 1, 1938, participate in the noncontributory pension plan. The Department is required by state statutes to pay benefits as the obligation arises. Benefits are established by state statutes. The Department's contributions for the years ended December 31, 2013, 2012 and 2011 are \$22,494, \$22,174 and \$21,787, respectively.

19. Other Postemployment Benefits:

GASB Statement No. 45, *Accounting and Financial Reporting by Employers for PostEmployment Benefits Other Than Pensions*, requires that other postemployment benefits (OPEB), primarily healthcare, be accounted for on an accrual basis rather than on a pay-as-you-go basis. The effect is the recognition of an actuarially required contribution as an expense on the consolidated statement of revenues, expenses and change in net position when a future retiree earns their postemployment benefits, rather than when they use their postemployment benefit. To the extent that an entity does not fund their actuarially required contribution, a postemployment benefit liability is recognized on the consolidated statement of net position over time.

Plan Description - 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 cost-sharing multiple-employer postemployment welfare benefit plan.

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 \$577,849 for 122 retirees in 2013 and \$580,703 for 120 retirees in 2012.

Annual OPEB Cost and Net OPEB Obligation - The Department's annual OPEB cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount that was actuarially determined in accordance with the parameters of GASB Statement No. 45. The projected unit credit method was used in the actuarial valuations prepared as of June 30, 2011, which is the basis for the 2013 and 2012 ARC calculation.

The following table shows the elements of the Department's annual OPEB cost as of the City of Holyoke's fiscal 2013 and 2012 years, the amounts actually contributed, and changes in the Department's net OPEB obligation as of June 30, 2013 and 2012:

		<u>2013</u>	<u>2012</u>
Annual OPEB cost		\$1,390,180	\$1,969,879
Payments		(577,849)	(580,703)
Net OPEB obligation - beginning	\$4,004,265		
Adjustments to prior year annual OPEB cost	<u>(640,171)</u>		
Net OPEB obligation - beginning as adjusted		<u>3,364,094</u>	<u>2,615,089</u>
Net OPEB obligation - ending		<u>\$4,176,425</u>	<u>\$4,004,265</u>

The Department's annual OPEB cost, the percentage of annual OPEB cost contributed, and the net OPEB obligation for the City of Holyoke's fiscal years ended June 30, 2013 and 2012 were as follows:

	<u>Annual OPEB Cost</u>	<u>Percentage of Annual OPEB Costs Contributed</u>	<u>Net OPEB Obligation</u>
June 30, 2013	\$1,390,180	41.57%	\$4,176,425
June 30, 2012	\$1,329,708	43.67%	\$3,364,094

Funded Status and Funding Progress - As of June 30, 2011, the most recent actuarial valuation date, the cost was 0.0% funded. The actuarial accrued liability for benefits was \$21,839,677, and the actuarial value of assets was \$0, resulting in an unfunded actuarial accrued liability (UAAL) of \$21,839,677.

As of December 31, 2013 and 2012, the Department has earmarked funds totaling \$3,090,397 and \$2,917,526, respectively, for its other postemployment benefit obligation, however, because these funds have not been irrevocably transferred to a trust they are not considered contributions in relation to the Department's annual required contribution (ARC).

Actuarial Methods and Assumptions - Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future, such as assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the Plan and the annual required contributions of the Department are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and the employees to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities, consistent with the long-term perspective of the calculations.

The actuarial methods and significant assumptions used to determine the annual required contribution are detailed in the City of Holyoke Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) Report as of June 30, 2011. The report is available in the City Auditor's office, City Hall Annex - Room 101, Holyoke, MA 01040.

The schedule of funding progress, shown as required supplementary information below, presents the results of OPEB valuations as of June 30, 2011, and looking forward, the schedule will eventually provide multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Required Supplementary Information (unaudited)

Schedule of Funding Progress

<u>Valuation Date</u>	<u>Value of Assets</u>	<u>Actuarial Liability (AAL)</u>	<u>Unfunded AAL (UAAL)</u>	<u>Funded Ratio</u>	<u>Covered Payroll</u>	<u>Percentage of Covered Payroll</u>
June 30, 2011	\$ -0-	\$21,839,677	\$21,839,677	\$ -0-	N/A	N/A

20. Concentrations of Credit Risk:

In the ordinary course of business, the Department extends unsecured credit to its regular customers. Amounts outstanding at December 31, 2013 and 2012 were \$8,124,496 and \$7,310,699, respectively.

Sources of Labor Supply - Fifty-nine 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, 2017.

At December 31, 2013 and 2012, the Solar Coop had amounts on deposit with a bank which exceeded FDIC insurance limits by \$728,777 and \$494,898, respectively.

At December 31, 2013, the Clean Energy Coop had amounts on deposit with two banks which exceeded FDIC insurance limits by \$27,610,529.

Because the Department pools its cash with the City of Holyoke, the Department's share of the amounts on deposit which exceeded FDIC insurance limits could not be determined at December 31, 2013 and 2012.

21. Related Party Transactions:

The Department provides gas and electric sales and service, as well as, telecommunication services to the City of Holyoke. Total sales were \$3,707,989 and \$3,648,771 for the years ending December 31, 2013 and 2012, respectively. Amounts due from the City totaled \$486,901 and \$366,323 at December 31, 2013 and 2012, respectively.

The Department has also recorded contributions in lieu of taxes to the City of Holyoke of \$1,080,940 for the years ended December 31, 2013 and 2012.

The 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 2013.

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.

22. Commitments and Contingencies:  
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 the Department's shortfall position during the summer months of 2014 through 2017, where commitments were made by the end of 2013 in the amount of \$695,048 for 2014 and \$941,202 for the three year period from 2015-2017.

In December, 2010, the Department, through its Subsidiary Holyoke Solar Cooperative, signed a 20 year solar Power Purchase Agreement with Holyoke Solar, LLC (the Seller). The Department has agreed to purchase the electricity produced by the grid-connected solar power facility 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% annual escalation.

In June, 2011, the Department signed a 20 year solar Power Sales Agreement with Rivermoor-Citizens Holyoke LLC (the Seller). 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.

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.

In July, 2012, the Department executed a Blanket Purchase Agreement with Precise Energy Capital LLC for up to 30 MW-dc of solar output throughout Massachusetts. Under this agreement, such solar facilities shall be identified and committed for construction prior to July 1, 2014 with estimated commercial operation dates. No projects have been identified as of December 31, 2013 and it is therefore not possible to quantify any potential commitments.

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 which runs through October, 2015.

MMWEC - 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. Currently, the Department is a member of MMWEC on a month to month basis. Any decision regarding membership status will have no effect on the Department's commitments and contingencies on MMWEC projects in existence prior to the Department's membership termination.

MMWEC was created as a means to develop bulk power supply for its Members and Project Participants. 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 utilities and also operates its own electric facilities. MMWEC sells all of the capability of each of its Projects to its Members and other utilities (Project Participants) under Power Sales Agreements (PSAs). 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 bonds issued by MMWEC to finance the Project, plus 10% of MMWEC's debt service to be paid into a Reserve and Contingency Fund. In addition, should any Project Participant fail to make any payment, other Project Participants may be required to increase (step-up) their payments and correspondingly their Participants' share of Project Capability to an additional amount not to exceed 25% of their original Participants' share of the Project Capability. Project Participants have covenanted to fix, revise and collect rates at least sufficient to meet their obligations under the PSAs.

The Department has entered into Power Sales Agreements (PSAs) and Power Purchase Agreements (PPAs) with MMWEC. Under both the PSAs and PPAs, the Department is required to make certain payments to MMWEC payable solely from the Department's revenues. 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).

In April, 2013, Clean Energy Coop entered into a Power Sales Contract with MMWEC which commits MMWEC to purchase 100% of Clean Energy Coop's net electrical capability for a 20 year period.

In April, 2013, the Department entered into a Power Purchase Agreement with MMWEC which commits the Department to purchase 100% of the net electrical capability purchased by MMWEC from Clean Energy Coop for a 20 year period.

MMWEC operates the Stony Brook Intermediate Project and Stony Brook Peaking Project fossil-fueled power plants, (the latter which the Department has a 4.818 MW share). In addition, MMWEC has a 3.7% interest in the W.F. Wyman Unit No. 4 plant owned and operated by FPL Energy Wyman IV, LLC, a subsidiary of NextEra Energy Resources LLC and a 4.8% ownership interest in the Millstone Unit 3 nuclear unit operated by Dominion Nuclear Connecticut, Inc. (DNCI) an indirect subsidiary of Dominion Resources, Inc. In addition to Millstone Unit 3, DNCI also is the owner of Millstone Unit 2. The operating license for Unit 3 was extended to November 25, 2045.

A substantial portion of MMWEC's plant investment and financing program is an 11.6% ownership interest in the Seabrook Station nuclear generating unit operated by NextEra Energy Seabrook, LLC, the majority owner and an indirect subsidiary of NextEra Energy Resources LLC. In December, 2005, the NRC issued an amendment to the operating license that extends the expiration date from October, 2026 to March, 2030 to recapture the period from 1986 to 1990 during which time Seabrook Station had an operating license but did not operate. NextEra Energy Seabrook, LLC has submitted an application to extend the Seabrook Station operating license for an additional 20 years. Pursuant to the PSAs, the MMWEC Seabrook and Millstone Project Participants are liable for their proportionate share of the costs associated with decommissioning the plants, which is being funded through monthly Project billings. The Project Participants are also liable for their proportionate share of the uninsured costs of a nuclear incident that might be imposed under the Price-Anderson Act. In July, 2005, as part of the Energy Policy Act of 2005, Congress extended the Price-Anderson Act through the end of 2025.

As of December 31, 2013, total capital expenditures by MMWEC amounted to \$1,607,269,000 of which \$46,192,000 represents the amount associated with the Department's Project Capability. MMWEC's debt outstanding for the Projects includes Power Supply System Revenue Bonds totaling \$225,280,000 of which \$6,315,000 is associated with the Department's share of Project Capability. As of December 31, 2013, MMWEC's total future debt service requirement on outstanding Bonds issued for the Projects is \$218,518,000, of which \$5,866,000 is anticipated to be billed to the Department in the future.

The estimated aggregate amount of the Department's required payments under the PSAs and PPAs, exclusive of the Reserve and Contingency Fund billings, to MMWEC at December 31, 2013 and estimated for future years is shown below:

For the years ended December 31, 2014	\$2,027,000
2015	1,827,000
2016	1,364,000
2017	537,000
2018	109,000
2019	2,000
	<u>\$5,866,000</u>

In addition, the Department is required to pay its share of the operation and maintenance (O&M) costs of the Projects in which they participate. The Department's total O&M costs including debt service under the PSAs were \$5,379,000 and \$5,473,000 for the years ended December 31, 2013 and 2012, respectively.

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 five to ten year terms. In addition the Department has entered into one-year contracts with two companies for frame relay lines, dialup help desk support and dedicated line monitoring 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.

The Department has long-term contracts which range from 1 to 5 years with customers for telecommunications services.

Hydroelectric Facility - As part of the Department's purchase of hydroelectric generating assets and a distribution franchise in 2001, FERC required certain modifications to the hydroelectric facility. The cost of these modifications over the next several years is likely to exceed ten million dollars.

Self Insurance - For general liability purposes, the Department is self-insured up to \$50,000, has self-insurance trust coverage in the amount of \$400,000 and general liability insurance for \$50,000 to \$10,000,000 per occurrence. The Department is also self insured for workers compensation up to \$250,000 per occurrence. A policy is in effect for excess workers compensation.

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 the land site is approximately \$642,846. No estimate is currently available for the river site. 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.

In February, 2013, Holyoke Water Power (HWP) demanded the Department indemnify HWP in a lawsuit filed by the estate of a deceased HWP employee who alleged he was exposed to asbestos. The Department denies liability.

Construction Programs - The Department has budgeted construction expenditures of approximately \$23 million to be incurred during 2014.

23. Subsequent Event:

The entities have evaluated events that have occurred subsequent to December 31, 2013, through April 29, 2014, the date these consolidated financial statements were available to be issued, and has determined there were no material events requiring recognition or disclosure.

24. Prior Period Reclassification:

Prior year's financial statements have been reclassified to conform with the current year's presentation. The reclassifications relate to the presentation of deferred inflows of resources on the Consolidated Statements of Net Position and the presentation of operating activities on the Consolidated Statements of Cash Flows. The reclassifications have no effect on the previously reported consolidated change in net position.

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