

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 respondent 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.

Submit Electronic Version to: DPU-annualreturns@state.ma.us <u>mark.marini@state.ma.us</u>

Mail Original DPU Report to: Mark D. Mariani

Department Secretary

Mail Copy of DPU Report to: Kevin Brannelly George Yiankos

Director, Rates and Revenue Requirements Division 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,

2018

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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FOR GAS PLANTS ONLY:	Page		Page
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Utility Plant - Gas	19-20	Gas Generating Plant	74
Gas Operating Revenues	43	Boilers	75
Sales of Gas to Ultimate Consumers	44	Scrubbers, Condensers and Exhausters	75
Gas Operation & Maintenance Expenses Purchased Gas	45-47	Purifiers Holders	76 76
Sales for Resale	48 48	Transmission and Distribution Mains	76 77
Sales of Residuals	48	Gas Distribution Services, House Governor	
Record of Sendout for the Year in MCF	72-73	and Meters	78
	-		
PAGES INTENTIONALLY OMITTED: 23 T	0 36		
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GENERAL INFORMATION	
 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.	L .
Record of votes: First vote Yes, ; No, Second vote: Yes, ; No,	
Date when town (or city) began to sell electricity,	1902
Name and address of manager of municipal lighting:	James M. Lavelle 54 Pleasant Street Holyoke, MA 01040
 Name and address of mayor or selectmen: 	Alex B. Morse City Hall Holyoke, MA 01040
5. Name and address of town (or city) treasurer:	Sandra Smith City Hall Holyoke, MA 01040
5. Name and address of town (or city) clerk:	Brenna Murphy-McGee City Hall Holyoke, MA 01040
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
 Total valuation of estates in town (or city) according to last state valuation Fiscal 2018 7/1/17 - 6/30/18 	Fiscal 2019 7/1/18 - 6/30/19
\$2,097,081,388	\$2,156,750,637
9. Tax rate for all purposes during the year: Fiscal 2018 7/1/17 - 6/30/18 \$19.13 - Residential	Fiscal 2019 7/1/18 - 6/30/19 \$19.29 - Residential
\$39.70 - Commercial/Industrial	\$39.86 - Commercial/Industrial
I0. Amount of manager's salary:	\$210,212.00
11. Amount of manager's bond:	\$100,000.00
12. Amount of salary paid to members of municipal light board (each)	\$4,000.00

Ann	ual Report of Holyoke Gas and Electric	Pg 4 c Department		Year Ended December 31, 201		
			NERAL LAWS, CHAPTER 164, SECT CAL YEAR ENDING DECEMBER 31,			
	INCOME FROM PRIVATE CONSUM					
1				20,597,14		
2				45,305,70		
3				2,325,02		
4			TOTAL	68,227,88		
5	EXPENSES:					
6	For operation, maintenance and rep	airs		60,810,38		
7)		2,265,68		
8	For depreciation fund (3% on \$257	,418,659 as per page 8B & 9A)		7,722,56		
9	For sinking fund requirements					
0	For note payments					
1	For bond payments			4,204,94		
2	For loss in preceding year					
3			TOTAL	75,003,57		
4			Γ			
5	COST:					
6	Of gas to be used for municipal build	lings		736,77		
7	Of gas to be used for street lights					
8	Of electricity to be used for municipa	I buildings (includes telecom)		2,979,75		
9	Of electricity to be used for street light	city to be used for street lights				
0	Of steam					
21	Total of the above items to be includ		4,099,23			
22	New construction to be included in t	he tax levy				
23	Total amounts to be included in the t	ax levy		4,099,23		
	I	CUSTOM	ERS			
	Names of cities of towns in w	hich the plant supplies	Names of cities of towns in	which the plant supplies		
	GAS, with the number of cus		ELECTRICITY, with the nur in each			
		Number of Customers'		Number of Customers'		
	City or Town	Meters, December 31.	City or Town	Meters, December 31.		
	Holyoke, MA	10,616	Holyoke, MA	17,01		
	Southampton, MA	1,192	Southampton, MA	13		
	Westfield, MA	8	Westfield, MA			
	TOTAL	11,816	TOTAL	17,15		

			Pg 5		
Annual Report of Holy	oke Gas and Electric Depa	artment		Yea	ar Ended December 31, 2018
	(include also all items of	charged direct	to tax levy, even where no a	appropriation is made or requir	eu.)
FOR CONSTRUCTIO	N OR PURCHASE OF PL	ANT:			
* At	meeting	19	, to be paid from {		\$
* At	meeting	19	, to be paid from {	ΤΟΤΑΙ	_ \$
FOR THE ESTIMATE	D COST OF THE GAS OR		Y TO BE USED BY THE CI	TY OR TOWN FOR:	
-					\$ 382,711
					3,716,528
3. Steam					0 \$
*Date of meeting and	whether regular or special	1}	Here insert bonds, notes or	tax levy	
		CHA	NGES IN THE PROPERTY	Y	
In electric property:					
In gas property:					

			Pg 6			Х. Е	
Annual Report of Holy	oke Gas and Electric	c Department	BONDS	3		Year End	led December 31, 2018
		(Issued		, 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
Authorized* 2009 Clean Renewable Energy Bond	Date of Issue	<u>Original Issue**</u> 2,500,000	Amounts	When Payable 12/15/2020	Rate	When Payable	at End of Year 416,667
The bonds and notes of the first three columns		2,500,000 nd of the year shoul	d agree with the ba	lance sheet. When	bond and	TOTAL notes are repaid, re	416,667 port
	*Date of meeting a	nd whether regular o	or special.				

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

		(loound on					
When		Amount of		or Electric Lighting) Payments		Interest	Amount Outstandin
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			23,190,00
Debt Premium	04/01/12	3,180,783		9/1/2031			1,860,0
2003 Note to Peoples	11/01/03	2,589,544		Monthly			
	TOTAL	36,302,327				TOTAL	25,050,0

*Date of meeting and whether regular or special.

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

hnu	al Report of Holyoke Gas and Electric Departr	nent	Pg 8			Year Ended De	cember 31 201
mua	al Report of Holyoke Gas and Electric Departi	nent				Teal Ended De	cember 31, 20
		TOTAL CC	OST OF PLANT -	ELECTRIC			
	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-	column (c) or (d) a 3. Credit adjustments		ould	effect of such amo 4. Reclassifications o accounts should be		
ine No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	Balance End of Year (g)
1 2 3	1. INTANGIBLE PLANT						
4 5 6 7	TOTAL INTANGIBLE PLANT 2. PRODUCTION PLANT A. Steam Production 310 Land and Land Rights	0	0	0	0	0	
8 9 10	 311 Structures and Improvements 312 Boiler Plant Equipment 312-01 Boiler Plant Equipment Comm 313 Engines and Engine Driven 	1,231,220 15,154					1,231,22 15,15
13 14	Generators	135,977					135,97
	Equipment Total Steam Production Plant B. Nuclear Production Plant 320 Land and Land Rights	34,253 1,416,603	0	0	0	0	34,25 1,416,60
20 21 22	 321 Structures and Improvements 322 Reactor Plant Equipment 323 Turbogenerator Units 324 Accessory Electric Equipment 325 Miscellaneous Power Plant 						
24	Equipment	0	0	0	0	0	

Year Ended December 31, 2018

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						
2	330 Land and Land Rights	923,720					923,72
3	331 Structures and Improvements	24,970,146	18,000				24,988,14
4	332 Reservoirs, Dams and Waterways	20,853,137	7,835		593,851		21,454,82
5	333 Waterwheels, Turbines and						
	Generators	30,795,134			1,214,364		32,009,49
6	334 Accessory Electric Equipment	4,305,136	3,773		472,950		4,781,85
7	335 Miscellaneous Power Plant						
	Equipment	222,093	5,835		129,672		357,60
8	336 Roads, Railroads and Bridges						
9	Total Hydraulic Production Plant	82,069,366	35,443	0	2,410,837	0	84,515,64
10	D. Other Production Plant						
11	340 Land and Land Rights	15,040					15,04
12	341 Structures and Improvements						
13	342 Fuel Holders, Producers and						
	Accessories						
14	343 Prime Movers						
15	344 Generators						
16	345 Accessory Electric Equipment						Í
17	346 Miscellaneous Power Plant						
	Equipment						
18	Total Other Production Plant	15,040	0	0	0	0	15,04
19	TOTAL PRODUCTION PLANT	83,501,009	35,443	0	2,410,837	0	85,947,29
20	3. TRANSMISSION PLANT						
21	350 Land and Land Rights	686,311			16,137		702,44
22	351 Clearing Land and Rights of Way						
23	352 Structures and Improvements						
	353 Station Equipment	10,260,594			2,413,008		12,673,60
	354 Towers and Fixtures						
	355 Poles and Fixtures	2,776,334	8,654	73,360	210,146		2,921,7
	356 Overhead Conductors and Devices	1,070,654			2,242		1,072,8
	357 Underground Conduits	0			-		
	358 Underground Conductors and Devices	0					Ì
30	359 Roads and Trails						
31	TOTAL TRANSMISSION PLANT	14,793,892	8,654	73,360	2,641,533	0	17,370,7

TOTAL COST OF PLANT - ELECTRIC (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. DISTRIBUTION PLANT						
2	360 Land and Land Rights	2,942,725			14,556		2,957,281
3	361 Structures and Improvements	373,467					373,467
4	362 Station Equipment	14,411,525	61		5,447,891		19,859,478
5	363 Storage Battery Equipment						
6	364 Poles, Towers and Fixtures	5,427,329	236,991	181,759	217,224		5,699,785
7	365 Overhead Conductors and Devices	8,457,487	128,697	118,946	363,472		8,830,710
8	366 Underground Conduits	10,618,484	119,001		352,758		11,090,243
9	367 Underground Conductors & Devices	12,713,648	555,373	109,706	1,384,687		14,544,003
10	368 Line Transformers (Over & Under)	5,283,691	245,217	215,754	81,791		5,394,945
11	369 Services (Over & Under)	3,874,773	48,218	26,595	25,106		3,921,503
12	370 Meters-Consumer's Expense	3,242,949	59,261	137,656	305,199		3,469,752
13	371 Installation on Cust's Premises	1,032,413	31,503	1,797	3,928		1,066,048
14	373 Street Light and Signal Systems	3,346,416	79,414	7,037	77,554		3,496,347
15	3** Telecommmunications	10,156,958	45,212		148,011		10,350,181
16	TOTAL DISTRIBUTION PLANT	81,881,865	1,548,950	799,249	8,422,177	0	91,053,742
17	5. GENERAL PLANT						
18	389 Land and Land Rights	98,576					98,576
19	390 Structures and Improvements	4,073,455	74,192				4,147,647
20	391/391-01 Office Furn & Equip/Comp Equip	2,807,948	23,211	30,219	12,229		2,813,168
21	392 Transportation Equipment	2,789,331	181,485				2,970,816
22	393 Stores Equipment	73,652					73,652
23	394 Tools, Shop and Garage Equipment	124,670	7,203				131,873
24	395 Laboratory Equipment	176,118					176,118
25	396 Power Operated Equipment	125,210	48,671				173,881
26	397 Communication Equipment	615,323					615,323
27	398 Miscellaneous Equipment	101,815	10,295				112,110
28	399 Other Tangible Property						
29	3** Telecommunications	2,122,722	26,729		61,517		2,210,967
30	TOTAL GENERAL PLANT	13,108,819	371,785	30,219	73,745	0	13,524,130
31	TOTAL ELECTRIC PLANT IN SERVICE	193,285,585	1,964,833	902,828	13,548,292	0	207,895,882
32	Ē			ELECTRIC PLA			207,895,882
33							,,.
34			Less Cost of Lar	nd, Land Rights, a	nd Rights of Wav	,	4,790,608
35				n which depreciat	• •		203,105,274
	pove figures should show the original cost of existing	nroperty In case		operty is sold or re			

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.

Annu	al Report of Holyoke Gas and Electric Departi	nent	Pg 9			Year Ended Dec	cember 31, 201
		TOTAL	COST OF PLAN	T - GAS			
1.	Report below the cost of utility plant in service	ceding year. Such	items should be incl	uded in	effect of such amo	unts.	
	according to prescribed accounts.	column (c) or (d) a			4. Reclassifications of	or transfers within utilit	y plant
2.		3. Credit adjustments	of plant accounts sh	nould	accounts should b	e shown in column (f)	•
	additions and retirements for the current or the pre-	be enclosed in par	entheses to indicate	the negative			
		Balance		-			
		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	301 Organization						
3	303 Miscellaneous Intangible Plant						
4	TOTAL INTANGIBLE PLANT	0	0	0	0	0	
5	2. PRODUCTION PLANT						
6	Manufactured Gas Production						
7	304 Land and Land Rights	84,563					84,56
8	305 Structures and Improvements	175,753				(38,849)	136,90
9	306 Boiler Plant Equipment	,					
	307 Other Power Plant Equipment	2,368					2,36
	310 Water Gas Generating Equipment	,					,
	311 Liquefied Petroleum Gas Equipment	47,610					47,61
	312 Oil Gas Generating Equipment	,					
	313 Generating Equip - Other Processes						
	315 Catalytic Cracking Equipment						
	316 Other Reforming Equipment						
	317 Purification Equipment						
	318 Residual Refining Equipment						
19	319 Gas Mixing Equipment	1,522,900					1,522,90
20	320 Other Equipment	26,634					26,63
21	TOTAL MANUFACTURED GAS	1,859,829	0	0	0	(38,849)	1,820,97
	PRODUCTION PLANT						
22	3. STORAGE PLANT						
23	360 Land and Land Rights						
	361 Structures and Improvements	574,701	64				574,76
	362 Gas Holders						
20	363 Other Equipment						
		574,701	64	0	0	0	574,76

Year Ended December 31, 2018

TOTAL COST OF PLANT - GAS (Concluded)

l		Balance					
l		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	(5)	(3)	(4)	(0)	(1)	(9/
•	DISTRIBUTION PLANT						
2	365.1 Land and Land Rights	69,987					69,987
	365.2 Rights-of-Way	00,001					00,001
4	366 Structures and Improvements	886,648					886,648
5	367 Mains	19,778,403	14,922	56,887	519,434		20,255,872
6	368 Compressor Station Equipment	97,360	11,022	00,007	010,101		97,360
-	369 Measuring and Regulating Station	01,000					01,000
	Equipment	1,655,426	7,839		13,572		1,676,837
8	370 Comm Equip Meters/Telemeter	325,136	,		42,429		367,565
	380 Services	17,666,220	121,904	152,985	1,141,681		18,776,820
10	381 Meters	5,007,498	45,019	42,746	123,236		5,133,007
11	382 Meter Installations	5,086	.0,010	,	0,_00		5,086
12	383 House Regulators	0,000					0,000
13	386 Other Property on Cust's Prem						
14	387 Other Equipment	24,871					24,871
15	TOTAL TRANSMISSION AND	_ ,,					,
16	DISTRIBUTION PLANT	45,516,634	189,684	252,617	1,840,352	0	47,294,052
17	5. GENERAL PLANT			- /-	11		1 - 1
18	389 Land and Land Rights	59,754					59,754
19	390 Structures and Improvements	1,333,268	6,566		170,225	38,849	1,548,909
20	391/391-01 Office Furn & Equip/Comp Equir	1,407,585	14,534		6,585		1,428,703
21	392 Transportation Equipment	1,102,915	125,734				1,228,649
22	393 Stores Equipment	9,212					9,212
23	394 Tools, Shop and Garage Equipment	224,912	39,498				264,410
24	395 Laboratory Equipment						
25	396 Power Operated Equipment	12,637	9,015				21,652
26	397 Communication Equipment	248,167					248,167
27	398 Miscellaneous Equipment	28,438					28,438
28	399 Other Tangible Property						
29	TOTAL GENERAL PLANT	4,426,889	195,347	0	176,809	38,849	4,837,894
30	TOTAL GAS PLANT IN SERVICE	52,378,052	385,094	252,617	2,017,161	0	54,527,690
31	Ē		-	GAS PLANT			54,527,690
32							
33			Less Cost of Lar	nd, Land Rights, a	nd Rights of Way	·	214,304
34				which deprecia	• •		54,313,385
The el	pove figures should show the original cost of existing	property In case	any part of the pr				

Annual Report of Holyoke Gas and Electric Department
IADDUAL REDOTI OF DOIVOKE GAS ADD FIECING DEDADDEDI

Year Ended December 31, 2018

Line No.	Title of Account (a)	Balance Beginning of Year (b)	Balance End of Year (c)	Increase or (Decrease) (d)
1	UTILITY PLANT			
2	101 Utility Plant in Service - Electric (pg 17)	128,851,558	135,987,290	7,135,731
3	101 Utility Plant in Service - Gas (pg 20)	25,094,884	25,903,087	808,203
4	Non Operating Plant	5,988,390	5,988,390	C
5	TOTAL UTILITY PLANT	159,934,832	167,878,766	7,943,934
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	22,480,373	25,891,667	3,411,294
15	TOTAL FUNDS	22,480,373	25,891,667	3,411,294
16	CURRENT AND ACCRUED ASSETS			
17	131 Cash (pg 14)	10,955,929	4,103,476	(6,852,453
18	132 Special Deposits	1,562,522	1,538,881	(23,641
19	132 Working Funds	15,350	15,350	
20	141 Notes and Receivables			
21	142 Customer Accounts Receivable	6,763,904	7,694,808	930,904
22	143 Other Accounts Receivable			
23	146 Receivables from Municipality	452,968	748,749	295,781
24	151 Materials and Supplies (pg 14)	3,360,473	3,541,876	181,403
25	163 Stores Expense			
	165 Prepayments	61,944,612	56,310,385	(5,634,227
	174 Miscellaneous Current Assets	3,721,139	3,191,424	(529,715
28	TOTAL CURRENT AND ACCRUED ASSETS	88,776,897	77,144,949	(11,631,948
29	DEFERRED DEBITS			
30	181 Unamortized Debt Discount	929,999	863,333	(66,666
31	182 Extraordinary Property Debits			
32	185 Other Deferred Debits	0	0	(
33	TOTAL DEFERRED DEBITS	929,999	863,333	(66,666
34				(,000
35	TOTAL ASSETS AND OTHER DEBITS	272,122,101	271,778,715	(343,386

Annual Report of Holyoke Gas and Electric Department
ADDUAL REPORT OF HOLVOKE GAS ADD Electric Department

Year Ended December 31, 2018

	COMPARATIVE BALANCE	SHEET Liabilities and Othe	er Credits	
Line No.	Title of Account (a)	Balance Beginning of Year (b)	Balance End of Year (c)	Increase or (Decrease) (d)
1	APPROPRIATIONS			
2	201 Appropriations for Construction			
3	SURPLUS			
4	205 Sinking Fund Reserves			
	206 Loans Repayment	1,744,583	1,573,333	(171,249)
	207 Appropriations for Construction Repayment			
	208 Unappropriated Earned Surplus (pg 12)	94,083,074	85,014,831	(9,068,243)
8	TOTAL SURPLUS	95,827,656	86,588,164	(9,239,492)
9	LONG TERM DEBT			
10	221 Bonds (pg 6)	625,000	416,667	(208,333)
11	231 Notes Payable (pg 7)	26,792,349	25,050,051	(1,742,298)
12	228 Net Pension Liability	30,715,656	25,930,197	(4,785,459)
13	TOTAL BONDS AND NOTES	58,133,005	51,396,915	(6,736,090)
14	CURRENT AND ACCRUED LIABILITIES			
15	232 Accounts Payable	9,443,168	10,304,481	861,313
16	234 Payables to Municipality			
17	235 Customer Deposits	1,255,783	1,357,236	101,454
18	236 Taxes Accrued			
19	237 Interest Accrued	355,784	345,650	(10,134)
20	242 Miscellaneous Current and Accrued Liabilities	7,196,000	2,763,558	(4,432,442)
21	TOTAL CURRENT AND ACCRUED LIABILITIES	18,250,734	14,770,925	(3,479,809)
22	DEFERRED CREDITS			
23	251 Unamortized Premium on Debt			
24	252 Customer Advance for Construction			
25	253 Other Deferred Credits	99,395,503	118,507,508	19,112,005
26	TOTAL DEFERRED CREDITS	99,395,503	118,507,508	19,112,005
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	272,122,102	271,778,715	(343,387)
	State below if any earnings of the Municipal Lighting Plant have indebtedness of the plant, the purpose for which used and the a		other than discharging	

Line	STATEMENT OF INCOME FOR TH		
₋ine		Tatal	
_ine		Total	
_ine			Increase or
_ine			(Decrease) from
	Account	Current Year	Preceding Year
No.	(a)	(b)	(c)
1	OPERATING INCOME		
2	400 Operating Revenue (pg 37 and pg 43)	75,056,454	8,711,38
3	Operating Expenses:		
4	401 Operation Expense (pg 42 and pg 47)	48,958,660	3,345,54
	402 Maintenance Expense (pg 42 and pg 47)	8,517,847	(71,01
	403 Depreciation Expense	7,220,279	204,59
	407 Amortization of Property Losses	1,220,210	201,00
	407 Amonization of Property Losses	U	
8	100 Trues (ex. 10)		
	408 Taxes (pg 49)		
10	Total Operating Expenses	64,696,786	3,479,12
11	Operating Income	10,359,669	5,232,26
12	414 Other Utility Operating Income (pg 50)	0	
13			
14	Total Operating Income	10,359,669	5,232,26
15	OTHER INCOME		
16	415 Income from Merchandising, Jobbing, and Contract Work (pg 51)	53,721	(83,24
	419 Interest Income	(1,971,608)	(8,652,34
	421 Miscellaneous Nonoperating Income	1,203,783	(94,09
19	Total Other Income	(714,104)	(8,829,68
20	TOTAL INCOME	· · · · · · · · · · · · · · · · · · ·	
		9,645,564	(3,597,42
21	MISCELLANEOUS INCOME DEDUCTIONS		
	425 Miscellaneous Amortization		
	426 Other Income Deductions	912,890	333,54
24	Total Income Deductions	912,890	333,54
25	Income before Interest Charges	8,732,674	(3,930,97
26	INTEREST CHARGES		
27	427 Interest on Bonds and Notes	1,034,691	63,07
28	428 Amortization of Debt Discount and Expense	66,667	(
29	429 Amortization of Premium on Debt		
30	431 Other Interest Expense	7,227	5,99
31	432 Interest Charged to Construction-Credit		
32	Total Interest Charges	1,108,585	69,06
33	NET INCOME	7,624,090	(4,000,03
00	EARNED SURPLUS	1,024,000	(4,000,00
ine		Debits	Credits
	(a)	(b)	(c)
No.		(b)	
	Unappropriated Earned Surplus (at beginning of Period)		94,083,07
	Adjustment to correct Unappropriated Earned Surplus	15,703,134	
36	Adjustment to correct Unappropriated Earned Surplus		1,744,58
37	433 Balance transferred from Income		7,624,09
38	434 Miscellaneous Credits to Surplus (pg 21)	0	
39	435 Miscellaneous Debits to Surplus (pg 21)	1,160,447	
40	436 Appropriations of Surplus (pg 21)	1,573,333	
41	437 Surplus Applied to Depreciation		
	208 Unappropriated Earned Surplus (at end of period)	85,014,831	
43			
44	TOTALS	103,451,746	103,451,74
		100, 101, 10	100,101,7
1	Line 35 is made up of the following adjustments:		
1	Previous adjustment to retained earnings for an		
i	intercompany transaction that should have been included in earnings	7,933,570	
	Cumulative effect of change in accounting principle related to the Departments OPEB obligation required by GASB statement number 75	7,769,564	

mber '	Year Ended Decer	Pg 13	Electric Department	eport of Holyoke Gas and I					
		FINCOME FOR THE YEAR							
	Electric Gas								
	Increase or (Decrease) from Preceding Year	Current Year	Increase or (Decrease) from Preceding Year	Current Year					
	(g)	(f)	(e)	(d)					
	2,426,875	23,396,308	6,284,510	51,660,146					
	652,555	15,881,939	2,692,990	33,076,721					
	2,545	2,031,895	(73,561)	6,485,952					
	84,998	1,564,912	119,594	5,655,366					
	740,098	19,478,746	2,739,023	45,218,039					
	1,686,777	3,917,562	3,545,487	6,442,107					
	1,000,777	0,017,002	0	0					
			Ŭ	Ŭ					
	1,686,777	3,917,562	3,545,487	6,442,107					
	(72,507)	63,903	(10,739)	(10,182)					
	(939,507)	(315,074)	(7,712,836)	(1,656,534)					
	(1,442)	22,731	(92,654)	1,181,052					
	(1,013,455)	(228,439)	(7,816,230)	(485,665)					
	673,322	3,689,123	(4,270,743)	5,956,442					
	(12,880)	20,647	346,429	892,243					
	(12,880)	20,647	346,429	892,243					
	686,201	3,668,475	(4,617,172)	5,064,199					
	(4,875)	84,940	67,948	949,751					
	(4,079)	0	(0)	66,667					
	Ĭ	3	(*)	00,001					
	5,992	7,227	0	0					
	- ,	,							
	1,117	92,167	67,948	1,016,418					
	685,085	3,576,309	(4,685,120)	4,047,781					

	Pg 14		
Annua	Report of Holyoke Gas and Electric Department		Year Ended December 31, 2018
	CASH BALANCES AT END OF YE	AR (Account 131)	
Line	Items		Amount
No.	(a)		(b)
1	Operation Fund		4,103,476
2	Interest Fund		,, -
3	Bond Fund		
4	Construction Fund		
5			
6			
7			
8			
9			
-			
10			
11			1 100 170
12		TOTAL	4,103,476
	MATERIALS AND SUPPLIES (Accou	. ,	
	Summary per Balance		
		Amount Er	
Line	Account	Electric	Gas
No.	(a)	(b)	(c)
13	Fuel (Account 151) (See Schedule, Page 25)		
14	Fuel Stock Expenses (Account 152)	0	706,015
15	Residuals (Account 153)		
16	Plant Materials and Operating Supplies (Account 154)	2,254,765	581,096
17	Merchandise (Account 155)		
18	Other Materials and Supplies (Account 156)		
19	Nuclear Fuel Assemblies and Components - In Reactor (Acct 157)		
20	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	2,254,765	1,287,111
	DEPRECIATION FUND ACCOUN	T (Account 126)	
Line			Amount
No.	(a)		(b)
25	Balance of Account at Beginning of Year		0
26	Income During Year from Balance on Deposit		7,220,279
27	Amount Transferred from Income		
28		TOTAL	7,220,279
29			
30	CREDITS		
31	Amount expended for Construction Purposes (Sec. 57, C. 164 of G.L.)		0
32	Amounts Expended for Renewals		7,220,279
33			,,
34			
35			
36			
30			
38	Polonoo on Hand at End of Voor		
39	Balance on Hand at End of Year		(0)
40		TOTAL	7,220,279

	al Report of Holyoke Gas and Electric Departr	nent				Year Ended De	
		UTILI	TY PLANT - ELE	CTRIC			
	Report below the items 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-	(c). 3. Credit adjustments	items should be inclused of plant accounts should be inclused of plant accounts should be been to indicate the	ould be	effect of such amo 4. Reclassifications of accounts should b		
Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Depreciation (d)	Other Credits (e)	Adjustments Transfers (f)	Balance End of Year (g)
1 2 3	1. INTANGIBLE PLANT						
4 5 6	2. PRODUCTION PLANT A. Steam Production	0	0	0	0	0	(
8 9 10	 310 Land and Land Rights	290,857 0		11,057			279,800 (
13 14	314 Turbogenerator Units 315 Accessory Electric Equipment 316 Miscellaneous Power Plant						
	Equipment Total Steam Production Plant B. Nuclear Production Plant 320 Land and Land Rights 321 Structures and Improvements	0 290,857	0	11,057	0	0	279,800
20 21 22	322 Reactor Plant Equipment 323 Turbogenerator Units 324 Accessory Electric Equipment 325 Miscellaneous Power Plant						
24	Equipment Total Nuclear Production Plant	0	0	0	0	0	(

I

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	22,410,596	18,000	749,104			21,679,492
4	332 Reservoirs, Dams and Waterways	12,928,923	7,835	583,206		593,851	12,947,403
5	333 Waterwheels, Turbines and						
_	Generators	25,515,704		923,854		1,214,364	25,806,214
6	334 Accessory Electric Equipment	3,435,341	3,773	129,154		472,950	3,782,910
7	335 Miscellaneous Power Plant						
	Equipment	181,182	5,835	6,663		129,673	310,027
8	336 Roads, Railroads and Bridges						
9	Total Hydraulic Production Plant	65,395,467	35,443	2,391,982	0	2,410,838	65,449,766
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	65,701,364	35,443	2,403,039	0	2,410,838	65,744,606
20	3. TRANSMISSION PLANT						
21	350 Land and Land Rights	686,311				16,137	702,448
22	351 Clearing Land and Rights of Way						
23	352 Structures and Improvements						
24	353 Station Equipment	6,109,193		204,630		2,413,008	8,317,570
25	354 Towers and Fixures					13,457	13,457
26	355 Poles and Fixtures	1,078,306	8,654	49,630		210,146	1,247,477
27	356 Overhead Conductors and Devices	222,736		17,555		2,242	207,423
28	357 Underground Conduits						0
29	358 Underground Conductors and						0
	Devices						
30	359 Roads and Trails						
31	TOTAL TRANSMISSION PLANT	8,096,546	8,654	271,815	0	2,654,990	10,488,375

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						
2	360 Land and Land Rights	2,942,725				14,556	2,957,28
3	361 Structures and Improvements	71,621		11,204			60,41
4	362 Station Equipment	10,308,064	61	432,346		5,447,891	15,323,67
5	363 Storage Battery Equipment						
6	364 Poles, Towers and Fixtures	3,152,959	236,991	151,460	20,605	217,224	3,435,10
7	365 Overhead Conductors and Devices	4,135,885	128,697	242,014	23,789	363,472	4,362,25
8	366 Underground Conduit	4,803,256	119,001	306,843		352,758	4,968,17
9	367 Underground Conductors and Devices	7,049,192	555,373	369,698	21,592	1,384,687	8,597,96
10	368 Line Transformers (Over & Under)	1,949,666	245,217	158,511	16,631	81,791	2,101,53
11	369 Services (Over & Under)	1,196,255	48,218	116,243	5,319	25,106	1,148,01
12	370 Meters	2,118,811	59,261	97,288	19,122	305,199	2,366,86
13	371 Installation on Cust's Premises	307,286	31,503	30,972	1,662	3,928	310,08
14	373 Street Lighting and Signal Systems	1,394,032	79,414	100,392	6,052	77,554	1,444,55
15	3** Telecommunications	7,793,942	45,212	218,256		148,011	7,768,90
16	TOTAL DISTRIBUTION PLANT	47,223,693	1,548,950	2,235,228	114,773	8,422,177	54,844,81
17	5. GENERAL PLANT						
18	389 Land and Land Rights	98,576					98,57
19	390 Structures and Improvements	2,559,394	74,192	122,204			2,511,38
20	391/391-01 Office Furn & Equip/Comp Equip	531,712	23,211	104,329	15,109	12,229	447,71
21	392 Transportation Equipment	872,247	181,485	331,187	0		722,54
22	393 Stores Equipment	63,325		6,611			56,71
23	394 Tools, Shop and Garage Equipment	40,877	7,203	6,343			41,73
24	395 Laboratory Equipment	12,770		3,478			9,29
25	396 Power Operated Equipment	49,905	48,671	7,835			90,74
26	397 Communication Equipment	61,242		15,839			45,40
27	398 Miscellaneous Equipment	4,220	10,295	534			13,98
28	399 Other Tangible Property						
29	3** Telecommunications	809,835	26,729	146,924		61,517	751,15
30	TOTAL GENERAL PLANT	5,104,102	371,786	745,284	15,109	73,745	4,789,24
31	TOTAL ELECTRIC PLANT IN SERVICE	126,125,705	1,964,833	5,655,366	129,882	13,561,749	135,867,03
32	104 Utility Plant leased to Others						
33	105 Property Held for Future Use	1,013,670	7,638,212			(8,651,882)	(
34	107 Construction Work in Progress	1,712,183	3,426,020			(5,017,952)	120,25
	108 Accumulated Depreciation						
35	TOTAL UTILITY ELECTRIC PLANT	128,851,558	13,029,064	5,655,366	129,882	(108,084)	135,987,29

		Pg	18			
เททนส	al Report of Holyoke Gas and Electric Department				Year Ended I	December 31, 201
	PRODUCTIO	N FUEL AND OIL S		n Account 151)		
		(Except Nucl	ear Materials)			
	1. Report below the information called for concerning produc	tion fuel and oil stocks				
	 Show quantities in tons of 2,000 lbs., gal., or Mcf., whicher 		licable			
	 Each kind of coal or oil should be shown separately. 	ver unit of quantity is upp				
	 Show gas and electric fuels separately by specific use. 					
				KINDS OF FI	JEL AND OIL	
		Total	Oil	Oil	System Storage	System Storage
_ine	Item	Cost	BBL	Cost	MMBTU	Cost
No.	(a)	(b)	(c)	(d)	(e)	(f)
				. /		
1	On Hand Beginning of Year	495,331	0	0	254,969	460,89
	Received During Year	1,147,394	0	0	223,152	555,01
3	TOTAL	1,642,726	0	0	478,121	1,015,91
4	Used During Year (Note A)	936,711			227,890	424,34
5	(Boiler Fuel)					
6						
7						
8						
9						
10						
11	Sold or Transferred	0				
12	TOTAL DISPOSED OF	936,711	0	0	227,890	424,34
13	BALANCE END OF YEAR	706,015	0	0	250,231	591,56
		_	1		ND OIL - continued	
			Propane	Propane	LNG	LNG
Line	Item		GALS	Cost	GALS	Cost
No.	(g)		(h)	(i)	(j)	(k)
	On Hand Beginning of Year		0	0	75,274	34,43
	Received During Year		0	0	1,130,450	592,37
16	Llood During Yoor (Nate A)	TOTAL	0	0	1,205,724	626,81
	Used During Year (Note A)		0	0	1,012,096	512,36
18 19	(Boiler Fuel)					
20 21						
21						
22						
	Sold or Transferred					
		L DISPOSED OF	0	0	1,012,096	512,36

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

		UT	TILITY PLANT - G	BAS			
2.	Report below the items 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-	(c). 3. Credit adjustments	items should be inclus s of plant accounts shi heses to indicate the	nould be		ounts. or transfers within utili oe shown in column (f,	5 1
		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	89,413		1,746		(38,849)	48,817
	306 Boiler Plant Equipment	, -		, -		(,,	- / -
10	307 Other Power Plant Equipment	2,070		71			1,999
11	310 Water Gas Generating Equipment	,					
	311 Liquefied Petroleum Gas						
	Equipment	2,012		190			1,822
13	312 Oil Gas Generating Equipment						
	313 Generating Equipment - Other						
	Processes						
15	315 Catalytic Cracking Equipment						
16	316 Other Reforming Equipment						
17	317 Purification Equipment						
18	318 Residual Refining Equipment						
19	319 Gas Mixing Equipment	212,805		18,609			194,196
20	320 Other Equipment	22,243		799			21,444
21	TOTAL MANUFACTURED GAS						
	PRODUCTION PLANT	413,106	0	21,415	0	(38,849)	352,842
22	2. STORAGE PLANT						
23	360 Land and Land Rights						
24	361 Structures and Improvements	476,971	64	17,241			459,794
25	362 Gas Holders						
26	363 Other Equipment						
27	TOTAL STORAGE PLANT	476,971	64	17,241	0	0	459,794

UTILITY PLANT - GAS (Concluded)

		Balance					
		Beginning			Other	Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Credits	Transfers	End of Yea
No.		(b)	(c)	(d)	(e)	(f)	(g)
1	4. TRANSMISSION AND						
•		00.007					
2	365.1 Land and Land Rights	69,987					69,9
3	365.2 Rights-Of-Way	04 740		4 00 4			40.0
4	366 Structures and Improvements	21,710	11000	1,894	4 000	540.404	19,8
5	367 Mains	7,038,985	14,922	567,459	4,089	519,434	7,001,7
6	368 Compressor Station Equipment	82,420		2,921			79,4
7	369 Measuring and Regulating						
	Station Equipment	1,429,816	7,839	49,663		13,572	1,401,5
8	370 Communication Equip/Telemeter	233,069		9,754		42,429	265,7
9	380 Services	11,456,309	121,904	507,740	13,876	1,141,681	12,198,2
10	381 Meters	2,706,371	45,019	150,225	2,682	123,236	2,721,7
11	382 Meter Installations	1,866		153			1,7
12	383 House Regulators						
13	386 Other Property on Cust's Prem						
14	387 Other Equipment	221		12			2
15	TOTAL TRANSMISSION AND						
	DISTRIBUTION PLANT	23,040,754	189,684	1,289,820	20,647	1,840,352	23,760,3
16	5. GENERAL PLANT						
17	389 Land and Land Rights	59,754					59,7
18	390 Structures and Improvements	476,395	6,566	41,164		209,074	650,8
19	391/391-01 Office Furn & Equip/Comp Equip	234,276	14,534	48,202		6,585	207,1
20	392 Transportation Equipment	292,699	125,734	120,462			297,9
21	393 Stores Equipment						
22	394 Tools, Shop and Garage Equipment	37,740	39,498	22,491			54,7
23	395 Laboratory Equipment						
24	396 Power Operated Equipment	1,320	9,015	440			9,8
25	397 Communication Equipment	10,246		3,450			6,7
26	398 Miscellaneous Equipment	1,656		228			1,4
27	399 Other Tangible Property						
28	TOTAL GENERAL PLANT	1,114,086	195,347	236,437	0	215,658	1,288,6
29	TOTAL GAS PLANT IN SERVICE	25,044,917	385,094	1,564,912	20,647	2,017,161	25,861,6
30	104 Utility Plant leased to Others						
31	105 Property Held for Future Use						
32	107 Construction Work in Progress	49,967	2,013,006			(2,021,498)	41,4
	108 Accumulated Depreciation						
33	TOTAL UTILITY GAS PLANT	25,094,884	2,398,100	1,564,912	20,647	(4,338)	25,903,0

	Pg 21	
Annu	al Report of Holyoke Gas and Electric Department Year End MISCELLANEOUS NON-OPERATING INCOME (Account 421)	ded December 31, 2018
Line	MISCELLANEOUS NON-OPERATING INCOME (Account 421)	Amount
No.	(a)	(b)
1	Miscellaneous Income	490,004
2	O&M Contracts	713,779
3	Gain on Plant Retirements	0
4		
5 6	TOTAL	1,203,783
0	OTHER INCOME DEDUCTIONS (Account 426)	1,203,703
Line	Item	Amount
No.	(a)	(b)
	Loss on Plant Retirements	150,529
8	Boiler Demolition Expense	417,914
9 10	Other Deductions	1,094
11	Const Services Monthly Fee	343,353
12		010,000
13		
14	TOTAL	912,890
	MISCELLANEOUS CREDITS TO SURPLUS (Account 434)	
Line	Item	Amount
No. 15	(a)	(b)
16		
17		
18		
19		
20		
21		
22	TOTAL MISCELLANEOUS DEBITS TO SURPLUS (Account 435)	0
Line	Item	Amount
No.	(a)	(b)
23	Pilot - City of Holyoke	1,080,680
24	Pilot - Others	79,767
25		
26	Const Services Monthly Fee	0
27 28		
20		
30	TOTAL	1,160,447
	APPROPRIATIONS OF SURPLUS (Account 436)	
Line	Item	Amount
No.	(a)	(b)
	Bond Principal Payments	208,333
32 33	Note Payable to City Note Payable to Bank	1,365,000
33 34	INUE F AYADE U DAHK	0
35		
36		
37		
38	TOTAL	1,573,333

Annua	al Reno	ort of Holyoke Gas and Electric Department	Pg 22		Year Ended	December 31, 2018
7 di li li de	пторс	MU	NICIPAL REVENUE (Accounts 4		Tour Endou	10000mber 01, 2010
Line No.	Acct. No.	(K.W.H. Sold Gas Schedul (a)	under the Provisions of Chapter	Cubic Feet (b)	Revenue Received (c)	Average Revenue per M.C.F. (\$0.0000) (d)
1 2	482	Municipal B		73,971	782,649	10.5804
3						
4 Line No.	Acct. No.	Electric Schedu (a)	TOTALS	73,971 K.W.H. (b)	782,649 Revenue Received (c)	10.5804 Average Revenue per K.W.H. (cents) (\$0.0000) (d)
5		Municipal: (Other Than Street Lighting)		18,537,984	2,364,207	0.1275
6 7 8			TOTALS	18,537,984	2,364,207	0.1275
9 10		Street Lighting		1,763,118	382,712	0.2171
11 12			TOTALS	1,763,118	382,712	0.2171
13 14 15 16						
17 19			TOTALS	20,301,102	2,746,918	0.1353
10			PURCHASED POWER (Acco		2,110,010	
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 25 26 27 28			See pages 54 & 55			
29			TOTALS SALES FOR RESALE (Account	447)		
Line No.		Names of Utilities from which Electric Energy is Purchased (a)	Where and at What Voltage Received (b)	к.W.H. (с)	Amount (d)	Revenues per K.W.H. (cents) (\$0.0000) (e)
30 31 32 33 34 35			See pages 52 & 53			
35 36 37			TOTALS			
57			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.

- 4. 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	ours Sold	Average	Number of
						Customer	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 Yea
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	SALES OF ELECTRICITY						
2	440 Residential Sales	14,131,712	1,728,280	108,561,426	8,106,273	14,803	
3	442 Commercial and Industrial Sales:						
4	Small (or Commercial) see instr. 5	22,971,884	2,042,029	186,381,676	9,705,802	2,222	:
5	Large (or Industrial) see instr. 5	5,872,405	271,317	57,432,928	567,807	44	
6	444 Municipal Sales (pg 22)	2,746,918	68,550	20,301,102	(335,217)	113	
7	445 Other Sales to Public Authorities						
8	446 Sales to Railroads and Railways						
9	448 Interdepartmental Sales (484)	296,314	3,431				
10	449 Miscellaneous Electric Sales	291,478	6,612	661,865	(66,810)	485	
11	Total Sales to Ultimate Consumers	46,310,712	4,120,220	373,338,997	17,977,855	17,667	
12	447 Sales for Resale	0	0	0	0	N/A	N/A
13	TOTAL SALES OF ELECTRICITY*	46,310,712	4,120,220	373,338,997	17,977,855	17,667	
14	OTHER OPERATING REVENUES						
15	450 Forfeited Discounts						
16	451 Miscellaneous Service Revenues	162,603	(7,943)				
17	453 Sales of Water and Water Power	6,300	0	*Includes reven	ues from applicatior	n of fuel clauses	11,389,870. ²
18	454 Rent from Electric Property	55,022	1,366				
19	455 Interdepartmental Rents			Total KWH to w	hich applied		319,119,90
20	456 Other Electric Revenues	5,125,509	2,170,867				
21	456 Steam Revenues						
22							
23	Miscellaneous Adjustments to Sales						
24							
25	Total Other Operating Revenues	5,349,434	2,164,290				
26	TOTAL ELECTRIC						
27	OPERATING REVENUES	51,660,146	6,284,510				

			Pg 38				
Annua	Report of Ho	lyoke Gas and Electric Department				Year Ended De	cember 31, 2018
r	Doport by accour	SALES OF ELEC It number the K.W.H. sold, the amount derived and the r	TRICITY TO ULTIN		RS		
		contract. Municipal sales and unbilled sales may be rep					
1			oneu separatery in tota	1.	Average		
					Revenue	Number of	Customers
					per K.W.H.		Rendered)
					(cents)		
Line	Account	Schedule	K.W.H.	Revenue	*(\$0.0000)	July 31	December 31
No.	No.	(a)	(b)	(c)	(\$0.0000) (d)	(e)	(f)
1	440-00	Residential (ER)*	108,561,426	14,131,712	0.1302	14,816	14,785
2	440-00	Residential - Off Peak	100,001,420	14,101,712	0.1302	14,010	14,700
3	440-02	Residential - General Service (EK)					
4	442-00	Commercial (EC)**	186,381,676	22,971,884	0.1233	2,216	2,218
5	442-02	Commercial D	100,001,070	22,011,004	0.1200	2,210	2,210
6	442-03	Area Lighting (CL)	661,865	291,478	0.4404	483	479
7	442-03	Industrial (LI, HW, SI)	57,432,928	5,872,405	0.1022	42	39
8	444-00	Municipal Lighting (MC)	18,537,984	2,364,207	0.1275	112	113
9	444-01	Street Lighting (SL)	1,763,118	382,712	0.1273	1	1
10	484-00	Interdepartmental Sales	1,703,110	296,314	0.2171		
11	101 00			200,014			
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, wh	en including multir	le units per meter	r.		
36		is 17,854 for year end.			- ,		
37							
38		** 26,690,561 kwh of 186,381,676 kwh is Re	esidential Multidwe	lling, Total Resid	lential kwh sales	is 135.251.297 ku	∎ vh
39							
40							
41	ΤΟΤΔΙ	L SALES TO UTIMATE CONSUMERS	1				
42	.017	(Page 37 Line 11)	373,338,997	46,310,712	0.1240	17,670	17,635

nnua	I Report of Holyoke Gas and Electric Department		ar Ended December 31, 201
	ELECTRIC OPERATION AND MAINTENANO	CE 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.		
			Increase or
			(Decrease) from
ine	Account	Amount for Year	Preceding Year
No.	(a)	(b)	(C)
1	POWER PRODUCTION EXPENSE		
2	STEAM POWER GENERATION		
3	Operation:		
4	500 Operation supervision and engineering	62,680	13,60
	501 Fuel		,
	502 Steam expense	0	
	503 Steam from other sources	0	
	504 Steam transferred Cr		
	505 Electric expenses		
	506 Miscellaneous steam power expenses - Water for Steam (30-502-01)		
	507 Rents		
12	Total Operation	62,680	13,66
13	Maintenance:		
14	510 Maintenance supervision and engineering	11,483	7,21
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	
20	Total Maintenance	11,483	7,21
21	TOTAL STEAM POWER GENERATION	74,162	20,87
22	NUCLEAR POWER GENERATION		
23	Operation:		
	517 Operation supervision and engineering		
	518 Fuel		
	519 Coolants and water		
	520 Steam expense		
	521 Steam from other sources		
	522 Steam transferred - Cr		
30	523 Electric expenses		
31	524 Miscellaneous nuclear power expenses		
32	525 Rents		
33	Total Operation	0	
34	Maintenance:		
35	528 Maintenance supervision and engineering		
	529 Maintenance of structures.		
	530 Maintenance of reactor plant equipment		
	531 Maintenance of electric plant.		
	532 Maintenance of miscellaneous nuclear plant		
40	Total Maintenance	0	
41	TOTAL NUCLEAR POWER GENERATION	0	
	HYDRAULIC POWER GENERATION	0	
42 42			
43	Operation:		· · · · ·
	535 Operation supervision and engineering	1,025,974	(46,9
	536 Water for power/Fuel	368,901	(14,23
46	537 Hydraulic expenses	497,174	(153,50
47	538 Electric expenses		
48	539 Miscellaneous hydraulic power generation expenses	248,640	(9,4
49	540 Rents	0	
		2,140,690	(224,18

Annual Report of Holyoke Gas and Electric Department 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		
2	Maintenance:		
3	541 Maintenance Supervision and Engineering	482,265	12,267
4	542 Maintenance of Structures	30,533	(18,926)
5	543 Maintenance of Reservoirs, Dams and Waterways	363,791	21,669
6	544 Maintenance of Electric Plant	0	(1,732)
7	545 Maintenance of Miscellaneous Hydraulic Plant	983,091	(283,325)
8	Total Maintenance	1,859,680	(270,047)
9	TOTAL HYDRAULIC POWER GENERATION	4,000,369	(494,234)
10	OTHER POWER GENERATION		
11	Operation:		
12	546 Operation Supervision and Engineering		
13	547 Fuel		
14	548 Operation Expenses		
15	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	14,965,829	2,498,782
27	556 System Control and Load Dispatching		
28	557 Other Expenses	1,021,157	314,814
29	TOTAL OTHER POWER SUPPLY EXPENSES	15,986,985	2,813,596
30	TOTAL POWER PRODUCTION EXPENSES	20,061,517	2,340,241
31	TRANSMISSION EXPENSES		
32	Operation:		
33	560 Operation Supervision and Engineering	570,880	35,987
34	561 Load Dispatching	,	,
	562 Station Expenses	525,906	434,726
	563 Overhead Line Expenses	,	- , -
	564 Underground Line Expenses		
	565 Transmission of Electricity by Others	2,572,238	(613,265)
39	566 Miscellaneous Transmission Expenses	19,723	(4,129)
40	567 Rents	,	(1,120)
41	Total Operation	3,688,748	(146,680)
42	Maintenance:	0,000,140	(140,000)
43	568 Maintenance Supervision and Engineering	12,469	
43 44	569 Maintenance of Structures	12,403	
44 45		200 242	100.074
	570 Maintenance of Station Equipment	389,342	190,974
46	571 Maintenance of Overhead Lines	396,099	308,631
47 49	572 Maintenance of Underground Lines		
48	573 Maintenance of Miscellaneous Transmission Plant	707.010	400.005
49 50		797,910	499,605
50	TOTAL TRANSMISSION EXPENSES	4,486,658	352,925

ELECTRIC OPERATION AND MAINTENANCE EXPENSES - CONTINUED

Year Ended December 31, 2018

Increase or Amount for Year (Decrease) from Line Account Preceding Year No. (b) (c) (a) DISTRIBUTION EXPENSES 2 Operation: 580 Operation Supervision and Engineering..... 710,591 (88,363) 3 4 581 Load Dispatching..... 5 582 Station Expenses..... 153,914 39,931 6 583 Overhead Line Expenses..... 0 (5 7 584 Underground Line Expenses..... 0 8 585 Street Lighting and Signal System Expenses (852 Communications)..... 87,374 (757 9 586 Meter Expenses..... 183,183 24,069 10 587 Customer Installations Expenses..... 400,203 67,195 11 588 Miscellaneous Distribution Expenses (163's incl)..... 482,162 (131,891 12 589 Rents 13 Telecom (163 & 852 incl)..... 1,296,557 203 867 14 3,313,984 114,046 **Total Operation** 15 Maintenance: 16 590 Maintenance supervision and engineering..... 216,829 (59,491) 591 Maintenance of Structures..... 17 592 Maintenance of Station Equipment..... 119 421 38 519 18 593 Maintenance of Overhead Lines..... 19 1.818.230 55,121 20 594 Maintenance of Underground Lines..... 1,184,616 294,642 595 Maintenance of Line Transformers..... (6,867 21 4,893 22 596 Maintenance of Street Lighting and Signal Systems..... 40,562 (17,330 597 Maintenance of Meters..... 23 7,331 4,035 24 598 Maintenance of Miscellaneous Distribution Plant..... 17,967 6,730 25 88.639 5.990 Telecom..... 26 Total Maintenance 3,498,490 321,349 27 TOTAL DISTRIBUTION EXPENSES 6.812.474 435.395 28 CUSTOMER ACCOUNTS EXPENSES 29 Operation: 30 901 Supervision..... 31 126,066 (14,468) 902 Meter Reading Expenses..... 32 903 Customer Records and Collection Expenses..... 370,544 (7,011) 33 904 Uncollectable Accounts..... 120 109 (36,819) 34 Telecom..... 725 (370) 35 617,444 (58,668 TOTAL CUSTOMER ACCOUNTS EXPENSES 36 SALES EXPENSES 37 Operation: 38 911 Supervision..... 912 Demonstrating and Selling Expenses..... 39 77.387 12,136 40 913 Advertising Expenses..... 16,004 (2,773 41 Telecom..... 134,339 (26,961 42 TOTAL SALES EXPENSES (17,598 227.730 ADMINISTRATIVE AND GENERAL EXPENSES 43 44 Operation: 45 920 Administrative and General Salaries..... 1.277.682 115,025 46 921 Office Supplies and Expenses..... 565,856 80,369 922 Administrative Expenses Transferred - Cr..... 47 469.878 94.302 48 923 Outside Services Employed..... 49 441,376 (77,445 924 Property Insurance..... (2,900 50 925 Injuries and Damages..... 7,541 51 926 Employees Pensions and Benefits..... 3,193,912 (267,739 52 928 Regulatory Commission Expenses..... 53 929 Duplicate Charges - Cr..... 54 930 Miscellaneous General Expenses..... 639,158 (156,639) 931 Rents..... 55 56 443,057 138.848 Telecom..... 57 7,038,460 **Total Operation** (76.180

Year Ended December 31, 2018

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	292,248	(536,283)
4	933 Transportation expense		
5	Telecom	26,142	(21,304)
6	Total Maintenance	318,390	(557,587)
7	TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	7,356,850	(633,767)
8	TOTAL ELECTRIC OPERATION AND MAINTENANCE EXPENSES	39,562,673	2,418,528

SUMMARY OF ELECTRIC OPERATION AND MAINTENANCE EXPENSES

	(a) wer Production Expenses ectric Generation	(b)	(c)	(d)
10 Elec 11				
11	ectric Generation			
12	Steam Power	62,680	11,483	74,162
	Nuclear Power	0	0	0
13	Hydraulic Power	2,140,690	1,859,680	4,000,369
14	Other Power	0	0	0
15 Oth	her Power Supply Expenses	15,986,985	0	15,986,985
16	Total Power Production Expenses	18,190,355	1,871,162	20,061,517
17 Trai	ansmission Expenses	3,688,748	797,910	4,486,658
18 Dist	stribution Expenses	3,313,984	3,498,490	6,812,474
19 Cus	stomer Accounts Expenses	617,444	0	617,444
20 Sale	les Expenses	227,730	0	227,730
21 Adn 22	ministrative and General Expenses	7,038,460	318,390	7,356,850
	DTAL ELECTRIC OPERATION AND MAINTENANCE EXPENSES	33,076,721	6,485,952	39,562,673

24	Compute by dividing Revenues (acct 400) into the sum of		
	Line 23 (d), Depreciation (Acct 403) and Amortization (Ac		87.53%
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 \$942,977.36)	10,492,097
26	Total number of employees of electric department at end	of year including administrative,	
	operating, maintenance and other employees (including p	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.
 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.
- 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.

		Orenetier	Devenue			A	lumber of
		Operating	Revenues	MCF Sold	(1000 BTU)	-	Number of
			Increase or		Increase or	Customers	per Month
		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 GAS	(6)	(0)	(u)	(0)	(1)	(9)
2	480 Residential Sales	9,902,559	1,323,275	842,230.3	81,628.1	10,392	64
3	481 Commercial and Industrial Sales:	0,002,000	1,020,210	012,200.0	01,020.1	10,002	01
4	Small (or Commercial) see instr. 5	7,808,944	1,036,666	734,601.0	59,348.8	1,290	13
5	Large (or Industrial) see instr. 5	3,451,666	285,256	530,980.6	26,061.3	28	1
6	482 Municipal Sales (pg 22)	782,649	100,523	73,971.4	5,543.4	47	0
7	483 Other Sales (481) Interruptible	952,723	65,329	102,238.3	947.9	25	0
8	485 Miscellaneous Gas Sales (484)	65,022	(2,562)	17,243.1	3,192.5	20	(2)
9		,	(_,/	,	-,		(-/
10							
11	Total Sales to Ultimate Consumers	22,963,564	2,808,488	2,301,264.7	176,722.0	11,802	76
12	483 Sales for Resale	0	0		0.0	N/A	N/A
13	TOTAL SALES OF GAS*	22,963,564	2,808,488	2,301,264.7	176,722.0	11,802	76
14	OTHER OPERATING REVENUES						
15	487 Forfeited Discounts						
16	488 Miscellaneous Service Revenues	51,077	(4,548)				
17	489 Revenue from Trans of Gas of Others						
18	490 Sales of Prod Extracted from Nat Gas						
19	491 Revenue from Nat Gas Proc by Others						
20	493 Rent from Gas Property	1,333	0				
21	494 Interdepartmental Rents						
22	495 Other Gas Revenue	380,335	(377,063)				
23							
24							
25	Total Other Operating Revenues	432,744	(381,611)				
26	TOTAL GAS						
27	OPERATING REVENUES	23,396,308	3,992,756				
			Purchased Price				
1			Adjustment	Fuel			
1			Clauses	Clauses			
	*Includes revenue from application of			12,869,848			
	Total MCF to Which Applied			2,199,026.4			

			Pg 44				
Annual	Report of Ho	lyoke Gas and Electric Department				Year Ended De	cember 31, 2018
r	Donort by accour	SALES OF G It number the M.C.F. sold, the amount derived and the nu	SAS TO ULTIMATE				
		contract. Municipal sales, Contract sales and Unbilled sa					
<u> </u>		contract. Municipal sales, contract sales and onbilled sa	lies may be reported se	paratery in total.	Average		
					Revenue	Number of	Customers
					per M.C.F.	(per Bills I	
			M.C.F.		(cents)	(per bills i	(endered)
Line	Account	Schedule	(1000 BTU)	Revenue	*(\$0.0000)	July 31	December 31
No.	No.	(a)	(1000 B10) (b)	(C)	(¢0:0000) (d)	(e)	(f)
1	480-00	Residential	842,230	9,902,559	11.7575	10,394	10,411
2	481-01	Commercial	734,601	7,808,944	10.6302	1,279	1,283
3	481-03	Industrial	530,981	3,451,666	6.5006	28	28
4	481-04	Interruptible	102,238	952,723	9.3187	20	28
5	482-01	Municipal	73,971	782,649	10.5804	47	46
6	484-00	Interdepartmental Sales	17,243	65,022	3.7709	20	20
7			,				
8							
9							
10							
11							
12							
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34 25							
35 26							
36 27							
37 20							
38 20							
39 40							
40 41	TOTA	L SALES TO UTIMATE CONSUMERS	- 1				
41 42	IUIA	(Page 43 Line 11)	2,301,265	22,963,564	9.9787	11,788	11,816

nnua	Pg 45 I Report of Holyoke Gas and Electric Department	Ye	ar Ended December 31, 20
	GAS 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.		
			Increase or
			(Decrease) from
ine	Account	Amount for Year	Preceding Year
No.	(a)	(b)	(C)
1	PRODUCTION EXPENSES	(5)	(0)
2	MANUFACTURED GAS PRODUCTION EXPENSES		
3	STEAM PRODUCTION		
4	Operation:		
	700 Operation supervision and engineering		
6	701 Operation Labor		
7	702 Boiler Fuel	None	None
8	703 Miscellaneous steam expenses		
9	704 Steam transferred - Cr		
10	Total Operation	0	
11	Maintenance:		
	705 Maintenance supervision and engineering		
		None	None
-	706 Maintenance of structures and improvements	NOTe	None
	707 Maintenance of boiler plant equipment		
	708 Maintenance of other steam production plant		
16	Total Maintenance	0	
17	TOTAL STEAM PRODUCTION	0	
8	MANUFACTURED GAS PRODUCTION		
19	Operation:		
20	710 Operation supervision and engineering		
21	Production labor and expenses:		
22	711 Steam Expenses		
	712 Other Power Expenses		
	715 Water gas generating expenses		
	716 Oil gas generating expenses		
	717 Liquefied petroleum gas expenses		
27	718 Other process production expenses		
28	Gas fuels:		
29	721 Water gas generator fuels		
30	722 Fuel for oil gas	None	None
31	723 Fuel for liquefied petroleum gas process		
32	724 Other gas fuels		
33	Gas Raw Materials:		
	726 Oil for water gas		
	727 Oil for gas		
	5		
	728 Liquefied petroleum gas		
	729 Raw materials for other gas processes		
	730 Residuals expenses		
39	731 Residuals produced - Cr		
10	732 Purification expenses		
1	733 Gas mixing expenses		
12	734 Duplicate charges - Cr		
	735 Miscellaneous production expenses		
	736 Rents		
15	Total Operation	0	
		0	
16 17	Maintenance:		
	740 Maintenance supervision and engineering		
	741 Maintenance of structures and improvements	None	None
19	742 Maintenance of production equipment		
50	Total Maintenance	0	
51	TOTAL MANUFACTURED GAS PRODUCTION	0	

Year Ended December 31, 2018

Annual Report of Holyoke Gas and Electric Department GAS OPERATION AND MAINTENANCE EXPENSES - CONTINUED

			Increase or
			(Decrease) from
Line	Account	Amount for Year	Preceding Year
No.	(a)	(b)	(C)
1	OTHER GAS SUPPLY EXPENSES		
2	Operation:		
3	804 Natural gas city gate purchases	9,585,916	732,590
4	805 Other gas purchases	512,365	(51,685)
5	806 Exchange gas		
6	807 Purchased gas expense		
7	810 Gas used for compressor station fuel - Cr		
8	811 Gas used for products extraction - Cr	(40.000)	(222)
9	812 Gas used for other utility operation - Cr	(13,622)	(309)
10	813 Other gas supply expenses	167,000	(12,715)
11	TOTAL GAS SUPPLY EXPENSES	10,251,658	667,881
12		10,251,658	667,881
13	LOCAL STORAGE EXPENSES		
14	Operation:		
15	840 Operation supervision and engineering		
16	841 Operation labor and expenses		
17	842 Rents		
18	Total Operation	0	0
19	Maintenance:		
20	843 Maintenance supervision and engineering		
21	844 Maintenance of structures and improvements		
22 23	845 Maintenance of gas holders	0	0
23 24	846 Maintenance of other equipment Total Maintenance	0	0
24 25	TOTAL STORAGE EXPENSES	0	0
26	TRANSMISSION AND DISTRIBUTION EXPENSES	Ŭ	0
20	Operation:		
28	850 Operation supervision and engineering	314,450	71,529
29	851 System control and load dispatching	219,757	21,686
30	852 Communication system expenses	175,326	(26,416)
31	853 Compressor station labor and expenses	413,701	75,704
32	855 Fuel and power for compressor station		,
33	857 Measuring and regulating station expenses	61,859	(800)
34	858 Transmission and compression of gas by others	- ,	()
	874 Mains and services expenses		
36	878 Meter and house regulator expenses (incl 10-866-00)	195,569	(58,833)
	879 Customer installation expenses	547,726	9,753
38	880 Other expenses (10-814-00 & 163 & 888-02)	231,282	29,521
39	881 Rents	- , -	-,-
40	Total Operation	2,159,671	122,144
41	Maintenance:		,
42	885 Maintenance supervision and engineering		
43	886 Maintenance of structures and improvements		
44	887 Maintenance of mains	910,267	(3,825)
45	888 Maintenance of compressor station equipment	175,497	(62,846)
46	889 Maintenance of measuring and regulating station equipment		
47	892 Maintenance of services.	476,495	2,934
48	893 Maintenance of meters and house regulators	222,806	94,734
49	894 Maintenance of other equipment (10-853-01,03)	100,044	12,531
50	Total Maintenance	1,885,109	43,528
51	TOTAL TRANSMISSION AND DISTRIBUTION EXPENSES	4,044,781	165,672

4,429,975

GAS OPERATION AND MAINTENANCE EXPENSES - CONTINUED

Line	Account		Amount for Year	Increase or (Decrease) from Preceding Year
No. 1	(a) CUSTOMER ACCOUNTS EXPENSES		(b)	(c)
2	Operation:			
3	901 Supervision			
4	902 Meter reading expenses.		67.499	(5,026
5	903 Customer records and collection expenses		203,634	(2,881
6	904 Uncollectible accounts		52,106	6,904
7	905 Miscellaneous customer accounts expenses		,	-,
8		ACCOUNTS EXPENSES	323,238	(1,003
9	SALES EXPENSES			()
10	Operation:			
11	911 Supervision			
12	912 Demonstrating and selling expeneses		41,672	6,320
13	913 Advertising expenses		7,372	(565
14	916 Miscellaneous sales expenses			
15		TAL SALES EXPENSES	49,044	5,755
16	ADMINISTRATIVE AND GENERAL EXPENSES	3		
17	Operation:			
18	920 Administrative and general salaries		779,426	70,663
19	921 Office supplies and expenses		251,298	49,009
20	922 Administrative expenses transferred - Cr			
21	923 Outside services employed	143,294	18,219	
22	924 Property insurance	108,686	(43,081	
23	925 Injuries and damages	27,793	36,019	
24	926 Employees pension and benefits		1,537,204	(187,255
25	928 Regulatory commission expenses			
26	929 Duplicate charges - Cr			
27	930 Miscellaneous general expenses		250,626	(85,796
28	931 Rents	·····		
29		Total Operation	3,098,327	(142,222
30	Maintenance:			
31	932 Maintenance of general plant		146,786	(40,984
32	TOTAL ADMINISTRATIVE AND		3,245,113	(183,206
33	TOTAL GAS OPERATION AND MAIN	NTENANCE EXPENSES	17,913,834	655,100
	SUMMARY OF GAS OPERATIO	ON AND MAINTENANCE EX	PENSES	
ine	Functional Classification	OPERATION	MAINTENANCE	TOTAL
No.	(a)	(b)	(c)	(d)
	Steam production	0	0	C
35	Manufactured gas production	0	0	C
36	Other gas supply expenses	10,251,658	0	10,251,658
37	Total Production Expenses	10,251,658	0	10,251,658
38	Local storage expenses	0	0	(
39	Transmission and distribution expenses	2,159,671	1,885,109	4,044,781
40	Customer accounts expenses	323,238	0	323,238
41	Sales Expenses	49,044	0	49,044
42		3,098,327	146,786	3,245,113
43	TOTAL GAS OPERATION AND MAINTENANCE EXPENSES	15,881,939	2,031,895	17,913,834
44	Ratio of Operating Expenses to Operating Revenues (carry out decimal to		47	
•••				
	Compute by dividing Revenues (acct 400) into the sum of Operation and Line 43 (d), Depreciation (Acct 403) and Amortization (Acct 407), (Page 1		je 47,	83.26

expenses, construction and other accounts

46 Total number of employees of gas department at end of year including administrative,

operating, maintenance, construction and other employees (including part time employees) 40.0

	Report of Holvoke G	Sas and Electric Depar	tment	Pg 48		Vear Ended	December 31, 2018
		ld at two or more differ		nts at each rate should	d be shown in the follo		December 31, 2010
			SALES FO	R RESALE (Account	483)		
Line No.	Names of Com Gas is (a	s Sold	and How	red and Where Measured b)	M.C.F. (1000 BTU) (c)	Rate per M.C.F. (\$0.0000) (d)	Amount (e) 0
2 3 4 5 6 7 8 9 10	3 4 5 6 7 8 9 10 11						Ū
11 12							
13				TOTALS	0	0.0000	0
		State the revenu		SIDUALS (Accounts 7 the respondent result	,	esiduals.	
Line No.	Kind (a)	Revenue (b)	Inventory Cost (c)	Labor, Handling, Selling, Etc. (d)	Total Cost (e) (f)		Net Revenue (g)
14 15 16 17 18 19 20				NONE			
21	TOTALS	0	0	0	0	0	0
			PURCH	ASED GAS (Accounts	804-806)		
	Name of Con				мог	Rate per	
Line	which Purch			d and Where and easured	M.C.F. (1000 BTU)	M.C.F. (\$0.0000)	Amount
No.	(a			b)	(c)	(d)	(e)
23 (Con Ed Energy Deliv Con Ed Storage With Pipeline Variable Cho	drawals	IGP Zone	es 0, 1, 4, 6	2,004,436 265,087	2.9794 1.9597	5,971,963 519,500 25,937
25 L 26 E 27 C	NG Supplier Var Ch Berkshire Gas Comp Columbia Gas of MA Other Supplier and T	arges - all suppliers any	Holyo	ke, MA ke, MA ke, MA	86,186	5.9388	511,838
	ING Supplier Fix Cha GDF Suez/DOMAC UGI Energy Service	arges - all suppliers: c/Engie	Holyo	ke, MA		5.2400	452,000
32 F 33 34	Pipeline Fixed Chgs -						2,616,491
35 36				TOTALS	2,355,709	4.2865	10,097,729

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.
- 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.

No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	(ind of Tax (a)	Total Taxes Charged During Year (omit cents) (b)	Electric (Acct. 408, 409) (c)	Gas	Distribution o lity department (e)				(1)	(j)
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		During Year (omit cents)	(Acct. 408, 409)	Gas (Acct. 408,409)					(1)	()
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		(omit cents)	(Acct. 408, 409)	(Acct. 408,409)	(e)	(f)	(g)	(h)	(1)	(j)
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15					(e)	(f)	(g)	(h)	(1)	<u>(j)</u>
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(1)	(j)
2 3 4 5 6 7 8 9 10 11 12 13 14										
3 4 5 6 7 8 9 10 11 12 13 14 15										
4 5 6 7 8 9 10 11 12 13 14 15										
5 6 7 8 9 10 11 12 13 14 15										
6 7 8 9 10 11 12 13 14 15										
7 8 9 10 11 12 13 14 15										
8 9 10 11 12 13 14 15										1
9 10 11 12 13 14 15										l
10 11 12 13 14 15										
11 12 13 14 15										
12 13 14 15										
13 14 15										
14 15										
15										
					N/A					
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27	Ļ									L
28	TOTAL	0	0	0	0	0	0	0	0	0

	OTHEI	R UTILITY OPERATING	INCOME (Account 414))	
	Repor	t below the particulars ca	alled for in each column.		
Line No.	Property (a)	Amount of Investment (b)	Amount of Revenue (c)	Amount of Operating Expenses (d)	Gain or (Loss) from Operation (e)
1 2					
3 4					
5 6					
7 8					
9 10 11					
12 13			N/A		
14 15			14/7		
16 17					
18 19					
20 21					
22 23					
24 25					
26 27 28					
28 29 30					
31 32					
33 34					
35 36					
37 38					
39 40					
41 42					
43 44					
45 46					
47 48					
49 50 51	TOTALS	0	0	0	0
51	TOTALS	0	0	0	0

Year Ended December 31, 2018

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Annu	al Report of Holyoke Gas and Electric Departmer	Pg 51 nt		Year End	ed December 31, 2018
	INCOME FROM MERC		ND CONTRACT WORK		,
	Report by utility departments the revenues, co	osts, expenses, and net incon	ne from merchandising, jobb	ing, and contract work duri	ng year.
Line No.	ltem (a)	Electric Department (c)	Gas Department (d)	Other Utility Department (d)	Total (e)
1 2 3 4 5 6 7 8	Revenues: Merchandising sales, less discounts, allowances and returns Contract Work Commissions Other (List according to major classes)	67	202,392		202,459
9	Total Devenues	67	202.202	0	202.450
10 11	Total Revenues	07	202,392	0	202,459
14 15 16 17 18 19	Costs and Expenses: Cost of Sales (List according to Major classes of cost) Labor Materials	10,250	138,488		148,738
20 21 22 23 24 25					
27	Sales expenses Customer accounts expenses Administrative and general expenses				0 0 0
30 39 40 41 42 43 44 45 46 47	TOTAL COSTS AND EXPENSES	10,250	138,488	0	148,738
47 48	Net Profit (or Loss)	(10,182)	63,903	0	53,721

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Annual Report of Holyoke Gas and Electric Department		

SALES FOR RESALE (Acccount 447)

- 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

 (1) 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).
- If delivery is made at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; customer owned or leased, CS.

							or Kva of Dem (Specify which	
Line No.	Sales to	Statistical Classification	Export Across State Line	Point of Delivery	Sub Station			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1								
2 3								
4								
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								
27								
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
								20
								21
								22
								23
								24
								25
								26 27
								28 29
								30
								31 32
								32 33
								33 34
								34 35
								35 36
	TOTALS	0	0	0	0	0	0.0000	
1	ITALO	U	0	0	0	0	0.0000	, 57

Year Ended December 31, 2018

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 statisical 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).

						Kw	or Kva of Dem	nand
						(Specify Which	ı)
			Import				Average	
			Across				Monthly	Annual
		Statistical	State		Sub	Contract	Maximum	Maximum
Line	Purchased From	Classification	Line	Point of Receipt	Station	Demand	Demand	Demand
No.	(a)	(b)	(C)	(d)	(e)	(f)	(g)	(h)
	PASNY	FP	х	Holyoke, MA	RS	2,554		
	Stony Brook Peaking	0		Holyoke, MA	RS	4,817		
	Seabrook No. 1	0	х	Holyoke, MA	RS	3,354		
	Millstone No. 3	0	х	Holyoke, MA	RS	3,657		
	Wyman No. 4	0	х	Holyoke, MA	RS	4,262		
	Short-Term Power Purchases	FP		Mass Hub			13,500	4,660
	NextEra Energy Power Mkt (Seabrook)	FP		Mass Hub			10,000	10,000
	Hydro Quebec I	0	х	Holyoke, MA	RS			
	NEPOOL OATT	0		Holyoke, MA	RS			
10	Hydro Quebec II	0	x	Holyoke, MA	RS			
	NU Localized Cost GRSP	0		Holyoke, MA	RS			
12	Cobble Mountain**	0		Holyoke, MA	RS	33,900		
13	Hancock Wind	0	x	Mass Hub	RS	6,032		
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30	**This Purchased Power Generations costs are	e netted in a Mi	scellaneous Ir	ncome Account 004	40-CM-421-42	21-00-4		
31								
32								
33								
34								
35								
36								
37								

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Year Ended December 31, 2018

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

- If receipt of power is at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; seller owned or leased, SS.
- 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)
- e power) **** Includes Transmission Charges** 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 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 Energ	y (Omit Cents)		Cost per	
Type of	Voltage						кwн	
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	14,411,547	114,485	75,200	226,376	416,061	2.8870	1
60 Min.	115kv	187,540	90,899	52,986	4,239	148,124	78.9826	2
60 Min.	115kv	31,151,010	835,631	180,750	1,974	1,018,355	3.2691	3
60 Min.	115kv	34,284,390	1,084,235	218,641	23,217	1,326,093	3.8679	4
60 Min.	115kv	903,800	111,295	90,183	3,498	204,976	22.6794	5
60 Min.	115kv	40,828,000		1,735,875		1,735,875	4.2517	6
60 Min.	115kv	40,800,000		2,403,120		2,403,120	5.8900	7
60 Min.	115kv				23,580	23,580		8
60 Min.	115kv				2,160,926	2,160,926		9
60 Min.	115kv				125,948	125,948		10
60 Min.	115kv				6,818	6,818		11
60 Min.	115kv	29,158,420	2,276,873	1,384,359		3,661,232	12.5563	12
60 Min.	115kv	16,659,760		797,996		797,996	4.7900	13
								14
								15
								16
								17
								18
								19
								20
								21
								22
								23
								24
								25
								26
								27
								28
								29
								30
***includes transm	nission charges							31
								32
								33
								34
								35
								36
	TOTALS	208,384,467	4,513,418	6,939,110	2,576,576	14,029,104	6.7323	37

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INTERCHANGE POWER (Included in Account 555) shall be furnished in Part B. Details of Settlement for

 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).
 Particulars of settlements for interchange power

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	Point	Voltage				
		Across State	of	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)
1	NEPEX		Holyoke, MA	115kv	385,850,200	412,599,385	(26,749,185)	(2,066,465)
2	ICAP Sales		Holyoke, MA	115kv			*	1,704,901
3	Aubin Prop (c/o Open Square)		Holyoke, MA	115kv		2,395,923	(2,395,923)	87,917
4	Solar Constellation		-			4,879,367	(4,879,367)	283,152
5	Solar Citizens					982,157	(982,157)	50,318
6	Solar RICAR					1,084,173	(1,084,173)	67,002
7	Solar Mt. Tom					5,727,833	(5,727,833)	275,509
8	Solar ReneSola Dinn					756,627	(756,627)	44,414
9	Solar ReneSola Kelly					707,249	(707,249)	41,516
10	Solar AEGIS					1,072,871	(1,072,871)	55,897
11	Solar Hadley Mills					444,506	(444,506)	25,959
12	Solar Gary Rome					828,868	(828,868)	40,615
13	Solar Conklin					888,984	(888,984)	62,314
14	Solar Riverside A-B					187,896	(187,896)	10,616
15	Solar Walnut Street					145,194	(145,194)	8,029
16	Solar Jackson					134,327	(134,327)	7,428
17	Solar Boys & Girls Club					171,989	(171,989)	9,511
18	Solar Kelly Way 2					396,580	(396,580)	18,520
19	Solar Resident & Commercial					4,284	(4,284)	3,619
20	Hydro					5,457,639	(5,457,639)	0
21	Nat Gas Generator (Cabot St)					31,682	(31,682)	2,734
22	Diesel Generators					259,983	(259,983)	260,537
23	Mt. Tom Battery					(83,497)	83,497	168,231
24	SWSC (c/o Cobble Mt)***		Westfield, MA	69kv		29,158,420	(29,158,420)	1,095,494
25	MMWEC SP2015A**							188,896
26	*Capacity Demand - kW only	** Pre-Developr	mental Costs for I	Possible New Ger	nerator			
27	***This Purchased Power gener	ation's costs are	e netted in a Misc	ellaneous Income	Account 0040-0	CM-421-421-00-4		
28				TOTALS	385,850,200	468,232,440	(82,382,240)	2,446,664
			B. Details of Sett	lement for Interch	ange Power			
Line	Name of Company			Expla	nation			Amount
No.	(i)			(i)			(k)
29	NEPEX	Nepool Expense	ses					614,240
30	NEPEX	NEPEX Interch	nange					(975,804)
31	Aubin Prop (c/o Open Square)	Non Litility Ger	erator					87.917

Line	Name of Company	Explanation	Amount
No.	(i)	(j)	(k)
29	NEPEX	Nepool Expenses	614,240
30	NEPEX	NEPEX Interchange	(975,804)
31	Aubin Prop (c/o Open Square)	Non Utility Generator	87,917
32	Solar Constellation	Non Utility Generator	283,152
33	Solar Citizens	Non Utility Generator	50,318
34	Solar RICAR	Non Utility Generator	67,002
35	Solar Mt. Tom	Non Utility Generator	275,509
36	Solar ReneSola Dinn	Non Utility Generator	44,414
37	Solar ReneSola Kelly	Non Utility Generator	41,516
38	Solar AEGIS	Non Utility Generator	55,897
39	Solar Hadley Mills	Non Utility Generator	25,959
40	Solar Gary Rome	Non Utility Generator	40,615
41	Solar Conklin	Non Utility Generator	62,314
42	Solar Riverside A-B	Non Utility Generator	10,616
43	Solar Walnut Street	Non Utility Generator	8,029
44	Solar Jackson	Non Utility Generator	7,428
45	Solar Boys & Girls Club	Non Utility Generator	9,511
46	Solar Kelly Way 2	Non Utility Generator	18,520
47	Solar Resident & Commercial	Non Utility Generator	3,619
48	Hydro	Load Reducer	0
49	Nat Gas Generator (Cabot St)	Load Reducer	2,734
50	Diesel Generators	Load Reducer	260,537
51	Mt. Tom Battery	Non Utility Generator	168,231
52	SWSC (c/o Cobble Mt)***	Non Utility Generator	1,095,494
53	MMWEC SP2015A**	Pre-Developmental Costs for a Possible New Generator	188,896
54		TOTALS	2,446,664
1			

_					Pg 57		
Annua	al Report of Holy	oke Gas and El	ectric Departmen		C ENERGY ACCOUNT		Year Ended December 31, 2018
	Report below the ir	nformation called for	concerning the disp	-		and interchanged during the year	ar.
Line				Item			Kilowatt-hours
No.				(a)			(b)
1 2	Generation (ex	cluding station us		JRCES OF ENE	ERGY		
3	-	-	-				0
4	Nuclear						
5	Hydro						237,280,597
6	Other						227 200 507
7 8	Purchases					Total Generation	237,280,597 208,384,467
9	r urchases					385,850,200	200,504,407
10	Interchanges					468,232,440	
11	-			Net (Kwh)			(82,382,240)
12				Received			
13	Transmission for	or/by others (whe					
14				Net (kwh)			202,202,024
15 16			ספוס	OSITION OF EN		TOTAL	363,282,824
17	Sales to ultimat	e consumers (in			NERGI		373,338,997
18							0
19	Energy furnishe	ed without charge	ə				1,161,991
20	Energy used by	the company (e	excluding station	use)			2,386,447
21		tment only					(26,482,410)
22	Energy losses:		1			r	
23 24			losses			12 977 700	
24 25						12,877,799	
26	onaccounted	101 103303				Total Energy Losses	12,877,799
27	Energy losses	as percent of tot	al on line 15			3.54%	
28		-				TOTAL	363,282,824
esta for t 2. Mor mea or m eme eme	ablished monthly (in he combined source thly peak col. (b) sh asured by the sum o hinus net interchang ergency power to an ergency deliveries sh	kilowatts) and mont es of electric energy nould be respondent f its coincidental nel le, minus temp. deliv other system. Moni	t's maximum Kw load t generation and pure veries (not interchant thly peak including s footnote with a brief	aneous peaks tt-hours) d as chases plus ge) of uch	 minutes integrated.) 4. Monthly output should the and purchases plus or mission or wheeling. To 5. If the respondent has two 	eak reading (instantaneous 15, 30 be the sum of respondent's net g ninus net interchange and plus or tal for the year should agree with vo or more power systems not pr on called for below should be fur	eneration r minus net trans- 1 line 15 above. nysically
				MONTH	ILY PEAK	-	
1:	Manth	Kilowette	Dav of Week	Day of	Hour		Monthly Output (kwh)
Line No.	Month (a)	Kilowatts (b)	Day of Week (c)	Month (d)	Hour (e)	Type of Reading (f)	(See Inst 4) (g)
29	January	59,907	Mon	2	18:00	60 Min	(9) 34,863,020
30	February	56,333	Fri	7	13:00	60 Min	28,284,537
31	March	54,097	Wed	23	7:00	60 Min	29,066,189
32	April	50,876	Thurs	6	14:00	60 Min	26,198,781
33	Мау	53,446	Thurs	29	20:00	60 Min	26,766,593
34	June	68,729	Mon	29	22:00	60 Min	29,010,676
35	July	68,793	Thurs	16	19:00	60 Min	35,824,381
36	August	69,817	Tues	29 F	20:00	60 Min	35,629,881
37 38	September Octobor	67,809 53,370	Mon Mon	5 11	20:00	60 Min 60 Min	29,595,746 27,756,340
38 39	October November	53,370 53,601	Mon Tues	11	15:00 17:00	60 Min 60 Min	27,756,340 29,165,140
39 40	December	55,601 56,081	Thurs	13	17:00	60 Min	29,165,140
41			11010	10	11.00	TOTAL	363,282,824

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al Report of Holyoke Gas and Electric Department	Year Ended December 31, 201
GENERATING STATI	ON STATISTICS (Large Stations)
(Except Nucl	ear, See Instruction 10)
 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. Specify if total plant capacity is reported in kva instead of kilowatts as called for on line 5. 	 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

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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		7,973
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		22
12	Net generation, exclusive of station use			178,412,920
13	Cost of plant (omit cents):			-, ,
14	Land and land rights	0		637,366
15	Structures and improvements	1,231,220		17,241,821
16	Reservoirs, dams, and waterways	.,,		14,803,828
17	Equipment costs	185,384		25,632,781
18	Roads, railroads, and bridges	,		,
19	Total Cost	1,416,603		58,315,796
20	Cost per kw of installed capacity	71		1,746
21	Production expenses:			
22	Operation supervision and engineering	62,680		707,922
23	Station labor	-,		,
24	Fuel	0		769,154
25	Supplies and expenses, including water	0		
26	Maintenance	11,483		1,214,730
27	Rents.	,		0
28	Steam from other sources			
29	Steam transferred Credit	0		
30	Total Production Expenses	74,162		2,691,806
31	Expenses per net Kwh (5 places)	N/A		0.01509
32	Fuel: Kind	OIL	GAS	0.01000
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	Parrolo		
-	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			
	Average cost of fuel per unit consumed			
	Average cost of fuel consumed per million B.t.u			
	Average cost of fuel consumed per kwh net gen			
	Average B.t.u. per kwh net generation			
	Average B.a.d. per kwit het generation			

Year Ended December 31, 2018

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Annual Report of Holyoke Gas and Electric Department

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.
- 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 (e) (f) (g) (h) (i) (j) N/A N/A N/A Image: state sta	Lin No
N/A Image: Second s	
NA NA NA Image: Second sec	
	:
NA	
N/A	:
N/A Image: I	
	4
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	1
	1.
Image: second	1
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	3

STEAM GENERATING STATIONS

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- 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.
- 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,

					B	oilers	
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* (f)	Rated Max. Continuous M lbs. Steam per Hour (g)
1	(a)	(D)	(C)	(u)	(e)	(1)	(g)
2							
3							
4							
5							
6							
7 8							
9							
10							
11							
12							
13							
14				N 1/A			
15 16				N/A			
17							
18							
19							
20							
21							
22							
23 24							
24 25							
26							
27							
28							
29							
I							

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-Genera	tors*					
				Name Plat	e Rating						
		Steam		in Kilov	vatts					Station	
		Pressure		At	At	Hydro	ogen			Capacity	
Year		at		Minimum	Maximum	Press	ure++	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)	(q)	(r)	No.
											1
											2
											3
											4
											5
											6
											7
											8
											9
											10
											11 12
											12
											13
					N/A						14
					N/A						16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27
											28
				TOTALS							29

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HYDROELECTRIC GENERATING 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.
- 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 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 (a)	Location of Station (b)	Name of Stream (c)	Attended or Unattended (d)	Type of Unit* (e)	Year Installed (f)	Gross Static Head with Pond Full (g)
	#1 Holyoke/Cabot	Electric Station	Connecticut River	Unattended	(0)	(1)	(9)
	Unit #1	Cabot Street	via Canal System	Chattonaou	Vertical Francis	1923	19 Ft.
	Unit #2				Vertical Francis	1923	16 Ft.
	Unit #3				Vertical Kaplan	1938	18 Ft.
	Unit #4				Vertical Kaplan	1938	18 Ft.
6							
7 8 9	#2 Holyoke/Cabot	Sargeant Street	Connecticut River via Canal System	Unattended	Vertical Kaplan	1938	18 Ft.
-	Hadlay Falla	Gatehouse Road	Connecticut River	Attended			
	Hadley Falls Unit #1	Galenouse Road	Connecticut River	Allended	Vertical Kaplen	1954	50 Ft.
	Unit #2				Vertical Kaplan Fixed Propeller	1954	50 Ft. 50 Ft.
13	Offit #2				Fixed Filopellel	1904	50 Ft.
	Beebe Holbrook	Dwight Street	Connecticut River	Unattended			
15	Deebe Holbrook	Dwight Officer		onationada			
	Unit #2				Vertical Francis	1948	20 Ft.
17	01111 112				Vortical Pranoic	1010	2011
	Boatlock	Gatehouse Road	Connecticut River	Unattended			
-	Unit #1		via Canal System	enationada	Vertical Kaplan	2010	20 Ft.
-	Unit #2				Vertical Francis	1924	20 Ft.
	Unit #3				Vertical Francis	1924	20 Ft.
22							
23 24 25	Skinner	Appleton Street	Connecticut River via Canal System	Unattended	Vertical Francis	1924	20 Ft.
-	Chemical	South Water Street	Connecticut River	Unattended			
-	Unit #1	South Water Street	via Canal System	Unattended	Vertical Kaplan	1935	22 Ft.
	Unit #2		via Carlai System		Vertical Kaplan	1935	22 Ft.
29						1555	2210.
	Riverside 4-7	Water Street	Connecticut River	Unattended			
	Unit #1		via Canal System	Chattonded	Horizontal Francis	1921	33 Ft.
	Unit #2				Horizontal Francis	1921	33 Ft.
-	Unit #3				Vertical Francis	1921	33 Ft.
34							
35	Riverside 8	Water Street	Connecticut River	Unattended	Vertical Francis	1931	33 Ft.
36			via Canal System				
37			-				
38							
*	Horizontal or vertical. Als adjustable propeller (AP),	o indicate type of runner - Impulse (I).	- Francis (F), fixed propell	er (FP), automatio	cally		

Annual Report of Holyoke Gas and Electric Department HYDROELECTRIC GENERATING STATIONS -- Continued

Pg 62B

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Τ

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.

(h) 19' 19' 19' 19' 19' 52' 50' 19'	R.P.M. (I) 200 200 180 180 180 180 180 122 150 200	Maximum hp. Capacity of Unit at Design Head (j) 322 HP 322 HP 386 HP 386 HP 1,107 HP 22,000 HP 21,500 HP 21,500 HP	Year Installed (k) 1923 1923 1923 1923 1938 1954 1954 1984	Voltage (I) 4,800 4,800 4,800 4,800 4,800 4,800 13,800 6,900	Phase (m) 3 3 3 3 3 3 3 3 3 3	Frequency or d.c. (n) 60 cy 60 cy 60 cy 60 cy 60 cy 60 cy 60 cy	Name Plate Rating of Unit in Kilowatts (0) 288 240 288 240 800 19,500 15,800	Number of Units in Station (p) 4	Generating Capacity in Kilowatts (name place ratings) (q) 1,056 800 35,300
19' 19' 19' 19' 19' 52' 50'	200 200 180 180 180 180 122 150	322 HP 322 HP 386 HP 386 HP 1,107 HP 22,000 HP 21,500 HP	1923 1923 1923 1923 1923 1938	4,800 4,800 4,800 4,800 4,800 4,800	3 3 3 3 3 3	60 cy 60 cy 60 cy 60 cy 60 cy 60 cy	288 240 288 240 800 19,500	4	1,056 800
19' 19' 19' 19' 52' 50'	200 180 180 180 180 122 150	322 HP 386 HP 386 HP 1,107 HP 22,000 HP 21,500 HP	1923 1923 1923 1938 1938	4,800 4,800 4,800 4,800 13,800	3 3 3 3 3	60 cy 60 cy 60 cy 60 cy 60 cy	240 288 240 800 19,500	1	800
19' 19' 19' 52' 50' 19'	200 180 180 180 180 122 150	322 HP 386 HP 386 HP 1,107 HP 22,000 HP 21,500 HP	1923 1923 1923 1938 1938	4,800 4,800 4,800 4,800 13,800	3 3 3 3 3	60 cy 60 cy 60 cy 60 cy 60 cy	240 288 240 800 19,500	1	800
19' 19' 19' 52' 50' 19'	180 180 180 122 150	386 HP 386 HP 1,107 HP 22,000 HP 21,500 HP	1923 1923 1938 1954	4,800 4,800 4,800 13,800	3 3 3 3	60 cy 60 cy 60 cy 60 cy	288 240 800 19,500		
19' 19' 52' 50' 19'	180 180 122 150	386 HP 1,107 HP 22,000 HP 21,500 HP	1923 1938 1954	4,800 4,800 13,800	3 3 3	60 cy 60 cy 60 cy	240 800 19,500		
52' 50' 19'	122 150	22,000 HP 21,500 HP	1954	4,800 13,800	3	60 cy 60 cy	19,500		
52' 50' 19'	122 150	22,000 HP 21,500 HP	1954	13,800	3	60 cy	19,500		
50' 19'	150	21,500 HP				-		2	35,300
50' 19'	150	21,500 HP				-		2	35,300
50' 19'	150	21,500 HP				-		2	35,300
50' 19'	150	21,500 HP				-		2	35,300
19'			1304	0,000	0	00 Cy	13,000		
	200	440 HP							
	200	440 HP							
	200	440 HP							
			1948	600	3	60 cy	250	1	250
20'	240	944 HP	2010	6,900	3	60 cy	730	3	3,313
20' 20'	106 106	1,850 HP 1,850 HP	1924 1924	6,600 6,600	3 3	60 cy 60 cy	1,200 1,383		
20	100	1,00011F	1924	0,000	5	00 Cy	1,505		
20'	180	400 HP	1924	600	3	60 cy	300	1	300
						,			
24'	200	1,430 HP	1935	600	3	60 cy	800	2	1,600
24'	200	1,430 HP	1935	600	3	60 cy	800		
33'	4,200	1,250 HP	1921	6,600	3	60 cy	880	3	3,270
33'	5,200	1,040 HP	1921	2,300	3	60 cy	600	0	0,210
33'	7,150	2,250 HP	1921	6,900	3	60 cy	1,790		
33'	128	6,000 HP	1931	2,400	3	60 cy	4,575	1	4,575
						SUB TOTALS	50,464	18	50,464

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HYDROELECTRIC GENERATING 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.
- 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 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 No.	Name of Station (a)	Location of Station (b)	Name of Stream (c)	Attended or Unattended (d)	Type of Unit* (e)	Year Installed (f)	Gross Static Head with Pond Full (g)
	#5 Hydro (Valley)	Valley Mill Road	Connecticut River	Unattended	Vertical Kaplan	1994	26.3 Ft.
2			via Canal System				
3							
4							
5							
6							
7							
8 9							
9 10							
11							
12							
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25							
26							
27							
28							
29 30							
30 31							
32							
33							
34							
35							

adjustable propeller (AP), Impulse (I).

Annual Report of Holyoke Gas and Electric Department HYDROELECTRIC GENERATING STATIONS -- Continued

Pg 63B

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.

	Wate	er Wheels Contin	ued			Gene	erators		Total Installed	
		Maximum hp.					Name Plate	Number	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.
27'	277	1060 HP	1994	4,800	3	60 cy	790	1	790	1 2
										23
										4
										5
										6
										7
										8
										9
										10
										11
										12 13
										13
										15
										16
										17
										18
										19
										20
										21
										22 23
										23 24
										25
										26
										27
										28
										29
										30
										31
										32 33
										33 34
						TOTALS	51,254	19	51,254	35
										•

COMBUSTION ENGINE AND OTHER GENERATING STATIONS (except nuclear stations) 1. Report the information called for concerning generating generating generating stations and equipment at end of year. Show associated prime movers and generators on the same line. 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 Line No. (a) (b) (c) (c) (d) (c) (d) (e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f	_				Pg 64						
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. property is leased from another company, give name of lessor, date and term of lease, and annual rent. For any generating station, or portion thereof, for which the respondent operates or shares to which is included in Account 121, Nonutility Property. property is leased from another company, give name of lessor, date and term of lease, and annual rent. For any generating station or portion thereof, for which the respondent operates or shares to such matters as percent owner. 1. Designate any generating station or portion thereof for which the respondent operation of Jurnish as succinct statement explaining that arrangement and giving particulars as to such matters as percent owner. 1. Name of Station Location of Station 0 (a) (b) (c) (c) 1 (a) 1 (b) 2 (c) 1 (c) 1 (c) 2 (c) 1 (c) 2 (c) 1 (c) 1 (c) 2 (c) 1	Annu	al Report of Holyoke Gas			OTHER GENERATI	NG STATIONS	Year Ended	December 31, 2018			
stations and equipment at end of year. Show associated prime movers and generators on the same line. 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutiliy Property. 3. Designate any generating station or portion thereof, for which the respondent operates or shares in the operation of, fursish a succinct statement explaining the arrangement and giving particulars as to such matters as percent owner. I and the solution of Station Name of Station Location of Station Name of Station Location of Station Name of Maker Name of Station Name of Maker S S S S S S S S S S S S S S S S S S S				(except n	uclear stations)						
Line No. Name of Station Location of Station Diesel or Other Type Engine Name of Maker Year Installed (e) 2 or 4 C/cle 1 (b) (c) (d) (e) (f) 2 (f) (f) (f) 3 (f) (f) (f) 4 (f) (f) (f) 5 (f) (f) (f) 6 (f) (f) (f) 7 (f) (f) (f) 8 (f) (f) (f) 9 (f) (f) (f) 11 (f) (f) (f) 12 (f) (f) (f) 13 (f) (f) (f) 14 (f) (f) (f) 15 (f) (f) (f) 16 (f) (f) (f) 17 (f) (f) (f) 18 (f) (f) (f) 19 (f) (f) (f) 20 (f) (f) (f) 21 (f) (f) (f) 22 (f) (f) (f) 23 (f) (f) (f) <td></td> <td>stations and equipme prime movers and ge 2. Exclude from this sch which is included in A 3. Designate any genera</td> <td>nt at end of year. Show as nerators on the same line edule, plant, the book cos account 121, Nonutility Pro- ating station or portion the</td> <td>ssociated st of operty. vreof</td> <td>lessor, date and ter generating station, thereof, for which th in the operation of, explaining the arrar</td> <td>nual rent. For any station, or portion ates or shares tatement</td> <td></td>		stations and equipme prime movers and ge 2. Exclude from this sch which is included in A 3. Designate any genera	nt at end of year. Show as nerators on the same line edule, plant, the book cos account 121, Nonutility Pro- ating station or portion the	ssociated st of operty. vreof	lessor, date and ter generating station, thereof, for which th in the operation of, explaining the arrar	nual rent. For any station, or portion ates or shares tatement					
Name of Station Location of Station Other Type Engine Name of Maker Year Installed 2 or 4 Cycle 1 (a) (b) (c) (d) (e) (f) 2 (b) (c) (d) (e) (f) (f) 1 (b) (c) (d) (e) (f) (f) 2 (f) (f) (f) (f) (f) (f) 2 (f) (f) (f) (f) (f) (f) 3 (f) (f) (f) (f) (f) (f) 4 (f) (f) (f) (f) (f) (f) 5 (f) (f) (f) (f) (f) (f) 10 (f) (f) (f) (f) (f) (f) (f) 11 (f) (f) (f) (f) (f) (f) (f) 12 (f) (f) (f) (f) (f) <				Prime Movers							
2 3 4 1				Other Type Engine		Installed	Cycle	Belted or Direct Connected (g)			
30 31 31 32 33 34 35 36 36 37	$\begin{array}{c} 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 31\\ 32\\ 33\\ 34\\ 35\\ 36\end{array}$				N/A						

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Year Ended December 31, 2018

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	s Continued			Gen	erators				
Rated hp. of Unit	Total Rated hp. of Station Prime Movers	Year Installed	Voltage	Phase	Frequency or d.c.	Name Plate Rating of Unit in Kilowatts	Number of Units in Station	Total Installed Generating Capacity in Kilowatts (name plate ratings)	Line
(h)	(i)	(j)	(k)	(I)	(m)	(n)	(o)	(p)	No.
									1
									2
									3
									4 5
									6
									7
									8
									9
									10 11
									12
									13
									14
				N/A					15
									16 17
									17
									19
									20
									21
									22
									23 24
									25
									26
									27
									28
									29 30
									30 31
									32
									33
									34
									35 36
					TOTALS				30 37
								1	

GENERATING STATION STATISTICS (Small Stations)

Pg 66

 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 Commision,

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.

unuc		cuciaiio	wei commision,		Instead of Kit	Jwalls.			ě	live iccu water	cycic, icp	on as one plant.
								Produ	iction Exp	enses		Fuel Cost
			Installed		Net		Plant	Exclusiv	ve of Depr	eciation		Per KWH
			Capacity	Peak	Generation		Cost		and Taxes	3		Net
			Name	Demand	Excluding		Per KW	(0	Omit Cent	s)	Kind	Generation
		Year	Plate	KW	Station	Cost of Plant		,		/	of	(Cents)
Line	Name of Plant	Const.		(60 Min.)	Use	(Omit Cents)		Labor	Fuel	Other	Fuel	(0.0000)
No.	(a)	(b)	(c)	(d)	(e)	(01111001110) (f)	(g)	(h)	(I)	(j)	(k)	(0.0000)
	Holy/Cabot 1-4*	1923	1,856	1,856	2,488,830	2,281,922	1,229	94,658	(.)	86,962	Hydro	7.2974
	Beebe Holbrook		250	250	403,780	676,125	2,705	18,861		15,336	Hydro	8.4693
	Chemical	1935	1,600	1,600	3,490,100	1,436,766	898	39,609		41,927	Hydro	2.3362
	Skinner	1924	300	300	1,073,600	676,125	2,254	19,152		16,153	Hydro	3.2885
	Boatlock	1924	3,313	3,313	16,454,990	5,831,579	1,760	166,422		134,404	Hydro	1.8282
	Riverside 4-7	1921	3,270	3,270	13,611,780	7,057,057	2,158	196,574		132,943	Hydro	2.4208
	Riverside 8	1921	4,575	4,575	19,397,300	7,057,057	1,543	196,574		132,943	Hydro	1.6988
	Valley Hydro	1931	4,575	4,373	1,947,297	1,183,219	1,343	9,419		3,686	Hydro	0.6730
о 9	valley Hyulu	1994	790	790	1,947,297	1,103,219	1,490	9,419		3,000	пушо	0.0730
10												
11												
12												
13												
14												
15												
16												
17												
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35												
36												
37												
38	-	TOTALS	1		58,867,677	26,199,849		741,270		564,353		2.2179
H	1	•			-,,	-,,	1	.,=				

* 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. Harris Energy includes Albion A, Albion D, and Nonotuck plants.

TRANSMISSION LINE STATISTICS

Report information concerning transmission lines as indicated below.

	Desi	gnation	Ĩ		Lenath (P	Pole Miles)		
Line No.	From (a)	To (b)	Operating Voltage (c)	Type of Supporting Structure (d)	On Structures of Line Designated (e)	On Structures of Another Line (f)	Number of Circuits (g)	Size of Conductor and Material (h)
	Eversource Fairmont	HGE	115 KV	Steel Pole	0.03 miles	(1)	1	795 KCM
2	North Canal TAP	North Canal Substation			0.05 miles		I	ACSR
6	Eversource Southampton TAP	HGE Ingleside Substation	115 KV	Wood and Steel Pole	5.23 miles		1	795 KCM ACSR
9 10	HGE Ingleside Substation	HGE Holyoke Substation	115 KV	Wood and Steel Pole	3.14 miles		1	795 KCM ACSR
13 14	HGE North Canal Substation	HGE Holyoke Substation	115 KV	Wood and Steel Pole	0.85 miles		1	795 KCM ACSR
44				TOTALS	9.25 miles		4	
	* Where other thar	n 60 cycle, 3 phase	e, so indicate.					

Year Ended December 31, 2018

- 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.
- SUBSTATIONS 4. 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.
- 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.

04.00				VOLTAGE					Conve	ersion App	aratus
		Character				Capacity of	Number	Number		oecial Equi	
	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)	in Service	formers	Equipment	Of Units	Capacity
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	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											
	Holyoke Substation	Transmission	115,000				2				
10	102 Cabot Street (rear)	Distribution		13,800			@				
11	Holyoke, MA 01040				-	50,000	15/20/25	0			
12											
	Ingleside Substation	Transmission	115,000				1 @ 18/24/30)			
	320 Whitney Avenue	Distribution		13,800		2	2 @ 15/20/25				
	Holyoke, MA 01040	Unattended			-	80,000		0			
16											
	North Canal Substation	Transmission	115,000				2@				
	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											
34											
35											
36 37					TOTALS	328,748	18	2		0	0
31	l	1			IUTALS	JZ0,148	18	2	l	U	U
		column (f) - ad	iusted all r	atings to refl	ect hiaher	forced cooli	na				
I			,				2				

	OVERH				
				Length (Pole Miles)	
₋ine No.			Wood Poles	Steel Towers	Total
	Miles - Beginning of Year		163.040	Oleci Towers	163.04
2	Added During Year		7.067		7.06
3	Retired During Year		(10.148)		(10.14
4	Miles - End of Year		159.959	0.000	159.95
5	Distribution System Characteristics - A.C. or D.C., p	hase, cycles and opera	ting voltages for Light an	d Power.	
6		•	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		
		60 HZ	120/240 V		
15			RS AND LINE TRANSF	ORMERS Line Transfo	rmers
15					rmers Total
.ine			RS AND LINE TRANSF		
ine		ION SERVICES, METE	RS AND LINE TRANSF		Total
ine lo.	ELECTRIC DISTRIBUT	ION SERVICES, METE	RS AND LINE TRANSF Number of Watt-hour	Line Transfo	Total Capacity (Kva)
ine Jo. 16 17	ELECTRIC DISTRIBUT	ION SERVICES, METE Electric Services	RS AND LINE TRANSF Number of Watt-hour Meters	Line Transfo Number	Total Capacity (Kva)
ine <u>Jo.</u> 16 17 18	ELECTRIC DISTRIBUT	ION SERVICES, METE Electric Services 16,266	RS AND LINE TRANSF Number of Watt-hour Meters	Line Transfo Number	Total Capacity (Kva) 289,79
ine Jo. 16 17 18 19	ELECTRIC DISTRIBUT	ION SERVICES, METE Electric Services	RS AND LINE TRANSF Number of Watt-hour Meters 20,019	Line Transfo Number 2,474	Total Capacity (Kva) 289,79
ine Jo. 16 17 18 19 20	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired	ION SERVICES, METE Electric Services 16,266 140	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743	Line Transfo Number 2,474 164	Total Capacity (Kva) 289,79 9,23
ine <u>lo.</u> 16 17 18 19 20 21	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions	ION SERVICES, METE Electric Services 16,266	RS AND LINE TRANSF Number of Watt-hour Meters 20,019	Line Transfo Number 2,474	Total Capacity (Kva) 289,79 9,23
ine No. 16 17 18 20 21 22	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year:	ION SERVICES, METE Electric Services 16,266 140	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743	Line Transfo Number 2,474 164 164	Total Capacity (Kva) 289,79 9,23 9,23
ine No. 16 17 18 20 21 22 23	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Reductions during year:	ION SERVICES, METE Electric Services 16,266 140	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743	Line Transfo Number 2,474 164	Total Capacity (Kva) 289,79 9,23 9,23
ine Jo. 16 17 18 20 21 22 23 24	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Retirements Associated with utility plant sold	ION SERVICES, METE Electric Services 16,266 140 140 774	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743	Line Transfo Number 2,474 164 164 154	Total Capacity (Kva) 9,23 9,23 9,23 7,53
ine Jo. 16 17 18 20 21 22 23 24 25	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Retirements Associated with utility plant sold Total Reductions	ION SERVICES, METE Electric Services 16,266 140 140 774 774	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 774 774	Line Transfo Number 2,474 164 164 154 154	Total Capacity (Kva) 289,79 9,23 9,23 7,53 7,53
ine 10. 17 18 20 21 22 23 24 25 26	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Retirements Associated with utility plant sold Total Reductions Number at End of Year	ION SERVICES, METE Electric Services 16,266 140 140 774 774 774 15,632	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 743 774 774 774	Line Transfo Number 2,474 164 164 154	Total Capacity (Kva) 289,79 9,23 9,23 7,53 7,53
ine No. 16 17 18 20 21 22 23 24 25 26 27	ELECTRIC DISTRIBUT Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Retirements Associated with utility plant sold Total Reductions Number at End of Year In stock	ION SERVICES, METE Electric Services 16,266 140 140 774 774 15,632	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 774 774	Line Transfo Number 2,474 164 164 154 154	Total Capacity (Kva) 9,23 9,23 9,23 7,53 7,53
ine 16 17 18 20 21 22 23 24 25 26 27 28	ELECTRIC DISTRIBUT Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Retirements Associated with utility plant sold Total Reductions Number at End of Year In stock Locked meters on customer's premises	ION SERVICES, METE Electric Services 16,266 140 140 774 774 774 15,632	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 743 743 744 774 19,988 2,430	Line Transfo Number 2,474 164 164 154 154	Total Capacity (Kva) 289,79 9,23 9,23 7,53 7,53
ine 10 17 17 20 21 22 23 24 25 26 27 28 29	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Reductions during year: Retirements Associated with utility plant sold Total Reductions Number at End of Year In stock. Locked meters on customer's premises Inactive transformers	ION SERVICES, METE Electric Services 16,266 140 140 774 774 15,632	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 743 743 744 743 743 743 743	Line Transfo Number 2,474 164 164 154 154	Total Capacity (Kva) 289,79 9,23 9,23 7,53 7,53
ine No. 16 17 18 20 21 22 23 24 25 26 27 28 29 30	Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Reductions during year: Retirements Associated with utility plant sold Total Reductions Number at End of Year In stock. Locked meters on customer's premises In customer's use	ION SERVICES, METE Electric Services 16,266 140 140 774 774 15,632	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 743 743 743 743 743 743 743	Line Transfo Number 2,474 164 164 154 154	Total Capacity
ine lo. 16 17 18 20 21 22 23 24 25 26 27 28 29 30	ELECTRIC DISTRIBUT Item Number at beginning of year Additions during year: Purchased Installed Associated with utility plant acquired Total Additions Reductions during year: Reductions during year: Retirements Associated with utility plant sold Total Reductions Number at End of Year In stock. Locked meters on customer's premises Inactive transformers In customer's use	ION SERVICES, METE Electric Services 16,266 140 140 774 774 15,632	RS AND LINE TRANSF Number of Watt-hour Meters 20,019 743 743 743 743 743 744 743 743 743 743	Line Transfo Number 2,474 164 164 154 154	Total Capacity (Kva) 289,79 9,23 9,23 7,53 7,53

Annua	al Report of Holyoke Gas and Electric Department	Pg 70			Year Ended D	December 31, 20
		UND CABLE AND SUBM		(Distribution Syste	am)	
	Report below the information called for	or concerning conduit, unde	erground cable	, and submarine cabl	le at end of year	r.
			Undergr	ound Cable	Subma	rine Cable
Line No.	Designation of Underground Distirbution System (a)	Miles of Conduit (All Sizes and Types) (b)	Miles* (c)	Operating Voltage (d)	Feet* (e)	Operating Voltage (f)
2 3	Steel Steel Conduit (encased) Non-Metallic Duct Non-Metallic Duct (encased)	48.939 1.437 99.948 89.712				
10 11 12 13 14	Total - Beginning		182.590	34.5KV/19.9KV 13.8KV/7.9KV 4.8KV/600V 480V/277 240/208/120		
15 16 17	Net Primary Installed		1.748	13.8/7.9/4.8KV		
 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 	Net Secondary Installed		1.170	600/480/277 240/208/120		
34 35	TOTALS	240.036	185.508			

			STRE	ET LAMPS (CONNECTED	TO SYSTEM	1			
						Ту	/pe			
			Incande	escent	Mercury	y Vapor	LE	D	Fluore	scent
	City or									
Line	Town	Total	Municipal	Other	Municipal	Other	Municipal	Other	Municipal	Other
No. 1	(a)	(b)	(c)	(d)	(e)	(f)	(g) <u>WATTS</u>	(h)	(i) <u>WATTS</u>	(j)
2	Holyoke, MA						<u></u>		<u></u>	
3 4										
5										
6 7		6 1,157					200		170	
8		987					100			
9 10		1,748 196					50 60			
11		12					150			
12 13		20					70			
13 14										
15										
16 17										
18 19										
19 20										
21 22										
22										
24 25										
25 26										
27 28										
28 29										
30 31										
32										
33										
34 35										
38 39										
40										
41										
42 43										
44										
45 46										
47										
48 49	TOTALS	4,126								

Annual Re	port of Holy	oke Gas and	l Electric De	partment

Year Ended December 31, 2018

		-		FOR THE YEAR IN U PER CUBIC FOC	-		
Line						[
No.	Item Gas Made	Total	January	February	March	April	May
1 2	Propane - Air Gas	0.0	0.0	0.0	0.0	0.0	0.0
3	LNG Gas	86,186.2	48,833.1	12,777.0	1,199.0	3,749.0	898.0
4	Gas	,	-,	, -	,	-,	
5	Gas						
6	TOTAL	86,186.2	48,833.1	12,777.0	1,199.0	3,749.0	898.0
7							
8	Gas Purchased	0 00 4 405 7	000 507 0	004 450 7	007 400 5	105 001 7	00.045.0
9 10	Natural G-6 Other - Storage	2,004,435.7	282,527.6	261,456.7 17,080.0	237,463.5 55,233.0	165,301.7 51,559.0	90,915.6
10	TOTAL	265,087.0 2,269,522.7	79,753.0 362,280.6	278,536.7	292,696.5	216,860.7	0.0 90,915.6
12	TOTAL MADE AND	2,200,022.7	002,200.0	210,000.1	202,000.0	210,000.7	30,313.0
13	PURCHASED	2,355,708.9	411,113.7	291,313.7	293,895.5	220,609.7	91,813.6
14	Net change in Holder	0.0	0.0	0.0	0.0	0.0	0.0
	Gas						
15	TOTAL SEND OUT	2,355,708.9	411,113.7	291,313.7	293,895.5	220,609.7	91,813.6
16							
17							
18 19	Gas Sold (Firm)	2,249,804.3	401,992.4	314,607.4	258,944.7	243,058.4	122,415.1
19	Gas Sold (Interr.)	105,434.5	14,974.8	10,575.4	20,467.8	11,762.9	2,877.0
	Electric Station Use	0.0	0.0	0.0	0.0	0.0	0.0
20	Gas Used by Company	17,243.1	4,796.3	2,818.5	2,545.0	1,451.3	345.6
	Sale for Resale	0.0	0.0	0.0	0.0	0.0	0.0
21	Gas Accounted For	2,372,481.9	421,763.5	328,001.3	281,957.5	256,272.6	125,637.7
22	Gas Unaccounted For	(16,773.0)	(10,649.8)	(36,687.6)	11,938.0	(35,662.9)	(33,824.1)
23	% Unaccounted For (0.00%)	(0.71)	(2.59)	(12.59)	4.06	(16.17)	(36.84)
24	1 01 (0.00 /0)	(0.71)	(2.00)	(12.00)	4.00	(10.17)	(00.04)
25							
26							
27	Sendout in 24 Hours						
	<u>in Mcf</u>						
28	Maximum - Mcf	19,658.0	19,658.0	15,881.0	11,680.0	10,563.0	4,235.0
	Maximum Date	12/31/2017	1/6/2018	2/2/2018	3/18/2018	4/5/2018	5/12/2018
	Minimum - Mcf Minimum Date	1, <mark>792.0</mark> 8/5/2017	5,969.0 1/12/2018	4,458.0 2/21/2018	6,031.0 3/31/2018	3,312.0 4/28/2018	2,200.0 5/26/2018
32		0/3/2017	1/12/2010	2/21/2010	5/51/2010	4/20/2010	3/20/2010
33							
34							
35	S.O. BTU	1,031	1,031	1,031	1,032	1,031	1,031
	S.O. Sp. Gr.	0.59	0.59	0.59	0.59	0.59	0.59
	Annual weighted average BTL	I content of ass sold	1 031 BTU per Cul	hic Foot			
	a sindar worgined average DTC	s contont of gas solu.					

Pg 72

June	July	August	September	October	November	December
0.0 2,164.0	0.0 3,153.6	0.0 1,845.2	0.0 2,157.3	0.0 1,014.0	0.0 4,822.0	0.0 3,574.0
2,164.0	3,153.6	1,845.2	2,157.3	1,014.0	4,822.0	3,574.0
76,150.7 0.0	69,825.5 0.0	68,994.0 0.0	74,110.5 0.0	131,804.5 24,265.0	228,702.0 37,197.0	317,183.4 0.0
76,150.7	69,825.5	68,994.0	74,110.5	156,069.5	265,899.0	317,183.4
78,314.7 0.0	72,979.1 0.0	70,839.2 0.0	76,267.8 0.0	157,083.5 0.0	270,721.0 0.0	<u>320,757.4</u> 0.0
78,314.7	72,979.1	70,839.2	76,267.8	157,083.5	270,721.0	320,757.4
81,746.8 2,488.9 0.0	70,293.2 2,580.2 0.0	69,885.9 2,274.7 0.0	67,089.4 1,480.7 0.0	109,797.1 7,782.9 0.0	223,677.2 12,104.9 0.0	286,296.7 16,064.3 0.0
92.0 0.0	119.8 0.0	148.6 0.0	43.8 0.0	514.8 0.0	0.0 1,939.5 0.0	2,427.9 0.0
84,327.7 (6,013.0)	72,993.2 (14.1)	72,309.2 (1,470.0)	68,613.9 7,653.9	118,094.8 38,988.7	237,721.6 32,999.4	304,788.9 15,968.5
(7.68)	(0.02)	(2.08)	10.04	24.82	12.19	4.98
3,078.0 6/4/2018 2,092.0 6/30/2018	2,493.0 7/18/2018 1,896.0 7/4/2018	2,498.0 8/20/2018 1,934.0 8/4/2018	3,409.0 9/24/2018 1,792.0 9/3/2018	8,157.0 10/25/2018 2,391.0 10/4/2018	14,958.0 11/22/2018 3,512.0 11/2/2018	13,269.0 12/18/2013 5,233.0 12/21/2013
1,029 0.59	1,029 0.59	1,029 0.59	1,029 0.59	1,029 0.59	1,032 0.59	1,032 0.59

Year Ended December 31, 2018

A	-	Pg 74	View Ended December 24, 2010
Annua	al Report of Holyoke Gas and Electric Department		Year Ended December 31, 2018
	GAS GEN	IERATING PLANT	
Line		No. of	24 Hour
No.	General Description - Location, Size, Type, etc.	Sets	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			
5			
6 7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
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19 20			
20			
22			
23			
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25			
26			
27			
28			
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30			
31			
32			
33 34			
34 35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45		TOTAL	15,000

Annua	al Report of Holyoke Gas a	and Electric Department	Pg 7	5		Year Ended [December 31, 2018	
		·	BOILE	RS				
Line No.	Loc	ation	Kind of Fuel and Method of Firing	Rated Pressure in Lbs.	Rated Steam Temp.	Number	Output Rating M. Lbs. Steam Per Hour	
$\begin{array}{c}1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\8\\9\\20\\21\\22\\23\end{array}$				NONE				
24		SCRUBBERS, CONDEN	NSERS AND EXHA	USTERS - 24 HO	UR CAPACITY (M	CF)		
Line No.			Kind of Ga	as		Total Capacity		
29 30 31 32 33 34 35 36 37 38	Scrubbers Condensers Exhausters		NONE					

Annual Report	t of Holyoke Gas and Electric Departr	nent	Pg 76			Year Ended D	ecember 31, 2018
			PURIFIERS				
Line No.	Location		Kind of Gas Purified		Puri	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 (In	cluding Relief Holde	ers) - Indicate Re	lief Holders by th	ne letters R.H.		
Line No. 25	Location	Type of Tank	Dime Diameter	nsions Height	No. of Lifts	Number	Working Capacity
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41			NONE				

		<u> </u>		
Annual Rep	ort of Holyoke	Gas and	Electric Departm	ent

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.

		Total Length in			Abandoned	Total Length in
Line		Feet at Beginning	Added During	Taken Up	But Not Removed	Feet at End
No.	Diameter	of Year	Year	During Year	During Year	of Year
1	Cast Iron	0				
2	1 1/4"	0				
3	1 1/2"	0				
4	2"	0				
5	2 1/2"	130			0.15	1:
6	3"	13,582			945	12,6
7	4"	87,674			4,496	83,1
8	6"	91,325			575	90,7
9	8"	48,483			1,319	47,1
10	12"	29,305				29,3
11	16"	9,730				9,7
12		T / 1			7.005	070.0
13		-Total 280,229	0	0	7,335	272,8
14	Welded Steel	440,400			4.040	100.1
15	2"	110,466			1,316	109,1
16	3"	618			157	6
17	4"	82,586			157	82,4
18	6"	134,784				134,7
19	8"	106,195			143	106,0
20	10"	12,217				12,2
21	12"	57,870				57,8
22	14"	3,278				3,2
23	16"	1,237				1,2
24						
25		-Total 509,251	0	0	1,616	507,6
26	Wrought Iron					
27	1 1/4"	0				
28	1 1/2"	128				1:
29	2"	0				
30	2 1/2"	198				1
31	3"	198				1
32	4"	0				
33						
34		-Total 524	0	0	0	5
35	Plastic Main					
36	2"	73,454	3,316		160	76,6
37	4"	51,629	3,446			55,0
38	6"	29,327	66			29,3
39	8"	35,733	646			36,3
40		_				
41	Sub	-Total 190,143	7,474	0	160	197,4
42						
43	TO	TALS 980,147	7,474	0	9,111	978,5

		Pg 78		
Annu	al Report of Holyoke Gas and Electric Department		Year E	nded December 31, 2018
	GAS DISTRIBUTION SER	VICES, HOUSE GOVERNOR on Services, House Governors		
Line No.	Item	Gas Services	House Regulators	Meters
1	Number at beginning of year	8,475	3,292	14,205
2 3 4 5	Additions during year: Purchases Installed Associated with Plant acquired	278	70	398
6	TOTAL ADDITIONS	278	70	398
7 8 9	Reductions during year Retirements Associated with Plant sold	276	37	388
10	TOTAL REDUCTIONS	276	37	388
11	NUMBER AT END OF YEAR	8,477	3,325	14,215
12 13 14 15 16	In Stock On Customers' Premises - Inactive On Customers' Premises - Active In Company Use			1,881 518 11,796 20 14,215
17	Number of Meters Tested by State Inspectors During Year			1,696

Annual Report of Hol	voko Cas and	Electric De	oartmont
Annual Report of Hol	yoke Gas and	Electric De	Janmeni

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.

Date	M.D.P.U.		Estimated Effect on Annual Revenues	
Effective	Number	Rate Schedule	Increase	Decrease
		SEE ATTACHED		
			1	



Schedule of Rates 2018

Holyoke Gas & Electric Department 99 Suffolk Street, Holyoke, MA 01040

HOLYOKE GAS AND ELECTRIC DEPARTMENT

RATES AS OF DECEMBER 31, 2018

MDPU No			Effective	Replaces
104G	Interruptible Gas Service Schedule No 2	G2	06/15/85	102G
105G	Interruptible Gas Service Schedule No 6	G6	06/15/85	103G
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
193E	Large General Service Contract Schedule		11/01/15	183E
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
206E	Schedule 3 Large Industrial II Contract Schedule		08/06/18	168E

INTERRUPTIBLE GAS SERVICE SCHEDULE - NO. 2

AVAILABILITY

Interruptible gas service is available under this schedule for boiler use 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 "duel 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 at a rate computed as follows:

Rate \$/CCF = No.2 Oil Price x <u>GAS BTU</u>+A OIL BTUx42 -Where: No. 2 Oil Price:Low posting 2.2% sulpher at New Haven Harbor per Journal of Commerce. \$/barrel. Gas BTU:Average heat value of natural gas delivered BTU/CCF. Oil BTU:140,000 BTU/Gallon A:Adjustment such that rate would be above volume (Commodity + Dekatherm) cost of gas supplied. \$/CCF

NOTICE OF PRICE CHANGE

Notice of price change will be provided by telephone 12 hours in advance of change confirmed promptly in writing.

MINIMUM CHARGE

The minimum charge will be \$500 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 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

Filed: June 15, 1985

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT

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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, it any, sustained by the customer by reason of such interruption.

NON-COMPLIANCE WITH NOTICE TO DISCONTINUE USE

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 rate of \$15.00 per mcf. However, if such failure to discontinue is due to the customer's dual fuel equipment being temporarily inoperable, the Department at its option, may bill the customer for gas subsequently used during the emergency at the rate of \$7.50 per mcf, provided service to other customers is not impaired and provided also that the customer proceeds as expeditiously as possible to repair his dual fuel equipment.

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.

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 either party giving to the other notice in writing 30 days prior to the expiration of any supply year. The basic period of interruptible supply under this schedule is from April 1st to November 1st.

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: June 15, 1985

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT

INTERRUPTIBLE GAS SERVICE SCHEDULE - NO. 6

AVAILABILITY

Interruptible gas service is available under this schedule for boiler use to Commercial and Industrial customers using No.6 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 "duel 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 at a rate computed as follows:

Rate \$/CCF = No.6 Oil Price x <u>GAS BTU</u>+A OIL BTUx42 -Where: No. 6 Oil Price:Low posting 2.2% sulpher at New Haven Harbor per Journal of Commerce. \$/barrel. Gas BTU:Average heat value of natural gas delivered BTU/CCF. Oil BTU:150,000 BTU/Gallon A:Adjustment such that rate would be above volume (Commodity + Dekatherm) cost of gas supplied. \$/CCF

NOTICE OF PRICE CHANGE

Notice of price change will be provided by telephone 12 hours in advance of change confirmed promptly in writing.

MINIMUM CHARGE

The minimum charge will be \$500 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 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

Filed: June 15, 1985

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT

Con't

Con't

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, it any, sustained by the customer by reason of such interruption.

NON-COMPLIANCE WITH NOTICE TO DISCONTINUE USE

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 rate of \$15.00 per mcf. However, if such failure to discontinue is due to the customer's dual fuel equipment being temporarily inoperable, the Department at its option, may bill the customer for gas subsequently used during the emergency at the rate of \$7.50 per mcf, provided service to other customers is not impaired and provided also that the customer proceeds as expeditiously as possible to repair his dual fuel equipment.

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.

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 either party giving to the other notice in writing 30 days prior to the expiration of any supply year. The basic period of interruptible supply under this schedule is from April 1st to November 1st.

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: June 15, 1985

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT

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."

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 April 18, 2014

Effective May 1, 2014

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 - 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

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

M.D.P.U. No. 126G Cancels M.D.P.U. No. 113G

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.

Filed January 13, 2003	CITY OF HOLYOKE	Effective February 13,2003
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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: <u>\$147.40</u> (\$.067/ccf*2200 ccf) Total: \$565.50 Less 10% Prompt Payment: <u>\$56.55</u> Total (Net) \$508.95

Filed January 13, 2003

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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.

Filed January 13, 2003

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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%		
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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
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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%

Filed January 13, 2003

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT Effective February 13,2003

M.D.P.U. No. 126G Cancels M.D.P.U. No. 113G

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

Filed January 13, 2003

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT Effective February 13,2003

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 = \frac{Cg-Cd-Cr+Ca}{FS} -Cb [\[\]/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

Effective December 1, 2016

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-ofuse 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 pointof-use devices at the time of billing.

Filed: October 2, 2013

Effective: January 1, 2014

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

	Year 1	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, ..).

Filed April 16, 2014

Effective June 4, 2014

Mass. DPU 193 G/E Cancels 8/8/2008 Version



HOLYOKE GAS & ELECTRIC RULES AND REGULATIONS

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.
 - b. 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:

HOLYOKE GAS & ELECTRIC RULES & REGULATIONS



- 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.
- 2. 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.

HOLYOKE GAS & ELECTRIC RULES & REGULATIONS



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; 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

- 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.

- 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 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

 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.

HOLYOKE GAS & ELECTRIC RULES & REGULATIONS



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.

HOLYOKE GAS & ELECTRIC RULES & REGULATIONS



- 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.

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."

Facilities Charge:

Redundant Cabling Complete Backup Facilities

-

\$ 13.23/month

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.

Filed December 9, 2015

Effective January 8, 2016

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.

Filed August 12, 2009

CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT Effective August 12, 2009

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 1,350 kW and a minimum monthly consumption of 850,000 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

\$500.00
Consumption
<u>\$/kWh</u>
0.04547
0.01366
0.01326
0.01316
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

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

Charges	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Customer	\$326.00	\$326.00	\$326.00	\$326.00	\$326.00					
		6					-			
		<u>Consumption (\$/kWh)</u>			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
		0.01209	0.01200	0.01557	0.01391	5.91	5.91	4.00	4.15	4.25
Transmission	0.01543	0.01583	0.01200	0.01559	0.01391	5.91	5.97	4.00	4.15	4.25

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

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>	<u>\$/kW</u>
Energy Charge:	0.04312	10.11
Transmission Charge:	0.00347	5.66
Distribution Fixed:	0.00406	0.00
Distribution Variable:	0.00259	4.25
Renewable Energy Char	rge: 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

