

The Commonwealth of Massachusetts Department of Public Utilities

Mark D. Marini, Department Secretary One South Station Boston, MA 02110

TO THE MAYORS, SELECTMEN, MUNICIPAL LIGHTS BOARDS AND MANAGERS OF MUNICIPAL LIGHTING IN THE SEVERAL CITIES AND TOWNS IN THIS COMMON-WEALTH OPERATING GAS OR ELECTRIC LIGHT PLANTS:

This form of the Annual Return should be filled out and one original and a duplicate copy (which may be a photocopy) should be returned to the Office of the Department of Public Utilities, One South Station, Boston, Massachusetts 02110, by March 31st of the year following the calendar year of the report in accordance with the statutes of the Commonwealth and the regulations of the Department made in pursuance thereof.

Where the word "None" truly and completely states the fact, it should be given as the answer to any particular inquiry or portion of an inquiry.

If respondant so desires, cents may be ommitted in the balance sheet, income statement and supporting schedules. All supporting schedules on an even-dollar basis, however, shall agree with even-dollar amounts in the main schedules. Averages and extracted figures, where cents are important, must show cents for reasons which are apparent.

Special attention is called to the legislation in regard to the Returns placed in the last page.

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Mark D. Mariani Department Secretary

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Kevin Brannelly Director, Rates and Revenue Requirements Division

George Yiankos Director, Gas Division



The Commonwealth of Massachusetts

RETURN

OF THE

CITY OF HOLYOKE GAS AND ELECTRIC DEPARTMENT

TO THE

DEPARTMENT OF PUBLIC UTILITIES

OF MASSACHUSETTS

For the Year Ended December 31,

2019

Name of Officer to whom correspondence should be addressed regarding this report :

Official Title:

Office Address:

Brooke M. McMahon

Director of Finance & Accounting

99 Suffolk Street Holyoke, MA 01040

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Pg 3 **GENERAL INFORMATION** 1. Name of town (or city) making this report. Holyoke, Massachusetts 01040 2. If the town (or city) has acquired a plant, Kind of plant, whether gas or electric. Owner from whom purchased, if so acquired. Date of votes to acquire a plant in accordance with the provisions of chapter 164 of the General Laws. Record of votes: First vote Yes, ; No, Second vote: Yes, ; No, Date when town (or city) began to sell electricity, 1902 3. Name and address of manager of municipal lighting: James M. Lavelle 54 Pleasant Street Holyoke, MA 01040 Alex B. Morse Name and address of mayor or selectmen: City Hall Holyoke, MA 01040 5. Name and address of town (or city) treasurer: Sandra Smith City Hall Holyoke, MA 01040 6. Name and address of town (or city) clerk: Brenna Murphy-McGee City Hall Holyoke, MA 01040 7. Names and addresses of members of municipal light board: Francis J. Hoey, III 15 Carol Lane Holyoke, MA 01040 Robert H. Griffin 6 Whittier Circle Holyoke, MA 01040 James A. Sutter 30 Fairfield Avenue Holyoke, MA 01040 8. Total valuation of estates in town (or city) according to last state valuation Fiscal 2020 7/1/19 - 6/30/20 Fiscal 2019 7/1/18 - 6/30/19 \$2,156,750,637 \$2,241,594,941 9. Tax rate for all purposes during the year: Fiscal 2020 7/1/19 - 6/30/20 Fiscal 2019 7/1/18 - 6/30/19 \$19.29 - Residential \$19.08 - Residential \$39.86 - Commercial/Industrial \$39.73 - Commercial/Industrial 10. Amount of manager's salary: \$220,722.00

\$100,000.00

\$4,000.00

11. Amount of manager's bond:

12. Amount of salary paid to members of municipal light board (each)

			Pg 5		
Annual Report of H	olyoke Gas and Electric Departm	nent		Year Ended D	ecember 31, 2019
	AP	PROPRIAT	TONS SINCE BEGINNING OF Y	EAR	
	(Include also all items cha	rged direct t	to tax levy, even where no approp	oriation is made or required.)	
FOR CONSTRUCT	TION OR PURCHASE OF PLANT	Γ:			
* * .		40		•	
* At * At	meeting meeting	19 19	, to be paid from { , to be paid from {	\$	
, u	mooning	.0	, to be paid from (TOTAL \$	
FOR THE ESTIMA	TED COST OF THE GAS OR FI	ECTRICITY	Y TO BE USED BY THE CITY OF	R TOWN FOR:	
					392,323
_					3,567,939
3. Steam					0
				\$	3,960,262
*Date of meeting ar	nd whether regular or special	{ H	Here insert bonds, notes or tax lev	/y	
		СНА	NGES IN THE PROPERTY		
			perty during the last fiscal period		
	s to the works or physical proper			·	
In electric prope	erty:				
In gas property:					

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Annual Report of Holyoke Gas and Electric Department

Year Ended December 31, 2019

BONDS

(Issued on Account of Gas or Electric Lighting)

When		Amount of		Payments		Interest	Amount Outstanding
Authorized*	Date of Issue	Original Issue**	Amounts	When Payable	Rate	When Payable	at End of Year
2009 Clean Renewable Energy	15-Jan-09	2,500,000		12/15/2020			208,333
Bond							
	TOTAL	2,500,000				TOTAL	208,333

The bonds and notes outstanding at the end of the year should agree with the balance sheet. When bond and notes are repaid, report the first three columns only.

*Date of meeting and whether regular or special.

**List original issues of bonds and notes including those that have been retired.

Year Ended December 31, 2019

TOWN NOTES

(Issued on Account of Gas or Electric Lighting)

When		Amount of	Period of	Payments		Interest	Amount Outstanding
Authorized*	Date of Issue	Original Issue**	Amounts	When Payable	Rate	When Payable	at End of Year
2012 Note to City of Holyoke	04/01/12	30,532,000		9/1/2031			21,825,000
Debt Premium	04/01/12	3,180,783		9/1/2031			1,646,158
2003 Note to Peoples	11/01/03	2,589,544		Monthly			0
	TOTAL	36,302,327				TOTAL	23,471,158

The bonds and notes outstanding at the end of the year should agree with the balance sheet. When bond and notes are repaid, report the first three columns only.

^{*}Date of meeting and whether regular or special.

^{**}List original issues of bonds and notes including those that have been retired.

TOTAL COST OF PLANT - ELECTRIC

- Report below the cost of utility plant in service according to prescribed accounts.
- 2. Do not include as adjustments, corrections of additions and retirements for the current or the pre-
- ceding year. Such items should be included in column (c) or (d) as appropriate.
- 3. Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative
- effect of such amounts.
- 4. Reclassifications or transfers within utility plant accounts should be shown in column (f).

	additions and retirements for the current of the pre-	Balance	entrieses to indicate				
		Beginning					Balance
Line	Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	1. INTANGIBLE PLANT						
2							
3							
4	TOTAL INTANGIBLE PLANT	0	0	0	0	0	0
5	2. PRODUCTION PLANT						
6	A. Steam Production						
7	310 Land and Land Rights						
8	311 Structures and Improvements	1,231,220		23,219	(69,149)		1,138,852
9	312 Boiler Plant Equipment	15,154		12,000			3,154
10	312-01 Boiler Plant Equipment Comm						
11	313 Engines and Engine Driven						
	Generators						
12	314 Turbogenerator Units						
13	315 Accessory Electric Equipment	135,977		135,977			(0)
14	316 Miscellaneous Power Plant						
15	Equipment	34,253					34,253
16	Total Steam Production Plant	1,416,603	0	171,196	(69,149)	0	1,176,259
17	B. Nuclear Production Plant						
18	320 Land and Land Rights						
19	321 Structures and Improvements						
20	322 Reactor Plant Equipment						
21	323 Turbogenerator Units						
22	324 Accessory Electric Equipment						
23	325 Miscellaneous Power Plant						
	Equipment						
24	Total Nuclear Production Plant	0	0	0	0	0	0

TOTAL COST OF PLANT - ELECTRIC (Continued)

		Balance Beginning					Balance
Line	Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	C. Hydraulic Production Plant	\ /	. ,	. ,	. ,	. ,	(Ο/
2	330 Land and Land Rights	923,720					923,720
3	331 Structures and Improvements	24,988,146	73,894		(18,000)		25,044,040
4	332 Reservoirs, Dams and Waterways	21,454,823	24,626				21,479,449
5	333 Waterwheels, Turbines and						
	Generators	32,009,498	756		95,524		32,105,778
6	334 Accessory Electric Equipment	4,781,859			416,824		5,198,683
7	335 Miscellaneous Power Plant						
	Equipment	357,601	58,150				415,751
8	336 Roads, Railroads and Bridges	0	57,787				57,787
9	Total Hydraulic Production Plant	84,515,646	215,213	0	494,348	0	85,225,208
10	D. Other Production Plant						
11	340 Land and Land Rights	15,040					15,040
12	341 Structures and Improvements						
13	342 Fuel Holders, Producers and						
	Accessories						
14	343 Prime Movers						
15	344 Generators						
16	345 Accessory Electric Equipment						
17	346 Miscellaneous Power Plant						
	Equipment						
18	Total Other Production Plant	15,040	0	0	0	0	15,040
19	TOTAL PRODUCTION PLANT	85,947,290	215,213	171,196	425,199	0	86,416,506
20	3. TRANSMISSION PLANT						
21	350 Land and Land Rights	702,448		398,148			304,300
22	351 Clearing Land and Rights of Way						
23	352 Structures and Improvements						
24	353 Station Equipment	12,673,602	(4,383)	506,102	1,253,359		13,416,476
25	354 Towers and Fixtures						
	355 Poles and Fixtures	2,921,774	2,626	11,781	79,670		2,992,288
	356 Overhead Conductors and Devices	1,072,896					1,072,896
28	357 Underground Conduits	0					0
29	358 Underground Conductors and Devices	0					0
30	359 Roads and Trails	47.070.70	(4	040.63	4 000 000		47.705.66
31	TOTAL TRANSMISSION PLANT	17,370,720	(1,757)	916,031	1,333,029	0	17,785,961

TOTAL COST OF PLANT - ELECTRIC (Concluded)

		Balance					Dalassa
Line	Account	Beginning of Year	Additions	Retirements	A divistments	Transfers	Balance End of Year
					Adjustments		
No.	(a) 4. DISTRIBUTION PLANT	(b)	(c)	(d)	(e)	(f)	(g)
2	360 Land and Land Rights	2,957,281					2,957,281
3	361 Structures and Improvements	373,467		9,523			363,943
4	362 Station Equipment	19,859,478	(998)	541,451	2,209,976		21,527,005
5	363 Storage Battery Equipment	19,039,476	(998)	341,431	2,209,970		21,327,003
6	364 Poles, Towers and Fixtures	5,699,785	152,405	153,981	112,945		5,811,155
7	365 Overhead Conductors and Devices	8,830,710	125,249	65,877	45,516		8,935,597
8	366 Underground Conduits	11,090,243	95,300	05,077	502,806		11,688,349
9	367 Underground Conductors & Devices	14,544,003	464,626	190,450	1,532,032		16,350,211
10	368 Line Transformers (Over & Under)	5,394,945	354,093	435,221	354,207		5,668,024
11	369 Services (Over & Under)	3,921,503	67,167	38,443	35,016		3,985,243
	370 Meters-Consumer's Expense	3,469,752	25,690	91,516	1,776		3,405,703
	371 Installation on Cust's Premises	1,066,048	27,755	2,652	1,770		1,091,151
	373 Street Light and Signal Systems	3,496,347	53,144	12,998	39,933		3,576,426
	3** Telecommmunications	10,350,181	2,953	12,000	149,851		10,502,985
16	TOTAL DISTRIBUTION PLANT	91,053,742	1,367,384	1,542,112	4,984,059	0	95,863,073
17	5. GENERAL PLANT	,	1,001,001	1,0 12,112	1,00 1,000		20,000,000
18	389 Land and Land Rights	98,576					98,576
19	390 Structures and Improvements	4,147,647	35,748		186,942		4,370,338
20	391/391-01 Office Furn & Equip/Comp Equip	2,813,168	•		477,886		3,291,054
	392 Transportation Equipment	2,970,816	29,450				3,000,266
	393 Stores Equipment	73,652	·				73,652
23	394 Tools, Shop and Garage Equipment	131,873	35,147				167,020
24	395 Laboratory Equipment	176,118	·				176,118
25	396 Power Operated Equipment	173,881	17,688				191,569
26	397 Communication Equipment	615,323	·		168,095		783,418
27	398 Miscellaneous Equipment	112,110	4,983				117,094
28	399 Other Tangible Property						
29	3** Telecommmunications	2,210,967			45,323		2,256,291
30	TOTAL GENERAL PLANT	13,524,130	123,017	0	878,246	0	14,525,394
31	TOTAL ELECTRIC PLANT IN SERVICE	207,895,882	1,703,857	2,629,339	7,620,534	0	214,590,934
32			TOTAL COST OF	ELECTRIC PLA	NT		214,590,934
33							
34			Less Cost of Lar	nd, Land Rights, a	and Rights of Way	/	4,405,916
35			Total Cost upor	n which deprecia	tion is based	······································	210,185,018

The above figures should show the original cost of existing property. In case any part of the property is sold or retired, the cost of such property should be deducted from the cost of the plant. The net cost of the property, less the land values, should be taken as a basis for figuring depreciation.

TOTAL COST OF PLANT - GAS

- Report below the cost of utility plant in service according to prescribed accounts.
- Do not include as adjustments, corrections of additions and retirements for the current or the pre-
- ceding year. Such items should be included in column (c) or (d) as appropriate.
- 3. Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative
- effect of such amounts.
- 4. Reclassifications or transfers within utility plant accounts should be shown in column (f).

Balance Beginning of Year Additions Retirements Adjustments Transfers End of Year Additions (c) (d) (e) (f) (g)		additions and retirements for the current or the pre-	be enclosed in pai	rentheses to indicate	tne negative		ı	
Line			Balance					
No. (a) (b) (c) (d) (e) (f) (g)			Beginning					
1 1. INTANGIBLE PLANT 2 301 Organization	Line	Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
2 301 Organization	No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
2 301 Organization								
3 303 Miscellaneous Intangible Plant	1	1. INTANGIBLE PLANT						
TOTAL INTANGIBLE PLANT 0 0 0 0 0 0 0 0 0	2	301 Organization						
5 2. PRODUCTION PLANT 6 Manufactured Gas Production 7 304 Land and Land Rights	3	303 Miscellaneous Intangible Plant						
6 Manufactured Gas Production 84,563 7 304 Land and Land Rights	4	TOTAL INTANGIBLE PLANT	0	0	0	0	0	0
7 304 Land and Land Rights 84,563 8 305 Structures and Improvements 136,904 9 306 Boiler Plant Equipment 2,368 10 307 Other Power Plant Equipment 2,368 11 310 Water Gas Generating Equipment 47,610 12 311 Liquefied Petroleum Gas Equipment 47,610 13 312 Oil Gas Generating Equipment 47,610 13 313 Generating Equip - Other Processes 315 Catalytic Cracking Equipment 13 316 Other Reforming Equipment 317 Purification Equipment 19 318 Residual Refining Equipment 1,522,900 20 320 Other Equipment 26,634 21 TOTAL MANUFACTURED GAS PRODUCTION PLANT 22 3. STORAGE PLANT 360 Land and Land Rights 574,764 25 362 Gas Holders 26 363 Other Equipment	5	2. PRODUCTION PLANT						
8 305 Structures and Improvements	6	Manufactured Gas Production						
9 306 Boiler Plant Equipment	7	304 Land and Land Rights	84,563					84,563
10 307 Other Power Plant Equipment	8	305 Structures and Improvements	136,904			8,804		145,708
11 310 Water Gas Generating Equipment 47,610 12 311 Liquefied Petroleum Gas Equipment 47,610 13 312 Oil Gas Generating Equipment 313 Generating Equip - Other Processes 15 315 Catalytic Cracking Equipment 316 Other Reforming Equipment 16 317 Purification Equipment 318 Residual Refining Equipment 19 319 Gas Mixing Equipment 1,522,900 20 320 Other Equipment 26,634 21 TOTAL MANUFACTURED GAS PRODUCTION PLANT 1,820,979 0 0 8,804 0 1,829,783 22 3. STORAGE PLANT 360 Land and Land Rights 361 Structures and Improvements 574,764 574,764 25 362 Gas Holders 363 Other Equipment 574,764 574,764	9	306 Boiler Plant Equipment						
12 311 Liquefied Petroleum Gas Equipment	10	307 Other Power Plant Equipment	2,368					2,368
13 312 Oil Gas Generating Equipment	11	310 Water Gas Generating Equipment						
14 313 Generating Equip - Other Processes 15 315 Catalytic Cracking Equipment	12	311 Liquefied Petroleum Gas Equipment	47,610					47,610
15 315 Catalytic Cracking Equipment	13	312 Oil Gas Generating Equipment						
16 316 Other Reforming Equipment	14	313 Generating Equip - Other Processes						
17 317 Purification Equipment	15	315 Catalytic Cracking Equipment						
18 318 Residual Refining Equipment	16	316 Other Reforming Equipment						
19 319 Gas Mixing Equipment	17	317 Purification Equipment						
20 320 Other Equipment	18	318 Residual Refining Equipment						
21 TOTAL MANUFACTURED GAS PRODUCTION PLANT 1,820,979 0 0 8,804 0 1,829,783 22 3. STORAGE PLANT 23 360 Land and Land Rights	19	319 Gas Mixing Equipment	1,522,900					1,522,900
PRODUCTION PLANT 22	20	320 Other Equipment	26,634					26,634
22 3. STORAGE PLANT 23 360 Land and Land Rights	21	TOTAL MANUFACTURED GAS	1,820,979	0	0	8,804	0	1,829,783
23 360 Land and Land Rights		PRODUCTION PLANT						
24 361 Structures and Improvements	22	3. STORAGE PLANT						
25 362 Gas Holders 26 363 Other Equipment	23	360 Land and Land Rights						
26 363 Other Equipment	24	361 Structures and Improvements	574,764					574,764
	25	362 Gas Holders						
30 TOTAL STORAGE PLANT 574,764 0 0 0 0 574,764	26	363 Other Equipment						
	30	TOTAL STORAGE PLANT	574,764	0	0	0	0	574,764

TOTAL COST OF PLANT - GAS (Concluded)

		Balance Beginning					Balance
Line	Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	4. TRANSMISSION AND						
	DISTRIBUTION PLANT						
2	365.1 Land and Land Rights	69,987					69,987
3	365.2 Rights-of-Way						
4	366 Structures and Improvements	886,648					886,648
5	367 Mains	20,255,872	194	125,875	1,040,224		21,170,414
6	368 Compressor Station Equipment	97,360					97,360
7	369 Measuring and Regulating Station						
	Equipment	1,676,837			12,456		1,689,293
8	370 Comm Equip Meters/Telemeter	367,565					367,565
9	380 Services	18,776,820	17,979	127,977	975,179		19,642,002
10	381 Meters	5,133,007	13,747	48,112	71,692		5,170,335
11	382 Meter Installations	5,086					5,086
12	383 House Regulators						
13	386 Other Property on Cust's Prem						
14	387 Other Equipment	24,871					24,871
15	TOTAL TRANSMISSION AND						
16	DISTRIBUTION PLANT	47,294,052	31,920	301,963	2,099,551	0	49,123,560
17	5. GENERAL PLANT						
18	389 Land and Land Rights	59,754					59,754
19	390 Structures and Improvements	1,548,909	19,249		37,796		1,605,954
20	391/391-01 Office Furn & Equip/Comp Equip	1,428,703	118		286,650		1,715,471
21	392 Transportation Equipment	1,228,649	83,926	25,884			1,286,691
22	393 Stores Equipment	9,212			18,710		27,922
23	394 Tools, Shop and Garage Equipment	264,410	24,430				288,839
24	395 Laboratory Equipment						
25	396 Power Operated Equipment	21,652					21,652
26	397 Communication Equipment	248,167			90,513		338,679
27	398 Miscellaneous Equipment	28,438	8,112				36,550
28	399 Other Tangible Property						
29	TOTAL GENERAL PLANT	4,837,894	135,835	25,884	433,669	0	5,381,514
30	TOTAL GAS PLANT IN SERVICE	54,527,690	167,754	327,847	2,542,025	0	56,909,621
31			TOTAL COST O	F GAS PLANT			56,909,621
32							
33			Less Cost of Lar	nd, Land Rights, a	and Rights of Way	/	214,304
34			Total Cost upor	n which deprecia	tion is based		56,695,317

The above figures should show the original cost of existing property. In case any part of the property is sold or retired, the cost of such property should be deducted from the cost of the plant. The net cost of the property, less the land values, should be taken as a basis for figuring depreciation.

COMPARATIVE BALANCE SHEET Assets and Other Debits

		Balance		
		Beginning of	Balance	Increase
Line	Title of Account	Year	End of Year	or (Decrease)
No.	(a)	(b)	(c)	(d)
1	UTILITY PLANT			
2	101 Utility Plant in Service - Electric (pg 17)	135,987,289	138,806,908	2,819,619
3	101 Utility Plant in Service - Gas (pg 20)	25,903,087	27,019,145	1,116,059
4	Non Operating Plant	5,988,390	5,988,390	0
5	TOTAL UTILITY PLANT	167,878,765	171,814,443	3,935,678
6				
7				
8				
9				
10				
11	FUND ACCOUNTS			
12	125 Sinking Funds			
13	126 Depreciation Fund (pg 14) see acct 234 pg 11			
14	128 Other Special Funds	25,891,667	26,141,414	249,747
15	TOTAL FUNDS	25,891,667	26,141,414	249,747
16	CURRENT AND ACCRUED ASSETS			
17	131 Cash (pg 14)	4,103,476	3,217,116	(886,360)
18	132 Special Deposits	1,538,881	1,467,273	(71,608)
19	132 Working Funds	15,350	15,350	0
20	141 Notes and Receivables			
21	142 Customer Accounts Receivable	7,694,808	6,802,032	(892,777)
22	143 Other Accounts Receivable			
23	146 Receivables from Municipality	748,749	638,760	(109,988)
24	151 Materials and Supplies (pg 14)	3,541,876	3,961,056	419,180
25	163 Stores Expense			
26	165 Prepayments	56,310,385	58,452,237	2,141,852
27	174 Miscellaneous Current Assets	3,191,424	3,403,160	211,736
28	TOTAL CURRENT AND ACCRUED ASSETS	77,144,950	77,956,984	812,034
29	DEFERRED DEBITS			
30	181 Unamortized Debt Discount	863,333	796,666	(66,667)
31	182 Extraordinary Property Debits			
32	185 Other Deferred Debits	0	0	0
33	TOTAL DEFERRED DEBITS	863,333	796,666	(66,667)
34				
35	TOTAL ASSETS AND OTHER DEBITS	271,778,714	276,709,507	4,930,792

COMPARATIVE BALANCE SHEET Liabilities and Other Credits

		Balance	Balance	Increase
Line	Title of Account	Beginning of Year	End of Year	or (Decrease)
No.	(a)	(b)	(c)	(d)
1	APPROPRIATIONS	(0)	(6)	(u)
2	201 Appropriations for Construction			
3	SURPLUS			
4	205 Sinking Fund Reserves			
5	206 Loans Repayment	1,573,333	1,643,333	70,000
6	207 Appropriations for Construction Repayment	1,010,000	1,616,666	. 0,000
7	208 Unappropriated Earned Surplus (pg 12)	85,014,831	92,027,596	7,012,765
8	TOTAL SURPLUS	86,588,164	93,670,929	7,082,765
9	LONG TERM DEBT	,,	,,-	, ,
10	221 Bonds (pg 6)	416,667	208,333	(208,334)
11	231 Notes Payable (pg 7)	25,050,051	23,471,158	(1,578,893)
12	228 Net Pension Liability	25,930,197	40,194,962	14,264,765
13	TOTAL BONDS AND NOTES	51,396,915	63,874,453	12,477,538
14	CURRENT AND ACCRUED LIABILITIES			
15	232 Accounts Payable	10,304,481	8,597,995	(1,706,486)
16	234 Payables to Municipality			, , , , , , , , , , , , , , , , , , , ,
17	235 Customer Deposits	1,357,236	1,191,208	(166,028)
18	236 Taxes Accrued			
19	237 Interest Accrued	345,650	322,529	(23,121)
20	242 Miscellaneous Current and Accrued Liabilities	2,763,558	0	(2,763,558)
21	TOTAL CURRENT AND ACCRUED LIABILITIES	14,770,925	10,111,732	(4,659,193)
22	DEFERRED CREDITS			
23	251 Unamortized Premium on Debt			
24	252 Customer Advance for Construction			
25	253 Other Deferred Credits	118,507,508	108,537,189	(9,970,319)
26	TOTAL DEFERRED CREDITS	118,507,508	108,537,189	(9,970,319)
27	RESERVES			
28	260 Reserves for Uncollectible Accounts	515,204	515,204	0
29	261 Property Insurance Reserve			
30	262 Injuries and Damages Reserves			
31	263 Pensions and Benefits			
32	265 Miscellaneous Operating Reserves			
33	TOTAL RESERVES	515,204	515,204	0
34	CONTRIBUTIONS IN AID OF CONSTRUCTION			
35	271 Contributions in Aid of Construction			0
36	TOTAL LIABILITIES AND OTHER CREDITS	271,778,716	276,709,507	4,930,792

State below if any earnings of the Municipal Lighting Plant have been used for any purpose other than discharging indebtedness of the plant, the purpose for which used and the amount thereof.

	al Report of Holyoke Gas and Electric Department STATEMENT OF INCOME FOR THE		r Ended December 31, 2019
		Total	
Line	Account	Current Year	Increase or (Decrease) from Preceding Year
No.	(a)	(b)	(c)
1	OPERATING INCOME	70.007.004	(0.040.070)
2	400 Operating Revenue (pg 37 and pg 43)	72,837,084	(2,219,370)
4	Operating Expenses: 401 Operation Expense (pg 42 and pg 47)	49,110,449	151,789
	402 Maintenance Expense (pg 42 and pg 47)	9,382,178	864,331
	403 Depreciation Expense	7,722,560	502,282
	407 Amortization of Property Losses	0	002,202
8	Annothization of Froperty Losses		V
9	408 Taxes (pg 49)		
10	Total Operating Expenses	66,215,187	1,518,402
11	Operating Income	6,621,897	(3,737,772
12	414 Other Utility Operating Income (pg 50)	0,021,037	(0,737,772)
13	414 Strict Strict Strict Specialing moonie (pg 66)	· ·	•
14	Total Operating Income	6,621,897	(3,737,772)
15	OTHER INCOME	0,021,007	(0,101,112)
	415 Income from Merchandising, Jobbing, and Contract Work (pg 51)	66,532	12,811
	419 Interest Income	8,422,214	10,393,822
18	421 Miscellaneous Nonoperating Income	1,515,634	311,851
19	Total Other Income	10,004,380	10,718,484
20	TOTAL INCOME	16,626,277	6,980,712
21	MISCELLANEOUS INCOME DEDUCTIONS		0,000,
22	425 Miscellaneous Amortization		
23	426 Other Income Deductions	1,763,029	850,139
24	Total Income Deductions	1,763,029	850,139
25	Income before Interest Charges	14,863,248	6,130,573
26	INTEREST CHARGES		
27	427 Interest on Bonds and Notes	846,860	(187,831)
28	428 Amortization of Debt Discount and Expense	66,667	(0)
29	429 Amortization of Premium on Debt		
30	431 Other Interest Expense	8,795	1,568
31	432 Interest Charged to Construction-Credit		
32	Total Interest Charges	922,322	(186,263)
33	NET INCOME	13,940,926	6,316,836
	EARNED SURPLUS		
Line		Debits	Credits
No.	(a)	(b)	(c)
34	Unappropriated Earned Surplus (at beginning of Period)		85,014,831
35	Adjustment to correct Unappropriated Earned Surplus	5,698,657	
36	Adjustment to correct Unappropriated Earned Surplus		1,573,333
37	433 Balance transferred from Income		13,940,926
38	434 Miscellaneous Credits to Surplus (pg 21)	0	
	435 Miscellaneous Debits to Surplus (pg 21)	1,159,460	
40	436 Appropriations of Surplus (pg 21)	1,643,333	
41	437 Surplus Applied to Depreciation		
42	208 Unappropriated Earned Surplus (at end of period)	92,027,596	
43			
44	TOTALS	100,529,048	100,529,090

		Pg 13		
ecember 3	Year Ended Dece		· · · · · · · · · · · · · · · · · · ·	Report of Holyoke Gas and
	1	F INCOME FOR THE YEAR		
		Gas		Electric
	Increase or		Increase or	
	(Decrease) from	0	(Decrease) from	0 11/
	Preceding Year	Current Year	Preceding Year	Current Year
	(g)	(f)	(e)	(d)
	(632,056)	22,764,252	(1,587,314)	50,072,832
	947,481	16,829,420	(795,692)	32,281,029
	206,008	2,237,903	658,323	7,144,275
	64,490	1,629,402	437,792	6,093,158
	4.047.070	00.000.704	200 404	45 540 400
	1,217,978	20,696,724	300,424	45,518,463
	(1,850,034)	2,067,528	(1,887,738)	4,554,369
	(1,850,034)	2,067,528	(1,887,738)	4,554,369
	17,832	81,735	(5,021)	(15,203)
	662,077	347,003	9,731,745	8,075,211
	(13,445)	9,286	325,296	1,506,348
	666,464	438,024	10,052,020	9,566,356
	(1,183,570)	2,505,552	8,164,282	14,120,725
	25,153	45,800	824,986	1,717,229
	25,153	45,800	824,986	1,717,229
	(1,208,723)	2,459,752	7,339,296	12,403,496
	(5,062)	79,878	(182,769)	766,982
	0,002)	0	(0)	66,667

88,674

2,371,078

(182,770)

7,522,066

833,648

11,569,848

31

32

33

(3,493)

(1,205,230)

Annua	Pg 14 al Report of Holyoke Gas and Electric Department	Yea	ar Ended December 31, 2019
	CASH BALANCES AT END OF YE		
Line	Items		Amount
No.	(a)		(b)
1	Operation Fund		3,217,116
2	Interest Fund		
3	Bond Fund		
4	Construction Fund		
5			
6			
7			
8			
9			
10			
11			
12		TOTAL	3,217,116
	MATERIALS AND SUPPLIES (Accord	unts 151-159, 163)	
	Summary per Balance	Sheet	
	<u> </u>	Amount End of Y	'ear
Line	Account	Electric	Gas
No.	(a)	(b)	(c)
13	Fuel (Account 151) (See Schedule, Page 25)		
14	Fuel Stock Expenses (Account 152)	0	734,653
15	Residuals (Account 153)		
	Plant Materials and Operating Supplies (Account 154)	2,382,267	844,137
	Merchandise (Account 155)		
	Other Materials and Supplies (Account 156)		
19	Nuclear Fuel Assemblies and Components - In Reactor (Acct 157)		
	Nuclear Fuel Assemblies and Components - Stock Acct (Acct 158)		
21	Nuclear Byproduct Materials (Account 159)		
22	Stores Expense (Account 163)		
23	Total per Balance Sheet	2,382,267	1,578,790
	DEPRECIATION FUND ACCOUN	T (Account 126)	
Line No.	(a)		Amount (b)
110.	(u)		(5)
25	Balance of Account at Beginning of Year		0
26	Income During Year from Balance on Deposit		7,722,560
27	Amount Transferred from Income		•
28		TOTAL	7,722,560
29			
30	CREDITS		
31	Amount expended for Construction Purposes (Sec. 57, C. 164 of G.L.)		0
32	Amounts Expended for Renewals		7,722,560
33			
34			
35			
36			
37			
38			
39	Balance on Hand at End of Year		0
40		TOTAL	7,722,560

UTILITY PLANT - ELECTRIC

- Report below the items of utility plant in service according to prescribed accounts
- 2. Do not include as adjustments, corrections of additions and retirements for the current or the pre-
- ceding year. Such items should be included in column
- 3. Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative
- effect of such amounts.
- 4. Reclassifications or transfers within utility plant accounts should be shown in column (f).

	additions and retirements for the current or the pre-		tneses to indicate the	педание		1	
		Balance					
l		Beginning				Adjustments	Balance
Line		of Year	Additions	Depreciation	Other Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	1. INTANGIBLE PLANT						
2							
3							
4		0	0	0	0	0	0
5	2. PRODUCTION PLANT						
6	A. Steam Production						
7	310 Land and Land Rights						
8	311 Structures and Improvements	279,800		6,908		(69,149)	203,743
9	312 Boiler Plant Equipment	0					0
10	312-01 Boiler Plant Equipment Comm						
11	313 Engines and Engine Driven						
	Generators - Commercial Steam Line						
12	314 Turbogenerator Units						
13	315 Accessory Electric Equipment						
14	316 Miscellaneous Power Plant						
15	Equipment	0					0
16	Total Steam Production Plant	279,800	0	6,908	0	(69,149)	203,743
17	B. Nuclear Production Plant						
18	320 Land and Land Rights						
19	321 Structures and Improvements						
20	322 Reactor Plant Equipment						
21	323 Turbogenerator Units						
22	324 Accessory Electric Equipment						
23	325 Miscellaneous Power Plant						
	Equipment						
24	Total Nuclear Production Plant	0	0	0	0	0	0

UTILITY PLANT - ELECTRIC (Continued)

		Balance					
		Beginning			Other	Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	C. Hydraulic Production Plant						
2	330 Land and Land Rights	923,720					923,720
3	331 Structures and Improvements	21,679,492	73,894	749,644		(18,000)	20,985,742
4	332 Reservoirs, Dams and Waterways	12,947,403	24,626	598,875			12,373,155
5	333 Waterwheels, Turbines and						
	Generators	25,806,214	756	960,285		95,524	24,942,209
6	334 Accessory Electric Equipment	3,782,910		143,456			3,639,454
7	335 Miscellaneous Power Plant						
	Equipment	310,027	58,150	10,728			357,449
8	336 Roads, Railroads and Bridges	0	57,787				57,787
9	Total Hydraulic Production Plant	65,449,765	215,213	2,462,988	0	77,524	63,279,515
10	D. Other Production Plant						
11	340 Land and Land Rights	15,040					15,040
12	341 Structures and Improvements						
13	342 Fuel Holders, Producers and						
	Accessories						
14	343 Prime Movers						
15	344 Generators						
16	345 Accessory Electric Equipment						
17	346 Miscellaneous Power Plant						
	Equipment						
18	Total Other Production Plant	15,040	0	0	0	0	15,040
19	TOTAL PRODUCTION PLANT	65,744,605	215,213	2,469,896	0	8,375	63,498,298
20	3. TRANSMISSION PLANT						
21	350 Land and Land Rights	702,448			398,148		304,300
22	351 Clearing Land and Rights of Way						
23	352 Structures and Improvements						
24	353 Station Equipment	8,317,570	(4,383)	258,199	75,922	1,253,359	9,232,425
25	354 Towers and Fixures	13,457				(13,457)	0
26	355 Poles and Fixtures	1,247,477	2,626	52,859		79,670	1,276,914
27	356 Overhead Conductors and Devices	207,423		17,605			189,818
28	357 Underground Conduits						0
29	358 Underground Conductors and						0
	Devices						
30	359 Roads and Trails						
31	TOTAL TRANSMISSION PLANT	10,488,375	(1,757)	328,663	474,070	1,319,572	11,003,457

UTILITY PLANT - ELECTRIC (Concluded)

		Balance					
		Beginning			Other	Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	4. DISTRIBUTION PLANT	0.057.004					0.057.004
2	360 Land and Land Rights	2,957,281		44.004	0.004		2,957,281
3	361 Structures and Improvements	60,417	(008)	11,204	2,981	2 627 602	46,232
4	362 Station Equipment	15,323,671	(998)	595,784	256,362	2,627,603	17,098,129
5	363 Storage Battery Equipment	2 425 400	450 405	450 547	40.044	440.045	2 500 704
6 7	364 Poles, Towers and Fixtures	3,435,109	152,405	158,517	19,241	112,945	3,522,701
	365 Overhead Conductors and Devices	4,362,251	125,249	251,690	13,175	45,516	4,268,150
8	366 Underground Conduit	4,968,171	95,300	319,476	20.025	502,806	5,246,802
9	367 Underground Conductors and Devices	8,597,962	464,626	423,089	38,035	1,532,032	10,133,496
10	368 Line Transformers (Over & Under)	2,101,532	354,093	161,848	14,935	353,405	2,632,247
11	369 Services (Over & Under)	1,148,017	67,167	117,645	7,689	35,016	1,124,866
	370 Meters 371 Installation on Cust's Premises	2,366,860	25,690 27,755	104,093	5,239	1,776 0	2,284,995
		310,083	27,755 53,144	31,981	2,374		303,482
	373 Street Lighting and Signal Systems			104,890	10,640	39,933	1,422,103
15 16	3** Telecommunications TOTAL DISTRIBUTION PLANT	7,768,909	2,953	224,855	370,670	149,851	7,696,857
17	5. GENERAL PLANT	54,844,819	1,367,384	2,505,074	370,670	5,400,883	58,737,342
		00 576					00.576
_	389 Land and Land Rights	98,576 2,511,382	35,748	128,578		186,942	98,576 2,605,494
_	390 Structures and Improvements		35,746	,		,	
	391/391-01 Office Furn & Equip/Comp Equip 392 Transportation Equipment	447,712 722,545	29,450	104,779 362,254		477,886	820,819 389,741
21		56,714	29,450	6,611			,
22	393 Stores Equipment	*	25 447	,			50,103
	394 Tools, Shop and Garage Equipment	41,737	35,147	7,063			69,821
	395 Laboratory Equipment	9,292	17 600	2,395			6,897
	396 Power Operated Equipment	90,741	17,688	12,702		169.005	95,728
26 27	397 Communication Equipment	45,403 13,980	4,983	15,839 534		168,095	197,659 18,429
28	' '	13,960	4,963	554			10,429
29	399 Other Tangible Property	751 156	0	149 770		4E 222	647.710
30	3** Telecommunications TOTAL GENERAL PLANT	751,156 4,789,239	123,017	148,770 789,525	0	45,323 878,246	647,710 5,000,978
31	TOTAL GENERAL FLANT		•	·	844,740	7,607,077	138,240,074
32	101AL ELECTRIC PLANT IN SERVICE	135,867,038	1,703,857	6,093,158	044,740	7,007,077	130,240,074
33	105 Property Held for Future Use	0	4,625,653			(4,625,653)	0
34	107 Construction Work in Progress	120,251	3,405,999			(2,959,417)	566,833
34	108 Accumulated Depreciation	120,231	5,405,555			(2,333,417)	300,033
35	TOTAL UTILITY ELECTRIC PLANT	135,987,289	9,735,509	6,093,158	844,740	22,007	138,806,908
აა	TOTAL UTILITY ELECTRIC PLAINT	130,301,209	3,130,009	0,093,108	044,740	22,007	130,000,908

PRODUCTION FUEL AND OIL STOCKS (Included in Account 151) (Except Nuclear Materials)

- $1. \ \ Report \ below \ the \ information \ called \ for \ concerning \ production \ fuel \ and \ oil \ stocks.$
- 2. Show quantities in tons of 2,000 lbs., gal., or Mcf., whichever unit of quantity is applicable.
- 3. Each kind of coal or oil should be shown separately.
- 4. Show gas and electric fuels separately by specific use.

	1. Show gas and electric facis separately by specific asc.	1				
			KINDS OF FUEL AND OIL			
		Total	Oil	Oil	System Storage	System Storage
Line	Item	Cost	BBL	Cost	MMBTU	Cost
No.	(a)	(b)	(c)	(d)	(e)	(f)
INO.	(a)	(b)	(0)	(u)	(e)	(1)
1	On Hand Beginning of Year	706,015	0	0	250,231	591,567
2	Received During Year	1,405,059	0	0	237,492	512,198
3	TOTAL	2,111,075	0	0	487,723	1,103,765
4	Used During Year (Note A)	1,376,422			218,432	513,496
5	(Boiler Fuel)					
6						
7						
8						
9						
10						
11	Sold or Transferred	0				
12	TOTAL DISPOSED OF	1,376,422	0	0	218,432	513,496
13	BALANCE END OF YEAR	734,653	0	0	269,291	590,270
			KINDS OF FUEL AND OIL - continued			
			Propane	Propane	LNG	LNG
Line	ltem		GALS	Cost	GALS	Cost
No.	(g)		(h)	(i)	(j)	(k)
14	On Hand Beginning of Year		0	0	193,628	114,448
15	Received During Year		0	0	1,193,508	892,861
16		TOTAL	0	0	1,387,136	1,007,309
17	Used During Year (Note A)		0	0	1,190,394	862,926
18	(Boiler Fuel)					
19						
20						
21						
22						
23						
24	Sold or Transferred					
25		AL DISPOSED OF	0	0	1,190,394	862,926
26	BALAN	CE END OF YEAR	0	0	196,742	144,383

Note A - Indicate specific purpose for which used, e.g., Boiler Oil, Make Oil, Generator Fuel, etc.

UTILITY PLANT - GAS

- Report below the items of utility plant in service according to prescribed accounts
- 2. Do not include as adjustments, corrections of additions and retirements for the current or the pre-
- ceding year. Such items should be included in column
- 3. Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative
- effect of such amounts.
- 4. Reclassifications or transfers within utility plant accounts should be shown in column (f).

	additions and retirements for the current or the pre-	· ·	theses to indicate the	riegative			
		Balance					
		Beginning				Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Other Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	1. INTANGIBLE PLANT						
2							
3							
4		0	0	0	0	0	0
5	2. PRODUCTION PLANT						
6	A. Manufactured Gas Production						
7	304 Land and Land Rights	84,563					84,563
8	305 Structures and Improvements	48,817		1,746		8,804	55,875
9	306 Boiler Plant Equipment						
10	307 Other Power Plant Equipment	1,999		71			1,928
11	310 Water Gas Generating Equipment						
12	311 Liquefied Petroleum Gas						
	Equipment	1,822		190			1,632
13	312 Oil Gas Generating Equipment						
	313 Generating Equipment - Other						
	Processes						
15	315 Catalytic Cracking Equipment						
	316 Other Reforming Equipment						
	317 Purification Equipment						
	318 Residual Refining Equipment						
	319 Gas Mixing Equipment	194,196		18,609			175,587
	320 Other Equipment	21,444		799			20,645
21	TOTAL MANUFACTURED GAS	,					-,-
	PRODUCTION PLANT	352,842	0	21,415	0	8,804	340,231
22	2. STORAGE PLANT	20-,0 1-		,,.,•		-,-3.	2.5,-31
	360 Land and Land Rights						
	361 Structures and Improvements	459,794		17,243			442,551
	362 Gas Holders	.55,.51		,_ 10			,551
	363 Other Equipment						
27	TOTAL STORAGE PLANT	459,794	0	17,243	0	0	442,551
21	TOTAL STORAGE FLANT	400,104		17,243			742,001
—							

UTILITY PLANT - GAS (Concluded)

		Balance					
		Beginning			Other	Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	4. TRANSMISSION AND						
	DISTRIBUTION PLANT						
2	365.1 Land and Land Rights	69,987					69,987
3	365.2 Rights-Of-Way						
4	366 Structures and Improvements	19,816		1,894			17,922
5	367 Mains	7,001,793	194	580,453	22,509	1,040,224	7,439,248
6	368 Compressor Station Equipment	79,499		2,921			76,578
7	369 Measuring and Regulating						
	Station Equipment	1,401,564		50,305		12,456	1,363,715
8	370 Communication Equip/Telemeter	265,743		11,027			254,717
9	380 Services	12,198,278	17,979	541,058	33,507	975,179	12,616,872
10	381 Meters	2,721,720	13,747	153,990	4,238	71,692	2,648,931
11	382 Meter Installations	1,714		153			1,561
12	383 House Regulators						
13	386 Other Property on Cust's Prem						
14	387 Other Equipment	209		12			198
15	TOTAL TRANSMISSION AND						
	DISTRIBUTION PLANT	23,760,323	31,920	1,341,812	60,253	2,099,551	24,489,728
16	5. GENERAL PLANT						
17	389 Land and Land Rights	59,754					59,754
18	390 Structures and Improvements	650,872	19,249	46,467		37,796	661,450
19	391/391-01 Office Furn & Equip/Comp Equip	207,192	118	49,706		286,650	444,254
20	392 Transportation Equipment	297,971	83,926	121,298	6,471		254,128
21	393 Stores Equipment	0				18,710	18,710
22	394 Tools, Shop and Garage Equipment	54,746	24,430	26,441			52,735
23	395 Laboratory Equipment						
24	396 Power Operated Equipment	9,895		1,342			8,554
25	397 Communication Equipment	6,796		3,450		90,513	93,859
26	398 Miscellaneous Equipment	1,427	8,112	228			9,311
27	399 Other Tangible Property						
28	TOTAL GENERAL PLANT	1,288,655	135,835	248,932	6,471	433,669	1,602,756
29	TOTAL GAS PLANT IN SERVICE	25,861,613	167,754	1,629,402	66,724	2,542,025	26,875,266
30	104 Utility Plant leased to Others						
31	105 Property Held for Future Use						
32	107 Construction Work in Progress	41,474	2,684,438			(2,582,032)	143,880
	108 Accumulated Depreciation						
33	TOTAL UTILITY GAS PLANT	25,903,087	2,852,192	1,629,402	66,724	(40,007)	27,019,145

	Pg 21		
Annua	al Report of Holyoke Gas and Electric Department	Year	Ended December 31, 2019
Lina	MISCELLANEOUS NON-OPERATING INCOME (Account 421)		Amount
Line No.	Item (a)		Amount (b)
-	Miscellaneous Income		884,762
2	O&M Contracts		630,872
3	Gain on Plant Retirements		0
4			
5		TOTAL	4.545.004
6	OTHER INCOME DEDUCTIONS (Account 426)	TOTAL	1,515,634
Line	Item		Amount
No.	(a)		(b)
7	Loss on Plant Retirements		880,539
8	Boiler Demolition Expense		379,142
9	Other Deductions		0
10			500.040
11 12	Const Services Monthly Fee		503,349
13			
14		TOTAL	1,763,029
	MISCELLANEOUS CREDITS TO SURPLUS (Account 434)	-	,,-
Line	Item		Amount
No.	(a)		(b)
15			
16			
17 18			
19			
20			
21			
22		TOTAL	0
<u> </u>	MISCELLANEOUS DEBITS TO SURPLUS (Account 435)		
Line No.	ltem (a)		Amount (b)
	(a) Pilot - City of Holyoke		1,080,522
	Pilot - Others		78,938
25			-,
	Const Services Monthly Fee		0
27			
28			
29			
30	ADDDODDIATIONS OF SUDDILIS (Assount 426)	TOTAL	1,159,460
Line	APPROPRIATIONS OF SURPLUS (Account 436) Item		Amount
No.	(a)		(b)
	Bond Principal Payments		208,333
	Note Payable to City		1,435,000
33	Note Payable to Bank		0
34			
35 36			
36			
38		TOTAL	1,643,333

Δηημι	al Penc	ort of Holyoke Gas and Electric Department	Pg 22		Vear Ended	December 31, 2019
Ailiuc	птерс	MU	NICIPAL REVENUE (Accounts 4 under the Provisions of Chapter 2		real Ended	December 31, 2019
Line No.	Acct. No.	Gas Schedul (a)		Cubic Feet (b)	Revenue Received (c)	Average Revenue per M.C.F. (\$0.0000) (d)
1 2	482	Municipal B		73,746	746,206	10.1186
3 4			TOTALS	73,746	746,206	10.1186
	Acct.	Electric Sched		K.W.H.	Revenue Received	Average Revenue per K.W.H. (cents) (\$0.0000)
No.	No. 444	(a) Municipal: (Other Than Street Lighting)		(b) 18,108,070	(c) 2,329,259	(d) 0.1286
6 7	444	Municipal. (Other Than Street Lighting)		10,100,070	2,329,239	0.1200
8			TOTALS	18,108,070	2,329,259	0.1286
9 10		Street Lighting		1,808,128	392,323	0.2170
11 12			TOTALS	1,808,128	392,323	0.2170
13 14						
15 16						
17			TOTAL 0	10.010.100	0.704.500	0.4007
19			TOTALS PURCHASED POWER (Acco	19,916,198 ount 555)	2,721,582	0.1367
Line No.		Names of Utilities from which Electric Energy is Purchased (a)	Where and at What Voltage Received (b)	K.W.H. (c)	Amount (d)	Cost per K.W.H. (cents) (\$0.0000) (e)
20 21 22 23 24			See pages 54 & 55			
25 26 27 28 29			TOTALS			
			SALES FOR RESALE (Account	447)		Revenues
Line No.		Names of Utilities from which Electric Energy is Purchased (a)	Where and at What Voltage Received (b)	K.W.H. (c)	Amount (d)	per K.W.H. (cents) (\$0.0000) (e)
30 31 32 33 34 35 36			See pages 52 & 53			
37			TOTALS			

ELECTRIC OPERATING REVENUES (Account 400)

- Report below the amount of Operating Revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
- If increases and decreases are not derived from previously reported figures explain any inconsistencies.
- Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts, except that where separate meter readings
- are added for billing purposes, one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as water, heating, etc.,indicate in a footnote the number of such duplicate customers included in the classification.
- Unmetered sales should be included below. The details of such sales should be given in a footnote.
- 5. Classification of Commercial and Industrial Sales, Account 442, according to Small (or Commercial) and Large (or Industrial) may be according to the basis of classification regularly used by the respondent if such basis of classification is not greater than 1000 Kw of demand. See Account 442 of the Uniform System of Accounts. Explain basis of classification.

		Operating	Revenues	Kilowatt-h	nours Sold		Number of
						Customers	s per Month
			Increase or		Increase or		Increase or
		Amount for	(Decrease) from	Amount for	(Decrease) from	Number for	(Decrease) from
Line	Account	Year	Preceding Year	Year	Preceding Year	Year	Preceding Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	SALES OF ELECTRICITY						
2	440 Residential Sales	13,761,887	(369,825)	102,912,120	(5,649,306)	14,826	23
3	442 Commercial and Industrial Sales:						
4	Small (or Commercial) see instr. 5	22,571,501	(400,383)	183,339,800	(3,041,876)	2,222	0
5	Large (or Industrial) see instr. 5	5,608,409	(263,996)	54,353,781	(3,079,147)	37	(6)
6	444 Municipal Sales (pg 22)	2,721,582	(25,336)	19,916,198	(384,904)	124	11
7	445 Other Sales to Public Authorities						
8	446 Sales to Railroads and Railways						
9	448 Interdepartmental Sales (484)	274,277	(22,037)				
10	449 Miscellaneous Electric Sales	292,901	1,423	666,432	4,567	480	(5)
11	Total Sales to Ultimate Consumers	45,230,557	(1,080,154)	361,188,332	(12,150,665)	17,689	23
12	447 Sales for Resale	0	0	0	0	N/A	N/A
13	TOTAL SALES OF ELECTRICITY*	45,230,557	(1,080,154)	361,188,332	(12,150,665)	17,689	23
14	OTHER OPERATING REVENUES						
15	450 Forfeited Discounts						
16	451 Miscellaneous Service Revenues	160,550	(2,054)				
17	453 Sales of Water and Water Power	6,300	0	*Includes reven	ues from application	n of fuel clauses	11,031,213.46
18	454 Rent from Electric Property	57,014	1,992				
19	455 Interdepartmental Rents			Total KWH to w	hich applied		309,071,164
20	456 Other Electric Revenues	4,618,412	(507,097)				
21	456 Steam Revenues						
22							
23	Miscellaneous Adjustments to Sales						
24							
25	Total Other Operating Revenues	4,842,276	(507,158)				
26	TOTAL ELECTRIC						
27	OPERATING REVENUES	50,072,832	(1,587,313)				

SALES OF ELECTRICITY TO ULTIMATE CONSUMERS

Report by account number the K.W.H. sold, the amount derived and the number of customers under each filed schedule or contract. Municipal sales and unbilled sales may be reported separately in total.

\vdash	ilica scricadic or c	ontract. Municipal sales and unbilled sales may be repi	orted separately in to	tai.			
					Average		
					Revenue	Number of	Customers
					per K.W.H.	(per Bills I	Rendered)
					(cents)		
Line	Account	Schedule	K.W.H.	Revenue	*(\$0.0000)	July 31	December 31
No.	No.	(a)	(b)	(c)	(d)	(e)	(f)
1	440-00	Residential (ER)*	102,912,120	13,761,887	0.1337	14,884	14,839
2	440-01	Residential - Off Peak				·	·
3	440-02	Residential - General Service (EK)					
4	442-00	Commercial (EC)**	183,339,800	22,571,501	0.1231	2,230	2,229
5	442-02	Commercial D	.00,000,000	,0,00.	020.	_,	_,0
6	442-03	Area Lighting (CL)	666,432	292,901	0.4395	481	480
7	442-01	Industrial (LI, HW, SI)	54,353,781	5,608,409	0.1032	35	35
8	444-00	Municipal Lighting (MC)	18,108,070	2,329,259	0.1032	124	129
	444-01	Street Lighting (SL)				124	129
9			1,808,128	392,323	0.2170	'	'
10	484-00	Interdepartmental Sales		274,277			
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33		*Total number of Residential customers, who	ı ən includina multir	ole units per mete	r,		
36		is 17,941 for year end.			,		
37							
38		** 24,224,937 kwh of 183,339,800 kwh is Re	ı sidential Multidwe	ı elling, Total Resid	। lential kwh sales i	i s 127.137 057 kw	/h
39		,,,				.21,101,001 KW	;··
40							
41	TOTAL	SALES TO UTIMATE CONSUMERS					
42	TOTAL	(Page 37 Line 11)	361,188,332	45,230,557	0.1252	17,755	17,713
+2		(age or Line II)	501,100,552	40,200,007	0.1232	17,700	11,113

Annual Report of Holyoke Gas and Electric Department

Year Ended December 31, 2019

ELECTRIC OPERATION AND MAINTENANCE EXPENSES

1. Enter in the space provided the operation and maintenance expenses for the year.

2. If the increases and decreases are not divided from previously reported figures explain in footnote.

	2. If the increases and decreases are not divided from previously reported figures explain in footnote.		
Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	POWER PRODUCTION EXPENSE	(3)	(-)
2	STEAM POWER GENERATION		
3	Operation:		
<i>J</i>	500 Operation supervision and engineering	58,936	(3,743)
5	501 Fuel	38,930	(3,743)
6		0	0
	502 Steam expense	٥	O
7	503 Steam from other sources		
8	504 Steam transferred Cr		
	505 Electric expenses.		
	506 Miscellaneous steam power expenses - Water for Steam (30-502-01)		
11	507 Rents		
12	Total Operation	58,936	(3,743)
13	Maintenance:		
14	510 Maintenance supervision and engineering	6,455	(5,027)
15	511 Maintenance of structures		
16	512 Maintenance of boiler plant (50-501-04)		
17	513 Maintenance of electric plant		
18	514 Maintenance of miscellaneous steam plant (456)		
19	Telecom	0	0
20	Total Maintenance	6,455	(5,027)
21	TOTAL STEAM POWER GENERATION	65,391	(8,771)
22	NUCLEAR POWER GENERATION	00,001	(0,771)
23	Operation:		
	·		
24	517 Operation supervision and engineering		
25	518 Fuel		
26	519 Coolants and water		
27	520 Steam expense		
28	521 Steam from other sources		
29	522 Steam transferred - Cr		
30	523 Electric expenses		
31	524 Miscellaneous nuclear power expenses		
32	525 Rents		
33	Total Operation	0	0
34	Maintenance:		
35	528 Maintenance supervision and engineering		
36	529 Maintenance of structures		
37	530 Maintenance of reactor plant equipment		
38	531 Maintenance of electric plant		
39	532 Maintenance of miscellaneous nuclear plant		
40	Total Maintenance	0	0
41	TOTAL NUCLEAR POWER GENERATION	0	0
42	HYDRAULIC POWER GENERATION	•	0
43	Operation:	4 040 000	(0.07.0)
44	535 Operation supervision and engineering	1,016,000	(9,974)
	536 Water for power/Fuel	390,965	22,064
	537 Hydraulic expenses	417,517	(79,657)
	538 Electric expenses		
48	539 Miscellaneous hydraulic power generation expenses	277,538	28,898
49	540 Rents	0	0
50	Total Operation	2,102,020	(38,670)

ELECTRIC OPERATION AND MAINTENANCE EXPENSES - CONTINUED

			Increase or
			(Decrease) from
Line	Account	Amount for Year	Preceding Year
No.	(a)	(b)	(c)
1	HYDRAULIC POWER GENERATION - CONTINUED	(6)	(-)
2	Maintenance:		
3	541 Maintenance Supervision and Engineering	483,188	923
4	542 Maintenance of Structures	31,972	1,439
5	543 Maintenance of Reservoirs, Dams and Waterways	442,520	78,729
6	544 Maintenance of Electric Plant	0	0
_	545 Maintenance of Miscellaneous Hydraulic Plant	1,912,613	929,522
8	Total Maintenance	2,870,292	1,010,613
9	TOTAL HYDRAULIC POWER GENERATION	4,972,312	971,943
10	OTHER POWER GENERATION	4,972,312	971,943
11	Operation:		
	·		
	546 Operation Supervision and Engineering		
	547 Fuel		
	548 Operation Expenses		
	549 Miscellaneous Other Power Generation Expenses		
16	550 Rents		
17	Total Operation	0	0
18	Maintenance:		
19	551 Maintenance Supervision and Engineering		
20	552 Maintenance of Structure		
21	553 Maintenance of Generating and Electric Plant		
22	554 Maintenance of Miscellaneous Other Power Generation Plant		
23	Total Maintenance	0	0
24	TOTAL OTHER POWER GENERATION	0	0
25	OTHER POWER SUPPLY EXPENSES		
26	555 Purchased Power	13,039,813	(1,926,016)
27	556 System Control and Load Dispatching		
28	557 Other Expenses	982,532	(38,625)
29	TOTAL OTHER POWER SUPPLY EXPENSES	14,022,345	(1,964,641)
30	TOTAL POWER PRODUCTION EXPENSES	19,060,049	(1,001,468)
31	TRANSMISSION EXPENSES	, ,	, , , , , , , , , , , , , , , , , , ,
32	Operation:		
	560 Operation Supervision and Engineering	546,323	(24,557)
	561 Load Dispatching	3 ,	(= 1,001)
	562 Station Expenses	136,892	(389,014)
	563 Overhead Line Expenses	100,002	(555,511)
	564 Underground Line Expenses		
	565 Transmission of Electricity by Others	1,682,143	(890,095)
	566 Miscellaneous Transmission Expenses	28,696	8,973
40	567 Rents	20,090	0,973
		2 204 054	(1.204.604)
41 42	Total Operation Maintenance:	2,394,054	(1,294,694)
		7 050	
43	568 Maintenance Supervision and Engineering	7,858	
44	569 Maintenance of Structures	105 040	(050,000)
	570 Maintenance of Station Equipment	135,949	(253,393)
	571 Maintenance of Overhead Lines	140,906	(255,193)
	572 Maintenance of Underground Lines		
	573 Maintenance of Miscellaneous Transmission Plant		
49	Total Maintenance	284,714	(508,586)
50	TOTAL TRANSMISSION EXPENSES	2,678,768	(1,803,280)

ELECTRIC OPERATION AND MAINTENANCE EXPENSES - CONTINUED

		Amount for Year	Increase or (Decrease) from
Line	Account	Amount for Year	Preceding Year
No.	(a)	(b)	(c)
1	DISTRIBUTION EXPENSES	` ,	,
2	Operation:		
3	580 Operation Supervision and Engineering	740,059	29,468
4	581 Load Dispatching		
	582 Station Expenses	111,292	(42,622)
	583 Overhead Line Expenses	0	0
	584 Underground Line Expenses	0	
	585 Street Lighting and Signal System Expenses (852 Communications)	83,924	(3,450)
	586 Meter Expenses	234,087	50,905
	587 Customer Installations Expenses	665,685	265,482
	588 Miscellaneous Distribution Expenses (163's incl)	533,376	51,214
	589 Rents		
13	Telecom (163 & 852 incl)	1,402,415	105,857
14	Total Operation	3,770,838	456,854
15		211 041	(4.000)
	590 Maintenance supervision and engineering	211,941	(4,889)
	591 Maintenance of Structures	56.036	(62.206)
	592 Maintenance of Station Equipment	56,036 1,905,085	(63,386) 86,855
	594 Maintenance of Underground Lines	1,256,385	71,769
	595 Maintenance of Line Transformers	· · ·	·
	596 Maintenance of Street Lighting and Signal Systems	18,734 48,752	13,841
	597 Maintenance of Meters	9,774	8,190 2,443
	598 Maintenance of Miscellaneous Distribution Plant	14,103	(3,864)
25	Telecom	106,846	18,207
26	Total Maintenance	3,627,656	129,166
27	TOTAL DISTRIBUTION EXPENSES	7,398,494	586,020
28	CUSTOMER ACCOUNTS EXPENSES	7,000,404	300,020
29	Operation:		
	901 Supervision		
	902 Meter Reading Expenses	162,080	36,014
	903 Customer Records and Collection Expenses	379,856	9,312
	904 Uncollectable Accounts	241,664	121,555
34	Telecom	0	(725)
35	TOTAL CUSTOMER ACCOUNTS EXPENSES	783,600	166,156
36	SALES EXPENSES		
37	Operation:		
38	911 Supervision		
39	912 Demonstrating and Selling Expenses	62,979	(14,408)
40	913 Advertising Expenses	23,526	7,522
41	Telecom	156,366	22,027
42	TOTAL SALES EXPENSES	242,872	15,141
43	ADMINISTRATIVE AND GENERAL EXPENSES		
44	Operation:		
	920 Administrative and General Salaries	1,207,912	(69,769)
	921 Office Supplies and Expenses	473,483	(92,373)
	922 Administrative Expenses Transferred - Cr		
	923 Outside Services Employed	291,637	(178,241)
	924 Property Insurance	508,400	67,025
	925 Injuries and Damages	32,436	24,896
	926 Employees Pensions and Benefits	5,025,204	1,831,292
	928 Regulatory Commission Expenses		
	929 Duplicate Charges - Cr		
	930 Miscellaneous General Expenses	770,803	131,645
	931 Rents		
56	Telecom	596,488	153,431
57	Total Operation	8,906,365	1,867,905

ELECTRIC OPERATION AND MAINTENANCE EXPENSES - CONTINUED

			Increase or
			(Decrease) from
Line	Account	Amount for Year	Preceding Year
No.	(a)	(b)	(c)
1	ADMINISTRATIVE AND GENERAL EXPENSES - CONTINUED		
2	Maintenance:		
3	932 Maintenance of General Plant	333,810	41,562
4	933 Transportation expense		
5	Telecom	21,349	(4,794)
6	Total Maintenance	355,158	36,768
7	TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	9,261,523	1,904,673
8	TOTAL ELECTRIC OPERATION AND MAINTENANCE EXPENSES	39,425,305	(132,758)

SUMMARY OF ELECTRIC OPERATION AND MAINTENANCE EXPENSES

Line	Functional Classification	OPERATION	MAINTENANCE	TOTAL
No.	(a)	(b)	(c)	(d)
9	Power Production Expenses			
10	Electric Generation			
11	Steam Power	58,936	6,455	65,391
12	Nuclear Power	0	0	0
13	Hydraulic Power	2,102,020	2,870,292	4,972,312
14	Other Power	0	0	0
15	Other Power Supply Expenses	14,022,345	0	14,022,345
16	Total Power Production Expenses	16,183,301	2,876,748	19,060,049
17	Transmission Expenses	2,394,054	284,714	2,678,768
18	Distribution Expenses	3,770,838	3,627,656	7,398,494
19	Customer Accounts Expenses	783,600	0	783,600
20	Sales Expenses	242,872	0	242,872
21	Administrative and General Expenses	8,906,365	355,158	9,261,523
22				
23	TOTAL ELECTRIC OPERATION AND MAINTENANCE EXPENSES	32,281,029	7,144,275	39,425,305

24	Ratio of Operating Expenses to Operating Revenues (carry out decimal two places, (e.g. 0.00%)
	Compute by dividing Revenues (acct 400) into the sum of Operation and Maintenance Expenses (Page 42,
	Line 23 (d), Depreciation (Acct 403) and Amortization (Acct 407), (Page 13)

90.90%

25 Total salaries and wages of electric department for year, including amounts charged to operating expenses, construction and other accounts (Telecom portion of wages is \$1,051,272.24)

10,715,255

26 Total number of employees of electric department at end of year including administrative, operating, maintenance and other employees (including part time employees)

103.0

GAS OPERATING REVENUES (Account 400)

- Report below the amount of Operating Revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
- 2. If increases and decreases are not derived from previously reported figures explain any inconsistencies.
- Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts, except that where separate meter readings

are added for billing purposes, one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as water, heating, etc.,indicate in a footnote the number of such duplicate customers included in the classification.

- Unmetered sales should be included below. The details of such sales should be given in a footnote.
- 5. Classification of Commercial and Industrial Sales, Account 481, according to Small (or Commercial) and Large (or Industrial) may be according to the basis of classification regularly used by the respondent.

Line No.	A					Average Number of Customers per Month	
	A		1			Customers	
	A	A 1 . f	Increase or	A	Increase or	No contract for	Increase or
		Amount for	(Decrease) from	Amount for	(Decrease) from	Number for	(Decrease) from
I N∩	Account	Year	Preceding Year	Year	Preceding Year	Year	Preceding Year
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1 1	SALES OF GAS 480 Residential Sales	0.002.546	90.057	920 206 0	(40,004,0)	10.426	24
		9,992,516	89,957	829,306.0	(12,924.3)	10,426	34
	181 Commercial and Industrial Sales:	7 405 070	(202 574)	740 204 0	(04.040.4)	4.000	(4)
4	Small (or Commercial) see instr. 5	7,425,373	(383,571)	710,391.0	(24,210.1)	1,286	(4)
5	Large (or Industrial) see instr. 5	2,915,834	(535,832)	523,881.0	(7,099.6)	28	0
	482 Municipal Sales (pg 22)	746,206	(36,443)	73,746.0	(225.4)	46	(1)
	483 Other Sales (481) Interruptible	1,297,565	344,842	88,081.0	(14,157.3)	23	(2)
	485 Miscellaneous Gas Sales (484)	55,242	(9,780)	14,371.9	(2,871.2)	20	0
9							
10	T. 10 1 1 1 1 1 1 0	00.400.700	(500.007)	0.000.770.0	(04, 407,0)	44.000	
11	Total Sales to Ultimate Consumers	22,432,736	(530,827)	2,239,776.9	(61,487.9)	11,829	27
	483 Sales for Resale	0	0 (500,007)	0.000.770.0	0.0	N/A	N/A
13	TOTAL SALES OF GAS*	22,432,736	(530,827)	2,239,776.9	(61,487.9)	11,829	27
14	OTHER OPERATING REVENUES						
	187 Forfeited Discounts	4	(2.2.17)				
	488 Miscellaneous Service Revenues	48,862	(2,215)				
	189 Revenue from Trans of Gas of Others						
	490 Sales of Prod Extracted from Nat Gas						
	491 Revenue from Nat Gas Proc by Others						
	493 Rent from Gas Property	1,333	0				
	194 Interdepartmental Rents						
	195 Other Gas Revenue	281,321	(99,014)				
23							
24							
25	Total Other Operating Revenues	331,516	(101,229)				
26	TOTAL GAS						
27	OPERATING REVENUES	22,764,252	3,360,699				
			Purchased Price	_			
			Adjustment	Fuel			
			Clauses	Clauses			
*	Includes revenue from application of			10,806,307			
	Total MCF to Which Applied			2,151,695.9			

SALES OF GAS TO ULTIMATE CONSUMERS

Report by account number the M.C.F. sold, the amount derived and the number of customers under each filed schedule or contract. Municipal sales, Contract sales and Unbilled sales may be reported separately in total.

	ou sonouulo or v	contract. Municipal sales, Contract sales and Unbilled sa		paratory in total.	Average Revenue per M.C.F.		Customers Rendered)
	A	Oakadala	M.C.F.	D	(cents)	lulu 04	D
Line	Account	Schedule	(1000 BTU)	Revenue	*(\$0.0000)	July 31	December 31
No.	No.	(a)	(b)	(c)	(d)	(e)	(f)
1	480-00	Residential	829,306	9,992,516	12.0493	10,418	10,404
2	481-01	Commercial	710,391	7,425,373	10.4525	1,288	1,282
3	481-03	Industrial	523,881	2,915,834	5.5658	29	28
4	481-04	Interruptible	88,081	1,297,565	14.7315	14	26
5	482-01	Municipal	73,746	746,206	10.1186	46	46
6	484-00	Interdepartmental Sales	14,372	55,242	3.8438	22	22
7							
8							
9							
10 11							
12							
13							
14							
15							
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36							
37							
38							
39							
40			<u> </u>				
41	TOTA	L SALES TO UTIMATE CONSUMERS					
42		(Page 43 Line 11)	2,239,777	22,432,736	10.0156	11,817	11,808

Total Maintenance

TOTAL MANUFACTURED GAS PRODUCTION

742 Maintenance of production equipment.....

49 50

51

GAS OPERATION AND MAINTENANCE EXPENSES - CONTINUED

			Increase or (Decrease) from
Line	Account	Amount for Year	Preceding Year
No.	(a) OTHER GAS SUPPLY EXPENSES	(b)	(c)
1			
2	Operation:	0.425.476	(450.740)
	804 Natural gas city gate purchases.	9,135,176 862,926	(450,740)
	805 Other gas purchases.	802,920	350,561
	806 Exchange gas		
	810 Gas used for compressor station fuel - Cr		
	811 Gas used for products extraction - Cr		
	812 Gas used for other utility operation - Cr	(14,002)	(380)
	813 Other gas supply expenses	215,493	48,493
11	TOTAL GAS SUPPLY EXPENSES	10,199,592	(52,066)
12	TOTAL PRODUCTION EXPENSES	10,199,592	(52,066)
13	LOCAL STORAGE EXPENSES	10,100,002	(32,000)
14	Operation:		
	840 Operation supervision and engineering		
	841 Operation labor and expenses		
17	842 Rents.		
18	Total Operation	0	0
19	Maintenance:	<u> </u>	Ů
_	843 Maintenance supervision and engineering		
	844 Maintenance of structures and improvements		
22	845 Maintenance of gas holders		
23	846 Maintenance of other equipment	0	0
24	Total Maintenance	0	0
25	TOTAL STORAGE EXPENSES	0	0
26	TRANSMISSION AND DISTRIBUTION EXPENSES		
27	Operation:		
	850 Operation supervision and engineering	368,223	53,773
	851 System control and load dispatching	216,249	(3,508)
	852 Communication system expenses	181,341	6,015
	853 Compressor station labor and expenses	402,031	(11,671)
	855 Fuel and power for compressor station	,	, ,
33	857 Measuring and regulating station expenses	58,367	(3,492)
	858 Transmission and compression of gas by others	·	
	874 Mains and services expenses		
36	878 Meter and house regulator expenses (incl 10-866-00)	195,917	348
37	879 Customer installation expenses	639,427	91,701
38	880 Other expenses (10-814-00 & 163 & 888-02)	183,001	(48,282)
39	881 Rents		
40	Total Operation	2,244,556	84,885
41	Maintenance:		
42	885 Maintenance supervision and engineering		
43	886 Maintenance of structures and improvements		
44	887 Maintenance of mains	1,087,197	176,930
45	888 Maintenance of compressor station equipment	207,805	32,308
46	889 Maintenance of measuring and regulating station equipment		
47	892 Maintenance of services	428,774	(47,721)
48	893 Maintenance of meters and house regulators	227,752	4,946
49	894 Maintenance of other equipment (10-853-01,03)	130,256	30,212
50	Total Maintenance	2,081,784	196,675
51	TOTAL TRANSMISSION AND DISTRIBUTION EXPENSES	4,326,340	281,560

4.420.272

41.0

Total salaries and wages of gas department for year, including amounts charged to operating

Total number of employees of gas department at end of year including administrative, operating, maintenance, construction and other employees (including part time employees)

expenses, construction and other accounts

	Name of Companies from			Rate per	
	which Gas is	Where Received and Where and	M.C.F.	M.C.F.	
Line	Purchased	How Measured	(1000 BTU)	(\$0.0000)	Amount
No.	(a)	(b)	(c)	(d)	(e)
22	Con Ed Energy Delivered Direct	TGP Zones 0, 1, 4, 6	2,034,753	2.8260	5,750,212
23	Con Ed Storage Withdrawals		218,432	2.4440	533,837
24	Pipeline Variable Chgs - Tenn Gas Pipln				22,326
25	LNG Supplier Var Charges - all suppliers	Holyoke, MA	102,793	8.3948	862,926
26	Berkshire Gas Company	Holyoke, MA			
27	Columbia Gas of MA	Holyoke, MA			
28	Other Supplier and Trans Charge:				
29	LNG Supplier Fix Charges - all suppliers:	Holyoke, MA		2.8600	294,427
30	GDF Suez/DOMAC/Engie				
31	UGI Energy Service				
32	Pipeline Fixed Chgs - Tenn Gas Pipeline				2,534,374
33					
34					
35					
36		TOTALS.	2.355.978	4.2437	9,998,102

TAXES CHARGED DURING YEAR

- This schedule is intended to give the account distribution of total taxes charged to operations and other final accounts during the year.
- 2. Do not include gasoline and other sales taxes which have been charged to accounts to which the material on which the tax was levied was charged. If the actual or estimated amounts of such taxes are known, they should be shown as a footnote and designated whether estimated or actual amounts.
- 3. The aggregate of each kind of tax should be listed under the appropriate heading of "Federal," "State," and "Local" in such manner that the total tax for each State and for all subdivisions can readily be ascertained.
- 4. The accounts to which the taxes charged were distributed should be shown in columns (c) to (h). Show both the utility department and number of account charged. For taxes charged to utility plant show the number of appropriate balance sheet plant account or subaccount.
- For any tax which it was necessary to apportion to more than one utility department or account, state in a footnote the basis or apportioning such tax.
- 6. Do not include in this schedule entries with respect to deferred income taxes, or taxes collected through payroll deductions or otherwise pending transmittal of such taxes to the taxing authority.

		Total Taxes			Distribution o					
		Charged			lity department	where applic	able and acco	unt charged)		
		During Year	Electric	Gas						
Line	Kind of Tax	(omit cents)	(Acct. 408, 409)	(Acct. 408,409)						
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(I)	(j)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14					N/A					
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28	TOTAL	0	0	0	0	0	0	0	0	

OTHER UTILITY OPERATING INCOME (Account 414)

Report below the particulars called for in each column.

		<u> </u>		A ma = : : = 4	Colin an
		A	A	Amount	Gain or
		Amount of	Amount of	of Operating	(Loss) from
Line	Property	Investment	Revenue	Expenses	Operation
No.	(a)	(b)	(c)	(d)	(e)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13			N/A		
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
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37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51	TOTA	ALS 0	0	0	0

INCOME FROM MERCHANDISE, JOBBING AND CONTRACT WORK (Account 415)

Report by utility departments the revenues, costs, expenses, and net income from merchandising, jobbing, and contract work during year.

Electric Gas Utility					Other	
Line			Cloatria	Coo		
No. (a) (c) (d) (d)	Lina	ltom				Total
1 Revenues:						
Merchandising sales, less discounts, allowances and returns			(C)	(u)	(u)	(e)
3 allowances and returns						
Contract Work			0	172 220		173,328
Commissions			U	173,320		173,320
6 Other (List according to major classes) 8 9 10 Total Revenues 0 173,328 0 1 12 12 13 Costs and Expenses: 14 Cost of Sales (List according to Major classes of cost)						
Total Revenues						
Solve Sales Sale		Other (List according to major classes)				
9 Total Revenues						
Total Revenues						
11		Total Revenues	0	173 328	0	173,328
12 13 Costs and Expenses:		i otal resonado	•	110,020	•	110,020
13 Costs and Expenses: Cost of Sales (List according to Major classes of cost)						
14 Cost of Sales (List according to Major classes of cost)		Costs and Expenses:				
15 classes of cost)						
16			15,203	91.593		106,796
17 Labor 18 Materials 19 20 21 22 23 24 25 26 Sales expenses		,	-,	, , , , , , , , , , , , , , , , , , , ,		
18		Labor				
19 20 21 22 23 24 25 26 Sales expenses						
21						
22	20					
23	21					
24 25 26 Sales expenses	22					
25 26 27 Customer accounts expenses	23					
26 Sales expenses	24					
27 Customer accounts expenses	25					
28 Administrative and general expenses	26	Sales expenses				0
29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	27	Customer accounts expenses				0
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 44		Administrative and general expenses				0
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45						
32 33 34 35 36 37 38 39 40 41 42 43 44 44						
33 34 35 36 37 38 39 40 41 42 43 44 45						
34 35 36 37 38 39 40 41 42 43 44 45						
35 36 37 38 39 40 41 42 43 44 45						
36 37 38 39 40 41 42 43 44 45						
37 38 39 40 41 42 43 44 45						
38 39 40 41 42 43 44 45						
39 40 41 42 43 44 45						
40 41 42 43 44 45						
41 42 43 44 45						
42 43 44 45						
43 44 45						
44 45						
45						
47 TOTAL COSTS AND EXPENSES 15,203 91,593 0		TOTAL COSTS AND EXPENSES	15 203	91 593	n	106,796
48 Net Profit (or Loss) (15,203) 81,735 0						66,532

- Report sales during year to other electric utilities and to cities or other public authorities for distribution to ultimate consumers.
- Provide subheadings and classify sales as to

 Associated Utilities, (2) Nonassociated Utilities, (3)
 Municipalities, (4) R.E.A. Cooperatives, and (5) Other
 Public Authorities. For each sale designate statistical classification in column (b), thus: firm power, FP; dump or surplus power, DP; other G,
- and place an "x" in column (c) if sale involves export across a state line.
- Report separately firm, dump, and other power sold to the same utility. Describe the nature of any sales classified as other power, column (b).
- 4. If delivery is made at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; customer owned or leased, CS.

	plus power, DP;other G,						or Kva of Dem	
Line No.	Sales to (a)	Statistical Classification	Export Across State Line	Point of Delivery	Sub Station		(Specify which	
1 1	(d)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13 14								
15								
16								
17								
18								
19				N/A				
20								
21								
22								
23								
24								
25 26								
26								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								

SALES FOR RESALE (Account 447) - Continued

- 5. If a fixed number of kilowatts of maximum demand is specified in the power contract as a basis of billings to the customer this number should be shown in column (f). The number of kilowatts of maximum demand to be shown in column (g) and (h) should be actual based on monthly readings and should be furnished whether or not used in the determination of demand charges. Show in column (i) type of demand reading (instantaneous, 15, 30, or 60 minutes integrated).
- 6. The number of Kilowatt-hours sold should be the quantities shown by the bills rendered to the purchasers.
- 7. Explain any amounts entered in column (n) such as fuel or other adjustments.
- If a contract covers several points of delivery and small amounts of electric energy are delivered at each point, such sale may be grouped.

integrated).								
				Revenue (0	Omit Cents)			
							Revenue	
Type of	Voltage						per kwh	
Demand	at which	Kilowatt-	Demand	Energy	Other		(cents)	
Reading	Delivered	hours	Charges	Charges	Charges	Total	(0.0000)	Line
(i)	(j)	(k)	(I)	(m)	(n)	(o)	(p)	No.
								1
								2
								3
								4
								5
								6
								7
								8
								9
								10
								11
								12
								13
								14
								15
								16
								17
								18
			N/A					19
			14/71					20
								21
								22
								23
								24
								25
								26
								27
								28
								29
								30
								31
								31
								33
								34
								35
	TOTALO			•		•	0.000	36
	TOTALS	0	0	0	0	0	0.0000	37

PURCHASED POWER (Account 555)

- Report power purchased for resale during the year.

 Exclude from this schedule and report on page 56 particulars concerning interchange power transactions during the year.
- Provide subheading and classify purchases as to

 (1) Associated Utilities, (2) Nonassociated Utilities, (3)
 Associated Nonutilities, (4) Other Nonutilities, (5) Municipalities, (6) R.E.A. Cooperatives, and (7) Other Public

- Authorities. For each purchase designate statistical classification in column (b), thus: firm power, FP; dump or surplus power DP; other, O, and place an "X" in column (c) if purchase involves import across a state line.
- 3. Report separately firm, dump, and other power purchased from the same company. Describe the nature of any purchases classified as Other Power, column (b).

Line							Kw	or Kva of Dem	nand
Line							(Specify Which	1)
Line				Import					
No. Purchased From				Across				Monthly	Annual
No.			Statistical	State		Sub	Contract	-	Maximum
No.	Line	Purchased From	Classification		Point of Receipt		Demand		Demand
1 PASNY/NYPA	No.	(a)	(b)	(c)	-	(e)	(f)	(g)	(h)
3 Seabrook No. 1	1					RS	2,415		
3 Seabrook No. 1	2	Stony Brook Peaking	0		Holyoke, MA	RS	4,817		
S	3	Seabrook No. 1	0	x	Holyoke, MA	RS	3,859		
Short-Term Power Purchases	4	Millstone No. 3	0	x	Holyoke, MA	RS	3,912		
Short-Term Power Purchases	5	Wyman No. 4*	0	х	Holyoke, MA	RS	4,262		
B			FP		Mass Hub			5,000	3,892
B	7	NextEra Energy Power Mkt (Seabrook)	FP		Mass Hub			10,000	10,000
NEPOOL OATT	8		0	x	Holyoke, MA	RS			
Hydro Quebec II***			0		-	RS			
11 NU Localized Cost GRSP	10	Hydro Quebec II***		x		RS			
Cobble Mountain** Hancock Wind O X Holyoke, MA RS 33,900 6,032 Mass Hub RS 6,032 A Mass Hub RS 6,032 A Mass Hub RS 8 33,900 6,032 A Mass Hub RS 8 33,900 6,032 A Mass Hub RS 8 4 5 6 6 7 18 19 20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 29 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 ***Charges include flow rights revenue offsets received ****Charges include flow rights revenue offsets received	11				-				
Hancock Wind O X Mass Hub RS 6,032 A Mass Hub RS 6	12						33,900		
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33 ***Charges include flow rights revenue offsets received	13	Hancock Wind		x			6,032		
15 16 17 18 19 20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33 ***Charges include flow rights revenue offsets received									
17 18 19 20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33									
17 18 19 20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	16								
19 20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	17								
20 21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	18								
21 22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	19								
22 23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	20								
23 24 25 26 27 28 *Sold entitlement as of 9/30/2019 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	21								
24 25 26 27 28 *Sold entitlement as of 9/30/2019 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	22								
25 26 27 28 *Sold entitlement as of 9/30/2019 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	23								
25 26 27 28 *Sold entitlement as of 9/30/2019 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	24								
26 27 28 *Sold entitlement as of 9/30/2019 29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33									
*Sold entitlement as of 9/30/2019 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 **Charges include flow rights revenue offsets received 33									
29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33	27								
29 30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33		*Sold entitlement as of 9/30/2019							
30 **This Purchased Power Generations costs are netted in a Miscellaneous Income Account 0040-CM-421-421-00-4 31 32 ***Charges include flow rights revenue offsets received 33 34 ***Charges include flow rights revenue offsets received									
31 32 ***Charges include flow rights revenue offsets received 33		**This Purchased Power Generations costs are	netted in a Mis	scellaneous li	ncome Account 004	40-CM-421-42	<u>2</u> 1-00-4		
33									
33	32	***Charges include flow rights revenue offsets	received						
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		<u> </u>							
	34								
35									
36									
37									

PURCHASED POWER (Account 555) - Continued (except interchange power)

- If receipt of power is at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; seller owned or leased, SS.
- 5. If a fixed number of kilowatts of maximum demand is specified in the power contract as a basis of billing, this number should be shown in column (f). The number of kilowatts of maximum demand to be shown in column (g)
- and (h) should be actual based on monthly readings and should be furnished whether or not used in the determination of demand charges. Show in column (l) type of demand reading (instantaneous, 15, 30, or 60 minutes integrated).
- 6. The number of kilowatt hours purchased should be the quantities shown by the power bills.
- 7. Explain any amount entered in column (n) such as fuel or other adjustments.

				Cost of Energy (Omit Cents)				
		_					per	
Type of	Voltage						KWH	
Demand	at Which	Killowatt-		Energy	Other		(Cents)	
Reading	Delivered	hours	Charges	Charges	Charges	Total	(0.0000)	Line
(i)	(j)	(k)	(I)	(m)	(n)***	(o)	(p)	No.
60 Min.	115kv	16,969,190	109,473	84,336	202,354	396,163	2.3346	1
60 Min.	115kv	43,100	90,254	8,015	5,145	103,414	239.9397	2
60 Min.	115kv	33,767,830	865,790	178,031	2,024	1,045,845	3.0972	3
60 Min.	115kv	30,325,940	955,009	190,471	28,711	1,174,191	3.8719	4
60 Min.	115kv	2,010	(281,038)	774	1,279	(278,985)	(13879.8507)	5
60 Min.	115kv	36,293,500		1,490,354		1,490,354	4.1064	6
60 Min.	115kv	40,800,000		2,403,120		2,403,120	5.8900	7
60 Min.	115kv		(50,674)		18,956	(31,718)		8
60 Min.	115kv				1,295,755	1,295,755		9
60 Min.	115kv		(169,647)		118,971	(50,676)		10
60 Min.	115kv				5,750	5,750		11
60 Min.	115kv	21,064,010	1,886,557	537,042		2,423,599	11.5059	12
60 Min.	115kv	17,243,550		937,971		937,971	5.4395	13
								14
								15
								16
								17
								18
								19
								20
								21
								22
								23
								24
								25
								26
								27
								28
								29
								30
***includes transm	ission charges							31
								32
								33
								34
								35
								36
	TOTALS	196,509,130	3,405,724	5,830,114	1,678,945	10,914,783	5.5543	37

INTERCHANGE POWER (Included in Account 555)

- Report below the Kilowatt-hours received and delivered during the year and the net charge or credit under interchange power agreements.
- Provide subheadings and classify interchanges
 as to (1) Associated Utilities, (2) Nonassociated Utilities, (3) Associated Nonutilities, (4) Other Nonutilies, (5) Municipalities, (6) R.E.A., Cooperatives, and (7) Other Public Authorities. For each interchange across a state line place an "X" in column (b).
- 3. Particulars of settlements for interchange power

shall be furnished in Part B. Details of Settlement for Interchange Power. If settlement for any transaction also includes credit or debit amounts other than for increment generation expenses, show such other component amounts separately, in addition to debit or credit for increment generation expenses, and give a brief explanation of the factors and principles under which such other component amounts were determined. If such settlement represents the net of debits and credits under an interconnection, power pooling,

coordination, or other such arrangement, submit a copy of the annual summary of transactions and billings among the parties to the agreement. If the amount of settlement reported in this schedule for any transaction does not represent all of the charges and credits covered by the agreement, furnish in a footnote a description of the other debits and credits and state the amounts and accounts in which such other amounts are included for the year.

A. Summary of Interchange According to Companies and Points of Interchange

		Interchange Across State	Point of	Voltage at Which		Kilowatt-hours		Amount of
Line	Name of Company	Lines	Interchange	Interchanged	Received	Delivered	Net Difference	Settlement
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	NEPEX	(2)	Holyoke, MA	115kv	381,551,370	424,604,038	(43,052,668)	(1,527,308)
	ICAP Sales		Holyoke, MA	115kv	001,001,010	,00 .,000	*	1,220,287
3	Aubin Prop (c/o Open Square)		Holyoke, MA	115kv		2,352,010	(2,352,010)	82,790
4	Solar Constellation		,			5,076,294	(5,076,294)	301,821
5	Solar Citizens					1,006,895	(1,006,895)	52,367
6	Solar RICAR					1,076,717	(1,076,717)	66,541
7	Solar Mt. Tom					5,941,101	(5,941,101)	285,767
8	Solar ReneSola Dinn					765,129	(765,129)	44,913
9	Solar ReneSola Kelly					721,755	(721,755)	42,367
10	Solar AEGIS					1,182,990	(1,182,990)	61,634
11	Solar Hadley Mills					468,159	(468,159)	27,340
12	Solar Gary Rome					968,167	(968,167)	47,440
13	Solar Conklin					890,858	(890,858)	58,984
14	Solar Riverside A-B					189,821	(189,821)	10,725
15	Solar Walnut Street					142,751	(142,751)	7,894
16	Solar Jackson					156,815	(156,815)	8,672
17	Solar Boys & Girls Club					203,624	(203,624)	11,260
18	Solar Kelly Way 2					674,173	(674,173)	31,484
19	Solar YMCA					195,778	(195,778)	11,006
20	Solar Resident & Commercial					76,288	(76,288)	4,959
21	Hydro					5,202,754	(5,202,754)	0
22	Nat Gas Generator (Cabot St)					32,634	(32,634)	2,822
23	Diesel Generators					156,349	(156,349)	251,257
24	Mt. Tom Battery					(177,925)	177,925	(65,362)
25	SWSC (c/o Cobble Mt)***		Westfield, MA	69kv		18,957,010	(18,957,010)	1,126,705
26	MMWEC SP2015A**							150,095
27	*Capacity Demand - kW only *	* Pre-Developm	ental Costs for Po	ossible New Gene	rator			
28	***This Purchased Power genera	tion's costs are	netted in a Miscel	laneous Income A	ccount 0040-CM	-421-421-00-4		
29				TOTALS	381,551,370	470,864,183	(89,312,813)	2,316,460

B. Details of Settlement for Interchange Power

Line	Name of Company	Explanation	Amount
No.	(i)	(j)	(k)
30	NEPEX	Nepool Expenses	582,586
31	NEPEX	NEPEX Interchange	(889,607)
32	Aubin Prop (c/o Open Square)	Non Utility Generator	82,790
33	Solar Constellation	Non Utility Generator	301,821
34	Solar Citizens	Non Utility Generator	52,367
35	Solar RICAR	Non Utility Generator	66,541
36	Solar Mt. Tom	Non Utility Generator	285,767
37	Solar ReneSola Dinn	Non Utility Generator	44,913
38	Solar ReneSola Kelly	Non Utility Generator	42,367
39	Solar AEGIS	Non Utility Generator	61,634
40	Solar Hadley Mills	Non Utility Generator	27,340
41	Solar Gary Rome	Non Utility Generator	47,440
42	Solar Conklin	Non Utility Generator	58,984
43	Solar Riverside A-B	Non Utility Generator	10,725
44	Solar Walnut Street	Non Utility Generator	7,894
45	Solar Jackson	Non Utility Generator	8,672
46	Solar Boys & Girls Club	Non Utility Generator	11,260
47	Solar Kelly Way 2	Non Utility Generator	31,484
48	Solar YMCA	Non Utility Generator	11,006
49	Solar Resident & Commercial	Non Utility Generator	4,959
50	Hydro	Load Reducer	0
51	Nat Gas Generator (Cabot St)	Load Reducer	2,822
52	Diesel Generators	Load Reducer	251,257
53	Mt. Tom Battery	Non Utility Generator	(65,362)
54	SWSC (c/o Cobble Mt)***	Non Utility Generator	1,126,705
55	MMWEC SP2015A**	Pre-Developmental Costs for a Possible New Generator	150,095
56		TOTALS	2,316,460

		Pg 57		
Annua	al Report of Holyoke Gas and Electric Departme			Year Ended December 31, 2019
		ELECTRIC ENERGY ACCOUNT		
	Report below the information called for concerning the di	isposition of electric energy generated, purchased	d, and interchanged during the ye	
Line		Item		Kilowatt-hours
No.		(a)		(b)
1		OURCES OF ENERGY		
2	Generation (excluding station use):			
3	Steam			0
4	Nuclear			
5	Hydro			243,175,317
6	Other			
7			Total Generation	243,175,317
8	Purchases			196,509,130
9	[In (gross)	381,551,370	
	Interchanges		470,864,183	(00.040.040)
11		Net (Kwh)		(89,312,813)
12	The second section of the section of the second section of the section of t	Received		
13	Transmission for/by others (wheeling)	Delivered		
14 15		Net (kwh)	TOTAL	350,371,634
16	DIC	POSITION OF ENERGY	TOTAL	330,371,634
17	Sales to ultimate consumers (including interde			361,188,332
	Sales for resale	•		301,100,332
	Energy furnished without charge			804,245
	Energy used by the company (excluding station			2,385,230
21	Electric department only			(27,303,134)
22	Energy losses:			(27,000,104)
23	Transmission and conversion losses			
24	Distribution losses		13,296,961	
25	Unaccounted for losses		,	
26			Total Energy Losses	13,296,961
27	Energy losses as percent of total on line 15		3.80%	,,
28	,		TOTAL	350,371,634

MONTHLY PEAKS AND OUTPUT

- Report hereunder the information called for pertaining to simultaneous peaks established monthly (in kilowatts) and monthly output (in killowatt-hours) for the combined sources of electric energy of respondent.
- 2. Monthly peak col. (b) should be respondent's maximum Kw load as measured by the sum of its coincidental net generation and purchases plus or minus net interchange, minus temp. deliveries (not interchange) of emergency power to another system. Monthly peak including such emergency deliveries should be shown in a footnote with a brief explanation as to the nature of the emergency.
- 3. State type of monthly peak reading (instantaneous 15, 30, or 60 minutes integrated.)
- 4. Monthly output should be the sum of respondent's net generation and purchases plus or minus net interchange and plus or minus net transmission or wheeling. Total for the year should agree with line 15 above.
- 5. If the respondent has two or more power systems not physically connected, the information called for below should be furnished for each system.

				MONTH	ILY PEAK		
							Monthly Output
				Day of			(kwh)
Line	Month	Kilowatts	Day of Week	Month	Hour	Type of Reading	(See Inst 4)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29	January	60,124	Mon	21	17:00	60 Min	33,624,580
30	February	56,279	Fri	1	11:00	60 Min	28,863,060
31	March	51,942	Thurs	7	18:00	60 Min	28,871,230
32	April	46,314	Tues	9	18:00	60 Min	25,081,770
33	May	45,599	Mon	20	21:00	60 Min	24,922,790
34	June	56,190	Wed	26	19:00	60 Min	27,641,100
35	July	68,087	Wed	17	16:00	60 Min	35,434,980
36	August	63,012	Thurs	22	17:00	60 Min	32,770,010
37	September	56,200	Mon	23	17:00	60 Min	26,756,160
38	October	49,658	Wed	2	16:00	60 Min	26,552,230
39	November	52,438	Thurs	14	18:00	60 Min	28,500,979
40	December	55,648	Thurs	19	17:00	60 Min	31,352,745
41			-	-		TOTAL	350.371.634

GENERATING STATION STATISTICS (Large Stations) (Except Nuclear, See Instruction 10)

- 1. Large stations for the purpose of this schedule are steam and hydro stations of 2,500 Kw* or more of installed capacity and other stations of 500 Kw* or more of installed capacity (name plate ratings). (*10,000 Kw and 2,500 Kw, respectively, if annual electric operating revenues of respondent are \$25,000,000 or more.)
- If any plant is leased, operated under a license from the Federal Power Commission, or operated as a joint facility, indicate such facts by the use of asterisks and footnotes.
- 3. Specify if total plant capacity is reported in kva instead of kilowatts as called for on line 5.

- 4. If peak demand for 60 minutes is not available, give that which is available, specifying period.
- If a group of employees attends more than one generating station, report on line 11 the approximate average number of employees assignable to each station.
- If gas is used and purchased on a therm basis, the B.t.u. content of the gas should be given and the quantity of fuel consumed converted to M cu. ft.
- Quantities of fuel consumed and the average cost per unit of fuel consumed should be consistent with charges to expense accounts 301 and

Line	Item	Plant	Plant	Plant
No.	(a)	(b)	(c)	(d)
		Cabot 6 & 8		Hadley Falls 1 & 2
1	Kind of plant (steam, hydro, int. com., gas turbine)	STEAM		HYDRO
2	Type of plant construction (conventional, outdoor			
	boiler, full outdoor, etc.)	Conventional		Conventional
3	Year originally constructed	1902		1954
4	Year last unit was installed	1961		1984
5	Total installed capacity (maximum generator name			
	plate ratings in kw)	20,000		33,400
6	Net peak demand on plant-kilowatts (60 min.)	19,306		33,400
7	Plant hours connected to load	0		7,552
8	Net continuous plant capability, kilowatts:			
9	(a) When not limited by condenser water	19,306		
10	(b) When limited by condenser water	0		
11	Average number of employees	1		28
12	Net generation, exclusive of station use			185,453,880
13	Cost of plant (omit cents):			
14	Land and land rights	0		637,366
15	Structures and improvements	1,138,852		17,280,387
16	Reservoirs, dams, and waterways			14,820,820
17	Equipment costs	37,407		26,026,947
18	Roads, railroads, and bridges	0		39,873
19	Total Cost	1,176,259		58,805,393
20	Cost per kw of installed capacity	59		1,761
21	Production expenses:			
22	Operation supervision and engineering	58,936		701,040
23	Station labor			
24	Fuel	0		749,354
25	Supplies and expenses, including water	0		
26	Maintenance	6,455		1,555,286
27	Rents			0
28	Steam from other sources			
29	Steam transferred Credit	0		
30	Total Production Expenses	65,391		3,005,679
31	Expenses per net Kwh (5 places)	N/A		0.01621
32	Fuel: Kind	OIL	GAS	
33	Unit: (Coal-tons of 2,000 lb.) (Oil-barrels of 42			
	gals.) (Gas-M cu. ft.) (Nuclear, indicate)	Barrels	MCF	
34	Quantity (units) of fuel consumed			
35	Average heat content of fuel (B.t.u. per lb. of coal,			
	per gal. of oil, or per cu. ft. of gas)			
36	Average cost of fuel per unit, del. f.o.b. plant			
37	Average cost of fuel per unit consumed			
38	Average cost of fuel consumed per million B.t.u			
39	Average cost of fuel consumed per kwh net gen			
40	Average B.t.u. per kwh net generation			

Year Ended December 31, 2019

GENERATING STATION STATISTICS (Large Stations) -- Continued (Except Nuclear, See Instuction 10)

- 547 as shown on Line 24.
- 8. The items under cost of plant and production expenses represents accounts or combinations of accounts prescribed by the Uniform System of Accounts. Production expenses, however, do not include Purchased Power, System Control and Load Dispatching, and Other Expenses.
- 9. If any plant is equipped with combinations of steam, hydro, internal combustion engine or gas turbine equipment, each should be reported as a separate plant. However, if a gas turbine unit functions in a combined
- operation with a conventional steam unit, the gas turbine shold be included with the steam station.
- 10. If the respondent operates a nuclear power generating station submit: (a) a brief explanatory statement concerning accounting for the cost of power generated including any attribution of excess costs to research and development expenses: (b) a brief explanation of the fuel accounting specifying the accounting methods and types of cost units used with respect to the various components of the fuel cost, and (c) such additional information as may be informative concerning the type of plant, kind of fuel used, and other physical and operating characteristics of the plant.

Plant	Plant	Plant	Plant	Plant	Plant	Line No
(e)	(f)	(g)	(h)	(1)	(j)	INO
						1
						2
						3
			N/A			
						-
						10
						1
						12 13
						14
						15
						10
						1°
						- ''
						20
						2
						2
						2
						2
						2
						2
						2
						3
						3
						3:
						3
						3
						3
						3
						3
						3
						4

STEAM GENERATING STATIONS

- 1. Report the information called for concerning generating stations and equipment at the end of year.
- 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- 3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such property is leased from another company, give the name of

lessor, date and term of lease, and annual rent. For any generating station, other than a leased station or portion thereof for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as percent ownership by respondent, name of co-owner, basis of sharing output,

				Boilers				
Line No.	Name of Station (a)	Location of Station (b)	Number and Year Installed (c)	Kind of Fuel and Method of Firing (d)	Rated Pressure in lbs. (e)	Rated Steam Temperature*	Rated Max. Continuous M lbs. Steam per Hour (g)	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29				N/A				

STEAM GENERATING STATIONS -- Continued

- expenses or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.
- 4. Designate any generating station or portion thereof leased to another company and give name or lesse, date and term of lease and annual rent and how determined. Specify whether lessee is an associated company.
- 5. Designate any plant or equipment owned, not operated, and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

	Turbine-Generators*											
		Steam		Name Plat in Kilov						Station		
		Pressure		At	At	Hydro	ogen			Capacity		
Year		at		Minimum	Maximum	Pressi		Power	Voltage	Maximum		
Installed	Type+	Throttle	R.P.M.	Hydrogen	Hydrogen			Factor	K.v.+++	Name Plate		
		p.s.i.g.		Pressure	Pressure	Min.	Max.			Rating++++	Line	
(h)	(I)	(j)	(k)	(I)	(m)	(n)	(o)	(p)	(p)	(r)	No.	
											1	
											2	
											3	
											4	
											5	
											6	
											7	
											8	
											9	
											11	
											12	
											13	
											14	
					N/A						15	
											16	
											17	
											18	
											19	
											20	
											21	
											22	
											23	
											24	
											25	
											26	
											27	
											28	
		I		TOTALS					Ī		29	

HYDROELECTRIC GENERATING STATIONS

- Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.
- Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- 3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company give name of lessor, date and term of lease, and annual rent. For any generating station, other than a leased station, or portion thereof, for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as

					Water Wh	eels	
Line No.	Name of Station	Location of Station	Name of Stream	Attended or Unattended (d)	Type of Unit* (e)	Year Installed (f)	Gross Static Head with Pond Full (g)
1	#1 Holyoke/Cabot	Electric Station	Connecticut River	Unattended	. ,	(/	(6)
2 3 4 5	Unit #1 Unit #2 Unit #3 Unit #4	Cabot Street	via Canal System		Vertical Francis Vertical Francis Vertical Kaplan Vertical Kaplan	1923 1923 1938 1938	19 Ft. 16 Ft. 18 Ft. 18 Ft.
6 7 8 9	#2 Holyoke/Cabot	Sargeant Street	Connecticut River via Canal System	Unattended	Vertical Kaplan	1938	18 Ft.
10 11 12 13	Hadley Falls Unit #1 Unit #2	Gatehouse Road	Connecticut River	Attended	Vertical Kaplan Fixed Propeller	1954 1984	50 Ft. 50 Ft.
14 15 16	Beebe Holbrook Unit #2	Dwight Street	Connecticut River	Unattended	Vertical Francis	1948	20 Ft.
17 18 19 20 21 22	Boatlock Unit #1 Unit #2 Unit #3	Gatehouse Road	Connecticut River via Canal System	Unattended	Vertical Kaplan Vertical Francis Vertical Francis	2010 1924 1924	20 Ft. 20 Ft. 20 Ft.
23 24 25	Skinner	Appleton Street	Connecticut River via Canal System	Unattended	Vertical Francis	1924	20 Ft.
26 27 28 29	Chemical Unit #1 Unit #2	South Water Street	Connecticut River via Canal System	Unattended	Vertical Kaplan Vertical Kaplan	1935 1935	22 Ft. 22 Ft.
30 31 32 33	Riverside 4-7 Unit #1 Unit #2 Unit #3	Water Street	Connecticut River via Canal System	Unattended	Horizontal Francis Horizontal Francis Vertical Francis	1921 1921 1921	33 Ft. 33 Ft. 33 Ft.
34 35 36 37	Riverside 8	Water Street	Connecticut River via Canal System	Unattended	Vertical Francis	1931	33 Ft.

^{*} Horizontal or vertical. Also indicate type of runner -- Francis (F), fixed propeller (FP), automatically adjustable propeller (AP), Impulse (I).

HYDROELECTRIC GENERATING STATIONS -- Continued

- percent of ownership by respondent, name of co-owner, basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.
- Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined.
- Specify whether lessee is an associated company.

 5. Designate any plant or equipment owned, not operated, and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

		er Wheels Contir				Gene	rators			
		Maximum hp.					Name Plate	Number	Total Installed Generating	
Design		Capacity of					Rating of	of	Capacity in	
Head	R.P.M.	Unit at	Year			Frequency	Unit in	Units in	Kilowatts (name	
		Design Head	Installed	Voltage	Phase	or d.c.	Kilowatts	Station	place ratings)	Line
(h)	(I)	(j)	(k)	(I)	(m)	(n)	(o)	(p)	(q)	No.
4.01	000	000 LID	4000	4.000	0	00	000		4.050	1
19'	200	322 HP	1923	4,800	3	60 cy	288	4	1,056	2
19'	200	322 HP 386 HP	1923 1923	4,800 4,800	3 3	60 cy	240 288			3
19' 19'	180 180	386 HP	1923	4,800	3	60 cy	240			4 5
19	160	300 HP	1923	4,800	3	60 cy	240			6
19'	180	1,107 HP	1938	4,800	3	60 cy	800	1	800	7
19	160	1,107 HF	1930	4,000	3	60 Cy	800	'	600	8
										9
										10
52'	122	22,000 HP	1954	13,800	3	60 cy	19,500	2	35,300	11
50'	150	21,500 HP	1984	6,900	3	60 cy	15,800	_	00,000	12
	.00	21,000111		0,000	ŭ		.0,000			13
										14
										15
19'	200	440 HP	1948	600	3	60 cy	250	1	250	16
										17
										18
20'	240	944 HP	2010	6,900	3	60 cy	730	3	3,313	19
20'	106	1,850 HP	1924	6,600	3	60 cy	1,200			20
20'	106	1,850 HP	1924	6,600	3	60 cy	1,383			21
										22
20'	180	400 HP	1924	600	3	60 cy	300	1	300	23
										24
										25
										26
24'	200	1,430 HP	1935	600	3	60 cy	800	2	1,600	27
24'	200	1,430 HP	1935	600	3	60 cy	800			28
										29
					_				_	30
33'	4,200	1,250 HP	1921	6,600	3	60 cy	880	3	3,270	31
33'	5,200	1,040 HP	1921	2,300	3	60 cy	600			32
33'	7,150	2,250 HP	1921	6,900	3	60 cy	1,790			33
201	400	0.000 LID	4004	0.400	_	00	4		4 ===	34
33'	128	6,000 HP	1931	2,400	3	60 cy	4,575	1	4,575	35 36
										36
						<u>I</u> SUB TOTALS	50,464	18	50,464	38
						SOB TOTALS	50,404	10	50,464	30

HYDROELECTRIC GENERATING STATIONS

- Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.
- Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company give name of lessor, date and term of lease, and annual rent. For any generating station, other than a leased station, or portion thereof, for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as

					Water Wh	neels	
Line		Location of Station	Name of Stream	Attended or Unattended	Type of Unit*	Year Installed	Gross Static Head with Pond Full
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	#5 Hydro (Valley)	Valley Mill Road	Connecticut River	Unattended	Vertical Kaplan	1994	26.3 Ft.
2 3 4			via Canal System				
5							
6							
7							
8							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19 20							
21							
22							
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24							
25							
26							
27							
28							
29							
30							
31							
32 33							
33							
35							

^{*} Horizontal or vertical. Also indicate type of runner -- Francis (F), fixed propeller (FP), automatically adjustable propeller (AP), Impulse (I).

HYDROELECTRIC GENERATING STATIONS -- Continued

- percent of ownership by respondent, name of co-owner, basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.
- Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined.
- Specify whether lessee is an associated company.

 5. Designate any plant or equipment owned, not operated,
- and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

and term	r or icase and	annuar rent and no	W determine							
	Wate	er Wheels Contin	ued			Gene	erators			
	1					1	I		Total Installed	
		Maximum hp.					Name Plate	Number	Generating	
Design	5.54	Capacity of				_	Rating of	of	Capacity in	
Head	R.P.M.	Unit at	Year		D:	Frequency	Unit in	Units in	Kilowatts (name	١
(6)	(1)	Design Head	Installed	Voltage	Phase	or d.c.	Kilowatts	Station	place ratings)	Line
(h) 27'	(I) 277	(j) 1060 HP	(k) 1994	(l) 4,800	(m) 3	(n) 60 cy	(o) 790	(p)	(q) 790	No.
21	211	1000 HP	1994	4,800	S	60 Cy	790	ı	790	2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17 18
										19
										20
										21
										22
										23
										24
										25
										26
										27
										28
										29
										30
										31
										32
										33
						TOTALS	E4 0E4	19	E1 0E4	34 35
						TOTALS	51,254	19	51,254	აა

COMBUSTION ENGINE AND OTHER GENERATING STATIONS (except nuclear stations)

- 1. Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.
- Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company, give name of lessor, date and term of lease, and annual rent. For any generating station, other than a leased station, or portion thereof, for which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as percent owner-

					Prime Movers		
₋ine No.	Name of Station (a)	Location of Station (b)	Diesel or Other Type Engine (c)	Name of Maker	Year Installed (e)	2 or 4 Cycle (f)	Belted or Direct Connected (g)
1	, ,	, ,	` ,		, ,	`,	
2							
3							
4 5							
6							
7							
8							
9							
10							
11							
12 13							
14							
15				N/A			
16							
17							
18							
19 20							
21							
22							
23							
24							
25							
26							
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28 29							
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35							
36 37							

COMBUSTION ENGINE AND OTHER GENERATING STATIONS -- Continued (except nuclear stations)

- ship by respodent, name of co-owner, basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.
- Designate any generating station or portion thereof leases to another company and give name of lessee, date and term of lease and annual rent and how determined.
- Specify whether lessee is an associated company.
- 5. Designate any plant or equipment owned, not operated and not leased to another company. If such plant or equipment was not operated within the past year, explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

Prime Movers - Continued	and term of le	ease and annual rent	and how dete	ermined.		contempla	ted.			
Rated hp. of Unit (h) Total Rated hp. of Station (h) In Kilowatts (name plate ratings) (h) No. No. No. N/A N/A N/A N/A N/A N/A N/A N/	Prime Mover	s Continued								
Rated hp. of Station										
of Unit (h) Prime Movers (g) (k) (k) (l) (m) in Kilowatts (n) (o) (p) No.										
(h) (i) (j) (k) (l) (m) (n) (o) (p) No. 2 2 3 3 4 5 6 7 7 8 9 9 9 10 11 12 13 13 14 15 16 17 18 19 20 21 22 23 24 25 26 26 27 28 29 30 30 31 31 31 31 31 31 31 32 33 34 34 35 36										
N/A N/A N/A 11 23 34 45 56 67 78 89 91 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 30 31 31 32 33 34 35 36										
N/A N/A N/A N/A 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	(h)	(i)	(j)	(k)	(I)	(m)	(n)	(o)	(p)	
N/A N/A N/A 10 11 12 13 14 15 16 17 18 19 20 21 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36										
N/A N/A N/A 14 15 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36										
N/A N/A N/A N/A 15 16 17 18 19 20 21 21 22 23 24 25 26 27 28 29 30 31 32 43 35										
N/A N/A N/A N/A N/A N/A N/A N/A										
N/A N/A N/A N/A 10 11 12 13 14 15 16 17 18 19 20 21 21 22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36										
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N/A N/A N/A N/A N/A N/A 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 30 31 32 33 34 35 36										
N/A N/A N/A 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36										
N/A N/A N/A 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36										
N/A N/A 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 27 28 29 30 31 31 32 33 34 35 36										
N/A N/A 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36										
N/A 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 36 36 36 36 36 36										
16 17 18 19 20 20 21 22 23 24 25 26 27 28 29 30 30 31 32 33 34 35 36 36										
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 32 33 34					N/A					
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 33 34										
19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35										
20 21 22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36										
21 22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36										
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36										
23 24 25 26 27 28 29 30 31 31 32 33 34 35										
24 25 26 27 28 29 30 31 32 33 34 35 36										
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33 34 35 36										
34 35 36										
35 36										
36										
						TOTALS				
		<u> </u>				TOTALS			l	31

GENERATING STATION STATISTICS (Small Stations)

- Small generating stations, for the purpose of this schedule, are steam and hydro stations of less than 2,500 KW* and other stations of less than 500 KW* installed capacity (name plate ratings). (*10,000 KW and 2,500 KW, respectively, if annual electric operating revenues of respondent are \$25,000,000 or more)
- Designate any plant leased from others, operated under a license from the Federal Power Commission.
- or operated as a joint facility, and give a concise statement of the facts in a footnote.
- List plants appropriately under subheadings for steam, hydro, nuclear internal combustion engine and gas turbine stations. For nuclear, see instruction 10 page 59.
- 4. Specify if total plant capacity is reported in kva instead of kilowatts
- 5. If peak demand for 60 minutes is not available, give that which is available, specifying period.
- 6. If any plant is equipped with combustions of steam, hydro, internal combustion engine or gas turbine equipment, each should be reported as a separate plant. However, if the exhaust heat from the gas turbine is utilized in a steam turbine regenerative feed water cycle, report as one plant.

unde	er a license from the F	ederal Pov	wer Commision,		instead of kild	owatts.			regenera	itive feed water	cycle, repo	ort as one plant.
								Produ	ction Exp	enses		Fuel Cost
			Installed		Net		Plant	Exclusiv	e of Depi	reciation		Per KWH
			Capacity	Peak	Generation		Cost		and Taxes			Net
			Name	Demand	Excluding		Per KW		Omit Cent		Kind	Generation
		Year	Plate	KW	Station	Cost of Plant	Inst.	(Jime Cone	<u> </u>	of	(Cents)
Line	Name of Plant		Rating - KW	(60 Min.)	Use	(Omit Cents)	Capacity	Labor	Fuel	Other	Fuel	(0.0000)
No.	(a)	(b)	(c)	(d)	(e)	(onit cents)	(g)	(h)	(I)	(j)	(k)	(U.0000) (I)
	Holy/Cabot 1-4*	1923	1,856		5,228,190	2,301,081	1,240	117,814	(1)	76,619		3.7189
				1,856							Hydro	
	Beebe Holbrook	1948	250	250	9,140	681,802	2,727	17,396		18,190	Hydro	389.3455
	Chemical	1935	1,600	1,600	1,598,220	1,448,829	906	58,821		119,902	Hydro	11.1826
	Skinner	1924	300	300	348,856	681,802	2,273	43,198		27,928	Hydro	20.3884
	Boatlock	1924	3,313	3,313	15,382,911	5,880,539	1,775	190,909		177,934	Hydro	2.3977
	Riverside 4-7	1921	3,270	3,270	12,444,975	7,116,305	2,176	196,853		172,981	Hydro	2.9718
	Riverside 8	1931	4,575	4,575	21,767,065	7,116,305	1,555	196,853		172,981	Hydro	1.6991
8	Valley Hydro	1994	790	790	942,080	1,193,153	1,510	29,987		77,470	Hydro	11.4064
9												
10												
11												
12												
13												
14												
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34												
35												
36												
37												
38	•	TOTALS			57,721,437	26,419,814		851,832		844,005		2.9380

^{*} These facilities are comprised of more than one plant, however combined herewith for ease of reporting. Holyoke/Cabot 1-4 includes Holyoke 1 and Holyoke 2 plants.

TRANSMISSION LINE STATISTICS

Report information concerning transmission lines as indicated below.

	Designation				Length (P	ole Miles)		
Line		То	Operating Voltage	Type of Supporting Structure	On Structures of Line Designated	On Structures of Another Line	Number of Circuits	Size of Conductor and Material
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Eversource Fairmont	HGE	115 KV	Steel Pole	0.03 miles		1	795 KCM
	North Canal TAP	North Canal Substation						ACSR
5 6 7	Eversource Southampton TAP	HGE Ingleside Substation	115 KV	Wood and Steel Pole	5.23 miles		1	795 KCM ACSR
8 9	HGE	HGE	115 KV	Wood and	3.14 miles		1	795 KCM
	Ingleside Substation	Holyoke Substation		Steel Pole				ACSR
	HGE	HGE	115 KV	Wood and	0.85 miles		1	795 KCM
	North Canal	Holyoke	11010	Steel Pole	0.00 1111103		'	ACSR
	Substation	Substation		Otoci i oic				7.001
16		Cubotation						
17								
18								
19								
20								
21								
22								
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36								
37								
38								
39								
40								
41								
42								
43				TOTALC	0.25 miles		A	
44				TOTALS	9.25 miles		4	

^{*} Where other than 60 cycle, 3 phase, so indicate.

SUBSTATIONS

- Report below the information called for concerning substations of the respondent as of the end of the year.
- Substations which serve but one industrial or street railway customer should not be listed hereunder.
- Substations with capacities of less than 5000 kva, except those serving customers with energy for resale, may be grouped according to functional character, but the number of such substations must be shown.
- Indicate in column (b) the functional character of each substation, designating whether transmission or distribution and whether attended or unattended.
- Show in columns (i), (j), and (k) special equipment such as rotary converters, rectifiers, condensers, etc. and auxiliary equipment for increasing capacity.
- 6. Designate substations or major items of equipment leased from others, jointly owned with others, or operated otherwise than by reason of sole ownership by the respondent.

For any substation or equipment operated under lease, give name of lessor, date and period of lease and annual rent. For any substation or equipment operated other than by reason of sole ownership or lease, give name of co-pwner or other party, explain basis of sharing expenses of other accounting between the parties and state amounts and accounts affected in repondent's books of account. Specify in each case whether lessor, co-owner, or other party is an associated company.

subs	stations must be shown.										
				VOLTAGE					Conve	ersion App	aratus
		Character				Capacity of	Number	Number	and S	oecial Equ	ipment
	Name and Location	of				Substation	Of Trans-	of Spare			
	of Substation	Substation	Primary	Secondary	Tertiary	in Kva	formers	Trans-	Type of	Number	Total
Line						(in Service)		formers	Equipment		Capacity
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	Highland Substation	Outdoor	13,800				2				
2	Dwight & Northampton Street	Distribution		4,800		9,374	@				
3	Holyoke, MA 01040	Unattended		13,800	-		4,687	1			
4											
5	Walnut Substation	Outdoor	13,800				2				
6	Walnut Street	Distribution		4,800		9,374	@				
7	Holyoke, MA 01040	Unattended		13,800	-		4,687	1			
8											
9	Holyoke Substation	Transmission	115,000				2				
10	102 Cabot Street (rear)	Distribution		13,800			@				
11	Holyoke, MA 01040				-	120,000	36/48/60	0			
12											
13	Ingleside Substation	Transmission	115,000				1 @ 18/24/3				
14	320 Whitney Avenue	Distribution		13,800			2 @ 15/20/2				
	Holyoke, MA 01040	Unattended			-	80,000		0			
16											
17	North Canal Substation	Transmission	115,000				2 @				
18	50 Water Street	Distribution		34,500	13,800		60,000				
19	Holyoke, MA 01040	Unattended				180,000	2 @	0			
20							30,000				
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31 32											
33											
33											
34 35											
36											
37					TOTALS	398,748	18	2		0	0
31	l		<u> </u>	<u> </u>	TOTALS	330,140	10		<u> </u>	U	U

column (f) - adjusted all ratings to reflect higher forced cooling

OVERHEAD DISTRIBUTION LINES OPERATED

					Length (Pole Miles)	
Line						
No.				Wood Poles	Steel Towers	Total
1	Miles - Beginr	ning of Year		159.959		159.959
				5.796		5.796
3	Retired During	g Year		(6.800)		(6.800)
4				158.955	0.000	158.955
5	Distribution	System Characteristics - A.	C. or D.C., phase, cycles and operation	ating voltages for Light an	d Power.	
6	A.C.	3 PH	60 HZ	34.5Y/19.9 KV		
7	A.C.	3 PH	60 HZ	13.8Y/7.9 KV		
8	A.C.	3 PH	60 HZ	4.8 KV		
9	A.C.	3 PH	60 HZ	600 V		
10	A.C.	3 PH	60 HZ	480 V		
11	A.C.	3 PH	60 HZ	480Y/277 V		
12	A.C.	3 PH	60 HZ	240 V		
13	A.C.	3 PH	60 HZ	208Y/120 V		
14	A.C.	3 PH	60 HZ	120/240 V		
15	A.C.	1 PH	60 HZ	120/240 V		

ELECTRIC DISTRIBUTION SERVICES, METERS AND LINE TRANSFORMERS

				Line Tran	sformers
			Number of		Total
Line		Electric	Watt-hour		Capacity
No.	Item	Services	Meters	Number	(Kva)
16	Number at beginning of year	15,632	19,988	2,484	291,492
17	Additions during year:				
18	Purchased		166	225	16,900
19	Installed	136			
20	Associated with utility plant acquired				
21	Total Additions	136	166	225	16,900
22	Reductions during year:				
23	Retirements	638	638	129	19,873
24	Associated with utility plant sold				
25	Total Reductions	638	638	129	19,873
26	Number at End of Year	15,130	19,516	2,580	288,520
27	In stock		1,917		
28	Locked meters on customer's premises				
29	Inactive transformers meters on system		329		
30	In customer's use		17,232		
31	In company's use		38		
32	<u> </u>	Number at End of Year	19,516	2,580	288,520

CONDUIT, UNDERGROUND CABLE AND SUBMARINE CABLE -- (Distribution System)

Report below the information called for concerning conduit, underground cable, and submarine cable at end of year.

	perating /oltage (f)
1 Steel 48.939 2 Steel Conduit (encased) 1.437 3 Non-Metallic Duct 101.490 Non-Metallic Duct (encased) 89.833 5 6 7 8	()
2 Steel Conduit (encased) 3 Non-Metallic Duct 4 Non-Metallic Duct (encased) 89.833 5 6 7 8	
3 Non-Metallic Duct	
4 Non-Metallic Duct (encased) 89.833 5 6 7 8	
5 6 7 8	
6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
7 8	
10 Total - Beginning 185.889 34.5KV/19.9KV	
11 13.8KV/7.9KV	
12 4.8KV/600V	
13 480V/277	
14 240/208/120	
15	
16 Net Primary Installed 2.142 13.8/7.9/4.8KV	
17	
18 Net Secondary Installed 0.725 600/480/277	
19 240/208/120	
20	
21	
23	
25	
26	
27 28	
30 31	
32 33	
334	
35 TOTALS 241.699 188.756	

^{*}Indicate number of conductors per cable.

STREET LAMPS CONNECTED TO SYSTEM

						Ty	ype			
			Incande	escent	Mercur	y Vapor	LE	D	Fluore	escent
	City									
Line	or Town	Total	Municipal	Other	Municipal	Other	Municipal	Other	Municipal	Other
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1		` ,	Ì	` '	, ,	, ,	WATTS	, ,	WATTS	
	Holyoke, MA									
3 4										
5										
6		6							170	
7		1,153					200			
8 9		983 1,749					100 50			
10		195					60			
11		12					150			
12		20					70			
13 14										
15										
16										
17										
18 19										
20										
21										
22										
23 24										
25										
26										
27										
28 29										
30										
31										
32										
33 34										
35										
38										
39										
40 41										
41										
43										
44										
45 46										
46 47										
48										
49	TOTALS	4,118				·				

RECORD OF SENDOUT FOR THE YEAR IN MCF BASED ON 1000 BTU PER CUBIC FOOT

ine							
lo.	Item	Total	January	February	March	April	May
1	Gas Made						
2	Propane - Air Gas	0.0	0.0	0.0	0.0	0.0	0.0
3	LNG Gas	102,792.9	44,055.0	21,401.0	9,497.0	1,943.0	724.7
4	Gas						
5	Gas						
6	TOTAL	102,792.9	44,055.0	21,401.0	9,497.0	1,943.0	724.7
7		,	,	,	,	· ·	
8	Gas Purchased						
9	Natural G-6	2,034,753.1	279,826.6	243,131.0	268,499.9	145,941.9	114,231.6
10	Other - Storage	218,432.0	79,496.0	70,009.0	25,671.0	26,437.0	0.0
11	TOTAL	2,253,185.1	359,322.6	313,140.0	294,170.9	172,378.9	114,231.6
12	TOTAL MADE AND	2,200,100.1	333,022.0	310,140.0	204,170.0	172,070.0	114,201.0
13	PURCHASED	2,355,978.0	403,377.6	334,541.0	303,667.9	174,321.9	114,956.3
	Net change in Holder	0.0	0.0	0.0	0.0	0.0	0.0
14	_	0.0	0.0	0.0	0.0	0.0	0.0
4.5	Gas	0.055.070.0	400.077.0	224 544 0	202.007.0	474 204 0	444.050.0
15	TOTAL SEND OUT	2,355,978.0	403,377.6	334,541.0	303,667.9	174,321.9	114,956.3
16							
17							
18							
19	Gas Sold (Firm)	2,206,030.8	356,156.7	345,380.5	300,550.9	198,500.1	124,534.9
	Gas Sold (Interr.)	90,929.4	12,696.1	9,529.0	13,593.8	8,070.9	4,132.6
	Electric Station Use	0.0	0.0	0.0	0.0	0.0	0.0
20	Gas Used by Company	14,371.9	2,892.6	2,829.6	1,873.8	820.5	337.3
	Sale for Resale	0.0	0.0	0.0	0.0	0.0	0.0
21	Gas Accounted For	2,311,332.1	371,745.4	357,739.1	316,018.5	207,391.5	129,004.8
22	Gas Unaccounted For	44,645.9	31,632.2	(23,198.1)	(12,350.6)	(33,069.6)	(14,048.5
23	% Unaccounted			(0.00)	(4.07)	//a a=\	440.00
	For (0.00%)	1.90	7.84	(6.93)	(4.07)	(18.97)	(12.22
24							
25							
26							
27	Sendout in 24 Hours						
	in Mcf						
	Maximum - Mcf	19,628.0	19,628.0	16,879.0	15,668.0	10,140.0	6,399.0
29	Maximum Date	1/21/2019	1/21/2019	2/1/2019	3/6/2019	4/1/2019	5/13/201
	Minimum - Mcf	1,343.0	8,546.0	8,140.0	4,381.0	3,101.0	1,809.0
	Minimum Date	7/4/2019	1/1/2019	2/5/2019	3/30/2019	4/19/2019	5/27/201
32							
33							
34							
	S.O. BTU	1,032	1,033	1,033	1,032	1,030	1,029
	S.O. Sp. Gr.	0.59	0.59	0.59	0.59	0.59	0.59
	Annual weighted average DTU		4 000 DTU Cub	sia Faat			
	Annual weighted average BTU of	content of gas sold:	1,032 BTO per Cul	DIC FOOT			
_							-

RECORD OF SENDOUT FOR THE YEAR IN MCF BASED ON 1000 BTU PER CUBIC FOOT

2,602.0 2,269.2 1,659.0 2,412.0 1,614.0 3,222.0 11,39 2,602.0 2,269.2 1,659.0 2,412.0 1,614.0 3,222.0 11,39 75,639.6 65,987.7 68,977.3 73,793.3 122,978.6 259,759.8 315,98 0.0 0.0 0.0 0.0 0.0 4,457.0 12,36 75,639.6 65,987.7 68,977.3 73,793.3 122,978.6 264,216.8 328,34 76,241.6 68,256.9 70,636.3 76,205.3 124,592.6 267,438.8 339,74 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 78,241.6 68,256.9 70,636.3 76,205.3 124,592.6 267,438.8 339,74 84,243.5 68,991.9 65,997.0 69,788.7 101,782.5 200,547.6 289,55 2,410.3 2,368.3 2,224.9 2,691.6 4,903.2 12,409.8 15,89 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 <th>502.0 2,269.2 1,659.0 2,412.0 1,614.0 3,222.0 11,394 502.0 2,269.2 1,659.0 2,412.0 1,614.0 3,222.0 11,394 539.6 65,987.7 68,977.3 73,793.3 122,978.6 259,759.8 315,985 0.0 0.0 0.0 0.0 4,457.0 12,362 539.6 65,987.7 68,977.3 73,793.3 122,978.6 264,216.8 328,347 241.6 68,256.9 70,636.3 76,205.3 124,592.6 267,438.8 339,741 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 241.6 68,256.9 70,636.3 76,205.3 124,592.6 267,438.8 339,741 243.5 68,991.9 65,997.0 69,788.7 101,782.5 200,547.6 289,556 340.3 2,224.9 2,691.6 4,903.2 12,409.8 15,898</th>	502.0 2,269.2 1,659.0 2,412.0 1,614.0 3,222.0 11,394 502.0 2,269.2 1,659.0 2,412.0 1,614.0 3,222.0 11,394 539.6 65,987.7 68,977.3 73,793.3 122,978.6 259,759.8 315,985 0.0 0.0 0.0 0.0 4,457.0 12,362 539.6 65,987.7 68,977.3 73,793.3 122,978.6 264,216.8 328,347 241.6 68,256.9 70,636.3 76,205.3 124,592.6 267,438.8 339,741 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 241.6 68,256.9 70,636.3 76,205.3 124,592.6 267,438.8 339,741 243.5 68,991.9 65,997.0 69,788.7 101,782.5 200,547.6 289,556 340.3 2,224.9 2,691.6 4,903.2 12,409.8 15,898
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6/29/2019 7/4/2019 8/13/2019 9/2/2019 10/7/2019 11/1/2019 12/14/2	
1.030	/2019 7/4/2019 8/13/2019 9/2/2019 10/7/2019 11/1/2019 12/14/20
1.030 1.030 1.030 1.030 1.030 1.033 1.0	
	1,030 1,030 1,030 1,030 1,030 1,033 1,03
0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00

Annua	al Report of Holyoke Gas and Electric Department	Pg 74	Year Ended December 31, 2019
	GAS GEN	IERATING PLANT	
Line No.	General Description - Location, Size, Type, etc.	No. of Sets	24 Hour Cap. (MCF)
	A) Liquefied Natural Gas Satellite Plant with four (4)		
2	55,000 gallon cryogenic storage tanks and one (1)		15,000
3	750 mcf/hr vaporizer located at Mueller Road.		
4			
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38 39			
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41			
42			
43			
44			
45		TOTAL	15,000

Annu	Pg 75 Inual Report of Holyoke Gas and Electric Department				Year Ended D	ecember 31, 2019		
			BOILE	RS				
Line	Loo	ntion	Kind of Fuel and Method	Rated Pressure	Rated Steam	Number	Output Rating M. Lbs. Steam	
No. 1 2 3 4 5 6 7 8 9 10 11 12	Loca	ation	of Firing	in Lbs.	Temp.	Number	Per Hour	
12 13 14 15 16 17 18 19 20 21 22 23 24				NONE				
		SCRUBBERS, CONDEN	ISERS AND EXHA	USTERS - 24 HO	UR CAPACITY (M	CF)		
Line No.		Kind of Gas				Total Capacity		
25 26 27 28 29 30 31 32	Scrubbers							
33 34 35 36 37 38 39 40 41	Condensers		NONE					

Annual Repor	rt of Holyoke Gas and Electric Departm	nent	Pg 76			Year Ended D	ecember 31, 2019
Timudi Nopol	t of Floryone Out and Electric Bepartin		PURIFIERS			Tour Endou D	000111501 01, 2010
			PURIFIERS				
Line No.	Location		Kind of Gas Purified			d of fying erial	Estimated 24 Hour Capacity
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24			NONE				
	HOLDERS (Inc	cluding Relief Holde	rs) - Indicate Rel	lief Holders by th	ne letters R.H.		
Line		Type of	Dimer	nsions	No. of		Working
No.	Location	Tank	Diameter	Height	Lifts	Number	Capacity
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41			NONE				

TRANSMISSION AND DISTRIBUTION MAINS

Report by size, for all mains and lines, the information called for below for cast iron, welded, wrought iron and steel mains. Sub-Totals should be shown for each type.

Line		Total Length in Feet at Beginning	Added During	Taken Up	Abandoned But Not Removed	Total Length in Feet at End
No.	Diameter	of Year	Year	During Year	During Year	of Year
1	<u>Cast Iron</u>					
2	1 1/4"	0				0
3	1 1/2"	0				0
4	2"	0				0
5	2 1/2"	130				130
6	3"	12,637			598	12,039
7	4" C"	83,178			1,892	81,286
8	6" 8"	90,750			3,292 1,784	87,458
9 10	o 12"	47,164			1,704	45,380 29,305
11	12 16"	29,305 9,730			9	9,721
12	16	9,730			9	9,721
13	Sub-To	al 272,894	0	0	7,575	265,319
14	Welded Steel	272,094	0	0	7,373	200,519
15	2"	109,150			18	109,132
16	3"	618			10	618
17	4"	82,429			710	81,719
18	6"	134,784			514	134,270
19	8"	106,052			0	106,052
20	10"	12,217				12,217
21	12"	57,870				57,870
22	14"	3,278				3,278
23	16"	1,237	9			1,246
24						
25	Sub-To	507,635	9	0	1,242	506,402
26	Wrought Iron					
27	1 1/4"	0				0
28	1 1/2"	128				128
29	2"	0				0
30	2 1/2"	198				198
31	3"	198				198
32	4"	0				0
33						
34	Sub-To	al 524	0	0	0	524
35	Plastic Main					
36	2"	76,610	68		458	76,220
37	4"	55,075	3,182			58,257
38	6"	29,393	2,918		176	32,135
39	8"	36,379	1,198		198	37,379
40	Out Tak	107.457	7,000	0	000	202.004
41	Sub-To	al 197,457	7,366	0	832	203,991
42	TOTAL	S 978,510	7 275	^	9,649	076 006
43	TOTAL	9/6,510	7,375	0	9,049	976,236

Normal Operating Pressure-Mains and Lines-Maximum....80 PSIG Minimum....7 inches W.C. Normal Operating Pressure-Services -Maximum....80 PSIG Minimum....7 inches W.C.

GAS DISTRIBUTION SERVICES, HOUSE GOVERNORS AND METERS

Report below the information called for concerning Distribution Services, House Governors and Meters.

Line No.	ltem	Gas Services	House Regulators	Meters
1	Number at beginning of year	8,477	3,325	14,215
2	Additions during year:	0,477	0,020	14,210
3	Purchases		35	410
4	Installed	149	33	110
5	Associated with Plant acquired			
6	TOTAL ADDITIONS	149	35	410
7	Reductions during year			
8	Retirements	159	37	662
9	Associated with Plant sold			
10	TOTAL REDUCTIONS	159	37	662
11	NUMBER AT END OF YEAR	8,467	3,323	13,963
12 13 14 15	In Stock. On Customers' Premises - Inactive. On Customers' Premises - Active. In Company Use.			1,684 471 11,786 22
16			BER AT END OF YEAR	13,963
17	Number of Meters Tested by State Inspectors During Year			2,134

RATE SCHEDULE INFORMATION

- 1. Attach copies of all Filed Rates for General Consumers.
- 2. Show below the changes in rate schedules during year and the estimated increase or decrease in annual revenue predicted on the previous year's operations.

			Estimated Effect on		
Date	M.D.P.U.		Annual Revenues		
Effective	Number	Rate Schedule	Increase	Decrease	
		SEE ATTACHED			

HOLYOKE GAS AND ELECTRIC DEPARTMENT RATES AS OF DECEMBER 31, 2019

MDPU No			Effective	Replaces
137G	Interruptible Gas Service Schedule No 2	G2	06/07/19	104G
138G	Interruptible Gas Service Schedule No 6	G6	06/07/19	105G
127G	Gas Schedule "A"	GR	05/01/14	118G
128G	Gas Schedule "GB-1" Small General Service	B1	05/01/14	119G
120G	Gas Schedule "GB-2" Medium General Service	B2	02/13/03	108G
121G	Gas Schedule "GB-3" Large General Service	B3	02/13/03	109G
130G	Gas Schedule "GB-4" Industrial Contract Gas Service	G4	05/01/14	122G
129G	Gas Schedule "AG-1" Small General Service Agriculture	F1	05/01/14	123G
124G	Gas Schedule "AG-2" Medium General Service Agriculture	F2	02/13/03	116G
125G	Gas Schedule "AG-3" Large General Service Agriculture	F3	02/13/03	117G
126G	Firm Gas Transportation Rate		02/13/03	113G
214G	Standard Purchased Gas Adjustment Schedule		11/01/08	114G
195E	Hydroelectric Power Reduction Clause		12/01/16	130E
196E	Standard Purchased Power Adjustment Clause		12/01/16	140E
188E	Meterbase Surge Protection		01/01/14	161E
191G/E	Economic Development Discount		06/04/14	171G/E/S
192E	Standby Facilities Clause		06/04/14	172E
194E	Off-Street/Contract Lighting		01/08/16	189E
181E	Street & Traffic Lighting		08/12/09	176E
211E	Large General Service Contract Schedule		11/01/19	193E
185E	Distributed Generation Purchased Power Clause		11/10/12	
186E	Power Wheeling Service		12/10/12	
199E	Large Industrial Contract Schedule (2017Rates)		04/07/17	187E
202E	Residential Electric Schedule		01/09/18	197E
203E	Small Industrial Schedule		01/09/18	200E
209E	General Service Electric Schedule		01/10/19	204E
210E	Community Shared Solar Residential Electric Schedule		01/10/19	205E
206E	Schedule 3 Large Industrial II Contract Schedule		08/06/18	168E
193G/E	Rules and Regulations		06/04/14	8/8/8 version

INTERRUPTIBLE GAS SERVICE SCHEDULE – G2 (No. 2 Fuel Oil)

AVAILABILITY

Interruptible gas service is available under this schedule for to Commercial and Industrial customers using No. 2 fuel oil who are located adjacent to the Department's existing distribution mains, which mains have adequate capacity so that gas delivered hereunder will not impair service to other customers.

Gas supplied hereunder shall be separately metered and used only in such equipment as approved by the Department. In no case shall the gas be used interchangeably with that supplied under any other rate schedule of the Department. Reference is made to the "dual-fuel" provisions contained herein.

CHARACTER OF SERVICE

An interruptible supply of gas containing not less than 1,000 BTU cubic foot.

RATE - APPLIED MONTHLY

All gas purchased under this schedule shall be computed at a rate in consideration of HG&E cost of service and fuel costs as well as market conditions of competing alternatives available.

Where:

No. 2 Oil Price (\$/barrel): First business day of the month low posting at New Haven, CT (New Haven Harbor) per Oil Price Daily publication;

Oil BTU: 140,000 BTU/Gallon;

NOTICE OF PRICE CHANGE

Notice of price change will be indicated on monthly bill.

MINIMUM CHARGE

The minimum charge will be \$1500 per year.

DISCOUNT

Discount does not apply to this schedule.

INTERRUPTION OF SERVICE

Gas supplied hereunder is subject to interruption at any time upon twelve (12) hours' notice, except under emergency conditions, to the customer who shall discontinue entirely the use of gas until notified by the Department that it is again available. The determination of the necessity for interrupting gas service shall be made solely by the Department in each instance and shall be final and binding. The interruption of gas service shall not be the basis for claims or damages, if any, sustained by the customer by reason of such interruption.

NON-COMPLIANCE WITH NOTICE TO DISCONTINUE USE

Filed: June 3, 2019 CITY OF HOLYOKE Effective: June 7, 2019

GAS & ELECTRIC DEPARTMENT

Effective: June 7, 2019

If the customer fails to discontinue the use of gas after receiving notice to do so from the Department, the bill for gas subsequently used shall be at the calculated rate greater of the two methods below:

- The existing rate plus \$20.00 per mcf, however, if such failure to discontinue is due to the customer's dual-fuel equipment being temporarily inoperable, the Department at its sole discretion, may bill the customer for gas subsequently used during the emergency at the rate of \$10.00 per mcf, provided service to other customers is not impaired and provided also that the customer proceeds as expeditiously as possible to repair the dual-fuel equipment; or,
- Two (2) times the energy equivalency (EE) for the month in which the gas was consumed, however, if such failure to discontinue is due to the customer's dual-fuel equipment being temporarily inoperable, the Department at its sole discretion, may bill the customer for gas subsequently used during the emergency at the rate of one and a half time (1.5) the EE, provided service to other customers is not impaired and provided also that the customer proceeds as expeditiously as possible to repair the dual-fuel equipment

The emergency rate shall be limited to a maximum of five (5) days per year at which point the full rate will be charged. Repeat offenses will be billed at the full rate, subject to the Department's sole discretion.

The Department reserves the right to turn off service to customers who fail to discontinue use during interruption periods at its sole discretion.

DUAL-FUEL EQUIPMENT

The customer shall install and maintain in usable condition dual-fuel burning equipment and keep on hand an adequate supply of alternate fuel use when gas service is interrupted. The Department reserves the right to inspect customer facilities to confirm dual-fuel capability and ensure that only dual-fuel capable equipment is connected to the gas service. Firm sales equipment shall be metered separately with any required pipe work to isolate firm and interruptible systems to be at the customer's expense.

TERM OF CONTRACT

The term of contract under this schedule shall be for an initial period of at least one year, at the expiration of which initial period it shall automatically renew itself for like one year periods thereafter unless terminated by the Department giving to the other notice in writing 30 days prior to the expiration of any supply year.

TERMS AND CONDITIONS

Filed: June 3, 2019

Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

INTERRUPTIBLE GAS SERVICE SCHEDULE - G6 (Propane)

AVAILABILITY

Interruptible gas service is available under this schedule for to Commercial and Industrial customers using propane who are located adjacent to the Department's existing distribution mains, which mains have adequate capacity so that gas delivered hereunder will not impair service to other customers.

Gas supplied hereunder shall be separately metered and used only in such equipment as approved by the Department. In no case shall the gas be used interchangeably with that supplied under any other rate schedule of the Department. Reference is made to the "dual-fuel" provisions contained herein.

CHARACTER OF SERVICE

An interruptible supply of gas containing not less than 1,000 BTU cubic foot.

RATE - APPLIED MONTHLY

All gas purchased under this schedule shall be computed at a rate in consideration of HG&E cost of service and fuel costs as well as market conditions of competing alternatives available.

Where:

Propane Price (\$/gallon): Most recent weekly average retail propane price as posted by the Massachusetts Department of Energy Resources as of the first business day of the month or through an internally conducted survey of at least three regional propane suppliers;

Propane BTU: 91,333 BTU / gallon.

NOTICE OF PRICE CHANGE

Notice of price change will be indicated on monthly bill.

MINIMUM CHARGE

The minimum charge will be \$1500 per year.

DISCOUNT

Discount does not apply to this schedule.

INTERRUPTION OF SERVICE

Gas supplied hereunder is subject to interruption at any time upon twelve (12) hours' notice, except under emergency conditions, to the customer who shall discontinue entirely the use of gas until notified by the Department that it is again available. The determination of the necessity for interrupting gas service shall be made solely by the Department in each instance and shall be final and binding. The interruption of gas service shall not be the basis for claims or damages, if any, sustained by the customer by reason of such interruption.

NON-COMPLIANCE WITH NOTICE TO DISCONTINUE USE

Filed: June 3, 2019 CITY OF HOLYOKE Effective: June 7, 2019

GAS & ELECTRIC DEPARTMENT

Effective: June 7, 2019

If the customer fails to discontinue the use of gas after receiving notice to do so from the Department, the bill for gas subsequently used shall be at the calculated rate greater of the two methods below:

- The existing rate plus \$20.00 per mcf, however, if such failure to discontinue is due to the customer's dual-fuel equipment being temporarily inoperable, the Department at its sole discretion, may bill the customer for gas subsequently used during the emergency at the rate of \$10.00 per mcf, provided service to other customers is not impaired and provided also that the customer proceeds as expeditiously as possible to repair the dual-fuel equipment; or,
- Two (2) times the energy equivalency (EE) for the month in which the gas was consumed, however, if such failure to discontinue is due to the customer's dual-fuel equipment being temporarily inoperable, the Department at its sole discretion, may bill the customer for gas subsequently used during the emergency at the rate of one and a half time (1.5) the EE, provided service to other customers is not impaired and provided also that the customer proceeds as expeditiously as possible to repair the dual-fuel equipment

The emergency rate shall be limited to a maximum of five (5) days per year at which point the full rate will be charged. Repeat offenses will be billed at the full rate, subject to the Department's sole discretion.

The Department reserves the right to turn off service to customers who fail to discontinue use during interruption periods at its sole discretion.

DUAL-FUEL EQUIPMENT

The customer shall install and maintain in usable condition dual-fuel burning equipment and keep on hand an adequate supply of alternate fuel use when gas service is interrupted. The Department reserves the right to inspect customer facilities to confirm dual-fuel capability and ensure that only dual-fuel capable equipment is connected to the gas service. Firm sales equipment shall be metered separately with any required pipe work to isolate firm and interruptible systems to be at the customer's expense.

TERM OF CONTRACT

The term of contract under this schedule shall be for an initial period of at least one year, at the expiration of which initial period it shall automatically renew itself for like one year periods thereafter unless terminated by the Department giving to the other notice in writing 30 days prior to the expiration of any supply year.

TERMS AND CONDITIONS

Filed: June 3, 2019

Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

GAS SCHEDULE "A"

AVAILABILITY

Service under this schedule is available for all residential purposes in an individual private dwelling or an individual apartment. In the case of a multiple dwelling in which the energy is measured by a master meter, each step of the rate shall be multiplied by the number of apartments.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge\$6.00 First40 ccf @ \$1.049 per ccf All Over40 ccf @ \$.787 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation - ccf

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

127G

Cancels - M.D.P.U. No. 118G

Filed April 18, 2014

Effective May 1, 2014

GAS SCHEDULE "GB - 1" SMALL GENERAL SERVICE

AVAILABILITY

Service under this schedule is available for commercial and industrial customers and municipal buildings having an annual usage of less than 5,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$10.00 First 200 ccf @ \$.936 per ccf Excess 200 ccf @ \$.853 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed-<u>December 13, 2018</u>April 18, 2014<u>April 18, 2014</u> 2018May 1, 2014<u>May 1, 2014</u>

Effective January 10,

GAS SCHEDULE "GB - 2" MEDIUM GENERAL SERVICE

AVAILABILITY

Service under this schedule is available for commercial and industrial customers and municipal buildings having an annual usage greater than 5,000 ccf and less than 40,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$20.00 First 600 ccf @ \$.867 per ccf Excess 600 ccf @ \$.817 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed January 13, 2003

Effective February 13, 2003

GAS SCHEDULE "GB - 3" LARGE GENERAL SERVICE

AVAILABILITY

Service under this schedule is available for commercial and industrial customers and municipal buildings having an annual usage greater than 40,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$60.00 First 10,000 ccf @ \$.837 per ccf Excess 10,000 ccf @ \$.787 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed January 13, 2003

Effective February 13, 2003

GAS SCHEDULE "GB - 4" INDUSTRIAL CONTRACT GAS SERVICE

AVAILABILITY

Service under this schedule is available for industrial customers primarily engaged in manufacturing who have executed a long term contract and who have an annual usage greater than 100,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$90.00 First 10,000 ccf @ \$.66 per ccf Excess 10,000 ccf @ \$.504 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed April -13, 2014

Effective May 1, 2014

GAS SCHEDULE "AG - 2" MEDIUM GENERAL SERVICE AGRICULTURE

AVAILABILITY

Service under this schedule is available to persons or corporations engaged in the business of agriculture or farming having an annual usage greater than 5,000 and less than 40,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$18.00 First 10,000 ccf @ \$.780 per ccf Excess 10,000 ccf @ \$.735 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This contract is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed January 13, 2003

Effective February 13, 2003

GAS SCHEDULE "AG - 3" LARGE GENERAL SERVICE AGRICULTURE

AVAILABILITY

Service under this schedule is available to persons or corporations engaged in the business of agriculture or farming having an annual usage greater than 40,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$54.00 First 10,000 ccf @ \$.753 per ccf Excess 10,000 ccf @ \$.708 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This contract is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed January 13, 2003

Effective February 13, 2003

GAS SCHEDULE "AG - 1" SMALL GENERAL SERVICE AGRICULTURE

AVAILABILITY

Service under this schedule is available to persons or corporations engaged in the business of agriculture or farming having an annual usage of less than 5,000 ccf.

CHARACTER OF SERVICE

A continuous supply of gas not less than 1,000 BTU per cubic foot.

RATE - APPLIED MONTHLY

Customer Charge \$9.00 First 200 ccf @ \$.848 per ccf Excess 200 ccf @ \$.775 per ccf

Definition of the gas unit for purposes of this schedule is one hundred cubic feet - abbreviation ccf.

MINIMUM CHARGE

Customer charge per month.

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED GAS ADJUSTMENT

There shall be an adjustment in rate due to cost of gas as provided in the Department's Standard Purchased Gas Adjustment Schedule in effect from time to time.

TERMS AND CONDITIONS

This contract is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed April 18, 2014

Effective May 1, 2014

FIRM GAS TRANSPORTATION RATE

AVAILABILITY

- 1. This tariff is applicable to all gas purchased by a customer from a third party producer or marketer. The gas must be delivered to the Department's distribution system via an interstate pipeline. Once the gas has been received by the Department, the Department will transport the gas to the Customer's premises on a firm basis. This service is only available to those customers, which execute a 12-month contract for the service provided herein. This service is applicable only to customers, which transport in excess of 40,000 ccf/year.
- 2. Optional standby sales service is also offered under this rate. Customers opting not to purchase standby service shall have no right or claim to gas provided by the Department.
- 3. Daily and monthly balancing service is a part of this tariff and is mandatory to all customers on this tariff.
- 4. As a requirement of the balancing services, the Department requires all transportation customers to have a real time metering. The customer shall be responsible for and make direct arrangements for transmitting information to the Mueller Road Control Center via telephone lines or other approved methods. The customer shall be responsible for the cost of the equipment necessary to transmit the real time metering information along with the cost of the telephone service. The telemetering equipment shall conform to the specifications of the Holyoke Gas & Electric Department.

CHARACTER OF SERVICE

1. This service provides for the firm transportation of third party gas delivered to the Department on behalf of a customer. Under this service, the Department will deliver such gas as received by the third party to the customer's meter. This transportation service is firm only to the extent that the third party gas is delivered to the Department.

CONTRACT REQUIREMENTS

- 1. The customer shall execute a Service Agreement with the Department, which specifies the Maximum Daily Quantities of gas to be transported.
- 2. Maximum Daily Quantity: After consulting with the customer, the Department will assign a Maximum Daily Delivery Quantity (MDQ). The MDQ is defined as the maximum customer nomination for delivery of gas per day or the highest daily demand actually taken per day. The MDQ will remain in effect for the 12-month period following the execution of the transportation contract between the Department and the Customer. In the event that the customer exceeds this MDQ on any given day during any 12-month period, the Customer shall be considered to have immediately increased the MDQ to the actual maximum level consumed and such increased MDQ shall remain in effect for the next subsequent 12 months.

Rates and Charges for Firm Transportation Service

The Department will meter the customer's volumes at only one location, specifically at the gas service entrance. In the event that there are multiple service entrances at one location, all meters located at these entrances shall be considered as individual transportation customers and shall conform to the requirements of the tariff. A prompt payment discount of 10% will be allowed on the current gross bills provided the bill is paid in full within 15 days of the bill.

Customer Charge

The customer charge for Firm Transportation service shall be \$66.00 per month per meter.

Gas Supply Realignment Charge

The GSR Surcharge will be \$.216/ccf/day of MDQ. This surcharge will expire once the pipeline terminates the charge to the Department for the Gas Supply Realignment Charge.

Environmental Charge

This charge is for the costs incurred for the environmental cleanup of the manufactured gas plant located in the City of Holyoke as mandated by the Federal and State regulatory agencies. This charge will remain in place until the remediation process of this site has been completed or until such time that all expenses for the site have been recovered. This charge will change from year to year, depending upon the costs the Department has budgeted.

Energy Charge

This charge is for the costs incurred by the Department for transporting gas through its Distribution system.

3. The monthly rates and charges are as follows:

Customer Charge:\$66.00 Energy Charge:\$0.026/ccf

Demand Charge:\$1.75/ccf/day of MDQ GSR Charge:\$.216/ccf/day of MDQ Environmental Charge:\$.067/ccf

For example, the charge for a customer electing an MDQ of 150 ccf/day and who uses 2,200 ccf in a month would be charged as follows:

Customer Charge:\$66.00

Energy Charge: \$57.20 (\$.026/ccf*2,200 ccf)

Demand Charge: \$262.50 (\$1.75/ccf/day*150 ccf/day) GSR Surcharge: \$32.40 (\$.216/ccf/day*150 ccf/day) Environmental Charge: \$147.40 (\$.067/ccf*2200 ccf)

Total:\$565.50 Less 10% Prompt Payment:<u>\$56.55</u> Total (Net)\$508.95 This amount does not include the cost of gas received from a third party for the transportation customer.

Receipt and Delivery

- 4. The customer shall be responsible for securing delivery of Customer-owned gas to the Department's system at the Department's designated receipt point(s).
- 5. The receipt point shall be at a pipeline city gate station as specified in the contract and assigned by the Department.
- 6. The Department shall retain 3% of volumes delivered to the city gate for a lost and unaccounted adjustment and the Department shall only be obligated to deliver 97% of volumes received.

LOAD BALANCING

- 1. **Character of Service**: The Department agrees to provide customer with daily and monthly balancing services within the parameters outlined in paragraph 5. The Department agrees to use its gas resources, including but not limited to storage and standby service, to accept Customer's daily over deliveries and to provide Customer with gas to compensate for daily under deliveries.
- 2. **Customer Nominations and Gas Deliveries:** Customer shall be responsible for promptly advising the Department of its daily nomination of gas intended to be received by the Department on behalf of Customer. Customer shall be responsible for promptly providing the Department with pipeline daily confirmation reports reflecting the actual amount of gas delivered to the Department each day on behalf of Customer. Daily nominations must be received by 10:00 a.m. one day prior to the date that a change in the daily nomination is intended to become effective. If no third party gas arrives on behalf of the transportation customer, the customer will be off line and receive no gas, unless the customer has signed for the optional standby service. In the event that those customers who did not sign up for the standby service has its deliveries interrupted it will be notified to go off line. If the customer, after notification does not go off line, all volumes taken will be charged at \$2.50 per ccf. If the Department's ability to deliver gas to non-transportation customers is impaired by the transportation customer's actions, the Department reserves the right to shut off the gas supply at the main.
- 3. **Determination of Daily Imbalances:** Customer's daily imbalance shall be equal to the difference between the amount of gas nominated by the customer and confirmed by the Department each day, and customer's actual volumes, (adjusted for losses), as determined from daily meter readings at customer's facility. A daily **under delivery** shall be deemed to occur whenever daily deliveries on behalf of Customer are less that Customer's actual nomination, (adjusted for losses), as determined from daily meter readings at Customer's facility. A daily **over delivery** shall be deemed to occur whenever deliveries on behalf of Customer are more than Customer's actual nomination, (adjusted for losses), as determined from daily meter readings at Customer's facility.

- 4. **Determination of Monthly Imbalances:** Customer's monthly imbalances shall be equal to the difference between the total volume of gas nominated by the Customer each month and confirmed by the Department, and Customer's actual transportation volumes (adjusted for losses) as determined from meter readings at Customer's facility.
- 5. **Charge for Imbalances:** The Department's rate for daily imbalances is as follows:

A daily surcharge of \$.04836/ccf will apply to all volumes in excess of 110% or less than 90% of their daily nominated quantity unless an Operational Flow Order (OFO) is in effect from the pipeline company. In this case, the balancing charge will be \$2.50/ccf. These charges shall be in addition, not in lieu of, other transportation charges. Prompt Payment discount does not apply to imbalance charges.

The charge of imbalances does not apply when the customer's total deliveries are interrupted and not received at the gate station. As outlined under Customer Nominations and Gas Deliveries, if a customer, who does not have standby service, and does not go off line when notified of this condition, all volumes taken by customer will be charged at \$2.50 per ccf. If the Department's ability to deliver gas to non-transportation customers is impaired by the transportation customer's actions, the Department reserves the right to shut off the gas supply at the main.

<u>Charge for Monthly Imbalances:</u> customers must cash out their cumulative monthly imbalances. At the end of each calendar month the Department shall determine the cumulative monthly imbalances as determined in item 4 above. For cumulative monthly over deliveries, the Department will cash out such over deliveries based on the schedule.

Monthly Excess Deliveries

0-10%	100% Index
10%-15%	115%
15%-20%	130%
20%-25%	140%
25%+	150%

The Customer will buy the volumes associated with the monthly over deliveries from the Department at the above index price depending upon the tier in which the over deliveries fall. For cumulative under deliveries, the Department will cash out such under deliveries based on the following schedule:

Monthly Under Deliveries to the Customer's Meter

0-10%	100% Index
10%-15%	85%
15%-20%	70%
20%-25%	60%
25%+	50%

The customer will sell the volumes associated with the monthly under deliveries to the Department at the above index price depending upon the tier in which the under deliveries fall.

The index price shall be 28% of the Texas (Zone 0) index plus 72% of the Louisiana (Zone 1) index for spot prices published in Inside FERC's Gas Market Report for on-shore and offshore gas delivered into the Tennessee Gas Pipeline system. The Report is published by McGraw Hill, Inc., 1221 Avenue of the Americas, New York, New York, 10020. The Index will be computed as the simple average of the Louisiana (Zone 1) and Texas (Zone 0) prices.

STANDBY SALES SERVICE

- 1. This service is optional. This service is available for the winter and summer periods. For customers opting for this service, the standby sales is a firm service under which the Company agrees to provide firm gas sales service to the Customer, in the event their gas is not delivered to the city gate station or, in the event of force majeure from the pipeline. In the event of a force majeure from the pipeline, this service will be on a best efforts basis.
- 2. Customers electing such service must identify a portion, up to 100% of their MDQ as their Maximum Daily Standby Quantity (MDSQ) for each season, 10 working days prior to start of the season.
- 3. The standby rate is as follows: \$3.08/ccf/day

This rate is based upon the winter period MDSQ. The winter period is defined as the period commencing November 1 and ending April 30. The summer period is defined as the period commencing May 1 and ending October 31. The cost of purchased gas under the stand by service shall be defined as the total rolled in cost of natural gas delivered to the Department, including Liquefied Natural Gas, Propane Air, and storage gas for the month in which the service is used plus 15%.

The standby charge will be assessed on a monthly basis per six-month period by season. For example, a customer who has a winter MDSQ of 150 ccf/day will be charged each month (\$3.08/ccf/day*150 ccf/day) or \$462.00 plus the cost of gas as defined in paragraph 3 above. A prompt payment discount of 10% will be applied to this service, provided the bill is paid in full within 15 days of date of bill.

4. A penalty charge of \$1.66/ccf will be assessed on each volume of gas taken by the customer under Standby sales service, which exceeds their MDSQ. If the Department's ability to deliver gas to non-transportation customers is impaired by the transportation customer's actions, the Department reserves the right to shut off the gas supply at the main.

FORCE MAJEURE

1. If the Department is rendered unable to wholly or in part, carry out its obligation under this agreement because of force majeure, the obligations of the Department shall be suspended until

such time as the cause for suspension has been remedied using the existing practices of the gas distribution industry.

- 2. If the Customer is rendered unable to wholly or in part, carry out its obligations under these provisions because of force majeure, the obligations of the Customer, other than the obligation to make all payments hereunder, shall be suspended until such time as the cause for suspension has been remedied.
- 3. <u>Definition Force Majeure:</u> The term "force majeure" as employed herein shall include acts of God, strikes, lockouts, wars, riots, insurrections, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrests and restraints of rulers and people, interruptions by government or court orders, civil disturbances, explosions, and any other cause whether of the kind herein defined or otherwise, not within the control of the party claiming suspension and which, by the exercise of reasonable foresight, such party is unable to avoid and, by the exercise of due diligence, such party is unable to overcome.

Summary of Firm Gas Transportation Charges

Mandatory

Customer Charge \$66 per month Energy Charge \$0.026/ccf Demand Charge \$1.75/ccf/day of MDQ GSR Charge \$0.216/ccf/day of MDQ Environmental Charge \$.067/ccf

Volumes taken after supplier \$2.50/ccf Interruption & no standby

Daily Load Balancing

Daily volumes in excess of 110% of daily nomination\$.04836/ccf Daily volumes less than 90% of daily nomination\$.04836/ccf

Daily volumes taken during OFO\$2.50/ccf

Monthly Over Deliveries to the Customer's Meter

0-10%	100% Index
10%-15%	115%
15%-20%	130%
20%-25%	140%
25%+	150%

The customer will buy the volumes associated with the monthly over deliveries from the Department at the above index price depending upon the tier in which the over deliveries fall. For cumulative under deliveries, the Department will cash out such under deliveries based on the following schedule:

Monthly Under Deliveries to the Customer's Meter

0-10%	100% Index
10%-15%	85%
15%-20%	70%
20%-25%	60%
25%+	50%

The customer will sell the volumes associated with the monthly under deliveries to the Department at the above index price depending upon the tier in which the under deliveries fall.

Standby Service

Demand\$3.08/ccf/day

Daily volumes taken over the customer's max daily standby quantity.\$1.66/ccf/day

M.D.P.U. No. 214 G Cancels M.D.P.U. No. 114 G M.D.P.U. No. 110 G M.D.P.U. No. 94 G

STANDARD PURCHASED GAS ADJUSTMENT SCHEDULE

AVAILABILITY

This service is applicable to the firm gas rate schedules of the Department.

PURCHASED GAS ADJUSTMENT

This schedule establishes the procedure to be followed, for adjusting, on a monthly basis, the Department's firm gas rate schedules in order to track, on a periodic basis, the changes in the cost of purchased gas.

The purchased gas adjustment charge may be increased or decreased, whenever the cost of purchased gas varies above or below the base cost of \$0.425-375 per CCF. The purchased gas adjustment is a function of the total pipeline and supplemental gas costs, less gas costs for the Department use and non-firm sales, less refunds from suppliers, plus or minus the cumulative total in the purchased gas account, all divided by the firm gas sales. The resultant purchased gas adjustment minus the embedded cost of \$.425-375 per CCF, establishes the new purchased gas adjustment.

The monthly bill share be increased or decreased by multiplying the total volume billed each month by the purchased gas adjustment, calculated as follows:

$$PGA = \underbrace{Cg\text{-}Cd\text{-}Cr\text{+}Ca}_{FS} \quad \text{-}Cb \quad [\$/CCF]$$

Cg: Total pipeline and supplemental costs for all gases purchased.

Cd: Cost of gas for Department use and non-firm sales.

Cr: Refunds received from suppliers, both pipeline and supplemental.

Ca: Cumulative total in purchased gas account.

Cb: Base cost of gas (\$0.425-375 per CCF).

Filed October 1, 2008

Effective November 1, 2008

HYDROELECTRIC POWER ADJUSTMENT CLAUSE

AVAILABILITY

This clause is applicable to Department electric rate schedules which provide service to residential customers only.

HYDROPOWER ADJUSTMENT

The cost per KWH for all energy will be adjusted due to the power costs resulting from the purchase by the Department of hydroelectric power from the Niagara project. The adjustment in cost per KWH will be determined by computing any savings in power costs from the Niagara Project including production, fuel and transmission costs and dividing by the concurrent KWH sold for residential purposes. The credit applied will be adjusted from time to time such that the savings in power costs will accrue entirely to the Department's residential customers.

Filed November 1, 2016

Effective December 1, 2016

STANDARD PURCHASED POWER ADJUSTMENT CLAUSE

AVAILABILITY

This clause is applicable to all electric rate schedules.

PURCHASED POWER ADJUSTMENT

The cost per KWH for all energy will be adjusted upward or downward for changes in fuel and purchased power costs including transmission above or below the base amount of \$.065 per KWH. When the total cost of fuel, purchased power, and transmission varies above or below the above base cost a charge or credit per KWH will be applied to all energy sold such that the cost or credit will be recovered or returned over time.

Filed November 1, 2016 2016

Effective December 1,

METERBASE SURGE PROTECTION

AVAILABILITY

This service is available to most residential and commercial customers who have single phase electric service.

RATE-APPLIED MONTHLY

Meterbase Surge Protection \$4.25

DISCOUNT

No discount applies to meter base surge protection devices.

TERMS AND CONDITIONS

The above monthly rate for the meter base surge protection devices includes the cost of all material and labor.

This contract shall be for be in effect on the date the equipment is installed and will continue for a minimum term of forty-two (42) months from date of installation and is cancelable on thirty (30) days notice. If a device is used for less than forty-two (42) months, the customer will pay a \$50 removal fee. There shall be no removal charge if agreement is canceled after the initial forty-two (42) month period.

Service is governed by the "Surge Protection Agreement" of the Holyoke Gas & Electric Department.

POINT OF USE OPTIONAL SERVICE

A warranty registration card will be required to be filled out by the customer upon the purchase of a point-of-use device and the City of Holyoke Gas & Electric Department will not be responsible for warranties and guarantees of the point-of-use device. Massachusetts State Sales Tax will be added to the cost of the point-of-use devices at the time of billing.

Filed: October 2, 2013 Effective: January 1, 2014

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

ECONOMIC DEVELOPMENT DISCOUNT

AVAILABILITY

Service under this schedule is available for Holyoke customers who meet Department requirements per Terms and Conditions. Discounts as follows will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

DISCOUNT

	<u>Year I</u>	Year 2	Year 3
Gas & Electric	10%	10%	10%

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts", the "Economic Development Discount Program", and the "First Time Homebuyer Terms & Agreements". No discounts shall apply to Renewable Energy Charge, Assistance provided under Energy Conservation Program, any charges or fees not specifically included within the applicable gas and/or electric rate schedule(s), and any special services rate schedule (i.e. contract lighting, surge protection, ..).

STANDBY FACILITIES CLAUSE

AVAILABILITY

This clause will be applicable to all electric rate schedules where customer receives backup or supplemental service from the Department due to the customer's use of on-site generation ("Generation Charge") or receipt of redundant facilities ("Wires Charge"). Charges under this clause are in addition to other applicable rate schedules.

GENERATION CHARGE

A Generation Charge shall be applied to all partial requirements customers who self-generate all, or a portion of, the customer's electrical power service requirements on a regular basis. This Generation Charge is intended to provide the customer with a backup supply of power when the customer's generating facilities are not in operation or are operating at less than full rated capability. Customers who have generation capabilities for emergency purposes only (run less than 5% of time) shall not be accessed this generation charge, however are still required to file data with Department.

Facilities Charge: \$ 3.35 per nameplate kW/month

Existing Hydro resources shall receive a \$1.30 credit per nameplate kW/month or as otherwise amended based on applicable Water Use Agreements.

Service taken under this rate shall be electrically separated from the customer's generating facilities or provided with sufficient protective devices to prohibit such facilities from causing disturbances on the Department's system consistent with the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts." The Department reserves the right to conduct audits for verification, to place appropriate metering within customer facilities, and to refuse service to facilities where the Department reasonably determines that the protection provided is inadequate.

Qualified Distributed Generation (DG) Facilities will not be subject to a Standby Facilities Generation Charge as set forth in "Distributed Generation Purchased Power Clause".

WIRES CHARGE

A Wires Charge shall be applied to customers who receive redundant facilities from the Department. This Wires Charge is intended to provide the customer with increased reliability of service and/or restoration time by having additional facilities supplied to customer. Redundant Cabling charges include primary and/or secondary facilities provided in duplicate to customer, while Complete Backup Facilities includes a redundant backup source provided by a second transformer at customer's location. Line construction, if any, is subject to the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

Mass. DPU No. 192E Cancels MDTE No. 172E

Facilities Charge: Redundant Cabling \$ 13.23/month

Complete Backup Facilities

From Same Substation \$ 0.165/kVA/month
 From Different Substations \$ 0.270//kVA/month
 (kVA equals ½ of the total nameplate capacity of transformers serving customer)

DISCOUNT

No prompt payment discount applies. Interest will accrue at 1.5 percent per month on the unpaid balance.

TERMS AND CONDITIONS

Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed April 16, 2014

Effective June 4, 2014

OFF-STREET/CONTRACT LIGHTING

AVAILABILITY

This service is available for general area lighting and security purposes only.

RATE-APPLIED MONTHLY

Light Type	Monthly kWh	
60 W Area LED	21.58	\$ 8.00
49 W Roadway LED	17.56	\$ 7.00
92 W Roadway LED	33.25	\$10.00
183 W Roadway LED	65.80	\$17.00
85 W Flood LED	30.56	\$15.00
129 W Flood LED	46.39	\$20.00

LED = Light Emitting Diode

Renewable Energy Charge at \$0.00050 per kWh (Not subject to any discounts.)

Pole Charge

Wood Pole \$ 3.75 Non-Wood Pole \$12.00

The above pole charge will be applied to the foregoing lamp charges where the Department is requested to furnish a suitable pole, for the sole purpose of supporting a light fixture. If at a future date the pole is used for any purpose approved by the Department in addition to supporting a light fixture hereunder, the pole charge will be terminated.

DISCOUNT

No discount applies to off-street & contract lighting.

TERMS AND CONDITIONS

The above rate include the cost of overhead wires, light fixture, lamp, a control of the time of use, normal labor, and electricity. All repairs shall be made during normal working hours within 3 business days after notification from customer. Easements or right-of-entry releases, if required, will be provided at no cost to the Department.

The above rates do not include an underground supply, anchor guy, control switch, or a special light fixture requested by the customer. The cost of material and labor for anything other than a normal construction will be paid for by the customer.

This contract shall be for one (1) year and then cancelable on thirty (30) days notice subject to, if a pole was required, a termination charge equal to \$450 for a wood pole or original installed cost of a non-wood pole less the total accumulated monthly pole rental charges received to date shall apply. If a light fixture is to be used for a period of less than one (1) year, then a \$60.00 fee will apply.

Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts", in effect from time to time, where not inconsistent with any specific provisions hereof.

STREET & TRAFFIC LIGHTING

AVAILABILITY

Service under this rate schedule is available monthly for all municipal street lighting and traffic signal purposes in the City of Holyoke.

RATE-APPLIED MONTHLY

The monthly energy consumption billed for street lighting consists of three components: Multiple Street Lights, Unmetered Traffic Signals, and Decorative Street Lighting. The kWh contribution of each of the these components represents the monthly total kWh consumption billed at the applicable \$/kWh rate which is determined for each annual period from July through June of the following year per Massachusetts General Laws Chapter 164, Section 58.

Renewable Energy Charge at \$0.00050 per kWh (Not subject to any discounts.)

Other monthly charges that are billed to the City of Holyoke include, but are not limited to, the following: Daylight Savings Time (DST) Charge, Maintenance Charge, Deluxe HPS Charge, and Turn On/Off Charge.

The kWh contribution calculations, procedures, and details on monthly charges are in accordance with Department Policy #DB-1 entitled "Street & Traffic Light Billing", in effect from time to time.

DISCOUNT

No discount applies to street & traffic lighting.

TERMS AND CONDITIONS

Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts", in effect from time to time, where not inconsistent with any specific provisions hereof.

LARGE GENERAL SERVICE CONTRACT SCHEDULE

AVAILABILITY

Service under this schedule is available to all commercial and industrial customers who have executed a long term contract, have a minimum monthly demand of 2,160 kW and a minimum monthly consumption of 1,360,000 kWh. The average monthly load factor shall also be no less than 85%. Failure to maintain these minimum requirements is covered by Section 1.4 of this Agreement.

BASE RATE - APPLIED MONTHLY

Customer Charge	\$500.00
	Consumption
	<u>\$/kWh</u>
Energy Only	0.04064
Energy Other	0.01455
Distribution	0.01394
Transmission	0.01332
Renewable Energy	y 0.00050

POWER FACTOR CHARGE

An additional charge of \$.001 per kWh will be added to bills in any month where a lagging or leading power factor, as applicable for such month, of 95% is not maintained. This charge shall increase by an additional \$.001 per kWh for each 10% level below that of 95% (i.e., a 70% monthly power factor in either direction would have a \$.003 per kWh additional charge). In any month where power factor is both leading and lagging at least 25% of the time, then the Department shall (instead of taking the total kWh netted average) take the lower of the two separate power factor calculations (during lagging and leading times).

DISCOUNT

No discounts apply to this schedule.

BASE RATE ADJUSTMENTS

The base rates shown above will be adjusted, if any, per long term contract.

TERMS AND CONDITIONS

Bills are due and payable as described in long term contract. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts".

A Renewable Energy charge established by the State Legislature shall be accessed which allows customer's participation in the Massachusetts Renewable Energy Trust. Current rate level which has remained unchanged since January 1, 2003 is shown.

DISTRIBUTED GENERATION PURCHASED POWER CLAUSE

AVAILABILITY

This clause is applicable to all electric rate schedules. Qualifying distributed generation (DG) systems hereinafter called "Facility" or "Facilities" include, but are not limited to: Photovoltaics, Wind, Hydroelectric, Biomass, Fuel Cells, Combined Heat and Power (CHP), and Municipal Solid Waste with generation facilities rated 500 kW or less. Any DG system rated greater than 500 kW needs to be contracted through Department under a separate written agreement. If customer proposes a different DG system than specifically stated above, then customer must provide written request to Department which will conduct a 30 day review to determine if such DG system is qualified or not under this clause.

RATE - APPLIED MONTHLY

A \$2.00 monthly customer charge for the qualifying Facility meter shall be provided.

All monthly kWh produced by the Facility will be credited to the customer on their monthly invoice. The amount of credit due to customer includes a Wholesale Energy Rate applicable to the Facility type installed at customer site. The applicable Wholesale Energy Rate, specific to Facility types installed and/or requested within Department's service territory, will be posted and updated at Department discretion from time to time on its website as warranted. All other rates and charges in effect are not included in the credit amount.

Total credit due customer = (Monthly kWh produced by qualifying Facility) x (Wholesale Energy Rate in effect for applicable Facility type) - \$2.00 monthly customer charge

There is no minimum amount on a monthly bill. Credit is based solely on kWh produced by the Facility. Payment to the customer will first be applied to any outstanding bills. If credit is greater than customer's bill, then the additional credit balance will be applied to the next monthly invoice.

As a further incentive to the Department's increase in carbon-free resources, qualifying Facilities will not be subject to a Standby Facilities Generation Charge. Additionally, photovoltaic (solar) projects will be eligible for applicable On-Peak Wholesale Energy Rate that is a higher credit than the monthly average applicable rate.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Service is governed by the "Rules and Regulations" and the "Distribution Generation Policy" of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts, as in effect from time to time. The Department may impose additional Terms and Conditions, as it deems necessary, in its sole discretion, for the protection of its distribution system, service territory, or its customers. Failure of the Facility to comply with any of the referenced terms and conditions may result in disconnection of the Facility from the Department's system.

Filed October 10, 2012

Effective November 10, 2012

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

POWER WHEELING SERVICE

AVAILABILITY

This clause is applicable to any customer with generating facilities (Facility) for the purpose of wheeling (carrying) power to the 115 kV transmission system (Delivery Point), which is through and beyond the Department's applicable distribution and substation facilities. This is for customers who desire to sell any or all generation either into the wholesale market or to others via the interconnected power grid. The Department prohibits the selling of any generation to any other customer within the Department's service territory, with exception of separate agreements that can be executed between customer and Department. Capacity requested for, and any subsequent six (6) month advanced notice increase request, are contingent upon availability and at the discretion of the Department.

RATE - APPLIED MONTHLY

\$ 4.26 per kilowatt of contracted capacity

It is intended that the above rate will be updated annually based on applicable cost variations to Department's distribution, substation, metering, and loss components as applicable to wheeling such power from customer's site to the Delivery Point.

There is no discount to the above rate. All bills shall be payable upon receipt. All bills unpaid after thirty (30) days will be subject to an interest charge of 1.5% per month on unpaid balance.

TERMS AND CONDITIONS

Customer will contract for a fixed monthly capacity reservation for a minimum period of three (3) years. Contract will continue on an annual basis thereafter. Contracted capacity shall equal the billable kilowatts of wheeled capacity irrespective of whether or not any energy was actually transported by HG&E and whether or not such actual wheeled capacity was at or below the contracted amount. Inadvertent excess and uncontracted capacity requirements (actual wheeled capacity above contracted amount) placed on the Department's system shall be billed at ten (10) times the above rate for such excess. The excess will continue to be billed at ten (10) times the above rate, until such time as the excess condition is removed or until contracted with the Department.

Connection to the Department's system shall be at customer expense, including any costs associated with metering and communications that allow for the Department to have real-time access to generator's status and performance. The Department shall determine the exact location of point of interconnection and Delivery Point.

Service is governed by the "Rules and Regulations" and the "Distribution Generation Policy" of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts, as in effect from time to time. The Department may impose additional Terms and Conditions, as it deems necessary, in its sole discretion, for the protection of its distribution system, service territory, or its customers. Failure of the Facility to comply with any of the referenced terms and conditions may result in disconnection of the Facility from the Department's system.

Filed November 7, 2012

Effective December 10, 2012

LARGE INDUSTRIAL CONTRACT SCHEDULE

AVAILABILITY

Service under this schedule is available to industrial users who are primarily engaged in manufacturing who have executed a long term contract, having a minimum monthly demand of 115 kW and a minimum monthly consumption of 40,000 kWh.

RATE - APPLIED MONTHLY

<u>Charges</u> Customer	2017 \$326.00	2018 \$326.00	2019 \$326.00	2020 \$326.00	2021 \$326.00	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
	Consumption (\$/kWh)				Demand (\$/kW)					
Energy	0.06751	0.06816	0.06870	0.06927	0.06984	3.29	3.34	3.36	3.38	3.41
Distribution	0.01199	0.01239	0.01288	0.01339	0.01391	3.91	3.97	4.06	4.15	4.23
Transmission	0.01543	0.01583	0.01629	0.01671	0.01714					
Renewable Energy	0.00050	0.00050	0.00050	0.00050	0.00050					

DEMAND

The demand charge will be the highest thirty-minute average demand during the billing period.

DISCOUNT

A prompt payment discount of 10% applies for payments received within 15 days of billing, provided power factor is not less than 85%. No discount applies to the Renewable Energy charge.

RATE ADJUSTMENTS

The rates shown above will be in place from April 1, 2017 through December 31, 2021. Rate changes will occur January 1st of each year and remain in effect through December 31st of each year.

TERMS AND CONDITIONS

Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts".

Filed March 28, 2017

Effective April 7, 2017

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT

RESIDENTIAL ELECTRIC SCHEDULE

AVAILABILITY

Service under this schedule is available for all residential purposes in an individual private dwelling or an individual apartment.

RATE - APPLIED MONTHLY

Customer Charge \$4.55 per meter

All kWh at \$0.10697 per kWh

Renewable Energy Charge at \$0.00050 per kWh (Not subject to any discounts.)

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED POWER ADJUSTMENT

There shall be an adjustment in rate due to cost of power as provided in the Department's Standard Purchased Power Adjustment Clause in effect from time to time.

HYDROELECTRIC POWER ADJUSTMENT

There shall be an adjustment in the rate due to power purchased from the Niagara hydroelectric projects provided in the Department's Hydroelectric Power Adjustment Clause in effect from time to time. This reduction in rate may be further adjusted based on Department's owned hydroelectric facilities, at the discretion of the Department from time to time. For billing purposes, this Hydropower Reduction may be combined with and reflected in the Purchased Power Adjustment.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed December 1, 2017

Effective January 9, 2018

SMALL INDUSTRIAL SCHEDULE

AVAILABILITY

Service under this schedule is available to small industrial users who are primarily engaged in manufacturing subject to meeting the following two conditions:

- 1) monthly demand of less than 115 kW <u>or</u> monthly consumption of less than 40,000 kWh; and
- 2) monthly consumption of greater than 2,000 kWh.

RATE - APPLIED MONTHLY

Customer Charge \$20.00 per meter.

Energy Charge First 3000 kWh at \$.11498/kWh

Next 12,000 kWh at \$.10558/kWh All over 15,000 kWh at \$.08970/kWh

Renewable Energy Charge at \$0.00050 per kWh (Not subject to any discounts.)

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill and provided that no discount will be allowed to customers having a power factor less than 85%.

PURCHASED POWER ADJUSTMENT

There shall be an adjustment in rate due to cost of power as provided in the Department's Standard Purchased Power Adjustment Clause in effect from time to time.

BACK-UP POWER

Customers who have on-site generation to meet some of their own load requirements shall be subject to a facilities charge as provided in the Department's Standby Facilities Clause in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed December 1, 2017

Effective January 9, 2018

Mass. DPU 209E Replaces Mass. DTE 204E

GENERAL SERVICE ELECTRIC SCHEDULE

AVAILABILITY

Service under this schedule is available for commercial, industrial, municipal and multiple apartment dwelling customers for both light and power.

RATE - APPLIED MONTHLY

Customer Charge: \$4.55 per meter

First 200 Hrs. Times Demand

First 3,000 kWh at .11892 per kWh
Next 12,000 kWh at .11340 per kWh
Next 85,000 kWh at .10788 per kWh
All over 100,000 kWh at .10000 per kWh

Next 200 Hrs. Times Demand (100 KW Minimum) at .09309 per kWh All over 400 Hrs. Times Demand (100 KW Minimum) at .07685 per kWh

Renewable Energy Charge at \$0.00050 per kWh (Not subject to any discounts.)

AGRICULTURE/FARMING

Persons or corporations engaged in the business of agriculture or farming shall receive a discount of 10% from the rates shown above (prior to the prompt payment discount).

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill and provided that no discount will be allowed to customers having a power factor less than 85%.

PURCHASED POWER ADJUSTMENT

There shall be an adjustment in rate due to cost of power as provided in the Department's Standard Purchased Power Adjustment Clause in effect from time to time.

BACK-UP POWER

Customers who have on-site generation to meet some of their own load requirements shall be subject to a facilities charge as provided in the Department's Standby Facilities Clause in effect from time to time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed December 12, 2018

Effective January 10, 2019

COMMUNITY SHARED SOLAR RESIDENTIAL ELECTRIC SCHEDULE

AVAILABILITY

Service under this schedule is available for all residential purposes in an individual private dwelling or an individual apartment, who have chosen to participate (opt-in) in the Community Shared Solar Program (Program).

RATE - APPLIED MONTHLY

Customer Charge \$4.55 per meter

All kWh at \$0.11087 per kWh

Renewable Energy Charge at \$0.00050 per kWh (Not subject to any discounts.)

DISCOUNT

A discount of 10% will be allowed on current gross bills provided the bill, including any arrearage, is paid in full within fifteen (15) days of date of bill.

PURCHASED POWER ADJUSTMENT

There shall be an adjustment in rate due to cost of power as provided in the Department's Standard Purchased Power Adjustment Clause in effect from time to time.

HYDROELECTRIC POWER ADJUSTMENT

There shall be an adjustment in the rate due to power purchased from the Niagara hydroelectric project provided in the Department's Hydroelectric Power Adjustment Clause in effect from time to time. This adjustment in rate may be further adjusted based on Department's owned hydroelectric facilities, at the discretion of the Department from time to time. For billing purposes, this Hydropower Adjustment may be combined with and reflected in the Purchased Power Adjustment.

COMMUNITY SHARED SOLAR REDUCTION

The cost per KWH for all energy will be adjusted due to the purchase by the Department of power from the Community Shared Solar Generation Unit(s). The savings in cost per KWH will be determined by computing the savings in energy costs and dividing by the concurrent KWH sold to the residential customers participating in the Program. The credit applied will be adjusted upward or downward from time to time such that the savings in power costs will accrue entirely to the Department's residential customers who have opted in to the Program.

This Program is structured to meet the eligibility criteria established under the Department of Energy Resources (DOER) regulations defined in 224 CMR 14 and shall be in effect for a minimum of ten years from the commencement of operation of the Community Shared Solar Generation Unit(s). At such expiration or termination of this schedule, all customers then enrolled in this schedule will be moved to the applicable residential electric schedule in effect at that time.

TERMS AND CONDITIONS

This rate is subject to termination at any time upon notice to the Department. Bills are due and payable 30 days after date of billing. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts."

Filed December 12, 2018

Effective January 10, 2019

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

LARGE INDUSTRIAL II CONTRACT SCHEDULE

AVAILABILITY

Service under this schedule is available to industrial users who are primarily engaged in manufacturing who have executed a long term contract, have approximately a minimum monthly demand of 1500 KW and approximately an average annual consumption of 12,000,000 kWh per year.

RATE – APPLIED MONTHLY (2019 Rates)

Customer Charge	\$500.00	,
· ·	Billed Rate	Billed Rate
	Consumption	Demand
	<u>\$/kWh</u>	\$/kW
Energy Charge:	0.04312	10.11
Transmission Charge:	0.00347	5.66
Distribution Eired.	0.00406	0.00

Distribution Fixed: 0.00406 0.00
Distribution Variable: 0.00259 4.25

Renewable Energy Charge: 0.00050

DEMAND

The demand charge will be the highest thirty-minute average demand during the Department's on-peak hours for the billing period.

POWER FACTOR CHARGE

An additional charge of \$.001 per kWh will be added to bills in any month where a power factor of 85% is not maintained.

RATE ADJUSTMENTS

The rates shown above will be in place from July 1, 2018 through December 31, 2018. Rate changes, if any, per long term contract will occur January 1st of each year and remain in effect through end of each calendar year.

TERMS AND CONDITIONS

Bills are due and payable as described in long term contract. Service is governed by the "Rules and Regulations of the Holyoke Gas & Electric Department, City of Holyoke, Massachusetts".

A Renewable Energy charge established by the State Legislature shall be accessed which allows customer's participation in the Massachusetts Renewable Energy Trust. Current rate level which has remained unchanged since January 1, 2003 is shown

Filed: July 18, 2018 Effective: August 6, 2018



Filed April 16, 2014 Effective June 4, 2014





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Overview

These Rules and Regulations are applicable to and made a part of all service classifications. This applies to all customers, or potential customers, requiring electric and/or gas service within the franchise area of The City of Holyoke Gas and Electric Department, hereinafter referred to as HG&E. Any terms and conditions that are inconsistent with any specific provisions of any service classification shall not apply.

Section One: Customer Service

Start, Stop, or Move Service

1. Start Service:

- a. Activate an existing electric or natural gas service: If your new location previously received electric or natural gas service from HG&E and already has a meter, visit our Main Office during normal business hours. New customers will need to supply two valid forms of identification, including a government issued form of photo identification (see Application for Service). You also will be required to sign an application form. A deposit may be required based on available credit information.
- b. Install a new service: See Gas Section (Page 12) or Electric Section (Page 17).

2. Stop Service:

- a. Terminating service is as easy as giving HG&E Customer Service a call at (413) 536-9300 or visiting the Main Office. We do require 24 hour notice to terminate service. Please note that only the customer of record can terminate service. We will verify your personal information prior to terminating any account. Customers are responsible for all power furnished until we have been notified to terminate service and we have been provided access to the meters.
- HG&E reserves the right to refuse or discontinue service under the following conditions, and in accordance with and subject to applicable statutes, and duly adopted regulations of the Department of Public Utilities of the Commonwealth of Massachusetts, as in effect from time to time:
 - i. if any bills for service or for charges in contracts for the extension of service are in arrears where equitable payment arrangements cannot be made for such arrearages
 - ii. if the customer fails to comply with the ordinances or regulations of duly constituted authorities or of the National Board of Fire Underwriters, or fails to supply at their expense proper certificates of compliance with such ordinances or regulations at HG&E's request
 - iii. if prior indebtedness of a customer for the same class of service at the same or another location is not paid in full before service is established, or equitable payment arrangements are not established
 - iv. if a former customer who is indebted to the company attempts by fraud to obtain service, until such time as payment or equitable payment arrangement is made for all money said customer owes HG&E



- v. if a successor to a customer subject to a contract for the extension of service refuses to pay the amount required thereunder
- vi. if HG&E determines that an unsafe operating condition exists or develops
- c. HG&E, upon reasonable notice, may discontinue service for the following reasons:
 - i. for any purpose of making permanent or temporary repairs, changes, or improvements in any part of its system
 - ii. for compliance in good faith with any government order or directive
 - iii. any of the following acts or omissions on the part of the customer:
 - 1. Non-payment of a valid bill for service furnished at a present or previous location
 - 2. Tampering with any facility of HG&E
 - 3. Customer moves from the premise, unless customer requests that service be continued
 - 4. Service is provided to others (sub-metering)
 - 5. Failure to provide payment as provided for in these terms and conditions
 - 6. Connecting and operating equipment in a manner so as to produce disturbing effects on the service of HG&E or other customers
 - 7. The customer's installation poses a hazard to life or property
 - 8. Customer refuses reasonable access to HG&E's employees
- 3. Move Service: If you will be moving from one location to a new location within HG&E's service territory, please visit the Main Office. Customers will need to supply two valid forms of identification, including a government issued form of photo identification (see Application for Service).

Application for Service

Application for service must be made either in person at the Main Office of HG&E, 99 Suffolk Street, Holyoke, MA, or electronically to the electronic address designated on the application. Service will be initiated, in most cases, within 48 hours after receipt of all information required.

Applicants for service must present the following:

- 1. Complete application for service.
- 2. Payment for any previous account balances. Please note you may be responsible for unpaid liens.
- 3. Two (2) forms of valid identification, one being a photo.
 - a. State Identification Card
 - b. Social Security Card
 - c. Driver's License
 - d. Passport
 - e. Birth Certificate
- 4. A deposit may be required after a review of all available credit information.
- 5. Evidence of authority:



- a. Residential Rental Property: applicants must provide a lease or rental agreement.
- b. Homeowners: purchase and sale agreement.
- c. Commercial Property: depending on how the account is set up, applicants must provide any one of the following,
 - i. For accounts where the application is signed by the individual whose name appears on the deed, the applicant must provide a copy of the deed.
 - ii. For accounts where the application is a Doing Business As (DBA), the applicant must provide a Business Certificate or Certificate of Occupancy.
 - iii. For accounts where the application is a Limited Liability Corporation (LLC) or Incorporated (Inc), the applicant must provide a Certificate of Organization.

In the absence of a customer of record at any address, if a person begins to use service without first notifying HG&E, in person, and allowing it to read the meter, such person will be considered a customer and held financially responsible for the amount due for service from the date on which the previous customer terminated service or the date on which such person first began to take service, whichever is later. HG&E will calculate this amount based on reasonable verification of the date on which such person became a customer. Once HG&E finds use by a non-customer, HG&E will terminate service until the new customer completes an application and pays for such calculated use. HG&E reserves the right to refuse service, at any location, to an applicant who is indebted to HG&E for any service furnished to such applicant. However, HG&E shall commence service if the applicant has agreed to a reasonable payment plan.

The customer, having entire control of equipment beyond the meter, is responsible for any leakage, waste, or theft of gas or electric which may occur after it has left the meter. In situations where metered supply is not exclusive to a tenant, the tenant's landlord will be the customer of record under this section.

When a customer applies for service, HG&E will give the customer a description of the rates available and will provide the customer details on the most applicable rate available based on the customer's description of the service characteristics. If HG&E is subsequently notified by a customer of a change of the customer's service characteristics, the most applicable rate will be given to that customer. However, responsibility for selecting the most applicable rate remains the sole responsibility of the customer, subject to the provisions of the Schedule of Rates. HG&E will not be liable for any claim that service provided to any customer might have been less expensive or more advantageous to such customer if supplied under a different rate. Unless specifically stated to the contrary, all rates are based on the supply of service to the customer throughout the twelve (12) months of the year and are not subject to change more than once in a twelve (12) month period.

Authorized Personnel

Service to any customer shall not be turned on or off by anyone other than an authorized agent of HG&E. This applies to all classes of service, including residential, commercial, and industrial.

HG&E employees or agents authorized to enter upon a customer's premise are provided with identification cards, which will be shown upon request. Customers are advised not to admit to their premises anyone claiming to represent HG&E, unless they can produce a proper identification card.



Deposits & Fees

Any required deposit shall be determined in accordance with regulations set forth by the Massachusetts Department of Public Utilities (DPU) and Massachusetts General Laws, Charter 164, Section 58A and may be equivalent to the total of the three (3) highest estimated billings for a twelve (12) month period.

Deposits shall be held on an account until the account is terminated and will then be refunded to the customer of record. Deposits retained for more than six (6) months will accrue interest per Massachusetts General Laws, Chapter 164, Section 58A.

A fee of \$30.00 per meter will be charged all customer classes for the initiation of service. This charge can be paid while filling out an application at HG&E's Main Office or may be placed on the first bill, depending on the wishes of the customer.

A fee of \$25.00 will be charged to any customer after a first returned check for insufficient funds. There is no charge for the first offense. This charge also applies to Auto Pay customers. Auto Pay customers will be removed from Auto Pay after a second offense.

- Residential: A deposit on residential accounts is required and based on available credit information.
 Residential customers whose service has been disconnected a second time for non-payment of their bill
 will be required to pay a deposit. Non-heating customers are required to pay \$75 and heating customers
 are required to pay \$150. This is not a one-time occurrence but every time a second shut off occurs. All
 deposits must be paid by cash or money order.
- 2. Commercial: Deposits on commercial accounts will be required unless the customer opts to enroll in an automatic payment arrangement (Auto Pay); however, any default on an Auto Pay shall require a deposit to continue service.

Meter Reading

- 1. Estimated Billing: A reading obtained from either a HG&E remote meter reading system or from a physical visit from an HG&E representative is considered an actual read. HG&E shall obtain a physical meter reading from an HG&E representative at least once every three (3) years. If HG&E is unable to read the meter when scheduled for any reason, or if the meter for any reason fails to register the correct amount of gas and/or electricity supplied or the correct demand of any customer for a period of time, HG&E shall make a reasonable estimate of the consumption of gas and/or electricity during those months when the meter is not read, based on available data, and such estimated bills shall be payable as rendered.
- Access to Meters: A properly identified and authorized representative of HG&E shall have the right to gain access at all reasonable times and intervals for the purpose of reading, installing, examining, testing, repairing, replacing, or removing HG&E meters, meter reading devices, wires, or other electrical equipment and appliances, or of discontinuing service, in accordance with Mass General Law Chapter 164, Section 116, Mass DPU regulations, and HG&E policy, and the customer shall not prevent or hinder HG&E's access.



3. Accuracy of Meter: HG&E shall maintain the accuracy of all metering equipment pursuant hereto by regular testing and calibration in accordance with recognized standards. Any meter which does not vary more than 2% above or below the recognized comparative standard shall be considered accurate. After a thorough investigation by HG&E, a customer may request HG&E to test the accuracy of any of its metering equipment installed upon the customer's premises. HG&E may, at its option, and with proper notification to the customer, assess a \$25 fee per meter test if the meter is found to be accurate. If the meter does not register accurately, no fee will be assessed to the customer and any appropriate adjustment/rebilling shall be made.

This fee applies to all electric meters and only to gas meters up to a capacity of 1000 cubic feet per hour. Meters larger than 1000 cubic feet per hour will be assessed a fee equal to the crew time required to exchange the meter and relight all affected equipment.

4. Pulse Output: A customer may request pulse outputs from a gas or electric meter by submitting a completed Application for Meter Pulse Output. HG&E is not responsible for any false or misinterpreted pulse readings by the customer. Also, since not all locations are capable of providing pulses, the cost to provide pulses, including any necessary instrumentation, labor and materials will be at the expense of the customer. HG&E reserves the right to terminate the pulse outputs at any time at their sole discretion.

For more information see Gas Metering (Page 15) or Electric Metering (Page 20).

5. Remote Metering Opt-Out Program: This service is available for any customer who requests an alternative meter that does not have wireless communication.

A one-time installation fee will be applied to the customer due to the services required to replace the existing metering. This will include: i) the removal of the existing meter, ii) procurement, testing, and installation of the alternative meter, iii) spare inventory, and iv) all back-office functions required. Any meter(s), electric or gas, that are located inside a dwelling (or otherwise inaccessible as determined by HG&E) shall be moved to a suitable outside location agreeable to HG&E at full cost to the customer.

The first meter to be replaced is \$29/month and \$4.50/month for each additional meter. There will be an additional charge to a customer bill to support the administrative, labor, and maintenance costs of manual meter reading. If a customer participates in HG&E's Auto Pay, then the frequency of the meter reads can be reduced from twelve to four per year and the aforementioned rates would occur just four times per year but spread out over a full annual period.

Billing

Unless otherwise specified in the service classifications, rates and charges are based on monthly cycle billing. HG&E will schedule meters to be read and billed on a monthly basis.



All bills are due when rendered and payable within 45 days at the Main Office, at any authorized collector, or online at www.hged.com. If payment is received by HG&E, together with any arrearage, within fifteen (15) days of rendering, a ten percent (10%) prompt payment discount shall apply as well as any special discounts given for any reason.

Bills shall be deemed rendered and any other notices duly given when delivered to the customer personally or when mailed to the customer at the premises supplied, or at the last known address of the customer or when left at either of such places.

If and whenever the customer is in arrears of any bill due HG&E, or in case of violation of any terms and conditions under which service and/or material is supplied to the customer, HG&E may shut off the supply of electric and/or gas and may enter the customer's premises and remove the meters, piping, cabling, and other materials which have been installed at HG&E's expense.

In the event that service has been shut off due to nonpayment, the following charges will apply:

1. If the service is terminated, one of the following charges plus the overdue balance must be paid, in cash or money order only, prior to service restoration:

\$25.00	If the service is restored, Monday through Friday, 8:30 AM to 3:45 PM.
\$50.00	If the service is restored by the Service Department after 3:45 PM during the
	week or anytime on Saturday or Sunday.

Additional charge(s) may apply:

\$25.00	If the service is not shut off, but we made a trip to customer.
\$10.00	Trip charge if we have to make more than one trip.

2. If an outside gas or electric crew terminates service, a fee of \$150.00 will be required prior to restoration for the shut off.

If a check is returned on a pending shut off notice, only cash or a money order will be accepted to restore service.

Residential customers having three (3) personal checks returned for insufficient funds in one (1) year must make payment with cash, bank check, or money order for one (1) full year. Customers on Auto Pay will be removed from Auto Pay after three (3) returned payments.

Commercial customers having two (2) business checks returned for insufficient funds in one (1) year must make payment with cash, bank check, or money order for one (1) full year. Customers on Auto Pay will be removed from Auto Pay after two (2) returned payments and must pay a deposit to continue service.

Limitations of Liability

There are no warranties regarding service including those involving merchantability and fitness for a particular purpose, or arising out of a course of dealing or usage of trade. The sale is made "as is".



Nothing in these Rules and Regulations shall be construed as placing upon HG&E any responsibility for the condition, maintenance, or safety of a customer's appliances, pipes, electric main and service cabling, or other equipment; and HG&E shall not be responsible for any loss or damage resulting from defects, failures, or malfunctions in or originating in any pipes, appliances, electric main and service cabling, or other equipment which is not owned by HG&E. HG&E shall not be responsible for damage to persons or property arising from the use of gas and/or electricity and the presence of gas or electricity or HG&E's equipment on the premises of the customer.

Notwithstanding any other provisions of this or any other rule and regulation:

- 1. It is the responsibility of the customer to protect themselves, any third parties, and any property from the use, misuse, and/or availability of electric and/or gas on their premises and from the consequences of the use, misuse, and/or availability of electric and/or gas on their premises.
- 2. It is the responsibility of customers to provide, install, use, inspect, and maintain suitable safety and protective devices to guard themselves, life, and property from any defect, failure, or malfunction in or originating in any pipes, appliances, electric main and service cabling, or other equipment which is not owned by HG&E; and to protect themselves, life, and property from the consequences of any defect, failure, or malfunction in or originating in any pipes, appliances, electric main and service cabling, or other equipment which is not owned by HG&E.

By accepting service from HG&E and paying the current rates, the customer agrees that HG&E shall not be liable in any direct or indirect manner for any interruption, reduction, abnormal pressure or voltage, discontinuance or reversal of HG&E's service, due to causes beyond its immediate control, whether caused by fire, explosion, flood, weather conditions, accident, labor difficulties, conditions of fuel supply, the acts of any public authority, reduction in pressure or voltage, selected interruptions or black-outs, or failure to receive any gas and/or electricity for which in any manner it has contracted, or due to the operation in accordance with good utility practice of an emergency interruption and/or load reduction program by HG&E or one with whom HG&E has contracted for the supply of gas and/or electricity or inability for any other reason to maintain uninterrupted and continuous service; provided, however, that if HG&E is unable to supply gas and/or electricity for a continuous period of forty-eight (48) hours or more to firm service customers, that upon written request of the customer, charges, if any, shall be suspended for the remaining duration of such interruption.

The customer also agrees that HG&E shall not be liable for damages or injuries to the customer or any third person resulting from the use of services or the presence of HG&E's meters or appurtenances upon the customer's premises. The customer further agrees that HG&E shall not be liable for any damage to customer's equipment due to any cause.

These Rules and Regulations are severable. Any holding by a Court of competent jurisdiction that a word, phrase, or portion of these Rules and Regulations are unenforceable shall not affect the enforcement of the remainder of these Rules and Regulations. These Rules and Regulations shall be enforceable to the fullest extent of the law.



Incentive & Discount Programs

Energy Conservation Program

- 1. Residential: This program is available to residential class customers who own their own home and wish to install or upgrade gas fired boilers, furnaces, conversion burners, hot water heaters, and/or central air conditioning as well as solar thermal or solar generation. Other energy conservation or efficiency measures may also be considered under this program provided an energy audit is performed prior to submitting an application or such energy audit is waived by HG&E upon review at the request of customer. The program provides assistance granted at 0% interest up to \$5,000 for an owner occupied single family unit and \$10,000 for an owner occupied multi-family unit up to \$5,000/unit. The length of the program is sixty (60) months. For assistance less than \$2,000, the maximum period for payback will be thirty-six (36) months. Solar generation projects are eligible for assistance at 0% up to \$10,000 with a length of the program at one hundred twenty (120) months. Applicants are required to pay a \$100 administrative fee to participate in the program. Assistance is provided for products installed no more than ninety (90) days before the receipt of application and work completed within twelve (12) months of application. Program benefits do not apply to new home or building construction. If a customer participates in the Energy Conservation Program, they are still eligible for other HG&E incentive programs such as First Time Home Buyer incentive and Energy Star rebates. Siding, roof replacements, and on-site electric generation (other than solar) are not covered under this program.
- 2. Commercial/Industrial: This program is available to commercial and industrial class utility customers and to owners of non-owner occupied residential investment properties who wish to install or upgrade gas fired boilers, furnaces, conversion burners, hot water heaters, and/or central air conditioning as well as solar thermal or solar generation. Other energy conservation or efficiency measures may also be considered under this program provided an energy audit is performed prior to submitting an application. The program provides assistance granted at 0% interest up to \$20,000 for a non-owner occupied multi-family investment property up to \$2,500/unit. Requests for installation of energy efficient lighting or manufacturing equipment are handled on a case-by-case basis. The length of the program is on average sixty (60) months, however will be customized in length to be reflective of payback periods anticipated for such program work. Solar generation projects are eligible for assistance at 0% up to \$10,000 with a length of the program at one hundred twenty (120) months. Applicants are required to pay a \$100 administrative fee to participate in the program. Assistance is provided for products installed no more than ninety (90) days before the receipt of application and work completed within twelve (12) months of application. If a customer participates in the Energy Conversation Program, they are still eligible for other HG&E incentive programs, including the Economic Development Discount. Siding, roof replacements, and on-site electric generation (other than solar) are not covered under this program.

In order to apply for this program, the customer must complete the program application and submit it to HG&E Customer Service with the following information:

1. Copy of recorded Deed clearly showing the book #, page # & date recorded



- 2. Written proposal signed by the contractor performing the work indicating the equipment being installed meets the energy efficiency terms of the program
- 3. A copy of an energy audit performed by HG&E's energy audit vendor, if applicable

If the customer is approved, this information is used to produce a contract between HG&E and the customer which details the terms and conditions and provides HG&E with a municipal lien to secure payment. Once the work has been completed, the customer must submit all receipts, invoices, window labels or proof of Energy Star rating with U-factor, and proof of installation form as applicable before a check is processed. The payment will appear as a separate line item on the customer's bill.

Economic Development Discount Program

- 1. First Time Homebuyer (Residential): This program is available to residential customers who are new to Holyoke (Southampton residents are not included in the program). Discounts on gas and/or electric services, in addition to the 10% prompt payment discount, are offered at 10% for each of the first three (3) years. This program is governed by the "First Time Homebuyer Terms & Agreements", which is amended from time to time.
- 2. Economic Development Discount (Commercial): This program is available to all commercial/industrial customer classes who are new to Holyoke (Southampton businesses are not included in the program). Discounts on gas and/or electric services, in addition to the 10% prompt payment discount, are offered at 10% for each of the first three (3) years. The term of this contract is ten (10) years during which time the customer agrees to purchase all energy requirements, as applicable, from HG&E. Also, non-residential customer classes are eligible to reapply for another three (3) year term of discounts on expanded portions of their energy load. These programs are governed by the "Economic Development Discount Program" which is amended from time to time.



Section Two: Gas

Classifications of Service

Where a question arises as to which classification applies, HG&E will decide on the basis of its regulations. There are three (3) types of gas service classified by HG&E:

- 1. Firm Gas Service: Under this service, HG&E undertakes to supply, when available, the full requirement of the customer to the limit of the capacity of the installed service.
- 2. Interruptible Service: The amount of gas available at any time for customers under this classification is the portion of the total amount of natural gas, if any, available under HG&E's existing contract demand quantity, in excess of the amount of natural gas required to meet the demand of HG&E's firm gas customers. HG&E may curtail gas being supplied hereunder whenever the available supply of gas is insufficient to supply all of HG&E's requirements. HG&E will endeavor to give customers advance notice whenever a curtailment is required and the customer shall curtail the use of gas at the time and to the extent requested by HG&E. HG&E shall not be liable for any loss of production or for any damages whatsoever by reason of any such curtailment or because of the lack of advance notice.

Service under this schedule is not available for firm, standby, or supplementary purposes or space heating service or to any type of business or for any use where, in the opinion of HG&E, it is not feasible or safe to interrupt the deliveries of gas because of the customer's apparatus or equipment.

Such interruption will normally occur during the five (5) month winter period from November 1st thru March 31st of each year. However, the right of HG&E to interrupt service under this schedule shall not be limited to said period.

In the event that a customer fails to discontinue use of gas under this schedule after notification by HG&E or uses gas during the five (5) month winter period between November 1st and March 31st without specific authorization by HG&E, then all gas consumed shall be paid for by the customer at the rate prescribed in the formal Rate Schedule.

- 3. Firm Transportation Service:
 - a. This service is applicable to all gas purchased by a customer from a third party producer or marketer. The gas must be delivered to HG&E's distribution system via an interstate pipeline. Once HG&E has received the gas, HG&E will transport the gas to the customer's premises on a firm basis. This service is only available to those customers that execute a 12-month contract for the service provided herein.
 - b. Optional standby sales service is also offered under this rate. Customers opting not to purchase standby service shall have no right or claim to gas provided by HG&E.
 - c. Daily and monthly balancing service is a part of this tariff and is mandatory to all customers on this tariff.



- d. As a provision for the balancing services, HG&E requires all transportation customers to have real time metering. The customer shall be responsible for and make direct arrangements for transmitting information to the Mueller Road Control Center via telephone lines or direct communication mediums such as copper or fiber. The customer shall be responsible for the cost of the equipment necessary to transmit the real time metering information along with the cost of the communication service. The telemetering equipment shall conform to the specifications of HG&E.
- e. This service provides for the firm transportation of third party gas delivered to HG&E on behalf of a customer. Under this service, HG&E will deliver such gas as received by the third party to the customer's burner tip. This transportation service is firm only to the extent that the third party gas is delivered to HG&E. This service is applicable only to customers which transport more than 40,000 ccf/year.

Installations

Before laying gas lines on any premises, the customer, or a tenant, may be required to obtain and file with HG&E, permission from the owner including an easement, if necessary, to lay the gas line and perform the installation.

Due to the unusual expense of excavating for gas line installation in frozen ground, rock, or other reason causing more than ordinary difficulty, HG&E will make a special agreement with the owners as to the price of the gas line installation.

HG&E shall apply for any necessary street permits and shall not be required to supply service until a reasonable time after such permits are granted. For all other necessary permits, the customer shall obtain rights at their expense.

- 1. Extension of Mains: HG&E may extend an existing gas main to serve a new customer if HG&E finds that the expense of such extension is warranted. Whenever the estimated income from a customer does not warrant the necessary expense of making service available to an applicant, HG&E will require a minimum monthly payment over a stipulated period of time, cash payment, or both, in order for HG&E to be assured of repayment for the investment necessary to supply such service.
- 2. Temporary Service: HG&E does not provide for temporary gas service. (In this connection, interruptible service is not to be construed as temporary service.)
- 3. New Gas Line: HG&E will install the first one hundred (100) feet of gas lines up to an outside riser or the first fitting inside the building, at no charge to the customer, if the indicated revenue for space heating or water heating is sufficient, in HG&E's opinion, for repayment of the investment necessary to supply such service. Otherwise, the customer shall pay to HG&E the expenses of installing the service from the property line to the building at the rate listed in Section 4 on the Application for New Gas Service.



HG&E reserves the right to determine the point of gas line entrances and the location of its equipment on the customer's premises. The customer is required to provide, maintain, and protect without cost to HG&E, suitable space for HG&E's equipment, which is required to be readily accessible to HG&E employees, safe from injury or damage, protected from the elements, and from access by any unauthorized person.

4. Building Piping (New): The customer shall provide, at their own expense, all gas piping inside the building. All piping upstream of the gas meter will be done in accordance with 49 CFR 190 - 199 & CMR 220 by a qualified installer approved by HG&E and working under the HG&E's direction. HG&E, at its option, may install the piping upstream of the meter and bill the property owner for such work according to paragraphs 1 and 3 of this Section. All piping downstream of the meter shall be done in accordance with the "Massachusetts Fuel Gas and Plumbing Code" (248CMR 1.00 - 7.00) by a "Qualified Installer" as defined in 248CMR 2.04 (2)(a) and 248CMR 4.00 of the Massachusetts code.

HG&E shall either install the buried service line and leave provisions for a meter, meter bar, regulator bracket, or bank header, or, at its discretion, require customer piping be installed and inspected by the local authority prior to service installation. In such case, the building piping shall be extended by the customer to a point designated by HG&E and the customer shall be responsible for the final connection(s) from the meter outlet(s) to the customer pipe(s). HG&E or its authorized agent shall install all buried service lines.

HG&E may refuse gas service to any customer when, in the opinion of HG&E, the building piping does not meet the minimum standards prescribed by 49 CFR 190 - 199, CMR 220 and the "Massachusetts Code For Installation of Gas Appliances and Gas Piping." These regulations shall apply to any customer regardless of whether said customer is the owner of the building or a tenant. HG&E may also discontinue gas service at any premises if the owner of said premises allows the internal piping and/or the appliances served to fall into a state of disrepair so that the continuance of gas service is no longer considered by HG&E to be safe.

5. Repair or Replacement of Gas Service Lines and Interior Piping: Any existing buried gas line or portion thereof found by HG&E to be no longer serviceable shall be replaced up to, at furthest, the connection to an outside meter or to the first interior fitting in the case of inside meters, at the expense of the HG&E. The replacement or repair of lines downstream from an outside meter-less riser, buried interwall or floor bend, or first interior fitting shall be performed at the expense of the property owner. Where practical, HG&E will repair inside leaks downstream of the meter at the expense of the property owner. Upon repair, HG&E shall determine if further work is required and provide cost estimates to the property owner for completing such work provided the work does not require a Gas Fitters license. If, in the opinion of HG&E, the interior piping upstream of a meter or bank of meters is no longer serviceable, HG&E shall provide an estimate to relocate the meters outside of the building or to an interior location that is as close as practical to the service entrance. Whenever possible, the property owner will be given ample time to accept the estimate and have piping installed to the new meters or to make arrangements for other fuel sources. If, in the opinion of HG&E, the existing interior building piping



either upstream or downstream of the meter or bank of meters cannot be safely repaired or an immediate hazard exists, the gas will be shut off and the owner will be notified.

- 6. Resale of Gas: All gas furnished by HG&E shall be used on the premises to which it is delivered. The customer shall not sell, assign, or otherwise directly or indirectly dispose of it to others, except through its inclusion in a fixed rent.
- 7. Service Upgrade: Customers upgrading equipment on their gas service must inform HG&E of the proposed changes. An existing gas line found to be too small for the proposed additional load will be replaced and the customer will pay for the cost of the upgrade unless the indicated increased revenue is sufficient, in HG&E's opinion, for repayment of the investment necessary to supply such upgrade.

A minimum charge of \$300 or the actual cost of the upgrade will be charged for service line upgrades required for the installation of a stand-by generator.

Gas Metering

Gas meters shall be furnished and installed by HG&E at locations designated by HG&E. HG&E shall determine the type and size of the meter. Meters shall be so located as to permit ease of reading, maintenance, and accessibility. Keys shall be required from the property owner where meters are located in a secure location. If keys are not submitted to HG&E within a reasonable timeframe, HG&E reserve the right to enter the secure location and bill the property owner as required.

The customer must permit regular access to meters for the purpose of reading at reasonable hours of the day. The owner of any building that undergoes a substantial rehabilitation or heating system replacement shall repipe all appliances or living unit feed pipes to a new meter or bank of meters located as close as practical to the service entrance.

All meters and other materials and appliances installed in the customer's premises at the expense of HG&E are to be and remain the property of HG&E and may be removed by HG&E whenever service is discontinued for any reasons.

Gas meters are required to be replaced every seven (7) years as stated in Mass General Laws, Chapter 164, Section 115A. HG&E will make every effort to accommodate customers' availability when attempting to replace a gas meter.

Customer Gas Equipment

No customer shall be allowed to connect or operate appliances if, in the judgment of HG&E, the use of such appliance or equipment will result in a lowering of the quality of service to a nearby customer.

No new or replacement appliance shall be connected which, in the opinion of HG&E or its agents, is not properly equipped with approved safety devices in good working order, as prescribed by a nationally recognized testing



agency, such as the American Gas Association or Laboratories and Underwriters' Laboratories, Inc., or if the equipment does not comply with the "Massachusetts Code for Installation of Gas Appliances and Gas Piping".

Existing equipment that, in the opinion of HG&E or its agents, is not properly equipped with approved safety devices in good working order, as prescribed by a nationally recognized testing agency, such as the American Gas Association or Underwriters' Laboratories, Inc., or if the equipment does not comply with the "Massachusetts Code for Installation of Gas Appliances and Gas Piping" shall be turned off by HG&E in order to prevent their operation until such time they can be operated safely.

Gas Appliance Repair Policy

HG&E services and repairs the following appliances for a fee at the customer's premises:

Boilers (Gas) Hot Water Heaters (Gas/Electric)

Furnaces (Gas/Electric) Ranges (Gas/Electric)

Clothes Dryers (Gas/Electric) Room Space Heaters (Gas)

Gas Fired Incinerators (Gas) Unit Heaters (Gas)

HG&E also services commercial and industrial gas-fired equipment except gas-fired pilots for oil burning furnaces. HG&E charges for the labor, parts, and materials used in the repair of customer equipment and appliances according to the approved service fee schedule.

Sale of Appliances

HG&E does not sell gas appliances but does cooperate with local appliance dealers on customer information in the sale and use of gas appliances.

Gas Leaks

Any gas leaks or suspected gas leaks should be immediately reported to HG&E. Upon receiving a complaint of a gas leak, service representative will be dispatched to investigate.

HG&E's 24-hour emergency number is (413) 536-9300.



Section Three: Electric

Classifications of Electric Service

All services, temporary or permanent, including such services disconnected for any reason for at least six (6) months, must be inspected and approved by the local wiring inspector before HG&E will connect such services to its system. HG&E will determine whether a service is to be supplied overhead or underground and the exact location of the service entrance and metering. HG&E, at its discretion, may reimburse a customer for relocating any backyard, alleyway, or inaccessible service to the street. A Request for Service form must be submitted before any service can be reviewed by engineering. No service will be energized without receiving a properly completed Request for Service form. Any and all plans for service must be approved by HG&E prior to final design and construction. Any construction performed prior to obtaining HG&E approval is subject to revision. As required, appropriate easements must be obtained prior to installation of new facilities. A written cost estimate, sufficient to justify all expenses to be charged to a customer, shall be provided to the customer upon request.

1. Temporary: Temporary service is a service that will not continue for a sufficient period of time to justify a permanent service. For such service, the customer's electrician must provide a means of attachment for wires to install a fused switch, meter socket, and driven ground according to the NEC.

Temporary construction requiring more than a 125-foot extension of low voltage conductor or the installation of conduits, poles, high voltage lines, or transformers shall be at the customer's expense. Temporary service extensions, which are to be used later for permanent service, shall not be charged to the customer except insofar as the customer is otherwise liable as part of his permanent service.

Energy consumed shall be billed at the appropriate rate. A temporary service shall be disconnected as soon as possible. An installation charge of \$150.00 shall be required for each temporary service required and must be paid prior to connection.

2. Permanent – Overhead: Overhead service will be installed to only one (1) point on any building at no cost to the customer, subject to distance and height limitations. HG&E will determine the point of attachment of its wires to any structure. This point of attachment must be located such that the clearances specified in Article 230-24 of the National Electrical Safety Code (NESC), as amended from time to time, can be maintained. HG&E will maintain the service to such point of attachment and assumes no responsibility beyond it.

An overhead service, which is more than 125 feet from an existing electric pole, may require the installation of a pole. This pole will be installed by HG&E at no cost. Additional poles and facilities beyond this pole will be at the customer's expense. Extensions of distribution facilities installed by HG&E at the customer's expense because of distance limitations shall become the property of HG&E when connected to its lines and HG&E shall maintain them. Replacement of those poles and facilities



beyond 125 feet may be at the customer's expense depending on annual energy revenues and other factors determined appropriate by HG&E.

3. Permanent – Underground: Underground service will be installed to only one (1) point of entry on any building. HG&E will determine this point of entry and maintain all services to such point of entry, except as elsewhere stated, and assume no responsibility beyond it.

An underground residential service conductor extension that is more than 125 feet from an existing electric junction point shall be at the customer's expense except as otherwise stated. Extensions of distribution facilities installed by HG&E at the customer's expense because of distance limitations shall become the property of HG&E when connected to its lines and HG&E shall maintain them.

Commercial and industrial customers are responsible for the installation of their underground service to a location designated by HG&E.

The customer must provide a trench no less than 24" deep for secondaries and 30" deep for primaries from the service entrance to a HG&E designated electric pole or underground junction point. If it is necessary, HG&E will dig the trench and bill the customer as required.

The customer is to install HG&E approved conduit for all secondary conductors on private property. HG&E will designate the size and number of conduits including spares that is required. The following serves as a guide to these minimum requirements; however, the customer must contact HG&E prior to commencement of work. A total of two (2) four (4) inch minimum electrical grade schedule 40 PVC conduit is required. Where services are accessible to vehicle traffic, HG&E will make the determination on whether to use steel, schedule 80 PVC, or schedule 40 PVC encased in concrete for conduit installations. When service is to a pole, the customer must provide conduit for primary and/or secondary conductors from the meter box and/or transformer to a point ten (10) feet up the pole. Exposed conduit and sweep of a minimum twenty-four (24) inch radius at the pole shall be schedule 80 PVC. Exposed conduit and sweep of a minimum twenty-four (24) inch at the meter shall be schedule 40 PVC with a slip joint except when the meter is located in a vehicle accessible area where schedule 80 PVC shall then be required.

At the interchange between HG&E's and customer's conductors, HG&E will make the secondary connections at HG&E's expense and will supply the connectors where the service size does not exceed 4/0 copper or aluminum. Multiple or larger connectors, when required, shall be provided by the customer and installed by HG&E. The customer shall leave sufficient length of cable for HG&E to make proper connections in the transformer. In no case shall conductors of 350 MCM or larger have less than a thirty-six (36) inch lead, and smaller conductors shall have no less than an eighteen (18) inch lead. The customer will be responsible for the placing of holes for the conduit entrance in the foundation, sealing of conduits where they enter the building, maintaining and repairing such conduit entrance area, and, depending on the particular location, the customer may be required to install any conduit and cabling through the building entrance and inside the building.



When, with HG&E's approval, service conductors terminate in a main switch, the customer shall provide the connectors and pay for all materials and labor that is required more than three (3) feet inside the building.

The following general rules apply where the service requires an individual transformer. Special circumstances may require HG&E at its discretion to modify the requirements of each party.

- a. The customer will supply all primary conduits, manholes/handholes, and other underground structures on private property per HG&E specifications.
- b. The customer will supply a transformer pad (vault) and ground grid constructed to HG&E specifications.
- c. The customer will provide all trenching, conduit, and restoration on private property.
- d. For all services greater than 400 A, the customer will supply all secondary services, including conductors, conduit, and connectors, from HG&E mains to the customer's service entrance. When only one (1) customer is served from a transformer, the customer's service begins at the transformer secondary terminals. These services are the property of the customer and are not maintained by HG&E.
- e. The customer will supply excavation for manholes, where required.
- f. HG&E will supply the primary conductors.
- g. HG&E will supply the transformer(s).

It is important that HG&E be notified of service requirements as early as possible due to long delivery times in obtaining certain materials necessary to supply service to large customers.

Underground distribution will be installed in all new residential subdivisions. It will be the responsibility of the developer and/or property owner to provide adequate lot line and grade markers and obtain proper easements required to receive electric service. The developer and/or property owner shall also pay for the installed cost of the infrastructure which shall include an adequate amount of street lighting as determined by HG&E. Underground lines cannot be installed until the site is sub-graded to within six (6) inches of finished grade and water and sewer utilities are installed. Plot plans must be submitted to HG&E prior to construction for electrical layout and design. No service will be provided without HG&E approval.

- 4. Emergency: Emergency backup service will be provided only under unusual circumstances; such as where it is necessary for public health or safety. When the customer specifically requests such service, the customer shall be responsible for the entire cost of providing this service and thereafter for applicable monthly costs under the Standby Facilities Clause. HG&E will not guarantee to dedicate this emergency service to the customer and it may not always be possible to provide such service.
- 5. Relocation or Covering: Whenever electric lines, including any and all overhead or underground facilities, must be relocated or covered for the convenience of the customer and such relocation or



covering involves more than one (1) hour of labor or it involves materials not normally carried on a line truck, HG&E shall bill the customer actual cost of the material and any labor beyond one (1) hour. Any lost or damaged material shall be billed to the customer.

6. Protection of HG&E Equipment: The customer shall furnish and maintain, at no cost to HG&E, the necessary space, housing, fencing, barriers, and foundations for the protection of the equipment to be installed upon the customer's premises, whether such equipment is furnished by the customer or HG&E. If the customer refuses, HG&E may at its option charge the customer for furnishing and maintaining the necessary protection of the equipment. Such space, housing, fencing, barriers, and foundations shall be in conformity with applicable laws and regulations and subject to HG&E specifications and approval.

Voltage

Standard single-phase three wire secondary services are supplied at either 120/240 volts or 120/208 volts depending on location and character of load. Standard three-phase four wire secondary services include 208Y/120 volt or 480Y/277 volt. HG&E decides which voltage is available depending upon the location.

Six hundred volt service will not be supplied to new locations or to locations where service at this voltage has previously been removed. HG&E reserves the right to discontinue 600 volt service by supplying transformers to the customer to allow the customer to convert a standard voltage to 600 volts.

Three-phase, three wire, delta services (240, 480, or 600 volts) are no longer offered. Any changes or additions to existing delta services shall only be made with the approval of HG&E.

Primary service can be supplied at 13.8 kV or 34.5 kV as available and at the discretion of HG&E.

In accordance with the National Electric Code (NEC) and Massachusetts Electrical Code (MEC), as amended from time to time, there shall be only one (1) service of any one (1) voltage to each building except by special permission of the local wiring inspector. More than one (1) voltage characteristic may be supplied to each building at the discretion of HG&E. Firewalls meeting applicable safety code requirements shall be considered to separate buildings.

Electric Metering

1. Installation: Electric meters will be furnished and installed by HG&E at locations to be designated by HG&E. HG&E shall determine the sizes, types, and quantities of meters. HG&E may at any time change any meter previously installed. The customer shall be responsible for furnishing and installing, as directed, the appropriate meter socket(s). Meter sockets shall be placed outside when a service is changed or upgraded unless otherwise approved by HG&E. The customer shall also be responsible for providing an instrument transformer enclosure of the approved type when required. Mounting of instrument transformers are performed by the electrical contractor; wiring by HG&E.

Should a customer request a new meter or request that a communication device be attached to the existing meter, HG&E shall provide, install, test, and maintain the meter and/or communication device.



The requested meter and/or communication device must meet HG&E's requirements. The customer shall bear the cost of providing and installing the meter and/or communication device. Upon installation, the meter and/or communication device shall become the property of the HG&E and be maintained by HG&E. HG&E shall bill the customer upon installation.

Wherever primary metering is employed, HG&E will allow a 2% discount on consumption to compensate for losses. If transformers are owned by the customer, HG&E allows a 1% discount in addition to the 10% prompt payment discount on the monthly bill. The primary metering and transformer discounts do not apply to the Large General Service rate schedule, as this rate is provided at primary not secondary voltage. With the exception of those customers grandfathered by previous contracts, HG&E will assume no responsibility beyond the metering point; therefore, the customer must also own the transformers needed to step voltage down to the utilization voltage(s). HG&E reserves the right to hold a customer responsible for a primary metered service once an existing electric account has changed names. Primary metering is not normally used for loads under 1000 kVA.

All transformer rated secondary metered services shall be installed as "cold sequence" (main disconnect is ahead of the meter) and all self-contained secondary metered services shall be installed as "hot sequence" (meter is ahead of the main disconnect) unless otherwise allowed by HG&E.

In multiple dwellings, meter sockets shall be permanently marked before the meter is set to identify the apartment, area, or load to be measured by each meter.

Detailed information on any individual installation can be obtained from the HG&E Meter Department. Meters may not be removed and/or the seal broken without prior permission. If done so, the customer may be subject to labor and material charges associated with installing new meters and/or seals as well as estimated billing for any usage not recorded and possible criminal charges for meter tampering.

- 2. Location: Electric meters shall be located to provide, and continue to provide, ease of reading, maintenance, and accessibility. Meters will not be allowed in locations where, in the opinion of HG&E, they are likely to be damaged and/or difficult to read and/or inaccessible. Keys shall be required from the property owner where meters are located in a secure location. If keys are not submitted to HG&E within a reasonable timeframe, HG&E reserves the right to enter the secure location and bill the property owner as required. Unless unusual circumstances exist, meters will be located outdoors. The top of these meters shall not be more than six (6) feet from ground level and the bottom of the meter not less than three (3) feet from ground level unless approved otherwise by HG&E.
- 3. Sub-Metering & Check Metering: The resale of electricity furnished by HG&E, based on the registration of customer owned metering devices, is defined as sub-metering and is not permitted. A customer may monitor his own usage through the use of approved meters, computers, or other metering devices. Such metering is defined as check metering.



- 4. Diversion & Meter Tampering: When HG&E discontinues the supply of electricity, it may seal such service and meter switch by padlocking or it may replace the plug-type fuses with blank or "dummy" fuses to prevent the continued supply of electricity. If a customer receives unmetered service as a result of any tampering with the meter or other HG&E equipment, HG&E shall take appropriate action including, but not limited to, making changes in the meter or other equipment and rebilling the customer. The customer may be held responsible to HG&E for any use of electricity that occurs beyond the point of the meter installation. A customer may also be subject to criminal and civil penalties pursuant to the Massachusetts General Laws, Chapter 164 and applicable DPU regulations for tampering with this equipment.
- 5. Demand/Reactive Usage Requirement: HG&E determines when a reactive reading shall be obtained for the purpose of determining power factor and when a demand reading shall be obtained for either billing and/or engineering purposes. At a minimum, all accounts with regular monthly average consumption over 15,000 kWh shall have both.
- 6. Power Factor Clause: A customer must maintain a minimum average power factor of 85% for any given month unless otherwise stated within a customer's rate schedule (i.e., Large General Service is 95% level). Power factor shall be reviewed from both a lagging and leading perspective from unity. Should a customer fail to maintain the applicable power factor, no 10% prompt payment discount will be allowed for that month. If a customer agrees to take prompt corrective action to correct the problem, the discount will be allowed for a maximum of four (4) consecutive months including the month of the original occurrence to allow time for the customer to correct the problem. If the customer does not agree to take corrective action or if the four (4) months have elapsed from the time of the original occurrence, the discount will be allowed only when actually earned. A customer will not be granted another grace period until twenty-four (24) months have passed since the end of the previous grace period unless the customer is a new account holder for that electric service. Customers with kVARh metering who are making a significant change in their load are expected to assess, in advance, the needed correction. HG&E may allow "reasonable time" during testing or commissioning period to avoid problems that can arise during this time. Also, HG&E may, upon case by case review, allow a discount when the applicable power factor is not maintained during a maximum six (6) month period of either ramp up or winding down of a customer's operations.
- 7. Communications: For large accounts above 100 kW, HG&E may require customers, at their expense, to provide a direct communications medium such as copper or fiber to access meters remotely.

Customer Electric Equipment & Wiring

Wiring installed on the customer's premise must conform to all applicable requirements of HG&E and the NEC as amended by the MEC. Wiring shall be inspected and approved by the Holyoke Wiring Inspector or applicable inspector when outside Holyoke, acceptable to HG&E, prior to connection of new service.

No customer shall be allowed to connect or operate equipment, including electric generators, if such equipment results in lowering the quality of service supplied to nearby customers or causes safety problems on HG&E lines.



In cases of this type, HG&E may disapprove the use of the equipment or may designate the conditions or times when it may or may not be used. These instructions shall be followed strictly or the service may be discontinued.

The responsibility of HG&E normally ends at the point of attachment of the customer's dwelling. HG&E assumes no responsibility for damage caused by the customer's equipment. HG&E shall permit electrical contractors, licensed by the State of Massachusetts, to cut and reconnect 120/240 volt, three-wire single phase overhead residential services of 400 amps or less at the weatherhead in order to expedite work requested by customers. Failure to follow the procedures provided herein may result in additional corrective work and expense for the electrical contractors including any corrective work performed by HG&E. Electrical contractors shall be responsible for obtaining the appropriate permits from the local wiring inspector.

Homeowners are not authorized to cut and reconnect electric services. An electrical contractor must hold an E or A license issued by the State of Massachusetts or work in the capacity of an Electrical Apprentice under the direct supervision of a licensed electrician of an E or A license. Under this condition, physical work may be performed; however, the permit must be obtained by the licensee who is responsible for the work at the location.

The electrical contractor, its employees, and those under its control shall perform all work as independent contractors and shall not be deemed to be employees or agents of HG&E for any purpose. HG&E shall not be liable for direct, indirect, or consequential damages of any kind whether resulting from injuries to persons or property or otherwise arising out of an electrical contractor's work.

Where conditions require transformers to be on private property, the customer shall, if requested, provide and maintain a suitable vault, pad, or structure.

The customer shall maintain and operate its electrical equipment and appliances so as not to endanger or interfere with the service of HG&E. The customer shall utilize the electrical power under these Rules and Regulations such that the current in any ungrounded conductor shall not at any time vary more than 5% from the current in each of the other ungrounded conductors when measured at the place of delivery per IEEE 519. Voltage harmonic levels shall not exceed 5% on a regular basis with only rare conditions when this value is exceeded.

Motors

All motors over ½ horsepower (H.P.) operating on single-phase services must be connected for 240 volts. Motors of 3 H.P. and above shall be three-phase except in a network voltage area where 5 H.P. single-phase motors may be allowed. Exceptions to these conditions require HG&E approval prior to installation or use. HG&E reserves the right to require reduced voltage or reduced load starting to be installed on customer equipment when it deems necessary.

Before purchasing special equipment or before making substantial changes in load, the customer should consult with HG&E representatives. The capacity of existing service and the voltage and phase of available service



should be determined prior to the purchase of new equipment. HG&E will provide information on available service when requested.

Chapter 25 of the Revised Ordinances of the City of Holyoke and NEC, as amended by the MEC, further regulates electrical wiring.

The customer shall obtain approval from HG&E prior to connecting any motor larger than indicated below:

- a. 3 H.P. for single phase, secondary service up to 600 volts.
- b. 15 H.P. for three phase, secondary service up to 600 volts.
- c. 75 H.P. for three phase, primary service of either 13.8 kV or 34.5 kV.

Contract Lighting

Contract lighting is available for a period of not less than one (1) year under a filed rate schedule. In the event of vandalism, HG&E reserves the right to remove any light fixture from service or, upon request from the customer, replace any damaged fixture(s) beyond the standard rate provided within the filed rate schedule by purchasing a vandal-proof lens or other remediation at actual cost.

Surge Protection

Surge protection is available for a period of not less than one (1) year under a filed rate schedule. In the event of vandalism and/or tampering, HG&E reserves the right to remove any surge protection device from service.

Connection Charges – New Service

- 1. Residential
 - a. If a major extension of main primary voltage lines is required then:
 - i. Connection charge of \$1,000 per lot for single residential units.
 - ii. Connection charge of \$300 per residential unit for multiple residential units.
 - b. For service on existing primary and secondary lines then:
 - i. No connection charge for single residential service.
 - ii. No connection charge for multiple residential units up to and including two (2) per lot.
 - iii. Connection charge of \$300 per residential unit for all residential units when there are three (3) or more per lot.
- 2. Commercial/Industrial: A connection charge of \$15 per kVA based on the size of the main service breaker(s) shall apply to any new electrical service to a new building.
- 3. Implementation: Payment for the above will be based on approved plans submitted to the appropriate local authorities and must be made to HG&E before construction service is installed by HG&E.
- 4. Waiver: Connection charges may be waived in lieu of taking Special Programs in effect from time to time.



Alternate Electric Energy Sources

- 1. Non-Parallel Generation (Standby or Emergency): When a customer installs emergency generation, an adequately sized double-throw disconnecting device must be provided by the customer to open all ungrounded conductors from the normal supply before connection is made to the emergency supply, in accordance with the requirements of the NEC, as amended by the MEC.
- 2. Parallel Generation: Subject to certain requirements, HG&E will permit parallel operation of generating equipment with the system. In general, automatic synchronizing must be provided by the customer together with the automatic prevention of any feed into HG&E de-energized system. The customer must contact HG&E early in the planning process and receive written approval. Standby Facility charges may apply. See Distributed Generation Interconnection Policy & Application and Distributed Generation Purchase Power Clause for specific rates, terms, and conditions.
- 3. Uninterruptible Power Supply: HG&E will not own, install, or operate any UPS equipment. A customer installation must provide automatic prevention of any feed into HG&E system. The customer must contact HG&E early in the planning process and receive written permission.

Power Outages & Concerns

All power outages or suspected electric concerns should be immediately reported to HG&E. Upon receiving concerns, an HG&E representative will be dispatched to investigate.

HG&E's 24-hour emergency number is (413) 536-9300.