

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,

2017

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

Official Title:

Brooke M. McMahon

Director of Finance & Accounting

99 Suffolk Street Holyoke, MA 01040

Office Address:

TABLE OF CONTENTS

			Page
One and lefour ation			0
General Information Schedule of Estimates			3 4
Customers in each City or Town			4
Appropriations Since Beginning of Year			5
Changes in the Property			5
Bonds			6
Town Notes Cost of Plant			7 8-9A
Cost of Flant Comparative Balance Sheet			10-11
Income Statement			12-13
Earned Surplus			12
Cash Balances			14
Materials and Supplies			14
Depreciation Fund Account Utility Plant - Electric			14 15-17
Production of Fuel and Oil Stocks			18
Miscellaneous Non-operating Income			21
Other Income Deductions			21
Miscellaneous Credits to Surplus			21
Miscellaneous Debits to Surplus			21 21
Appropriations of Surplus Municipal Revenues			21 22
Purchased Power			22 & 54-55
Sales for Resale			22 & 53-53
Electric Operating Revenues			37
Sales of Electricity to Ultimate Consumers			38
Electric Operation and Maintenance Expertance Taxes Charged During Year	nses		39-42 49
Other Utility Operating Income			50
Income from Merchandising, Jobbing and	Contract Work		51
Interchange Power			56
Electric Energy Account			57
Monthly Peaks and Output Generating Station Statistics			57 58-59
Steam Generating Stations			60-61
Hydroelectric Generating Stations			62-63
Combustion Engine and Other Generating	Stations		64-65
Generating Statistics (Small Stations)			66
Transmission Line Statistics Substations			67 68
Overhead Distribution Lines Operated			69
Electric Distribution Services, Meters and	Line Transform	ners	69
Conduit, Underground Cable and Submari			70
Street Lamps			71
Rate Schedule Information			79
Signature Page			81
FOR GAS PLANTS ONLY:	Page		Page
Utility Plant - Gas	19-20	Gas Generating Plant	74
Gas Operating Revenues	43	Boilers	75 75
Sales of Gas to Ultimate Consumers	44	Scrubbers, Condensers and Exhausters	75
Gas Operation & Maintenance Expenses	45-47	Purifiers	76
Purchased Gas	48	Holders	76
Sales for Resale Sales of Residuals	48 48	Transmission and Distribution Mains Gas Distribution Services, House Governors	77
Record of Sendout for the Year in MCF	72-73	and Meters	s 78
The state of the s	0		.0
DACES INTENTIONALLY OFFITED SO	TO 26		
PAGES INTENTIONALLY OMITTED: 23	10 36		

Pg3

GENERAL INFORMATION

1. Name of town (or city) making this report. Holyoke, Massachusetts 01040

2. If the town (or city) has acquired a plant,

Kind of plant, whether gas or electric.

Owner from whom purchased, if so acquired.

Date of votes to acquire a plant in accordance with the provisions of chapter 164 of the General Laws.

Record of votes: First vote Yes, ; No, Second vote: Yes, ; No,

Date when town (or city) began to sell electricity, 1902

3. Name and address of manager of municipal lighting: James M. Lavelle

54 Pleasant Street Holyoke, MA 01040

4. 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

6. Name and address of town (or city) clerk: Brenna Murphy-McGee

City Hall

Holyoke, MA 01040

7. Names and addresses of members of municipal light board: Francis J. Hoey, III

15 Carol Lane Holyoke, MA 01040

Robert H. Griffin 6 Whittier Circle Holyoke, MA 01040

James A. Sutter 30 Fairfield Avenue Holyoke, MA 01040

8. Total valuation of estates in town (or city) according to last state valuation Fiscal 2018 7/1/17 - 6/30/18

Fiscal 2017 7/1/16 - 6/30/17 \$2,089,256,133

\$2,097,081,388

9. Tax rate for all purposes during the year: Fiscal 2018 7/1/17 - 6/30/18

Fiscal 2017 7/1/16 - 6/30/17 \$19.17 - Residential \$39.72 - Commercial/Industrial

\$19.13 - Residential \$39.70 - Commercial/Industrial

10. Amount of manager's salary: \$198,145.00

11. Amount of manager's bond: \$100,000.00

12. Amount of salary paid to members of municipal light board (each) \$4,000.00

			Pg 5		
Annual Report of Ho	blyoke Gas and Electric Departm	ent		Year Ended De	ecember 31, 2017
	AP	PROPRIAT	TIONS SINCE BEGINNING OF YEAR		
	(Include also all items char	ged direct t	to tax levy, even where no appropriation is m	ade or required.)	
FOR CONSTRUCT	ION OR PURCHASE OF PLANT	:			
* At	meeting	19	, to be paid from {	\$	
* At	meeting	19	, to be paid from {		
				TOTAL \$	
FOR THE ESTIMAT	ED COST OF THE GAS OR EL	ECTRICITY	Y TO BE USED BY THE CITY OR TOWN FO	OR:	
_					388,350
	ings				3,825,655
o. oteam				\$	4,214,005
*Date of meeting an	d whether regular or special	{ ⊦	Here insert bonds, notes or tax levy		
		CHA	NGES IN THE PROPERTY		
In electric proper	to the works or physical propert				

BONDS

(Issued on Account of Gas or Electric Lighting)

When		Amount of		Payments		Interest	Amount Outstanding
Authorized*	Date of Issue	Original Issue**	Amounts	When Payable	Rate	When Payable	at End of Year
2009 Clean	15-Jan-09	2,500,000		12/15/2020			625,000
Renewable Energy							
Bond							
	TOTAL	2,500,000				TOTAL	625,000

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

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

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

TOWN NOTES

(Issued on Account of Gas or Electric Lighting)

When		Amount of	Period of	Payments		Interest	Amount Outstanding
Authorized*	Date of Issue	Original Issue**	Amounts	When Payable	Rate	When Payable	at End of Year
2012 Note to City of Holyoke	04/01/12	30,532,000		9/1/2031			24,525,000
Debt Premium	04/01/12	3,180,783		9/1/2031			2,066,100
2003 Note to Peoples	11/01/03	2,589,544		Monthly			201,249
	TOTAL	36,302,327				TOTAL	26,792,349

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

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

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

TOTAL COST OF PLANT - ELECTRIC

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

	additions and retirements for the current of the pre-		rentrieses to muicate	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							
3							
4	TOTAL INTANGIBLE PLANT	0	0	0	0	0	0
5	2. PRODUCTION PLANT						
6	A. Steam Production						
7	310 Land and Land Rights						
8	311 Structures and Improvements	1,162,071	69,149				1,231,220
9	312 Boiler Plant Equipment	15,154					15,154
10	312-01 Boiler Plant Equipment Comm						
11	313 Engines and Engine Driven						
	Generators						
12	314 Turbogenerator Units						
13	315 Accessory Electric Equipment	135,977					135,977
14	316 Miscellaneous Power Plant						
15	Equipment	34,253					34,253
16	Total Steam Production Plant	1,347,455	69,149	0	0	0	1,416,603
17	B. Nuclear Production Plant						
18	320 Land and Land Rights						
19	321 Structures and Improvements						
20	322 Reactor Plant Equipment						
21	323 Turbogenerator Units						
	324 Accessory Electric Equipment						
	325 Miscellaneous Power Plant						
	Equipment						
24	Total Nuclear Production Plant	0	0	0	0	0	0

TOTAL COST OF PLANT - ELECTRIC (Continued)

		Balance Beginning					Balance
Line	Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	, (e)	(f)	(g)
1	C. Hydraulic Production Plant	` '	` '	` '	` /	,	(6)
2	330 Land and Land Rights	923,720					923,720
3	331 Structures and Improvements	24,240,318	88,598		641,229		24,970,146
4	332 Reservoirs, Dams and Waterways	20,038,144			814,992		20,853,137
5	333 Waterwheels, Turbines and						
	Generators	30,795,134					30,795,134
6	334 Accessory Electric Equipment	4,139,737	15,603		149,796		4,305,136
7	335 Miscellaneous Power Plant						
	Equipment	177,721	514		43,859		222,093
8	336 Roads, Railroads and Bridges						
9	Total Hydraulic Production Plant	80,314,774	104,715	0	1,649,877	0	82,069,366
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	81,677,269	173,864	0	1,649,877	0	83,501,009
20	3. TRANSMISSION PLANT						
21	350 Land and Land Rights	686,311					686,311
22	351 Clearing Land and Rights of Way						
23	352 Structures and Improvements						
24	353 Station Equipment	10,151,975	12,529		96,089		10,260,594
25	354 Towers and Fixtures						
26	355 Poles and Fixtures	2,776,334					2,776,334
27	356 Overhead Conductors and Devices	1,070,654					1,070,654
28	357 Underground Conduits	1,318				(1,318)	0
29	358 Underground Conductors and Devices	8,310				(8,310)	0
30	359 Roads and Trails						
31	TOTAL TRANSMISSION PLANT	14,694,902	12,529	0	96,089	(9,628)	14,793,892

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	, ,	, ,	, ,	, ,	` ,	, 0,
2	360 Land and Land Rights	2,942,725					2,942,725
3	361 Structures and Improvements	373,467					373,467
4	362 Station Equipment	14,207,691	7,855		195,979		14,411,525
5	363 Storage Battery Equipment						
6	364 Poles, Towers and Fixtures	5,455,599	15,267	167,526	123,989		5,427,329
7	365 Overhead Conductors and Devices	8,414,944	90,979	202,209	153,773		8,457,487
8	366 Underground Conduits	10,202,906	88,524		325,982	1,072	10,618,484
9	367 Underground Conductors & Devices	12,322,512	143,186	175,975	423,926		12,713,648
10	368 Line Transformers (Over & Under)	5,543,165	149,276	446,853	29,793	8,310	5,283,691
11	369 Services (Over & Under)	3,838,930	38,552	26,711	24,002		3,874,773
12	370 Meters-Consumer's Expense	2,865,760	61,740	10,812	326,260		3,242,949
13	371 Installation on Cust's Premises	1,011,745	22,540	1,872			1,032,413
14	373 Street Light and Signal Systems	3,420,975	(55,486)	10,742	13,169	(21,500)	3,346,416
15	3** Telecommmunications	9,903,423	244,891		8,398	246	10,156,958
16	TOTAL DISTRIBUTION PLANT	80,503,842	807,324	1,042,699	1,625,270	(11,872)	81,881,864
17	5. GENERAL PLANT						
18	389 Land and Land Rights	98,576					98,576
19	390 Structures and Improvements	3,720,429	353,026				4,073,455
20	391/391-01 Office Furn & Equip/Comp Equip	2,640,733	127,367		39,848		2,807,948
21	392 Transportation Equipment	2,703,809	333,928	248,406			2,789,331
22	393 Stores Equipment	19,763	53,889				73,652
23	394 Tools, Shop and Garage Equipment	124,670					124,670
24	395 Laboratory Equipment	176,118					176,118
25	396 Power Operated Equipment	111,639	13,571				125,210
26	397 Communication Equipment	613,974	1,348				615,323
27	398 Miscellaneous Equipment	101,506	310				101,815
28	399 Other Tangible Property						
29	3** Telecommmunications	2,111,873	10,849				2,122,722
30	TOTAL GENERAL PLANT	12,423,088	894,288	248,406	39,848	0	13,108,819
31	TOTAL ELECTRIC PLANT IN SERVICE	189,299,101	1,888,005	1,291,105	3,411,084	(21,500)	193,285,585
32			TOTAL COST OF	ELECTRIC PLA	NT		193,285,585
33							
34				•	and Rights of Way		4,773,372
35	Former through the strict of strict				tion is based		188,512,213

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

TOTAL COST OF PLANT - GAS

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

additions and retirements for the current or the pre-	be enclosed in pai	rentneses to indicate	the negative			
	Balance					
						Balance
Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1. INTANGIBLE PLANT						
301 Organization						
303 Miscellaneous Intangible Plant						
TOTAL INTANGIBLE PLANT	0	0	0	0	0	0
2. PRODUCTION PLANT						
Manufactured Gas Production						
304 Land and Land Rights	84,563					84,563
305 Structures and Improvements	101,801	38,849		35,103		175,753
306 Boiler Plant Equipment						
307 Other Power Plant Equipment	2,368					2,368
310 Water Gas Generating Equipment						
311 Liquefied Petroleum Gas Equipment	47,610					47,610
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						
319 Gas Mixing Equipment	1,484,146			38,755		1,522,900
320 Other Equipment	12,049			14,585		26,634
TOTAL MANUFACTURED GAS	1,732,537	38,849	0	88,442	0	1,859,829
PRODUCTION PLANT						
3. STORAGE PLANT						
360 Land and Land Rights						
361 Structures and Improvements	574,701					574,701
362 Gas Holders						
363 Other Equipment						
TOTAL STORAGE PLANT	574,701	0	0	0	0	574,701
	Account (a) 1. INTANGIBLE PLANT 301 Organization	Account (a) 1. INTANGIBLE PLANT 301 Organization	Account (a) Account (b) Additions (c) 1. INTANGIBLE PLANT 301 Organization	Account (a) (b) (c) (d) 1. INTANGIBLE PLANT 301 Organization	Balance Beginning Of Year Additions Retirements Adjustments	Balance Beginning Additions Retirements Adjustments Transfers

TOTAL COST OF PLANT - GAS (Concluded)

		Balance Beginning					Balance
Line	Account	of Year	Additions	Retirements	Adjustments	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	4. TRANSMISSION AND	(5)	(0)	(u)	(6)	(1)	(9)
· ·	DISTRIBUTION PLANT						
2	365.1 Land and Land Rights	69,987					69,987
3	365.2 Rights-of-Way	55,551					55,557
4	366 Structures and Improvements	886,648					886,648
5	367 Mains	19,115,082	65,762	53,698	651,257		19,778,403
6	368 Compressor Station Equipment	72,503	24,857	,	, ,		97,360
7	369 Measuring and Regulating Station	,	,				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Equipment	1,341,388	4,760		309,278		1,655,426
8	370 Comm Equip Meters/Telemeter	322,829	2,307				325,136
9	380 Services	16,387,758	180,349	155,955	1,254,069		17,666,220
10	381 Meters	4,805,316	118,454	27,812	111,540		5,007,498
11	382 Meter Installations	5,086					5,086
12	383 House Regulators						
13	386 Other Property on Cust's Prem						
14	387 Other Equipment	24,871					24,871
15	TOTAL TRANSMISSION AND						
16	DISTRIBUTION PLANT	43,031,469	396,488	237,466	2,326,143	0	45,516,634
17	5. GENERAL PLANT						
18	389 Land and Land Rights	59,754					59,754
19	390 Structures and Improvements	1,276,304	56,964				1,333,268
20	391/391-01 Office Furn & Equip/Comp Equip	1,347,273	60,311				1,407,585
21	392 Transportation Equipment	999,372	167,188	63,645			1,102,915
22	393 Stores Equipment	9,212					9,212
23	394 Tools, Shop and Garage Equipment	224,912					224,912
24	395 Laboratory Equipment						
25	396 Power Operated Equipment	12,637					12,637
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	4,206,070	284,464	63,645	0	0	4,426,889
30	TOTAL GAS PLANT IN SERVICE	49,544,776	719,801	301,111	2,414,585	0	52,378,052
31			TOTAL COST O	GAS PLANT			52,378,052
32							
33			Less Cost of Lar	nd, Land Rights, a	and Rights of Way	·	214,304
34			Total Cost upor	n which deprecia	tion is based		52,163,747

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

COMPARATIVE BALANCE SHEET Assets and Other Debits

Line	Balance		
No. (a) (b) (c) (c)	Beginning of Balance Increase		
UTILITY PLANT 12	Year End of Year or (Decrease)	Title of Account	Line
101 Utility Plant in Service - Electric (pg 17)	(b) (c) (d)	(a)	No.
101 Utility Plant in Service - Gas (pg 20)		UTILITY PLANT	1
Non Operating Plant	127,814,000 128,851,559 1,037,559	101 Utility Plant in Service - Electric (pg 17)	2
TOTAL UTILITY PLANT 157,561,176 159,934,833 150 159,934,834 150 159,934,833 150 159,934,834 15	23,758,787 25,094,884 1,336,098	101 Utility Plant in Service - Gas (pg 20)	3
6 7 8 9 9 10 FUND ACCOUNTS 125 Sinking Funds	5,988,390 5,988,390 0	Non Operating Plant	4
7 8 9 9 10	157,561,176 159,934,833 2,373,656	TOTAL UTILITY PLANT	5
R 9 10 11 FUND ACCOUNTS 125 Sinking Funds			6
9 10			7
10 11 FUND ACCOUNTS 125 Sinking Funds			8
11			9
12 125 Sinking Funds			10
13 126 Depreciation Fund (pg 14) see acct 234 pg 11 128 Other Special Funds		FUND ACCOUNTS	11
14 128 Other Special Funds 17,197,496 22,480,373 15 TOTAL FUNDS 17,197,496 22,480,373 16 CURRENT AND ACCRUED ASSETS 17,197,496 22,480,373 17 131 Cash (pg 14)		125 Sinking Funds	12
TOTAL FUNDS		126 Depreciation Fund (pg 14) see acct 234 pg 11	13
16 CURRENT AND ACCRUED ASSETS 17 131 Cash (pg 14)	17,197,496 22,480,373 5,282,877	128 Other Special Funds	14
17 131 Cash (pg 14)	5 17,197,496 22,480,373 5,282,877	TOTAL FUNDS	15
18 132 Special Deposits 1,334,854 1,562,522 19 132 Working Funds 15,350 15,350 20 141 Notes and Receivables 5,721,234 6,763,904 21 142 Customer Accounts Receivable 5,721,234 6,763,904 22 143 Other Accounts Receivable 421,490 452,968 23 146 Receivables from Municipality 421,490 452,968 24 151 Materials and Supplies (pg 14) 3,362,066 3,360,473 25 163 Stores Expense 56,600,951 61,944,612 26 174 Miscellaneous Current Assets 4,191,899 3,721,139 28 TOTAL CURRENT AND ACCRUED ASSETS 81,187,182 88,776,897 29 DEFERRED DEBITS 996,666 929,999 30 181 Unamortized Debt Discount 996,666 929,999 31 182 Extraordinary Property Debits		CURRENT AND ACCRUED ASSETS	16
19 132 Working Funds	9,539,337 10,955,929 1,416,592	131 Cash (pg 14)	17
20 141 Notes and Receivables	1,334,854 1,562,522 227,668	132 Special Deposits	18
21 142 Customer Accounts Receivable. 5,721,234 6,763,904 22 143 Other Accounts Receivable. 421,490 452,968 23 146 Receivables from Municipality. 421,490 452,968 24 151 Materials and Supplies (pg 14). 3,362,066 3,360,473 25 163 Stores Expense. 56,600,951 61,944,612 26 165 Prepayments. 56,600,951 61,944,612 27 174 Miscellaneous Current Assets. 4,191,899 3,721,139 28 TOTAL CURRENT AND ACCRUED ASSETS 81,187,182 88,776,897 29 DEFERRED DEBITS 996,666 929,999 30 181 Unamortized Debt Discount. 996,666 929,999 31 182 Extraordinary Property Debits. 996,666 929,999	15,350 15,350 0	132 Working Funds	19
22 143 Other Accounts Receivable		141 Notes and Receivables	20
23 146 Receivables from Municipality	5,721,234 6,763,904 1,042,670	142 Customer Accounts Receivable	21
24 151 Materials and Supplies (pg 14)		143 Other Accounts Receivable	22
25 163 Stores Expense	421,490 452,968 31,478	146 Receivables from Municipality	23
26 165 Prepayments	3,362,066 3,360,473 (1,593)	151 Materials and Supplies (pg 14)	24
27 174 Miscellaneous Current Assets		163 Stores Expense	25
28 TOTAL CURRENT AND ACCRUED ASSETS 81,187,182 88,776,897 29 DEFERRED DEBITS 30 181 Unamortized Debt Discount	56,600,951 61,944,612 5,343,661	165 Prepayments	26
29 DEFERRED DEBITS 30 181 Unamortized Debt Discount	4,191,899 3,721,139 (470,760)	174 Miscellaneous Current Assets	27
30 181 Unamortized Debt Discount	8 81,187,182 88,776,897 7,589,715	TOTAL CURRENT AND ACCRUED ASSETS	28
31 182 Extraordinary Property Debits		DEFERRED DEBITS	29
	996,666 929,999 (66,667)	181 Unamortized Debt Discount	30
32 185 Other Deferred Debits		182 Extraordinary Property Debits	31
	0 0 0	185 Other Deferred Debits	32
33 TOTAL DEFERRED DEBITS 996,666 929,999	996,666 929,999 (66,667)	TOTAL DEFERRED DEBITS	33
34			34
35 TOTAL ASSETS AND OTHER DEBITS 256,942,520 272,122,102	5 256,942,520 272,122,102 15,179,582	TOTAL ASSETS AND OTHER DEBITS	35

COMPARATIVE BALANCE SHEET Liabilities and Other Credits

		Balance		
		Beginning of	Balance	Increase
Line	Title of Account	Year	End of Year	or (Decrease)
No.	(a)	(b)	(c)	(d)
1	APPROPRIATIONS			
2	201 Appropriations for Construction			
3	SURPLUS			
4	205 Sinking Fund Reserves			
5	206 Loans Repayment	1,708,016	1,744,583	36,567
6	207 Appropriations for Construction Repayment			
7	208 Unappropriated Earned Surplus (pg 12)	83,655,812	94,083,074	10,427,262
8	TOTAL SURPLUS	85,363,828	95,827,656	10,463,829
9	LONG TERM DEBT			
10	221 Bonds (pg 6)	833,333	625,000	(208,333)
11	231 Notes Payable (pg 7)	28,501,378	26,792,349	(1,709,029)
12	228 Net Pension Liability	30,700,334	30,715,656	15,322
13	TOTAL BONDS AND NOTES	60,035,045	58,133,005	(1,902,040)
14	CURRENT AND ACCRUED LIABILITIES			
15	232 Accounts Payable	9,302,666	9,443,168	140,502
16	234 Payables to Municipality			
17	235 Customer Deposits	1,195,346	1,255,783	60,437
18	236 Taxes Accrued			
19	237 Interest Accrued	377,350	355,784	(21,566)
20	242 Miscellaneous Current and Accrued Liabilities	1,199,087	7,196,000	5,996,913
21	TOTAL CURRENT AND ACCRUED LIABILITIES	12,074,449	18,250,734	6,176,285
22	DEFERRED CREDITS			
23	251 Unamortized Premium on Debt			
24	252 Customer Advance for Construction			
25	253 Other Deferred Credits	98,953,994	99,395,503	441,508
26	TOTAL DEFERRED CREDITS	98,953,994	99,395,503	441,508
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	256,942,519	272,122,102	15,179,582

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

Annua	Pg 12 al Report of Holyoke Gas and Electric Department	Y	ear Ended December 31, 2017					
	STATEMENT OF INCOME FOR THE YEAR							
	_	Tot						
Line No.	Account (a)	Current Year (b)	Increase or (Decrease) from Preceding Year (c)					
1	OPERATING INCOME	(4)	(*)					
2	400 Operating Revenue (pg 37 and pg 43)	66,345,069	(603,673)					
4	401 Operation Expense (pg 42 and pg 47)	45,613,115	1,258,663					
5	402 Maintenance Expense (pg 42 and pg 47)	8,588,863	653,851					
6	403 Depreciation Expense	7,015,686	885,905					
7	407 Amortization of Property Losses	0	0					
8	·							
9	408 Taxes (pg 49)							
10	Total Operating Expenses	61,217,664	2,798,419					
11	Operating Income	5,127,405	(3,402,092)					
12 13	414 Other Utility Operating Income (pg 50)	0	0					
14	Total Operating Income	5,127,405	(3,402,092)					
15	OTHER INCOME							
16	415 Income from Merchandising, Jobbing, and Contract Work (pg 51)	136,967	7,093					
17	419 Interest Income	6,680,735	3,662,234					
18	421 Miscellaneous Nonoperating Income	1,297,879	103,717					
19	Total Other Income	8,115,581	3,773,045					
20	TOTAL INCOME	13,242,986	370,953					
21	MISCELLANEOUS INCOME DEDUCTIONS							
22	425 Miscellaneous Amortization							
23	426 Other Income Deductions	579,341	(5,263,814)					
24	Total Income Deductions	579,341	(5,263,814)					
25	Income before Interest Charges	12,663,645	5,634,767					
26	INTEREST CHARGES							
27	427 Interest on Bonds and Notes	971,618	(21,917)					
28	428 Amortization of Debt Discount and Expense	66,667	0					
	429 Amortization of Premium on Debt							
30	431 Other Interest Expense	1,235	167					
31	432 Interest Charged to Construction-Credit							
32	Total Interest Charges	1,039,519	(21,750)					
33	NET INCOME	11,624,126	5,656,517					
.	EARNED SURPLUS	B.1.	0 19					
Line	(a)	Debits	Credits					
No.	(a)	(b)	(c)					
34 35	Unappropriated Earned Surplus (at beginning of Period)		83,655,812					
36	Adjustment to correct Unappropriated Earned Surplus		1,708,016					
37	433 Balance transferred from Income		11,624,126					
38	434 Miscellaneous Credits to Surplus (pg 21)	0						
39	435 Miscellaneous Debits to Surplus (pg 21)	1,160,297						
40	436 Appropriations of Surplus (pg 21)	1,744,583						
41	437 Surplus Applied to Depreciation							
42	208 Unappropriated Earned Surplus (at end of period)	94,083,074						
43	<u> </u>							
44	TOTALS	96,987,955	96,987,954					

Electric Gas	
Increase or (Decrease) from (Decrease) from Preceding Year (e) (Decrease) from Current Year Preceding Year (g)	rom
(e) (f) (g)	
,375,636 (2,169,553) 20,969,433	1,565,880
	1,410,628
,559,513 795,565 2,029,350	(141,714)
,535,772 823,414 1,479,914	62,491
	1,331,405
,896,621 (3,636,567) 2,230,784	234,475
0	
,896,621 (3,636,567) 2,230,784	234,475
557 557 136,410	6,536
,056,302 3,327,436 624,433	334,798
,273,706 86,007 24,173	17,710
330,566 3,414,001 785,015	359,044
,227,186 (222,566) 3,015,800	593,519
(5.100.010)	(120.005)
545,814 (5,139,819) 33,527	(123,995)
545,814 (5,139,819) 33,527 681 372 4 017 252 2 082 273	(123,995)
,681,372 4,917,252 2,982,273 	717,515
881,803 (17,176) 89,815	(4,741)
66,667 0	0
0 1,235	167
948,470 (17,176) 91,049	(4,574)
	722,088

	Pg 14		
Annua	Report of Holyoke Gas and Electric Department		Year Ended December 31, 2017
	CASH BALANCES AT END OF	YEAR (Account 131)	
Line	Items		Amount
No.	(a)		(b)
1	Operation Fund		10,955,929
2	Interest Fund		
3	Bond Fund		
4	Construction Fund		
5			
6			
7			
8			
9			
10			
11			
12		TOTAL	10,955,929
	MATERIALS AND SUPPLIES (A	ccounts 151-159, 163)	
	Summary per Balar	ice Sheet	
			nd of Year
Line	Account	Electric	Gas
No.	(a)	(b)	(c)
13	Fuel (Account 151) (See Schedule, Page 25)		
14	Fuel Stock Expenses (Account 152)	0	495,332
15	Residuals (Account 153)		
	Plant Materials and Operating Supplies (Account 154)	2,295,281	569,861
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)		
	Stores Expense (Account 163)		
23	Total per Balance Sheet	2,295,281	1,065,193
	DEPRECIATION FUND ACCO	OUNT (Account 126)	
Line	, , , , , , , , , , , , , , , , , , ,		Amount
No.	(a)		(b)
0.5			
	Balance of Account at Beginning of Year		0
26	Income During Year from Balance on Deposit		7,015,686
27	Amount Transferred from Income		7.045.000
28		TOTAL	7,015,686
29	ODEDITO		
30	CREDITS Amount expended for Construction Purposes (Sec. 57, C. 164 of G.L.)		
31			7.04E.000
32 33	Amounts Expended for Renewals		7,015,686
34			
35			
36 37			
38 39	Balance on Hand at End of Year		(0)
40	Dalance On Hand at Lind Of 1641	TOTAL	(0) 7,015,686
40		TOTAL	1,013,000

_			Pg 15			.,	
Annu	al Report of Holyoke Gas and Electric Departi	ment				Year Ended Dec	cember 31, 2017
		UTILIT	ΓΥ PLANT - ELEC	CTRIC			
1.	Report below the items of utility plant in service	ceding year. Such	items should be inclu	uded in column	effect of such amo	ounts.	
	according to prescribed accounts	(c).				or transfers within utili	• •
2.	-	Credit adjustments			accounts should b	e shown in column (f).
	additions and retirements for the current or the pre-	Balance	heses to indicate the	negative			
		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							
4		0	0	0	0	0	0
5	2. PRODUCTION PLANT						
6	A. Steam Production						
7	310 Land and Land Rights						
8	311 Structures and Improvements	230,692	69,149	8,983			290,857
9	312 Boiler Plant Equipment	0					0
10 11	312-01 Boiler Plant Equipment Comm 313 Engines and Engine Driven						
	Generators - Commercial Steam Line						
12	314 Turbogenerator Units						
13	315 Accessory Electric Equipment						
14	316 Miscellaneous Power Plant						
15	Equipment	0					0
16	Total Stream Production Plant	230,692	69,149	8,983	0	0	290,857
17 18	B. Nuclear Production Plant 320 Land and Land Rights						
	321 Structures and Improvements						
	322 Reactor Plant Equipment						
	323 Turbogenerator Units						
22	324 Accessory Electric Equipment						
23	325 Miscellaneous Power Plant						
24	Equipment	0	0	0	0	0	0
	Total Nuclear Production Plant	0	0	0	0	0	0

UTILITY PLANT - ELECTRIC (Continued)

		Balance Beginning			Other	Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	C. Hydraulic Production Plant	(2)	(6)	(4)	(0)	(.)	(9)
2	330 Land and Land Rights	923,720					923,720
3	331 Structures and Improvements	22,407,979	88,598	727,210		641,229	22,410,596
4	332 Reservoirs, Dams and Waterways	12,658,227	,	544,296		814,992	12,928,923
5	333 Waterwheels, Turbines and						
	Generators	26,439,558		923,854			25,515,704
6	334 Accessory Electric Equipment	3,394,134	15,603	124,192		149,796	3,435,341
7	335 Miscellaneous Power Plant						
	Equipment	142,141	514	5,332		43,859	181,182
8	336 Roads, Railroads and Bridges						
9	Total Hydraulic Production Plant	65,965,759	104,715	2,324,883	0	1,649,877	65,395,467
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	66,211,490	173,864	2,333,866	0	1,649,877	65,701,364
20	3. TRANSMISSION PLANT						
21	350 Land and Land Rights	686,311					686,311
22	351 Clearing Land and Rights of Way						
23	352 Structures and Improvements						
24	353 Station Equipment	6,202,793	12,529	202,219		96,089	6,109,193
25	354 Towers and Fixures						
26	355 Poles and Fixtures	1,127,936		49,630			1,078,306
27	356 Overhead Conductors and Devices	240,291		17,555			222,736
28	357 Underground Conduits	1,318				(1,318)	0
29	358 Underground Conductors and	8,310				(8,310)	0
	Devices						
30	359 Roads and Trails						
31	TOTAL TRANSMISSION PLANT	8,266,959	12,529	269,404	0	86,461	8,096,546

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					2,942,725
3	361 Structures and Improvements	82,825		11,204			71,621
4	362 Station Equipment	10,530,461	7,855	426,231		195,979	10,308,064
5	363 Storage Battery Equipment						
6	364 Poles, Towers and Fixtures	3,198,824	15,267	172,668	12,453	123,989	3,152,959
7	365 Overhead Conductors and Devices	4,193,024	90,979	261,448	40,442	153,773	4,135,885
8	366 Underground Conduit	4,702,765	88,524	315,087		327,054	4,803,256
9	367 Underground Conductors and Devices	6,901,863	143,186	378,675	41,108	423,926	7,049,192
10	368 Line Transformers (Over & Under)	1,947,979	149,276	166,295	19,397	38,103	1,949,666
11	369 Services (Over & Under)	1,254,211	38,552	115,168	5,342	24,002	1,196,255
12	370 Meters	1,822,008	61,740	88,318	2,880	326,260	2,118,811
13	371 Installation on Cust's Premises	316,596	22,540	30,352	1,497		307,286
14	373 Street Lighting and Signal Systems	1,569,935	(55,486)	102,629	9,456	(8,331)	1,394,032
15	3** Telecommunications	7,751,702	244,891	211,296		8,644	7,793,942
16	TOTAL DISTRIBUTION PLANT	47,214,918	807,324	2,279,371	132,575	1,613,398	47,223,693
17	5. GENERAL PLANT						
18	389 Land and Land Rights	98,576					98,576
19	390 Structures and Improvements	2,317,981	353,026	111,613			2,559,394
20	391/391-01 Office Furn & Equip/Comp Equip	455,453	127,367	90,956		39,848	531,712
21	392 Transportation Equipment	801,395	333,928	263,075	0		872,247
22	393 Stores Equipment	10,658	53,889	1,222			63,325
23	394 Tools, Shop and Garage Equipment	47,570		6,693			40,877
24	395 Laboratory Equipment	22,008		9,238			12,770
25	396 Power Operated Equipment	42,811	13,571	6,477			49,905
26	397 Communication Equipment	75,598	1,348	15,704			61,242
27	398 Miscellaneous Equipment	6,108	310	2,197			4,220
28	399 Other Tangible Property						
29	3** Telecommunications	944,939	10,849	145,953			809,835
30	TOTAL GENERAL PLANT	4,823,096	894,288	653,130	0	39,848	5,104,102
31	TOTAL ELECTRIC PLANT IN SERVICE	126,516,463	1,888,005	5,535,772	132,575	3,389,584	126,125,705
32	104 Utility Plant leased to Others						
33	105 Property Held for Future Use	0				1,013,670	1,013,670
34	107 Construction Work in Progress	1,297,536	4,850,760			(4,436,113)	1,712,183
	108 Accumulated Depreciation						
35	TOTAL UTILITY ELECTRIC PLANT	127,814,000	6,738,765	5,535,772	132,575	(32,859)	128,851,559

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

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

	. , , , ,					
		.	0.1		JEL AND OIL	0 1 01
		Total	Oil	Oil	System Storage	System Storage
Line	Item	Cost	BBL	Cost	MMBTU	Cost
No.	(a)	(b)	(c)	(d)	(e)	(f)
1	On Hand Basinning of Vacu	400.000	0	0	257.027	250 554
1	On Hand Beginning of Year	488,668	0	0	257,627	359,551
2	Received During Year	887,522	0	0	213,068	418,154
3	TOTAL	1,376,190	U	0	470,695	777,705
4	Used During Year (Note A)	880,858			215,726	316,808
5	(Boiler Fuel)					
6						
7						
8						
9						
10		•				
11	Sold or Transferred	0			0.45 -0.0	0.40.000
12	TOTAL DISPOSED OF	880,858	0	0	215,726	316,808
13	BALANCE END OF YEAR	495,332	0	0	254,969	460,897
				KINDS OF FUEL A	ND OIL continued	
			Propane	Propane	ND OIL - continued LNG	LNG
Line	Item		GALS	Cost	GALS	Cost
No.	(g)		(h)	(i)	GALS (j)	(k)
14	On Hand Beginning of Year		(11)	(1)	195,946	129,117
15	Received During Year		0	0	934,419	469,368
16	Treceived During Teal	TOTAL	0	0	1,130,365	598,485
17	Used During Year (Note A)		0	0	1,055,091	564,050
18	(Boiler Fuel)		· ·		1,000,001	004,000
19	(255 45.)					
20						
21						
22						
23						
24	Sold or Transferred					
25		TAL DISPOSED OF	0	0	1,055,091	564,050
26		ICE END OF YEAR	0	0	75,274	34,435
	D/ LL/ (I	32 2.10 O L/110			10,217	01,400

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

UTILITY PLANT - GAS

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

	additions and retirements for the current of the pre-	Balance	ineses to indicate the	.0			
		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	1. INTANGIBLE FLANT						
3							
4		0	0	0	0	0	0
5	2. PRODUCTION PLANT	0	0	0	0	0	0
6	A. Manufactured Gas Production						
7	304 Land and Land Rights	84,563					84,563
8	305 Structures and Improvements	16,154	38,849	693		35,103	89,413
9	306 Boiler Plant Equipment					·	·
10	307 Other Power Plant Equipment	2,141		71			2,070
11	310 Water Gas Generating Equipment	·					·
	311 Liquefied Petroleum Gas						
	Equipment	2,342		330			2,012
13	312 Oil Gas Generating Equipment						
14	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	191,496		17,446		38,755	212,805
20	320 Other Equipment	8,020		361		14,585	22,243
21	TOTAL MANUFACTURED GAS						
	PRODUCTION PLANT	304,716	38,849	18,901	0	88,442	413,106
22	2. STORAGE PLANT						
23	360 Land and Land Rights						
24	361 Structures and Improvements	494,212		17,241			476,971
25	362 Gas Holders						
26	363 Other Equipment						
27	TOTAL STORAGE PLANT	494,212	0	17,241	0	0	476,971

UTILITY PLANT - GAS (Concluded)

		Balance			_		
		Beginning			Other	Adjustments	Balance
Line	Account	of Year	Additions	Depreciation	Credits	Transfers	End of Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	4. TRANSMISSION AND						
	DISTRIBUTION PLANT						
2	365.1 Land and Land Rights	69,987					69,987
3	365.2 Rights-Of-Way						
4	366 Structures and Improvements	23,604		1,894			21,710
5	367 Mains	6,895,841	65,762	570,083	3,792	651,257	7,038,985
6	368 Compressor Station Equipment	59,738	24,857	2,175			82,420
7	369 Measuring and Regulating						
	Station Equipment	1,156,020	4,760	40,242		309,278	1,429,816
8	370 Communication Equip/Telemeter	240,447	2,307	9,685			233,069
9	380 Services	10,538,051	180,349	488,263	27,896	1,254,069	11,456,309
10	381 Meters	2,622,376	118,454	144,159	1,839	111,540	2,706,371
11	382 Meter Installations	2,019		153			1,866
12	383 House Regulators						
13	386 Other Property on Cust's Prem						
14	387 Other Equipment	232		12			221
15	TOTAL TRANSMISSION AND						
	DISTRIBUTION PLANT	21,608,314	396,488	1,256,665	33,527	2,326,143	23,040,754
16	5. GENERAL PLANT						
17	389 Land and Land Rights	59,754					59,754
18	390 Structures and Improvements	457,720	56,964	38,289			476,395
19	391/391-01 Office Furn & Equip/Comp Equip	217,508	60,311	43,544		0	234,276
20	392 Transportation Equipment	204,176	167,188	78,665	0		292,699
21	393 Stores Equipment						
22	394 Tools, Shop and Garage Equipment	60,231		22,491			37,740
23	395 Laboratory Equipment						
24	396 Power Operated Equipment	1,760		440			1,320
25	397 Communication Equipment	13,696		3,450			10,246
26	398 Miscellaneous Equipment	1,884		228			1,656
27	399 Other Tangible Property						
28	TOTAL GENERAL PLANT	1,016,729	284,464	187,107	0	0	1,114,086
29	TOTAL GAS PLANT IN SERVICE	23,423,972	719,801	1,479,914	33,527	2,414,585	25,044,917
30	104 Utility Plant leased to Others						
31	105 Property Held for Future Use						
32	107 Construction Work in Progress	334,815	2,129,738			(2,414,585)	49,967
	108 Accumulated Depreciation						
33	TOTAL UTILITY GAS PLANT	23,758,787	2,849,538	1,479,914	33,527	0	25,094,884

Annu	Pg 21 al Report of Holyoke Gas and Electric Department Year En	ded December 31, 2017
Alliu	MISCELLANEOUS NON-OPERATING INCOME (Account 421)	ded December 31, 2017
Line	Item	Amount
No.	(a)	(b)
1	Miscellaneous Income	523,061
2	O&M Contracts	774,819
3	Gain on Plant Retirements	0
4 5		
6	TOTAL	1,297,879
	OTHER INCOME DEDUCTIONS (Account 426)	1,201,010
Line	Item	Amount
No.	(a)	(b)
7	Loss on Plant Retirements	166,102
8	Boiler Demolition Expense	401,330
9	Other Deductions	11,909
10		
11 12		
13		
14	TOTAL	579,341
	MISCELLANEOUS CREDITS TO SURPLUS (Account 434)	
Line	Item	Amount
No.	(a)	(b)
15		
16		
17		
18 19		
20		
21		
22	TOTAL	0
	MISCELLANEOUS DEBITS TO SURPLUS (Account 435)	
Line	Item	Amount
No.	(a)	(b)
	Pilot - City of Holyoke	1,080,530
	Pilot - Others	79,768
25		
26 27		
28		
29		
30	TOTAL	1,160,297
	APPROPRIATIONS OF SURPLUS (Account 436)	
Line	Item	Amount
No.	(a)	(b)
31	Bond Principal Payments	208,333
32	Note Payable to City	1,335,000
33 34	Note Payable to Bank	201,249
35		
36		
37		
38	TOTAL	1,744,583

Pg 22 Annual Report of Holyoke Gas and Electric Department Year Ended December 31, 2017 MUNICIPAL REVENUE (Accounts 482, 444) (K.W.H. Sold under the Provisions of Chapter 269, Acts of 1927) Average Revenue per M.C.F. Acct. Gas Schedule Cubic Feet Revenue Received (\$0.0000) Line No. No. (d) (a) (b) (c) 682,126 482 Municipal B 68,428 9.9685 3 4 **TOTALS** 68,428 682,126 9.9685 Average Revenue per K.W.H. (cents) K.W.H. Acct. Electric Schedule Revenue Received (\$0.0000) Line No. No. (d) 444 Municipal: (Other Than Street Lighting) 18,888,783 2,290,019 0.1212 5 6 7 **TOTALS** 18,888,783 2,290,019 0.1212 8 9 10 Street Lighting 1,747,536 388,350 0.2222 11 **TOTALS** 1,747,536 388,350 12 13 14 15 16 17 **TOTALS** 20,636,319 2,678,368 0.1298 19 PURCHASED POWER (Account 555) Cost per Names of Utilities K.W.H. from which Electric Where and at What (cents) Line Energy is Purchased Voltage Received K.W.H. (\$0.0000) Amount No. (a) (b) (c) (d) (e) 20 See pages 54 & 55 21 22 23 24 25 26 27 28 29 **TOTALS** SALES FOR RESALE (Account 447) Revenues Names of Utilities per K.W.H. Where and at What from which Electric (cents) Line **Energy is Purchased** Voltage Received K.W.H. Amount (\$0.0000) No. (a) (b) (c) (d) (e) 30 See pages 52 & 53 31 32 33 34 35 36

TOTALS

37

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	nours Sold		verage Number of	
						· ·	s per Month	
			Increase or		Increase or		Increase or	
		Amount for	(Decrease) from	Amount for	(Decrease) from	Number for	(Decrease) from	
Line	Account	Year	Preceding Year	Year	Preceding Year	Year	Preceding Year	
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
1	SALES OF ELECTRICITY							
2	440 Residential Sales	12,403,432	(158,630)	100,455,153	(2,275,365)	14,752	36	
3	442 Commercial and Industrial Sales:							
4	Small (or Commercial) see instr. 5	20,929,855	(46,615)	176,675,874	(714,919)	2,184	9	
5	Large (or Industrial) see instr. 5	5,601,088	(77,789)	56,865,121	(1,369,355)	47	(2)	
6	444 Municipal Sales (pg 22)	2,678,368	52,861	20,636,319	(211,170)	113	2	
7	445 Other Sales to Public Authorities							
8	446 Sales to Railroads and Railways							
9	448 Interdepartmental Sales (484)	292,883	(2,179)					
10	449 Miscellaneous Electric Sales	284,866	(20,069)	728,675	(642,585)	482	(1)	
11	Total Sales to Ultimate Consumers	42,190,492	(252,422)	355,361,142	(5,213,394)	17,578	44	
12	447 Sales for Resale	0	0	0	0	N/A	N/A	
13	TOTAL SALES OF ELECTRICITY*	42,190,492	(252,422)	355,361,142	(5,213,394)	17,578	44	
14	OTHER OPERATING REVENUES							
15	450 Forfeited Discounts							
16	451 Miscellaneous Service Revenues	170,546	(264)					
17	453 Sales of Water and Water Power	6,300	0	*Includes reven	ues from applicatior	n of fuel clauses	9,800,540.53	
18	454 Rent from Electric Property	53,656	(1,785)					
19	455 Interdepartmental Rents			Total KWH to w	hich applied		301,736,135	
20	456 Other Electric Revenues	2,954,642	(1,915,082)					
21	456 Steam Revenues							
22								
23	Miscellaneous Adjustments to Sales							
24								
25	Total Other Operating Revenues	3,185,144	(1,917,131)					
26	TOTAL ELECTRIC							
27	OPERATING REVENUES	45,375,636	(2,169,553)					

SALES OF ELECTRICITY TO ULTIMATE CONSUMERS

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

		Solitact. Wumicipal sales and unbilled sales may be repo	. ,		Average Revenue per K.W.H. (cents)		Customers Rendered)
Line	Account	Schedule	K.W.H.	Revenue	*(\$0.0000)	July 31	December 31
No.	No.	(a)	(b)	(c)	(d)	(e)	(f)
1	440-00	Residential (ER)*	100,455,153	12,403,432	0.1235	14,739	14,732
2	440-01	Residential - Off Peak					·
3	440-02	Residential - General Service (EK)					
4	442-00	Commercial (EC)	176,675,874	20,929,855	0.1185	2,177	2,193
5	442-02	Commercial D					
6	442-03	Area Lighting (CL)	728,675	284,866	0.3909	480	483
7	442-01	Industrial (EM, LI, HW, SI)	56,865,121	5,601,088	0.0985	49	44
8	444-00	Municipal Lighting (MC)	18,888,783	2,290,019	0.1212	112	111
9	444-01	Street Lighting (SL)	1,747,536	388,350	0.2222	1	1
10	484-00	Interdepartmental Sales		292,883			
11							
12							
13							
14							
15							
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21 22							
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31							
32							
33		*Total number of Residential customers, whe	en including multip	le units per meter	,		
36		is 17,186 for year end.					
37							
38							
39							
40							
41	TOTAL	SALES TO UTIMATE CONSUMERS					
42		(Page 37 Line 11)	355,361,142	42,190,492	0.1187	17,558	17,564

Year Ended December 31, 2017

ELECTRIC OPERATION AND MAINTENANCE EXPENSES

- 1. Enter in the space provided the operation and maintenance expenses for the year.
- 2. If the increases and decreases are not divided from previously reported figures explain in footnote

	2. If the increases and decreases are not divided from previously reported figures explain in footnote.		
Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	POWER PRODUCTION EXPENSE	(~)	(0)
2	STEAM POWER GENERATION		
3	Operation:		
4	500 Operation supervision and engineering	49,018	(21,635)
5	501 Fuel	·	, , ,
6	502 Steam expense	0	0
7	503 Steam from other sources		
8	504 Steam transferred Cr		
9	505 Electric expenses		
10	506 Miscellaneous steam power expenses - Water for Steam (30-502-01)		
11	507 Rents		
12	Total Operation	49,018	(21,635)
13	Maintenance:		·
14	510 Maintenance supervision and engineering	4,265	1,124
15	511 Maintenance of structures		·
	512 Maintenance of boiler plant (50-501-04)		
17	513 Maintenance of electric plant		
18	514 Maintenance of miscellaneous steam plant (456)		
19	Telecom	0	0
20	Total Maintenance	4,265	1,124
21	TOTAL STEAM POWER GENERATION	53,282	(20,511)
22	NUCLEAR POWER GENERATION		` .
23	Operation:		
24	517 Operation supervision and engineering		
25	518 Fuel		
26	519 Coolants and water		
27	520 Steam expense		
28	521 Steam from other sources		
29	522 Steam transferred - Cr		
30	523 Electric expenses		
31	524 Miscellaneous nuclear power expenses		
32	525 Rents		
33	Total Operation	0	0
34	Maintenance:		
35	528 Maintenance supervision and engineering		
36	529 Maintenance of structures		
37	530 Maintenance of reactor plant equipment		
38	531 Maintenance of electric plant		
39	532 Maintenance of miscellaneous nuclear plant		
40	Total Maintenance	0	0
41	TOTAL NUCLEAR POWER GENERATION	0	0
42	HYDRAULIC POWER GENERATION		
43	Operation:		
44	535 Operation supervision and engineering	1,072,879	80,996
45	536 Water for power/Fuel	383,134	486
46	537 Hydraulic expenses	650,739	(12,479)
	538 Electric expenses.		(, , , , ,
	539 Miscellaneous hydraulic power generation expenses	258,124	(54,202)
49	540 Rents	0	0
50	Total Operation	2,364,876	14,802
		,,,	,

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	469,999	44,265
4	542 Maintenance of Structures	49,458	9,123
5	543 Maintenance of Reservoirs, Dams and Waterways	342,122	(73,976)
6	544 Maintenance of Electric Plant	1,732	1,448
7	545 Maintenance of Miscellaneous Hydraulic Plant	1,266,416	222,663
8	Total Maintenance	2,129,727	203,524
9	TOTAL HYDRAULIC POWER GENERATION	4,494,603	218,326
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	11,533,759	(933,288)
27	556 System Control and Load Dispatching	,,	(===, ==,
28	557 Other Expenses	773,156	66,813
29	TOTAL OTHER POWER SUPPLY EXPENSES	12,306,916	(866,474)
30	TOTAL POWER PRODUCTION EXPENSES	16,854,800	(668,659)
31	TRANSMISSION EXPENSES	. 5,55 .,555	(000,000)
32	Operation:		
33	560 Operation Supervision and Engineering	549,254	14,360
34	561 Load Dispatching	549,254	14,300
35	562 Station Expenses.	426,355	335,175
	563 Overhead Line Expenses	420,333	333,173
	564 Underground Line Expenses		
	565 Transmission of Electricity by Others	3,432,507	247,004
39	566 Miscellaneous Transmission Expenses	18,783	· ·
40	567 Rents	10,763	(5,069)
41	Total Operation	4,426,899	591,470
	· •	4,420,699	591,470
42	Maintenance:		
43	568 Maintenance Supervision and Engineering		
44	569 Maintenance of Structures	202 2 47	04.470
	570 Maintenance of Station Equipment	222,847	24,479
46	571 Maintenance of Overhead Lines	149,556	62,088
	572 Maintenance of Underground Lines		
48	573 Maintenance of Miscellaneous Transmission Plant		
49	Total Maintenance	372,403	86,567
50	TOTAL TRANSMISSION EXPENSES	4,799,302	678,037

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

			Increase or
		Amount for Year	(Decrease) from
Line	Account		Preceding Year
No.	(a)	(b)	(c)
1	DISTRIBUTION EXPENSES	(8)	(6)
2	Operation:		
	580 Operation Supervision and Engineering	798,954	111,306
	581 Load Dispatching	. 55,55 .	, 555
	582 Station Expenses	113,983	6,794
	583 Overhead Line Expenses	5	(41)
	584 Underground Line Expenses	5	(,
	585 Street Lighting and Signal System Expenses (852 Communications)	88,132	6,708
	586 Meter Expenses	159,114	18,683
	587 Customer Installations Expenses	333,008	99,068
	588 Miscellaneous Distribution Expenses (163's incl)	614,053	154,881
	589 Rents	0.1,000	10 1,00 1
13	Telecom (163 & 852 incl)	1,092,691	102,294
14	Total Operation	3,199,944	499,694
15	Maintenance:	3,193,944	493,094
	590 Maintenance supervision and engineering	276,320	77,389
	591 Maintenance of Structures	270,320	77,389
		90 003	(102 567)
	592 Maintenance of Station Equipment	80,903	(102,567)
	593 Maintenance of Overhead Lines	1,763,109	4,935
	594 Maintenance of Underground Lines	889,974	245,420
	595 Maintenance of Line Transformers	11,760	(2,752)
	596 Maintenance of Street Lighting and Signal Systems	57,892	(27,130)
	597 Maintenance of Meters	3,296	(7,865)
	598 Maintenance of Miscellaneous Distribution Plant	11,237	(8,817)
25	Telecom	82,649	34,208
26	Total Maintenance	3,177,141	212,819
27	TOTAL DISTRIBUTION EXPENSES	6,377,085	712,513
28	CUSTOMER ACCOUNTS EXPENSES		
29	Operation:		
30	901 Supervision		
	902 Meter Reading Expenses	140,534	(12,002)
	903 Customer Records and Collection Expenses	377,555	(853)
33	904 Uncollectable Accounts	0	(111,003)
34	Telecom	158,023	156,579
35	TOTAL CUSTOMER ACCOUNTS EXPENSES	676,112	32,721
36	SALES EXPENSES		
37	Operation:		
38	911 Supervision		
39	912 Demonstrating and Selling Expenses	65,251	24,122
40	913 Advertising Expenses	18,777	(1,191)
41	Telecom	161,300	(21,418)
42	TOTAL SALES EXPENSES	245,328	1,513
43	ADMINISTRATIVE AND GENERAL EXPENSES		
44	Operation:		
45	920 Administrative and General Salaries	1,162,657	98,474
	921 Office Supplies and Expenses	485,487	30,754
	922 Administrative Expenses Transferred - Cr	,	/
	923 Outside Services Employed	375,577	(78,216)
	924 Property Insurance	518,820	1,027
	925 Injuries and Damages	10,441	4,460
	926 Employees Pensions and Benefits	3,461,651	(634,514)
	928 Regulatory Commission Expenses	0, 101,001	(001,014)
	929 Duplicate Charges - Cr		
	930 Miscellaneous General Expenses	795,798	250 427
	931 Rents	1 30,1 30	250,437
		204 200	(76.400)
56	Telecom	304,209	(76,483)
57	Total Operation	7,114,640	(404,061)

			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	828,531	275,321
4	933 Transportation expense		
5	Telecom	47,446	16,209
6	Total Maintenance	875,977	291,530
7	TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	7,990,617	(112,531)
8	TOTAL ELECTRIC OPERATION AND MAINTENANCE EXPENSES	36,943,244	643,595

SUMMARY OF ELECTRIC OPERATION AND MAINTENANCE EXPENSES

Line	Functional Classification	OPERATION	MAINTENANCE	TOTAL
No.	(a)	(b)	(c)	(d)
9	Power Production Expenses			
10	Electric Generation			
11	Steam Power	49,018	4,265	53,282
12	Nuclear Power	0	0	0
13	Hydraulic Power	2,364,876	2,129,727	4,494,603
14	Other Power	0	0	0
15	Other Power Supply Expenses	12,306,916	0	12,306,916
16	Total Power Production Expenses	14,720,809	2,133,992	16,854,800
17	Transmission Expenses	4,426,899	372,403	4,799,302
18	Distribution Expenses	3,199,944	3,177,141	6,377,085
19	Customer Accounts Expenses	676,112	0	676,112
20	Sales Expenses	245,328	0	245,328
21	Administrative and General Expenses	7,114,640	875,977	7,990,617
22				
23	TOTAL ELECTRIC OPERATION AND MAINTENANCE EXPENSES	30,383,731	6,559,513	36,943,244

24 Ratio of Operating Expenses to Operating Revenues (car Compute by dividing Revenues (acct 400) into the sum of		
Line 23 (d), Depreciation (Acct 403) and Amortization (Ac	ct 407), (Page 13)	93.62%
25 Total salaries and wages of electric department for year, expenses, construction and other accounts	including amounts charged to operating (Telecom portion of wages is \$844,886.32)	10,368,949

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

106.0

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.

		Operating	Revenues	MCF Sold	(1000 BTU)	Average I	Number of
							per Month
			Increase or		Increase or		Increase or
		Amount for	(Decrease) from	Amount for	(Decrease) from	Number for	(Decrease) from
Line	Account	Year	Preceding Year	Year	Preceding Year	Year	Preceding Year
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	SALES OF GAS						
2	480 Residential Sales	8,579,284	715,099	760,602.2	34,023.3	10,328	70
3	481 Commercial and Industrial Sales:						
4	Small (or Commercial) see instr. 5	6,772,278	796,222	675,252.2	26,393.2	1,277	20
5	Large (or Industrial) see instr. 5	3,166,410	333,317	504,919.3	3,875.9	27	(3)
6	482 Municipal Sales (pg 22)	682,126	92,016	68,428.0	6,592.0	47	2
7	483 Other Sales (481) Interruptible	887,394	54,893	101,290.4	(1,615.6)	25	(2)
8	485 Miscellaneous Gas Sales (484)	67,584	11,128	14,050.6	(2,038.9)	22	1
9							
10							
11	Total Sales to Ultimate Consumers	20,155,077	2,002,675	2,124,542.7	67,229.9	11,726	88
12	483 Sales for Resale	0	0		0.0	N/A	N/A
13	TOTAL SALES OF GAS*	20,155,077	2,002,675	2,124,542.7	67,229.9	11,726	88
14	OTHER OPERATING REVENUES						
15	487 Forfeited Discounts						
16	488 Miscellaneous Service Revenues	55,624	2,266				
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	757,398	(439,061)				
23							
24							
25	Total Other Operating Revenues	814,356	(436,795)				
26	TOTAL GAS						
27	OPERATING REVENUES	20,969,433	1,565,880				
			Purchased Price				
			Adjustment	Fuel			
			Clauses	Clauses			
	*Includes revenue from application of			9,991,668			
	Total MCF to Which Applied			2,023,252.3			

SALES OF GAS TO ULTIMATE CONSUMERS

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

		contract. Municipal sales, Contract sales and Unbilled sa			Average Revenue per M.C.F.	Number of (per Bills I	Customers Rendered)
Line	Account	Schedule	M.C.F. (1000 BTU)	Revenue	(cents) *(\$0.0000)	July 31	December 31
No.	No.	(a)	(1000 B10) (b)	(c)	(ψ0.0000) (d)	(e)	(f)
1	480-00	Residential	760,602	8,579,284	11.2796	10,338	10,357
2	481-01	Commercial	675,252	6,772,278	10.0293	1,276	1,275
3	481-03	Industrial	504,919	3,166,410	6.2711	27	28
4	481-04	Interruptible	101,290	887,394	8.7609	23	28
5	482-01	Municipal	68,428	682,126	9.9685	47	47
6	484-00	Interdepartmental Sales	14,051	67,584	4.8100	22	22
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41	TOTAI	L SALES TO UTIMATE CONSUMERS	0.45.4.5.1	00.4			
42		(Page 43 Line 11)	2,124,543	20,155,077	9.4868	11,733	11,757

Total Operation

Total Maintenance

TOTAL MANUFACTURED GAS PRODUCTION

0

0

0

None

0

None

40

43

44

45

46

47

48

49

50

51

Maintenance:

742 Maintenance of production equipment.....

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

Line	A	Account for Very	Increase or (Decrease) from
Line	Account	Amount for Year	Preceding Year
No.	(a) OTHER GAS SUPPLY EXPENSES	(b)	(c)
2			
3	Operation:	0 952 226	1,303,490
4	804 Natural gas city gate purchases	8,853,326 564,050	(156,119)
		304,030	(130,119)
	806 Exchange gas		
	810 Gas used for compressor station fuel - Cr.		
	811 Gas used for products extraction - Cr.		
	812 Gas used for other utility operation - Cr	(13,313)	24
10	813 Other gas supply expenses.	179,715	(14,625)
11	TOTAL GAS SUPPLY EXPENSES	9,583,778	1,132,770
12	TOTAL GAS SUPPLY EXPENSES TOTAL PRODUCTION EXPENSES	9,583,778	1,132,770
13	LOCAL STORAGE EXPENSES	9,363,776	1,132,770
14	Operation:		
	·		
15	840 Operation supervision and engineering.		
	841 Operation labor and expenses.		
17	842 Rents	0	0
18	Total Operation	U	0
19	Maintenance:		
20	843 Maintenance supervision and engineering.		
21	844 Maintenance of structures and improvements		
22		0	
23 24	846 Maintenance of other equipment	0	0
25	Total Maintenance TOTAL STORAGE EXPENSES	0	0
26	TRANSMISSION AND DISTRIBUTION EXPENSES	0	0
27			
28	Operation:	242,921	(4,174)
29	850 Operation supervision and engineering.	198,071	(9,527)
30	851 System control and load dispatching	201,742	18,816
31	853 Compressor station labor and expenses	337,997	32,123
	855 Fuel and power for compressor station	337,997	32,123
	857 Measuring and regulating station expenses.	62,659	(16,030)
	858 Transmission and compression of gas by others	02,039	(10,030)
	874 Mains and services expenses		
	878 Meter and house regulator expenses (incl 10-866-00)	254,402	68,787
	879 Customer installation expenses	537,973	73,824
	880 Other expenses (10-814-00 & 163 & 888-02)	201,761	(2,419)
	881 Rents	201,701	(2,419)
40	Total Operation	2,037,528	161,401
41	Maintenance:	2,007,020	101,401
42	885 Maintenance supervision and engineering		
43	886 Maintenance of structures and improvements		
44	887 Maintenance of mains	914,092	(113 202)
	888 Maintenance of compressor station equipment	238,343	(113,292) (9,277)
		236,343	(9,277)
46 47	889 Maintenance of measuring and regulating station equipment	473,561	(31,101)
		· ·	
	893 Maintenance of meters and house regulators	128,072	(24,136)
	894 Maintenance of other equipment (10-853-01,03)	87,513	4,596
50 51	Total Maintenance	1,841,581	(173,211)
51	TOTAL TRANSMISSION AND DISTRIBUTION EXPENSES	3,879,108	(11,810)

		_,,,	1,011,001	-,,
40	Customer accounts expenses	324,241	0	324,241
41	Sales Expenses	43,288	0	43,288
42	Administrative and General Expenses	3,240,549	187,770	3,428,319
43	TOTAL GAS OPERATION AND MAINTENANCE EXPENSES	15,229,384	2,029,350	17,258,734
44	Ratio of Operating Expenses to Operating Revenues (carry out decima			
	Compute by dividing Revenues (acct 400) into the sum of Operation and Maintenance Expenses (Page 47,			
	Line 43 (d), Depreciation (Acct 403) and Amortization (Acct 407), (Page 13)			89.36%
45	Total salaries and wages of gas department for year, including amount			
	expenses, construction and other accounts			4,393,021
46	Total number of employees of gas department at end of year including administrative,			
	operating, maintenance, construction and other employees (including p	part time employees)		41.0

TOTALS

2,239,700

4.2047

9,417,376

36

TAXES CHARGED DURING YEAR

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

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

OTHER UTILITY OPERATING INCOME (Account 414)

Report below the particulars called for in each column.

					•
				Amount	Gain or
		Amount of	Amount of	of Operating	(Loss) from
Line	Property	Investment	Revenue	Expenses	Operation
No.	(a)	(b)	(c)	(d)	(e)
1	()	. ,	()	,	\ /
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13			N/A		
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
23					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
42					
44					
45					
46					
47					
48					
49					
50					
51	TOTALS	0	0	0	0

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

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

Line No.	Item (a)	Electric Department (c)	Gas Department (d)	Other Utility Department (d)	Total (e)
	Revenues:	(0)	(u)	(u)	(e)
2	Merchandising sales, less discounts,				
3	allowances and returns	557	203,079		203,636
4	Contract Work				
5	Commissions				
6	Other (List according to major classes)				
7					
8					
9	Total Revenues	557	203,079	0	203,636
10 11	Total Revenues	337	203,079	0	203,030
12					
	Costs and Expenses:				
14	Cost of Sales (List according to Major				
15	classes of cost)		66,669		66,669
16					
17	Labor				
18	Materials				
19					
20					
21					
22 23					
24					
25					
	Sales expenses				0
	Customer accounts expenses				0
	Administrative and general expenses				0
29					
30					
31					
32					
33 34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44 45					
45 46					
47	TOTAL COSTS AND EXPENSES	0	66,669	0	66,669
48	Net Profit (or Loss)	557	136,410	0	136,967

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

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

	5. 5a.p.ao ponte., 21. jouite. 5,						or Kva of Dem	
							(Specify which))
			Export					
	0.15.4	Statistical	Across	Defect of Deliver	Sub			
Line	Sales to	Classification	State Line	Point of Delivery	Station	(0)		4.
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1								
2								
3								
4								
5								
6								
7								
8								
9 10								
11								
12								
13								
14								
15								
16								
17								
18								
19				N/A				
20				1975				
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 (C	Omit Cents)		Revenue	
Type of Demand Reading (i)	Voltage at which Delivered (j)	Kilowatt- hours (k)	Demand Charges (I)	Energy Charges (m)	Other Charges (n)	Total (o)	per kwh (cents) (0.0000) (p)	Line No.
	, , , , , , , , , , , , , , , , , , ,	, ,	.,	` /	` '	` '	V /	1
								2
								3 4
								5
								6
								7
								8
								9
								10
								11 12
								13
								14
								15
								16
								17
			N/A					18 19
			13/7					20
								21
								22
								23
								24
								25 26
								27
								28
								29
								30
								31
								32
								33 34
								35
								36
	TOTALS	0	0	0	0	0	0.0000	

PURCHASED POWER (Account 555)

- Report power purchased for resale during the year.

 Exclude from this schedule and report on page 56 particulars concerning interchange power transactions during the year.
- Provide subheading and classify purchases as to
 (1) Associated Utilities, (2) Nonassociated Utilities, (3)
 Associated Nonutilities, (4) Other Nonutilities, (5) Municipalities, (6) R.E.A. Cooperatives, and (7) Other Public

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

	T			I		Kw	or Kva of Den	and
							Specify Which	
			Import			(Average	1)
			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	X	Holyoke, MA	RS	2,554	(9)	(11)
	Stony Brook Peaking	0	^	Holyoke, MA	RS	4,817		
3	Seabrook No. 1	0	х	Holyoke, MA	RS	3,354		
	Millstone No. 3	0	x	Holyoke, MA	RS	3,657		
5	Wyman No. 4	0	x	Holyoke, MA	RS	4,262		
	Short-Term Power Purchases	FP	X	Mass Hub	110	4,202	9,957	8,348
	NextEra Energy Power Mkt (Seabrook)	FP		Mass Hub			10,000	10,000
8	Hydro Quebec I	0	х	Holyoke, MA	RS		10,000	10,000
	NEPOOL OATT	Ö	X	Holyoke, MA	RS			
	Hydro Quebec II	0	х	Holyoke, MA	RS			
	NU Localized Cost GRSP	0	X	Holyoke, MA	RS			
	Cobble Mountain**	0		Holyoke, MA	RS	33,900		
	Hancock Wind	0	х	Mass Hub	RS	6,032		
14	Trancock Willia	O	^	Wass Hub	NO	0,032		
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30	**This Purchased Power Generations costs are	netted in a Mi	i scellaneous I	ncome Account 004	і 40-СМ-421-4:	1 21-00-4		
31	The state of the s							
32								
33								
34								
35								
36								
37								
- 51				I]		

Annual Report of Holyoke Gas and Electric Department

Year Ended December 31, 2017

PURCHASED POWER (Account 555) - Continued

(except interchange power)

** Includes Transmission Charges

- 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)
- 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						KWH	
Demand	at Which	Killowatt-		Energy	Other		(Cents)	
Reading	Delivered	hours	Charges	Charges	Charges	Total	(0.0000)	Line
(i)	(j)	(k)	(I)	(m)	(n)***	(o)	(p)	No.
60 Min.	115kv	15,740,470	114,516	77,444	223,896	415,856	2.6420	1
60 Min.	115kv	92,400	113,794	22,086	14,327	150,207	162.5617	2
60 Min.	115kv	30,931,240	887,143	166,066	2,008	1,055,217	3.4115	3
60 Min.	115kv	31,038,710	1,218,334	177,343	24,300	1,419,977	4.5749	4
60 Min.	115kv	625,270	115,613	57,094	4,427	177,134	28.3292	5
60 Min.	115kv	42,932,000		1,870,519		1,870,519	4.3569	6
60 Min.	115kv	40,640,000		2,393,696		2,393,696	5.8900	7
60 Min.	115kv				11,997	11,997		8
60 Min.	115kv				2,973,214	2,973,214		9
60 Min.	115kv				171,283	171,283		10
60 Min.	115kv				7,056	7,056		11
60 Min.	115kv	10,698,930	1,069,601	222,628		1,292,229	12.0781	12
60 Min.	115kv	16,314,780	(3,921)	823,661		819,740	5.0245	13
								14
								15
								16
								17
								18
								19
								20
								21
								22
								23
								24
								25
								26
								27
								28
								29
***:								30
***includes transm	nssion charges							31
								32
								33
								34
								35
	TOTALS	189,013,800	2 545 000	5,810,537	3,432,508	12,758,125	6.7498	36 37
	TOTALS	109,013,800	3,515,080	0,010,537	3,432,508	12,750,125	0.7498	31

INTERCHANGE POWER (Included in Account 555)

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

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

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

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

		Interchange	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	372,795,350	418,433,553	(45,638,203)	(1,286,382)
2	ICAP Sales		Holyoke, MA	115kv			*	1,458,961
3	Aubin Prop (c/o Open Square)		Holyoke, MA	115kv		2,461,227	(2,461,227)	84,313
4	Solar Constellation					4,937,936	(4,937,936)	279,460
5	Solar Citizens					970,387	(970,387)	48,997
6	Solar RICAR					1,054,054	(1,054,054)	65,141
7	Solar Mt. Tom					5,909,483	(5,909,483)	284,246
8	Solar ReneSola Dinn					779,503	(779,503)	45,758
9	Solar ReneSola Kelly					700,164	(700,164)	41,100
10	Solar AEGIS					1,174,472	(1,174,472)	61,190
11	Solar Gary Rome					962,616	(962,616)	47,168
12	Solar Conklin					808,935	(808,935)	45,705
13	Solar Riverside A-B					129,741	(129,741)	7,330
14	Solar Walnut Street					5,440	(5,440)	301
15	Solar Res & Comm					37,610	(37,610)	2,445
16	Hydro					3,839,376	(3,839,376)	0
17	Nat Gas Generator (Cabot St)					34,823	(34,823)	2,405
18	SWSC (c/o Cobble Mt)***		Westfield, MA	69kv		10,698,930	(10,698,930)	1,012,921
19	MMWEC SP2015A**							48,916
20	*Capacity Demand - kW only *	* Pre-Developm	ental Costs for Po	ossible New Gene	rator			
21	***This Purchased Power genera	tion's costs are	netted in a Miscel	laneous Income A	ccount 0040-CM	-421-421-00-4		
22				TOTALS	372,795,350	452,938,250	(80,142,900)	2,249,975

B. Details of Settlement for Interchange Power

Line	Name of Company	Explanation	Amount
No.	(i)	(j)	(k)
23	NEPEX	Nepool Expenses	584,313
24	NEPEX	NEPEX Interchange	(411,734)
25	Aubin Prop (c/o Open Square)	Non Utility Generator	84,313
26	Solar Constellation	Non Utility Generator	279,460
27	Solar Citizens	Non Utility Generator	48,997
28	Solar RICAR	Non Utility Generator	65,141
29	Solar Mt. Tom	Non Utility Generator	284,246
30	Solar ReneSola Dinn	Non Utility Generator	45,758
31	Solar ReneSola Kelly	Non Utility Generator	41,100
32	Solar AEGIS	Non Utility Generator	61,190
33	Solar Gary Rome	Non Utility Generator	47,168
34	Solar Conklin	Non Utility Generator	45,705
35	Solar Riverside A-B	Non Utility Generator	7,330
36	Solar Walnut Street	Non Utility Generator	301
37	Solar Res & Comm	Non Utility Generator	2,445
38	Hydro	Load Reducer	0
39	Nat Gas Generator (Cabot St)	Load Reducer	2,405
40	SWSC (c/o Cobble Mt)***	Non Utility Generator	1,012,921
41	MMWEC SP2015A**	Pre-Developmental Costs for a Possible New Generator	48,916
42		TOTALS	2,249,975

۸۰۰۰۰	al Banart of Halvaka Coa and Floatric Banarton	Pg 57		Year Ended December 31, 2017
Annu	al Report of Holyoke Gas and Electric Departme	ELECTRIC ENERGY ACCOUNT		real Ended December 31, 2017
	Report below the information called for concerning the di			
Line	report below the information dailed for concerning the di	Item	, and interenanged during the year	Kilowatt-hours
No.		(a)		(b)
1	S	OURCES OF ENERGY		(~)
2	Generation (excluding station use):	30.1020 3. 2.121.0.		
3	Steam			0
4	Nuclear			-
5	Hydro			239,468,533
6	Other			
7			Total Generation	239,468,533
8	Purchases			189,013,800
9		In (gross)	372,795,350	
10	Interchanges	Out (gross)	452,938,250	
11		Net (Kwh)		(80,142,900)
12		Received		
13	Transmission for/by others (wheeling)	Delivered		
14		Net (kwh)		
15			TOTAL	348,339,433
16	DIS	POSITION OF ENERGY		
17	Sales to ultimate consumers (including interde	partmental sales)		355,361,142
18	Sales for resale			0
19	Energy furnished without charge			1,014,772
20	Energy used by the company (excluding station	n use)		2,487,817
21	Electric department only			(23,805,767)
22	Energy losses:			
23	Transmission and conversion losses			
24	Distribution losses		13,281,469	
25	Unaccounted for losses			
26			Total Energy Losses	13,281,469
27	Energy losses as percent of total on line 15		3.81%	
28			TOTAL	348,339,433

MONTHLY PEAKS AND OUTPUT

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

				MONTH	ILY PEAK		
							Monthly Output
				Day of			(kwh)
Line	Month	Kilowatts	Day of Week	Month	Hour	Type of Reading	(See Inst 4)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29	January	57,379	Mon	9	18:00	60 Min	31,516,605
30	February	54,294	Fri	10	11:00	60 Min	27,571,168
31	March	52,089	Wed	15	10:00	60 Min	29,758,018
32	April	47,505	Thurs	6	14:00	60 Min	24,481,895
33	May	56,869	Thurs	18	20:00	60 Min	25,528,807
34	June	64,388	Mon	19	15:00	60 Min	29,017,526
35	July	63,424	Thurs	20	17:00	60 Min	31,669,729
36	August	64,080	Tues	22	18:00	60 Min	31,847,995
37	September	64,157	Mon	25	17:00	60 Min	28,596,827
38	October	51,340	Mon	9	14:00	60 Min	27,476,779
39	November	50,677	Tues	28	18:00	60 Min	27,890,291
40	December	58,274	Thurs	28	18:00	60 Min	32,983,793
41		•		•	•	TOTAL	348,339,433

GENERATING STATION STATISTICS (Large Stations) (Except Nuclear, 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.
- 3. Specify if total plant capacity is reported in kva instead of kilowatts as called for on line 5.

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

Line	Item	Plant	Plant	Plant
No.	(a)	(b)	(c)	(d)
	\	Cabot 6 & 8	X 7	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		7,804
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			182,032,610
13	Cost of plant (omit cents):			007.000
14	Land and land rights	0		637,366
15 16	Structures and improvements	1,231,220		17,229,401 14,388,664
17	Reservoirs, dams, and waterways Equipment costs	185,384		24,372,431
18	Roads, railroads, and bridges	105,304		24,372,431
19	Total Cost	1,416,603		56,627,862
20	Cost per kw of installed capacity	71		1,695
	Production expenses:			1,000
22	Operation supervision and engineering	49,018		740,287
23	Station labor	.0,0.0		
24	Fuel	0		891,478
25	Supplies and expenses, including water	0		,
26	Maintenance	4,265		1,333,026
27	Rents	·		0
28	Steam from other sources			
29	Steam transferred Credit	0		
30	Total Production Expenses	53,282		2,964,790
31	Expenses per net Kwh (5 places)	N/A		0.01629
32	Fuel: Kind	OIL	GAS	
33	Unit: (Coal-tons of 2,000 lb.) (Oil-barrels of 42			
	gals.) (Gas-M cu. ft.) (Nuclear, indicate)	Barrels	MCF	
34	Quantity (units) of fuel consumed			
35	Average heat content of fuel (B.t.u. per lb. of coal,			
	per gal. of oil, or per cu. ft. of gas)			
36	Average cost of fuel per unit, del. f.o.b. plant			
	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			
40	Average B.t.u. per kwh net generation			

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

547 as shown on Line 24.

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

Plant	Plant	Plant	Plant	Plant	Plant	Line
(e)	(f)	(g)	(h)	(I)	(j)	No.
						1
						2
						3
						4
						5
			A1/A			
			N/A			6
						7
						8
						9 10
						11
						12
						13
						14
						15
						16
						17
						18
						19
						20
						21
						22
						23
						24
						25
						26
						27
						28
						29
						30
						31
						32
						33
						34
						35
						00
						36 37
						38
						39
						40

STEAM GENERATING STATIONS

- 1. Report the information called for concerning generating stations and equipment at the end of year.
- 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- 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,

					В	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 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27				N/A			
28 29							

STEAM GENERATING STATIONS -- Continued

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

				Turbine-Generators*							
				Name Plat	e Rating				_		
		Steam		in Kilov						Station	
		Pressure		At	At	Hydro		_		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
											13
											14
					N/A						15
					IN/A						16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27
											28
				TOTALS						†	29

HYDROELECTRIC GENERATING STATIONS

- Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.
- Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- 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	Attended or Unattended (d)	Type of Unit* (e)	Year Installed (f)	Gross Static Head with Pond Full (g)
1	#1 Holyoke/Cabot	Electric Station	Connecticut River	Unattended	, ,	• •	, ,
2	Unit #1 Unit #2	Cabot Street	via Canal System		Vertical Francis Vertical Francis	1923 1923	19 Ft. 16 Ft.
4	Unit #3				Vertical Kaplan	1938	18 Ft.
5	Unit #4				Vertical Kaplan	1938	18 Ft.
6	· · · · · ·				r or tiodi r tapiai.	.000	
7 8	#2 Holyoke/Cabot	Sargeant Street	Connecticut River via Canal System	Unattended	Vertical Kaplan	1938	18 Ft.
9							
	Hadley Falls	Gatehouse Road	Connecticut River	Attended			
11	Unit #1				Vertical Kaplan	1954	50 Ft.
12	Unit #2				Fixed Propeller	1984	50 Ft.
13							
14	Beebe Holbrook	Dwight Street	Connecticut River	Unattended			
15	Unit #1		via Canal System		Vertical Francis	1948	20 Ft.
16	Unit #2				Vertical Francis	1948	20 Ft.
17	5 4 1		0 (1 (5)				
	Boatlock	Gatehouse Road	Connecticut River	Unattended		0040	00 5
19	Unit #1		via Canal System		Vertical Kaplan	2010	20 Ft.
20	Unit #2				Vertical Francis	1924	20 Ft.
21	Unit #3				Vertical Francis	1924	20 Ft.
22	a		0 (1 (5)			4004	00 5
23	Skinner	Appleton Street	Connecticut River	Unattended	Vertical Francis	1924	20 Ft.
24			via Canal System				
25			0 (1 (5)				
26	Chemical	South Water Street	Connecticut River	Unattended	Markan III and an	4005	00 5
27	Unit #1		via Canal System		Vertical Kaplan	1935	22 Ft.
28	Unit #2				Vertical Kaplan	1935	22 Ft.
29	D:		0 (1 (5)				
30	Riverside 4-7	Water Street	Connecticut River	Unattended	Hadantal Form	4004	22 5
31	Unit #1		via Canal System		Horizontal Francis	1921	33 Ft.
32	Unit #2				Horizontal Francis	1921	33 Ft.
33	Unit #3				Vertical Francis	1921	33 Ft.
34	Di cui le o	Material 2000	0	11	V. C. J.	4004	00 =:
35	Riverside 8	Water Street	Connecticut River	Unattended	Vertical Francis	1931	33 Ft.
36			via Canal System				
37							
38							

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

HYDROELECTRIC GENERATING STATIONS -- Continued

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

	Wate	er Wheels Contin	ued			Gene	erators		Total Installed	
Design Head	R.P.M.	Maximum hp. Capacity of Unit at Design Head	Year Installed	Voltage	Phase	Frequency or d.c.	Name Plate Rating of Unit in Kilowatts	Number of Units in Station	Generating Capacity in Kilowatts (name place ratings)	Line
(h)	(I)	(j)	(k)	(I)	(m)	(n)	(o)	(p)	(q)	No
										1
19'	200	322 HP	1923	4,800	3	60 cy	288	4	1,056	2
19'	200	322 HP	1923	4,800	3	60 cy	240			(
19'	180	386 HP	1923	4,800	3	60 cy	288			4
19'	180	386 HP	1923	4,800	3	60 cy	240			5
19'	180	1,107 HP	1938	4,800	3	60 cy	800	1	800	7
19	180	1,107 116	1930	4,800	3	ou cy	800	'	800	8
										9
										10
52'	122	22,000 HP	1954	13,800	3	60 cy	19,500	2	35,300	1
50'	150	21,500 HP	1984	6,900	3	60 cy	15,800		,	12
						1				13
										14
19'	200	440 HP	1948	600	3	60 cy	282	2	532	15
19'	200	440 HP	1948	600	3	60 cy	250			16
										17
										18
20'	240	944 HP	2010	6,900	3	60 cy	730	3	3,313	19
20'	106	1,850 HP	1924	6,600	3	60 cy	1,200			20
20'	106	1,850 HP	1924	6,600	3	60 cy	1,383			2
20'	180	400 HP	1924	600	3	CO 211	300		300	22
20	180	400 HP	1924	600	3	60 cy	300	1	300	24
										25
										26
24'	200	1,430 HP	1935	600	3	60 cy	800	2	1,600	27
24'	200	1,430 HP	1935	600	3	60 cy	800	_	,,,,,,	28
		•				1				29
										30
33'	4,200	1,250 HP	1921	6,600	3	60 cy	880	3	3,270	31
33'	5,200	1,040 HP	1921	2,300	3	60 cy	600			32
33'	7,150	2,250 HP	1921	6,900	3	60 cy	1,790			33
										34
33'	128	6,000 HP	1931	2,400	3	60 cy	4,575	1	4,575	3
										36
						l aug Tarii i	===:			37
						SUB TOTALS	50,746	19	50,746	38

HYDROELECTRIC GENERATING STATIONS

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

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

					Water WI	neels	
Line	Name of Station	Location of Station	Name of Stream	Attended or Unattended	Type of Unit*	Year Installed	Gross Static Head with Pond Full
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
2 3	#5 Hydro (Valley)	Valley Mill Road	Connecticut River via Canal System	Unattended	Vertical Kaplan	1994	26.3 Ft.
4 5 6 7	Albion: Unit #D Unit #A	Water Street	Connecticut River via Canal System	Unattended	Vertical Francis Vertical Francis	1928 1954	30 Ft. 30 Ft.
8 9 10 11 12 13 14 15 16 17 18	Nonotuck	Water Street	Connecticut River via Canal System	Unattended	Vertical Francis	1965	30 Ft.
20 21 22	Note: 1) Albion units are	separate stations, combine	d here by common buildir	 g 			
23 24 25 26 27 28 29 30 31 32 33	2) Albion & Nonotud	l ck comprise asset Harris E	inergy				
34 35							

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

HYDROELECTRIC GENERATING STATIONS -- Continued

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

		er Wheels Contin	ued			Gene	erators			
Design		Maximum hp. Capacity of					Name Plate Rating of	Number of	Total Installed Generating 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 3 4
26'	180	580 BHP	1928	600	3	60 cy	395	2	676	5
23.7'	225	365 BHP	1954	600	3	60 cy	281			6 7
32'	150	580 BHP	1965	600	3	60 cy	492	1	492	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
						TOTALS	52,704	23	52,704	35

COMBUSTION ENGINE AND OTHER GENERATING STATIONS (except nuclear stations)

- Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.
- 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 operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as percent owner-

					Prime Movers		
Line	Name of Station	Location of Station	Diesel or Other Type Engine	Name of Maker	Year Installed	2 or 4 Cycle	Belted or Direct Connected
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1							
2							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13 14							
15				N/A			
16				14/71			
17							
18							
19							
20							
21							
22							
23 24							
24 25							
26							
27							
28							
29							
30							
31							
32							
33							
34 35							
36							
37							
		•	•		•		

Year Ended December 31, 2017

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.

and torm or r	ease and annual reni	I	illinica.		contempla	icu.			1
Prime Move	rs Continued			Gen	erators				
Rated hp. of Unit (h)	Total Rated hp. of Station Prime Movers (i)	Year Installed (j)	Voltage (k)	Phase (I)	Frequency or d.c. (m)	Name Plate Rating of Unit in Kilowatts (n)	Number of Units in Station (o)	Total Installed Generating Capacity in Kilowatts (name plate ratings) (p)	Line No.
()	(/	U)	()		, ,	(/	χ=7	\(\(\frac{1}{2}\)	1
									3
									4
									5 6
									7
									8
									9 10
									11
									12
									13 14
				N/A					15
									16
									17 18
									19
									20 21
									21
									23
									24 25
									25 26
									27
									28 29
									30
									31
									32 33
									34
									35
					TOTALS				36 37
	1			l	TOTALS	<u> </u>			31

GENERATING STATION STATISTICS (Small Stations)

- Small generating stations, for the purpose of this schedule, are steam and hydro stations of less than 2,500 KW* and other stations of less than 500 KW* installed capacity (name plate ratings). (*10,000 KW and 2,500 KW, respectively, if annual electric operating revenues of respondent are \$25,000,000 or more)
- Designate any plant leased from others, operated under a license from the Federal Power Commission
- or operated as a joint facility, and give a concise statement of the facts in a footnote.
- List plants appropriately under subheadings for steam, hydro, nuclear internal combustion engine and gas turbine stations. For nuclear, see instruction 10 page 59.
- 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.

undo	er a license from the F	ederal Po	wer Commision,		instead of kild	owatts.		regenerative feed water cycle, report as one pl				ort as one plant.
									ction Exp			Fuel Cost
			Installed		Net		Plant	Exclusiv	e of Depr	reciation		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	Inst.				of	(Cents)
Line	Name of Plant	Const.	Rating - KW	(60 Min.)	Use	(Omit Cents)	Capacity	Labor	Fuel	Other	Fuel	(0.0000)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(I)	(j)	(k)	(I)
1	Holy/Cabot 1-4*	1923	1,856	1,856	4,358,020	2,215,873	1,194	82,381	, ,	111,756	Hydro	4.4547
2	Beebe Holbrook	1948	586	586	420,528	656,555	1,120	22,439		14,663	Hydro	8.8227
3	Chemical	1935	1,600	1,600	2,264,160	1,395,179	872	55,466		82,074	Hydro	6.0747
4	Skinner	1924	280	280	939,290	656,555	2,345	22,597		16,527	Hydro	4.1653
5	Boatlock	1924	3,313	3,313	15,217,620	5,662,786	1,709	166,422		130,287	Hydro	1.9498
6	Riverside 4-7	1921	3,270	3,270	13,158,320	6,852,792	2,096	204,173		204,170	Hydro	3.1033
7	Riverside 8	1931	4,575	4,575	18,041,103	6,852,792	1,498	204,173		204,170	Hydro	2.2634
8	Harris Energy*	varies	1,168	1,168	-	0	0	0		5,100	Hydro	-
9	Valley Hydro	1994	790	720	3,036,882	1,148,971	1,454	2,301		1,113	Hydro	0.1124
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32			1									
33												
34												
35												
36			1									
37												
38												
39	-	TOTALS			57,435,923	25,441,503		759,951		769,861		2.6635

^{*} 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		1	Length (P	ole Miles)		
Line	From	То	Operating Voltage	Type of Supporting Structure	On Structures of Line Designated	On Structures of Another Line	Number of Circuits	Size of Conductor and Material
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Eversource Fairmont	HGE	115 KV	Steel Pole	0.03 miles	()	1	795 KCM
	North Canal TAP	North Canal Substation						ACSR
5 6	Eversource Southampton TAP	HGE Ingleside Substation	115 KV	Wood and Steel Pole	5.23 miles		1	795 KCM ACSR
9 10 11	HGE Ingleside Substation	HGE Holyoke Substation	115 KV	Wood and Steel Pole	3.14 miles		1	795 KCM ACSR
14	HGE North Canal Substation	HGE Holyoke Substation	115 KV	Wood and Steel Pole	0.85 miles		1	795 KCM ACSR
18 19 20								
21 22 23 24								
25 26 27								
28 29 30 31								
32 33 34								
35 36 37 38								
39 40 41								
42 43								
44				TOTALS	9.25 miles		4	

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

SUBSTATIONS

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

Name and Location of Substation Primary Secondary Tertiary Capacity of Substation Primary Secondary Tertiary Substation Of	subs	substations must be shown.										
Name and Location of Substation Primary Secondary Tertiary (in Service) In Kwa Fertiary (in Service) In Service In S					VOLTAGE					Conve	ersion App	aratus
Of Substation Substation Primary Secondary Tertiary in KVa (in Service		I	Character				Capacity of	Number		and S	pecial Equ	ipment
Line No. (a) (b) (c) (d) (g) (in Service) in Service formers Equipment Of Units Capacity (k) (i) (g) (g) (g) (g) (h) (i) (i) (k) (k) (k) (k) (i) (i) (k) (k) (i) (i) (i) (k) (k) (i) (i) (i) (k) (k) (i) (i) (i) (i) (k) (i) (i) (i) (i) (i) (i) (i) (i) (i) (k) (i) (i) (i) (i) (i) (i) (i) (i) (i) (i		Name and Location	of				Substation	Of Trans-	of Spare			
No. (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k)		of Substation	Substation	Primary	Secondary	Tertiary	in Kva	formers	Trans-	Type of	Number	Total
Thighland Substation	Line	I					(in Service)	in Service	formers	Equipment	Of Units	Capacity
1 Highland Substation Outdoor 13,800 A,800 - 9,374 @ 4,687 1			(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Holyoke, MA 01040	1	Highland Substation	Outdoor	13,800				2				
Walnut Substation Walnut Substation Walnut Street Distribution 13,800	2	Dwight & Northampton Street	Distribution		4,800		9,374	@				
Walnut Substation Outdoor 13,800	3	Holyoke, MA 01040	Unattended		13,800	-		4,687	1			
Walnut Street	4											
Holyoke, MA 01040	5	Walnut Substation	Outdoor	13,800				2				
North Canal Substation Transmission 115,000 13,800 - 50,000 15/20/25 0	6	Walnut Street	Distribution		4,800		9,374	@				
9 Holyoke Substation 102 Cabot Street (rear) 102 Cabot Street (rear) 103 Cabot Street (rear) 104 Cabot Street (rear) 105 Cabot	7	Holyoke, MA 01040	Unattended		13,800	-		4,687	1			
10 102 Cabot Street (rear)	8											
Holyoke, MA 01040 Transmission 115,000 13,800 15/20/25 0 1 @ 18/24/30 2 @ 15/20/25 1 0 1 @ 18/24/30 2 @ 15/20/25 1 0 1 0 18/24/30 2 0 15/20/25 1 0	9	Holyoke Substation	Transmission	115,000				2				
12 Ingleside Substation	10	102 Cabot Street (rear)	Distribution		13,800			@				
13 Ingleside Substation 320 Whitney Avenue Distribution 115,000 13,800 2 @ 15/20/25 16 Holyoke, MA 01040 Unattended 150 Water Street Holyoke, MA 01040 Unattended Holyoke, MA 01040 Unattended 13,800 13,800 2 @ 15/20/25 13,800	11	Holyoke, MA 01040				-	50,000	15/20/25	0			
14 320 Whitney Avenue Distribution 13,800 2 @ 15/20/25 0 0 16 17 North Canal Substation Transmission 115,000 13,800 13,800 2 @ 60,000 0 0 0 0 0 0 0 0	12	· 										
15	13	Ingleside Substation	Transmission	115,000				1 @ 18/24/30	Ď			
16 North Canal Substation Transmission 115,000 34,500 13,800 180,000 2 @ 0 30,000 2 2 @ 0 30,000 2 2 @ 0 30,000 2 3 3 3 3 3 3 3 3 3	14	320 Whitney Avenue	Distribution		13,800		2	2 @ 15/20/2	5			
17 North Canal Substation 50 Water Street Holyoke, MA 01040 Unattended	15	Holyoke, MA 01040	Unattended			-	80,000		0			
18 50 Water Street Holyoke, MA 01040 19 Holyoke, MA 01040 20 21 22 23 24 25 26 27 28 29 30 30 30 31 32 33 34 34 34 35 36 36 5 36 5 36 5 36 5 3	16	· 										
19 Holyoke, MA 01040 Unattended 20 21 22 23 24 25 26 27 28 29 30 31 32 33 33 34 35 36 36 4 5 5 6 5 6 6 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	17	North Canal Substation	Transmission	115,000				2 @				
20	18	50 Water Street	Distribution		34,500	13,800		60,000				
20	19	Holyoke, MA 01040	Unattended				180,000	2 @	0			
22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36	20							30,000				
23 24 25 26 27 28 29 30 31 32 33 34 35 36	21	I										
24 25 26 27 28 29 30 31 32 33 34 35 36	22	I										
25 26 27 28 29 30 31 32 33 34 35 36	23	I										
26 27 28 29 30 31 32 33 34 35 36	24	I										
27 28 29 30 31 32 33 34 35 36	25	I										
28 29 30 31 32 33 34 35 36	26											
29 30 31 32 33 34 35 36	27											
29 30 31 32 33 34 35 36	28											
30 31 32 33 34 35 36												
32 33 34 35 36												
33 34 35 36	31											
33 34 35 36	32											
34 35 36												
35 36												
36												
						TOTALS	328,748	18	2		0	0

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

OVERHEAD DISTRIBUTION LINES OPERATED

					Length (Pole Miles)	
Line						
No.				Wood Poles	Steel Towers	Total
1	Miles - Beginn	ing of Year		946.343		946.343
2	Added During	Year		6.787		6.787
3	Retired During	g Year		(7.620)		(7.620)
4				945.510	0.000	945.510
5	Distribution	System Characteristics - A.	C. or D.C., phase, cycles and opera	ating voltages for Light and	Power.	
6						
7	A.C.	3 PH	60 HZ	13.8Y/7.9 KV		
8	A.C.	3 PH	60 HZ	4.8 KV		
9	A.C.	3 PH	60 HZ	600 V		
10	A.C.	3 PH	60 HZ	480 V		
11	A.C.	3 PH	60 HZ	480Y/277 V		
12	A.C.	3 PH	60 HZ	240 V		
13	A.C.	3 PH	60 HZ	208Y/120 V		
14	A.C.	3 PH	60 HZ	120/240 V		
15	A.C.	1 PH	60 HZ	120/240 V		

ELECTRIC DISTRIBUTION SERVICES, METERS AND LINE TRANSFORMERS

				Line Tran	sformers
Line		Electric	Number of Watt-hour		Total Capacity
No.	Item	Services		Number	, ,
			Meters		(Kva)
	Number at beginning of year	16,195	18,973	2,573	311,721
17	Additions during year:		4.440	00	4 000
18	Purchased		1,116	66	4,898
19	Installed	141			
20	Associated with utility plant acquired				
21	Total Additions	141	1,116	66	4,898
22	Reductions during year:				
23	Retirements	70	70	165	26,821
24	Associated with utility plant sold				
25	Total Reductions	70	70	165	26,821
26	Number at End of Year	16,266	20,019	2,474	289,798
27	In stock		2,559		
28	Locked meters on customer's premises				
29	Inactive transformers meters on system		340		
30	In customer's use		17,080		
	In company's use		40		
32	, ,	Number at End of Year	20,019	2,474	289,798

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

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

			Underground Cable		Subma	rine Cable
Line No.	Designation of Underground Distirbution System	Miles of Conduit (All Sizes and Types)	Miles*	Operating Voltage	Feet*	Operating Voltage
	(a)	(b)	(c)	(d)	(e)	(f)
1	Steel	48.939				
2	Steel Conduit (encased)	1.437				
3	Non-Metallic Duct	99.107				
4	Non-Metallic Duct (encased)	89.553				
5						
6						
7						
8						
9						
10	Total - Beginning		388.373	13.8KV/7.9KV		
11				4.8KV/600V		
12				480V/277		
13 14				240/208/120		
15	Not Drimon, Installed		(0.215)	13.8/7.9/4.8KV		
16	Net Primary Installed		(0.215)	13.6/1.9/4.6KV		
17	Net Secondary Installed		1.245	600/480/277		
18	ivet decondary installed		1.243	240/208/120		
19				240/200/120		
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34	TOTALS	239.036	389.403			

^{*}Indicate number of conductors per cable.

STREET LAMPS CONNECTED TO SYSTEM

			Туре							
			Incande	escent	Mercur	y Vapor	LE	LED Fluorescent		scent
Line No.	City or Town (a)	Total (b)	Municipal (c)	Other (d)	Municipal (e)	Other (f)	Municipal (g)	Other (h)	Municipal (i)	Other (j)
No. 1		(b) 6 1,152 950 1,746 199 12 20	(c)	(d)	(e)	(f)	200 100 50 60 150 70	(h)	(i) WATTS 170	(j)

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

Lina		1		Т	I	1	
Line No.	Item	Total	January	February	March	April	May
	Gas Made	rotai	candary	1 oblidary	Maron	7 (5111	Way
	Propane - Air Gas	0.0	0.0	0.0	0.0	0.0	0.0
3	LNG Gas	90,758.0	16,310.0	5,002.0	16,858.0	333.0	1,789.0
4	Gas	30,700.0	10,010.0	0,002.0	10,000.0	000.0	1,700.0
5	Gas						
	TOTAL	00.759.0	16 210 0	E 002 0	16 050 0	222.0	1 700 0
6	I IOTAL	90,758.0	16,310.0	5,002.0	16,858.0	333.0	1,789.0
7	O - B - I I						
8	Gas Purchased						
9	Natural G-6	1,933,215.9	280,806.8	238,592.1	226,292.6	150,302.3	112,981.4
10	Other - Storage	215,726.0	47,876.0	41,179.0	89,276.0	0.0	0.0
11	TOTAL	2,148,941.9	328,682.8	279,771.1	315,568.6	150,302.3	112,981.4
12	TOTAL MADE AND						
13	PURCHASED	2,239,699.9	344,992.8	284,773.1	332,426.6	150,635.3	114,770.4
14	Net change in Holder	0.0	0.0	0.0	0.0	0.0	0.0
	Gas						
15	TOTAL SEND OUT	2,239,699.9	344,992.8	284,773.1	332,426.6	150,635.3	114,770.4
16							
17							
18							
19	Gas Sold (Firm)	2,071,472.2	329,835.4	300,564.5	277,598.8	219,924.1	115,851.2
10	Gas Sold (Interr.)	104,411.6	17,326.1	13,674.1	15,144.7	7,853.9	4,729.0
	Electric Station Use	0.0	0.0	0.0	0.0	0.0	4,729.0
	Gas Used by Company	14,050.6	3,672.3	2,268.5	2,324.2	1,007.6	351.8
20							
0.4	Sale for Resale	0.0	0.0	0.0	0.0	0.0	0.0
21	Gas Accounted For	2,189,934.4	350,833.8	316,507.1	295,067.7	228,785.6	120,932.0
22	Gas Unaccounted For	49,765.5	(5,841.0)	(31,734.0)	37,358.9	(78,150.3)	(6,161.6)
23	% Unaccounted						
23	For (0.00%)	2.22	(1.69)	(11.14)	11.24	(51.88)	(5.37
0.4	FOI (0.00%)	2.22	(1.09)	(11.14)	11.24	(31.00)	(5.37
24							
25							
26							
27	Sendout in 24 Hours						
	in Mcf						
28	Maximum - Mcf	18,627.0	16,641.0	15,167.0	15,315.0	9,346.0	5,697.0
29	Maximum Date	12/31/2017	1/9/2017	2/9/2017	3/4/2017	4/1/2017	5/8/201
30	Minimum - Mcf	1,926.0	7,258.0	4,097.0	5,574.0	2,620.0	2,419.0
31	Minimum Date	8/5/2017	1/12/2017	2/24/2016	3/1/2017	4/28/2017	5/28/2017
32	•	•	•	•	•	•	
33							
34							
	S.O. BTU	1,030	1,032	1,031	1,032	1,030	1,030
	S.O. Sp. Gr.	0.59	0.59	0.59	0.59	0.59	0.59
	G.G. Gp. G	0.00	0.00	0.00	0.00	0.00	0.00
	Annual weighted average BTU	content of ass sold.	1 030 BTU per Cui	hic Foot			
	Annual Weighted average DTO	content of gas solu.	1,000 B 10 pci 0u	DIC I OOL			

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

June	July	August	September	October	November	December
0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0 2,262.0	0.0 2,498.0	0.0 2,628.0	0.0 949.0	0.0 2,114.0	0.0 1,322.0	0.0 38,693.0
2,262.0	2,498.0	2,028.0	949.0	2,114.0	1,322.0	38,693.0
2,262.0	2,498.0	2,628.0	949.0	2,114.0	1,322.0	38,693.0
78,162.9	69,105.9	69,112.8	72,472.5	98,956.9	237,268.9	299,160.8
0.0	0.0	0.0	0.0	0.0	0.0	37,395.0
78,162.9	69,105.9	69,112.8	72,472.5	98,956.9	237,268.9	336,555.8
80,424.9	71,603.9	71 740 9	73,421.5	101,070.9	238,590.9	375,248.8
0.0	0.0	71,740.8	0.0	0.0	0.0	0.0
80,424.9	71,603.9	71,740.8	73,421.5	101,070.9	238,590.9	375,248.8
88,903.4	69,185.5	68,256.6	68,924.2	82,306.1	178,039.0	272,083.4
2,621.1	2,440.6	2,320.3	2,262.2	4,227.8	11,641.2	20,170.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0
243.8	77.0 0.0	53.3 0.0	111.9	184.0 0.0	1,286.6 0.0	2,469.6 0.0
91,768.3	71,703.1	70,630.2	71,298.3	86,717.9	190,966.8	294,723.6
(11,343.4)	(99.2)	1,110.6	2,123.2	14,353.0	47,624.1	80,525.2
(14.10)	(0.14)	1.55	2.89	14.20	19.96	21.46
(11.10)	(0.1.1)	1.00	2.00	11.20	10.00	21.10
4,092.0	2,566.0	2,507.0	2,981.0	6,031.0	11,218.0	18,627.0
6/6/2017	7/24/2017	8/29/2017	9/30/2017	10/31/2017	11/10/2017	12/31/2017
2,064.0	1,934.0	1,926.0	2,106.0	2,286.0	3,688.0	6,797.0
6/24/2017	7/26/2017	8/5/2017	9/23/2017	10/8/2017	11/2/2017	12/5/2017
1,029	1,029	1,029	1,029	1,029	1,029	1,032
0.59	0.59	0.59	0.59	0.59	0.59	0.59

		Pg 74	
Annu	al Report of Holyoke Gas and Electric Department		Year Ended December 31, 2017
	GAS GEN	NERATING PLANT	
Line		No. of	24 Hour
No.	General Description - Location, Size, Type, etc.	Sets	Cap. (MCF)
1	A) Liquefied Natural Gas Satellite Plant with four (4)	00.0	cap (me.)
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			
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27 28			
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36			
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39			
40			
41			
42 43			
43 44			
		ΤΩΤΔΙ	15 000
45		TOTAL	15,000

	Pg 75									
Annua	al Report of Holyoke Gas a	and Electric Department				Year Ended D	ecember 31, 2017			
			50" =	.00						
			BOILE	:RS						
							Output			
			Kind of Fuel	Rated	Rated		Rating			
Line			and Method	Pressure	Steam		M. Lbs. Steam			
No.	Loca	ation	of Firing	in Lbs.	Temp.	Number	Per Hour			
1			gr. i iii.i.g							
2										
3										
4										
5										
6										
7										
8										
9										
10										
11				.,						
12				NONE						
13										
14										
15										
16										
17 18										
19										
20										
21										
22										
23										
24										
		SCRUBBERS, CONDEN	NSERS AND EXHA	USTERS - 24 HO	UR CAPACITY (MO	CF)				
Line			Kind of G	as		To				
No.						Сар	acity			
25										
26										
27 28	Scrubbers									
	Scrubbers									
29 30										
31										
32										
33										
34	Condensers		NONE							
35										
36										
37										
38										
39	Exhausters									
40										
41										

			Pg 76			.,	
Annual Rep	port of Holyoke Gas and Electric Department					Year Ended D	ecember 31, 2017
		I	PURIFIERS				
Line No.	Location	Kind of Gas Purified			Kin Puri Mat	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 (Includ	ing Relief Holde	rs) - Indicate Rel	ief Holders by th	e letters R.H.		
Line No.	Location	Type of Tank	Dimer Diameter	nsions Height	No. of Lifts	Number	Working Capacity
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41			NONE				

TRANSMISSION AND DISTRIBUTION MAINS

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

		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					
2	1 1/4"	0				0
3	1 1/2"	0				0
4	2"	0				0
5	2 1/2"	130				130
6	3"	14,102			520	13,582
7	4"	92,577			4,903	87,674
8	6"	92,073			748	91,325
9	8"	49,171			688	48,483
10	12"	29,305				29,305
11	16"	9,730				9,730
12						
13	Sub-Tot	al 287,066	0	0	6,859	280,229
14	Welded Steel					
15	2"	110,742			276	110,466
16	3"	618				618
17	4"	83,155			570	82,585
18	6"	134,803			19	134,784
19	8"	107,130			935	106,195
20	10"	12,217				12,217
21	12"	57,870				57,870
22	14"	3,278				3,278
23	16"	1,237				1,237
24						
25	Sub-Tot	511,050	0	0	1,800	509,250
26	Wrought Iron					
27	1 1/4"	0				0
28	1 1/2"	128				128
29	2"	292			330	(38)
30	2 1/2"	698			500	198
31	3"	318			120	198
32	4"	0				0
33			_	_		
34	Sub-Tot	al 1,436	0	0	950	486
35	Plastic Main					
36	2"	70,664	2,866		76	73,454
37	4"	45,212	6,417			51,629
38	6"	29,146	181			29,327
39	8"	33,083	2,650			35,733
40	0.1.7.	470 405	40.444		70	400 440
41	Sub-Tot	al 178,105	12,114	0	76	190,143
42	TOTAL	077.057	40.444		0.005	000 100
43	TOTAL	S 977,657	12,114	0	9,685	980,108

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

GAS DISTRIBUTION SERVICES, HOUSE GOVERNORS AND METERS

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

1 :		0	Havea	
Line No.	Item	Gas Services	House Regulators	Meters
	Number at beginning of year	7,959	3,259	14,296
2	Additions during year:	1,959	3,239	14,290
3	Purchases		74	373
4	Installed	308	' ']	575
	Associated with Plant acquired	000		
6	TOTAL ADDITIONS	308	74	373
	Reductions during year	000		0.0
	Retirements	318	41	464
	Associated with Plant sold			
10	TOTAL REDUCTIONS	318	41	464
11	NUMBER AT END OF YEAR	7,949	3,292	14,205
13 14	In StockOn Customers' Premises - InactiveOn Customers' Premises - ActiveIn Company Use			1,879 569 11,735 22 14,205
17	Number of Meters Tested by State Inspectors During Year			1,425

RATE SCHEDULE INFORMATION

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

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



Schedule of Rates 2017

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

HOLYOKE GAS AND ELECTRIC DEPARTMENT RATES AS OF DECEMBER 31, 2017

MDPU No			Effective	Replaces
4040				
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
168E	Schedule 3 Electric Rate - Large Industrial II Contract Schedule (2016 Rates)		08/01/03	
191G/E	Economic Development Discount		06/04/14	171G/E/S
192E	Standby Facilities Clause		06/04/14	172E
197E	Residential Electric Schedule		12/01/16	178E
194E	Off-Street/Contract Lighting		01/08/16	189E
181E	Street & Traffic Lighting		08/12/09	176E
182E	General Service Electric Schedule		01/11/11	177E
201E	General Service Electric Schedule		08/08/17	182E
193E	Large General Service Contract Schedule		11/01/15	183E
184E	Small Industrial Schedule		08/10/11	179E
200E	Small Industrial Schedule		08/08/17	184E
185E	Distributed Generation Purchased Power Clause		11/10/12	
186E	Power Wheeling Service		12/10/12	
187E	Large Industrial Contract Schedule (2016 Rates)		10/01/12	170E
199E	Large Industrial Contract Schedule (2017Rates)		04/07/17	187E
198E	Community Shared Solar Residential Electric Schedule		12/01/16	New
193G/E	Rules and Regulations		06/04/14	08/08/08 version

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.

Filed June 15, 1985

CITY OF HOLYOKE

Effective June 15, 1985

GAS & ELECTRIC DEPARTMENT

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

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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."

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 $\CCF = No.6 Oil Price \times GAS BTU + A$

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.

Filed June 15, 1985

CITY OF HOLYOKE

Effective June 15, 1985

GAS & ELECTRIC DEPARTMENT

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

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

Effective June 15, 1985

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

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

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

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."

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

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

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."

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."

Effective February 13, 2003

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 MDO shall remain in effect for the next subsequent 12 months.

Rates and Charges for Firm Transportation Service

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

Customer Charge

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

Gas Supply Realignment Charge

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

Environmental Charge

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

Energy Charge

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

3. The monthly rates and charges are as follows:

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

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

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

Customer Charge: \$66.00

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

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

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

Receipt and Delivery

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

LOAD BALANCING

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

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

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

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

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

Monthly Excess Deliveries

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

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

Monthly Under Deliveries to the Customer's Meter

0-10%	100% Index
10%-15%	85%
15%-20%	70%
20%-25%	60%
25%+	50%
Filed January	13, 2003

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

Effective February 13,2003

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 Filed January 13, 2003

CITY OF HOLYOKE

Effective February 13,2003

GAS & ELECTRIC DEPARTMENT

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% Inde
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	
1	10%-15%	85%	
1	15%-20%	70%	
2	20%-25%	60%	
2	25%+	50%	

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

Standby Service

Demand \$3.08/ccf/day

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

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

STANDARD PURCHASED GAS ADJUSTMENT SCHEDULE

AVAILABILITY

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

PURCHASED GAS ADJUSTMENT

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

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

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

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

- Cg: Total pipeline and supplemental costs for all gases purchased.
- Cd: Cost of gas for Department use and non-firm sales.
- Cr: Refunds received from suppliers, both pipeline and supplemental.
- Ca: Cumulative total in purchased gas account.
- Cb: Base cost of gas (\$0.425-375 per CCF).

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.

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

SCHEDULE 3- ELECTRIC RATE (Effective date: July 1, 2003 through June 30, 2018)

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 a minimum monthly demand of 2000 KW and a minimum monthly consumption of 1,500,000 kWh per month.

RATE – APPLIED MONTHLY (2017 Rates)

Customer Charge	\$500.00			
	Billed Rate	Billed Rate		
	Consumption	Demand	Effective*	Effective*
	<u>\$/kWh</u>	\$/kW	Demand, \$/kWh	All-in, \$/kWh
Energy Charge:	0.04590	10.39	0.01760	0.06350
Transmission Charge:	0.00172	2.61	0.00442	0.00614
Distribution Fixed:	0.00406	0.00	0.00000	0.00406
Distribution Variable:	0.00248	4.06	0.00688	0.00936

^{*}For illustrative purposes only, assumes 82% load factor, 720 hours per month

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.

ANNUAL ENERGY CHARGE ADJUSTMENT

Each January 1, beginning in 2004, the Electric Energy Charge will be adjusted by multiplying the current year Energy Charge by the ratio of the immediately preceding year's WPU-054 as published by the Bureau of Labor Statistics divided by the second preceding year's WPU-054 index. Formula: New Electric Energy Charge=Effective Electric Energy Charge *(A/B), where A=immediately preceding year's WPU-054 and B=second preceding year's WPU-054.

ANNUAL DISTRIBUTION VARIABLE CHARGE ADJUSTMENT

Each January 1, beginning in 2004, the variable component of the distribution rate will be adjusted and a new Distribution Variable Charge will be calculated, by multiplying the current variable distribution charge by the ratio of the immediately preceding year CPI (All cities/all items, non seasonally adjusted) divided by the second preceding year CPI (All cities/all items, non seasonally adjusted). Formula: New Dist. Var. Charge=Effective Dist. Var. Charge *(A/B) where A=immediately preceding year's CPI and B=second preceding year's CPI.

TERMS AND CONDITIONS

Capacity and distribution components will be billed based on demand and consumption. Values for the components illustrated above reflect demand components for an 82% load factor.

Filed July 1, 2003

Effective August 1, 2003

ECONOMIC DEVELOPMENT DISCOUNT

AVAILABILITY

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

DISCOUNT

	<u>rear 1</u>	Year Z	Year 5
Gas & Electric	10%	10%	10%

TERMS AND CONDITIONS

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

STANDBY FACILITIES CLAUSE

AVAILABILITY

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

GENERATION CHARGE

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

Facilities Charge: \$ 3.35 per nameplate kW/month

Existing Hydro resources shall receive a \$1.30 credit per nameplate kW/month or as

otherwise amended based on applicable Water Use Agreements.

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

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

WIRES CHARGE

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

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

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

Facilities Charge: Redundant Cabling \$ 13.23/month

Complete Backup Facilities

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

DISCOUNT

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

TERMS AND CONDITIONS

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

Filed April 16, 2014

Effective June 4, 2014

Mass. DPU 197E Replaces Mass. DTE 178E

RESIDENTIAL ELECTRIC SCHEDULE

AVAILABILITY

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

RATE - APPLIED MONTHLY

Customer Charge \$4.46 per meter

All kWh at \$0.1044 per kWh

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

DISCOUNT

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

PURCHASED POWER ADJUSTMENT

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

HYDROELECTRIC POWER ADJUSTMENT

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

TERMS AND CONDITIONS

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

Filed November 1, 2016

Effective December 1, 2016

OFF-STREET/CONTRACT LIGHTING

AVAILABILITY

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

RATE-APPLIED MONTHLY

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

LED = Light Emitting Diode

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

Pole Charge

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

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

DISCOUNT

No discount applies to off-street & contract lighting.

TERMS AND CONDITIONS

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

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

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

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

STREET & TRAFFIC LIGHTING

AVAILABILITY

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

RATE-APPLIED MONTHLY

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

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

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

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

DISCOUNT

No discount applies to street & traffic lighting.

TERMS AND CONDITIONS

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

Mass. DPU 182E Replaces Mass. DTE 177E

GENERAL SERVICE ELECTRIC SCHEDULE

AVAILABILITY

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

RATE - APPLIED MONTHLY

Customer Charge: \$4.46 per meter

First 200 Hrs. Times Demand

First 3,000 kWh at .1181 per kWh
Next 12,000 kWh at .1096 per kWh
Next 85,000 kWh at .1033 per kWh
All over 100,000 kWh at .0949 per kWh

Next 200 Hrs. Times Demand (100 KW Minimum) at .0878 per kWh All over 400 Hrs. Times Demand (100 KW Minimum) at .0728 per kWh

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

AGRICULTURE/FARMING

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

DISCOUNT

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

PURCHASED POWER ADJUSTMENT

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

BACK-UP POWER

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

TERMS AND CONDITIONS

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

Filed December 23, 2010

Effective January 11, 2011

Mass. DPU 201E Replaces Mass. DTE 182E

GENERAL SERVICE ELECTRIC SCHEDULE

AVAILABILITY

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

RATE - APPLIED MONTHLY

Customer Charge: \$4.46 per meter

First 200 Hrs. Times Demand

First	3,000 kWh at .11550 per kWh
Next	12,000 kWh at .11025 per kWh
Next	85,000 kWh at .1033 per kWh
All over	100,000 kWh at .0949 per kWh

Next 200 Hrs. Times Demand (100 KW Minimum) at .0878 per kWh All over 400 Hrs. Times Demand (100 KW Minimum) at .0728 per kWh

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

AGRICULTURE/FARMING

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

DISCOUNT

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

PURCHASED POWER ADJUSTMENT

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

BACK-UP POWER

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

TERMS AND CONDITIONS

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

Filed July 28, 2017

Effective August 8, 2017

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

Customer Charge	\$500.00
	Consumption
	<u>\$/kWh</u>
Energy Only	0.04547
Energy Other	0.01366
Distribution	0.01326
Transmission	0.01316
Renewable Energy	y 0.00050

POWER FACTOR CHARGE

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

DISCOUNT

No discounts apply to this schedule.

BASE RATE ADJUSTMENTS

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

TERMS AND CONDITIONS

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

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

SMALL INDUSTRIAL SCHEDULE

AVAILABILITY

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

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

RATE - APPLIED MONTHLY

Customer Charge \$20.00 per meter.

Energy Charge First 3000 kWh at \$.10820/kWh

Next 12,000 kWh at \$.10009/kWh All over 15,000 kWh at \$.08548/kWh

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

DISCOUNT

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

PURCHASED POWER ADJUSTMENT

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

BACK-UP POWER

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

TERMS AND CONDITIONS

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

Filed June 22, 2011

Effective August 10, 2011

SMALL INDUSTRIAL SCHEDULE

AVAILABILITY

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

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

RATE - APPLIED MONTHLY

Customer Charge \$20.00 per meter.

Energy Charge First 3000 kWh at \$.11148/kWh

Next 12,000 kWh at \$.10278/kWh All over 15,000 kWh at \$.08758/kWh

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

DISCOUNT

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

PURCHASED POWER ADJUSTMENT

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

BACK-UP POWER

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

TERMS AND CONDITIONS

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

Filed July 28, 2017

Effective August 8, 2017

DISTRIBUTED GENERATION PURCHASED POWER CLAUSE

AVAILABILITY

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

RATE - APPLIED MONTHLY

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

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

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

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

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

TERMS AND CONDITIONS

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

Filed October 10, 2012

Effective November 10, 2012

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

POWER WHEELING SERVICE

AVAILABILITY

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

RATE - APPLIED MONTHLY

\$ 4.26 per kilowatt of contracted capacity

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

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

TERMS AND CONDITIONS

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

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

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

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.

BASE RATE - APPLIED MONTHLY (2017 RATE)

Customer Charge \$286.00

C	onsumption	Demand		
	\$/kWh	\$/kW		
Energy Charge	0.06701	3.26		
Distribution:	0.01173	3.88		
Transmission:	0.01577			
Renewable Energy	0.00050			

DEMAND

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

DISCOUNT

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

BASE RATE ADJUSTMENTS

The base rates shown above will be adjusted annually, beginning in 2013, per sections 1.5, 1.6, 1.7 and 1.8 of this Agreement.

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 September 1, 2012

Effective October 1, 2012

LARGE INDUSTRIAL CONTRACT SCHEDULE

AVAILABILITY

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

RATE - APPLIED MONTHLY

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

DEMAND

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

DISCOUNT

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

RATE ADJUSTMENTS

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

TERMS AND CONDITIONS

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

Filed March 28, 2017

Effective April 7, 2017

COMMUNITY SHARED SOLAR RESIDENTIAL ELECTRIC SCHEDULE

AVAILABILITY

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

RATE - APPLIED MONTHLY

Customer Charge \$4.46 per meter

All kWh at \$0.1044 per kWh

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

DISCOUNT

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

PURCHASED POWER ADJUSTMENT

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

HYDROELECTRIC POWER ADJUSTMENT

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

COMMUNITY SHARED SOLAR REDUCTION

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

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

CITY OF HOLYOKE
GAS & ELECTRIC DEPARTMENT

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 November 1, 2016

Effective December 1, 2016



HOLYOKE GAS & ELECTRIC RULES AND REGULATIONS





Table of Contents		Page Number		
Overview		3		
Section One: Customer Service		3		
	Start, Stop, or Move Service	3		
	Application for Service	4		
	Authorized Personnel	5		
	Deposits & Fees	6		
	Meter Reading	6		
	Billing	7		
	Limitations of Liability	8		
	Incentive & Discount Programs	10		
C4:	Turn Con	40		
Section	Two: Gas	12		
	Classifications of Gas Service	12		
	Installations	13		
	Gas Metering	15		
	Customer Gas Equipment	15		
	Gas Appliance Repair Policy	16		
	Sale of Appliances	16		
	Gas Leaks	16		
Section	Three: Electric	17		
	Classifications of Electric Service	17		
	Voltage	20		
	Electric Metering	20		
	Customer Electric Equipment & Wiring	22		
	Motors	23		
	Contract Lighting	24		
	Surge Protection	24		
	Connection Charges – New Service	24		
	Alternate Electric Energy Sources	25		
	Power Outages & Concerns	25		



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:
 - 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:
 - Non-payment of a valid bill for service furnished at a present or previous location
 - 2. Tampering with any facility of HG&E
 - Customer moves from the premise, unless customer requests that service be continued
 - 4. Service is provided to others (sub-metering)
 - 5. Failure to provide payment as provided for in these terms and conditions
 - 6. Connecting and operating equipment in a manner so as to produce disturbing effects on the service of HG&E or other customers
 - 7. The customer's installation poses a hazard to life or property
 - 8. Customer refuses reasonable access to HG&E's employees
- 3. Move Service: If you will be moving from one location to a new location within HG&E's service territory, please visit the Main Office. Customers will need to supply two valid forms of identification, including a government issued form of photo identification (see Application for Service).

Application for Service

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

Applicants for service must present the following:

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



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

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

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

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

Authorized Personnel

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

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



Deposits & Fees

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

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

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

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

- Residential: A deposit on residential accounts is required and based on available credit information.
 Residential customers whose service has been disconnected a second time for non-payment of their bill
 will be required to pay a deposit. Non-heating customers are required to pay \$75 and heating customers
 are required to pay \$150. This is not a one-time occurrence but every time a second shut off occurs. All
 deposits must be paid by cash or money order.
- 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:

_	Additional charge(s) mos abbit.					
\$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".

HOLYOKE GAS & ELECTRIC RULES & REGULATIONS



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

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

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

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

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

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



Incentive & Discount Programs

Energy Conservation Program

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

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

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

HOLYOKE GAS & ELECTRIC RULES & REGULATIONS



- 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.

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



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

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

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

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

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

EXTRACTS FROM CHAPER 164 OF THE GENERAL LAWS AS AMENDED

Section 56. The Mayor of a city, or the selectmen or municipal light board, if any, of a town acquiring a gas or electric plant shall appoint a manager of municipal lighting who shall, under the direction and control of the mayor, selectmen or municipal light board, if any, and subject to this chapter, have full charge of the operation and management of the plant, the manufacture and distribution of gas or electricity, the purchase of supplies, the employment of agents and servants, the method, time, price, quantity and quality of the supply, the collection of bills, and the keeping of accounts. His compensation and term of office shall be fixed in cities by the city council and in towns by the selectmen or municipal light board, if any, and, before entering upon the performance of his official duties, he shall give bond to the city or town for the faithful performance thereof in a sum and form and with sureties to the satisfaction of the mayor, selectmen or municipal light board, if any, and shall, at the end of each municipal year, render to them such detailed statement of his doings and of the business and financial matters in his charge as the department may prescribe. All moneys payable to or received by the city, town, manager or municipal light board in connection with the operation of the plant, for the sale of gas or electricity or otherwise shall be paid to the city or town treasurer. All accounts render to or kept in the gas or electric plant of any city shall be subject to the inspection of the city auditor or officer having similar duties, and in towns they shall be subject to the inspection of the city auditor or officer having similar duties, and in towns they shall be subject to the inspection of the selectmen. The auditor or officer having similar duties, or the selectmen may require any person presenting for settlement an account or claim against such plant to make oath before him or them, in such form as he or they may prescribe, as to the accuracy of such account or claim. The willful making of a false oath shall be punishable as perjury. The auditor or officer having similar duties in cities, and the selectmen in towns, shall approve the payment of all bills or payrolls of such plants before they are paid by the treasurer, and may disallow and refuse to approve for payment, in whole or in part, any claim as fraudulent, unlawful or excessive; and in that case the auditor or officer having duties, or the selectmen shall file with the city or town treasurer a written statement of the reasons for the refusal; and the treasurer shall not pay any claim or bill so disallowed. This section shall not abridge the powers conferred on town accountants by section fifty-five to sixty-one, inclusive, of chapter forty-one. The manager shall at any time, when required by the mayor, selectmen, municipal light board, if any, or department, make a statement to such officers of his doings, business, receipts, disbursements, balances, and of the indebtedness of the town in his department.

Section 57. At the beginning of each fiscal year, the manager of municipal lighting shall furnish to the mayor, selectmen or municipal light board, if any, an estimate of the income from sales of gas and electricity to private consumers during the ensuring fiscal year, and of the expense of the plant during said year, meaning the gross expenses of operation, maintenance and repair, the interest on the bonds, notes or certificates of indebtedness issued to pay for the plant, an amount for depreciation equal to three percent of the cost of the plant exclusive of land and any water power appurtenant thereto, or such smaller or larger amount as the department may approve, the requirements of the sinking fund or debt incurred for the plant, and the loss, if any, in the operation of the plant during the preceding year, and of the costs, as defined in section 58, of the gas and electricity to be used by the town as above defined and estimated. By cost of the plant is intended the total amount expended on the plant to the beginning of the fiscal year for the purpose of establishing, purchasing, extending or enlarging the same. By loss in operation is intended the difference between the actual income from private consumers plus the appropriations for maintenance for the preceding fiscal year and the actual expense of the plant, reckoned as above, for that year in case such expenses exceeded the amount of such income and appropriation. The income from sales and the money appropriated as aforesaid shall be used to pay the annual expense of the plant, defined as above, for the fiscal year, except that no part of the sum therein included for depreciation shall be used for any other purpose than renewals in excess of ordinary repairs, extensions, reconstruction, enlargements and additions. The surplus, if any, of said annual allowances for depreciation after making the above payments shall be kept as a separate fund and used for renewals other than ordinary repairs, extensions, reconstructions, enlargements and additions in succeeding years; and no debt shall be incurred under section forty for extension, reconstruction or enlargements of the plant in excess of the amount needed therefore in addition to the amount then on hand in said depreciation fund. Said depreciation fund shall be kept and managed by the town treasurer as a separate fund, subject to appropriation by the city council or selectmen or municipal light board, if any for the foregoing purpose. So much of said fund as the department may from time to time approve may also be used to pay notes, bonds or certificates of indebtedness issued to pay for the cost of reconstruction or renewals in excess of ordinary repairs, when such notes, bonds or certificates of indebtedness become due. All appropriations for the plant shall be either for the annual expenses defined, as above, or for extensions, reconstruction, enlargements or additions; and no appropriation shall be used for any purpose other than that stated in the vote making the same. No bonds, notes or certificates of indebtedness shall be issued by a town for the annual expenses as defined in this section.

Section 63. A town manufacturing or selling gas or electricity for lighting shall keep records of its work and doings at its manufacturing station, and in respect to its distributing plant, as may be required by the department. It shall install and maintain apparatus, satisfactory to the department, for the measurement and recording of the output of gas and electricity, and shall sell the same by meter to private consumers when required by the department, and, if required by it, shall measure all gas or electricity consumed by the town. The books, accounts and returns shall be made and kept in a form prescribed by the department, and the accounts shall be closed annually on the last day of the fiscal year of such town, and a balance sheet of that date shall be taken there from and included in the return to the department. The mayor, selectmen or municipal light board and manager shall, at any time, on request, submit said books and accounts to the inspection of the department and furnish any statement or information required by it relative to the condition, management and operation of said business. The department shall, in its annual report, describe the operation of the several municipal plants with such detail as may be necessary to disclose the financial condition and results of each plant; and shall state what towns, if any, operating a plant have failed to comply with this chapter, and what towns, if any, are selling gas and electricity with the approval of the department at less than cost. The mayor, or selectmen, or municipal light board, if any, shall annually, on or before such date as the department fixes, make a return to the department, for the preceding fiscal year, signed and sworn to by the mayor, or by a majority of the selectmen or municipal light board, if any, and by the manager, stating the financial condition of said business, the amount of authorized and existing indebtedness, a statement of income and expenses in such detail as the department may require, and a list of its salaried officers and the salary paid to each. The mayor, the selectmen or the municipal light board may direct any additional returns to be made at such time and in such detail as he or they may order. Any officer of a town manufacturing or selling gas or electricity for lighting who being required by this section to make an annual return to the department neglects to make such annual return shall for the first fifteen days or portion thereof during which such neglect continue, forfeit five dollars a day; for the second fifteen days or any portion thereof, ten dollars a day, and for each day thereafter not more than fifteen dollars a day. Any such officer who unreasonably refused or neglects to make such a return shall, in addition thereto, forfeit not more than five hundred dollars. If a return is defective or appears to be erroneous, the department shall notify the officer to amend it within fifteen days. Any such officer who neglects to amend said return within the time specified to do so, shall forfeit fifteen dollars for each day during which such neglect continues. All forfeitures incurred under this section may be recovered by and information in equity brought in the supreme judicial court by the attorney general, at the relation of the department, and when so recovered shall be paid to the commonwealth.

Section 69. The supreme judicial court for the county where the town is situated shall have jurisdiction on petition of the department or of twenty taxable inhabitants of the town to compel the fixing of prices by the town in compliance with sections fifty-seven and fifty-eight, to prevent any town from purchasing, operating or selling a gas or electric plant in violation of any provision of this chapter, and generally to enforce compliance with the terms and provisions thereof relative to the manufacture or distribution of gas or electricity by a town.