

**Unitil - Northern
Gas Meter Testing Cost Analysis 2016**

Cost Analysis

The 2016 cost for Northern to outsource the testing of the 1119 meters associated with its NH customers was \$32,483.01, or an average of \$29.03 per meter.

The total cost for the 3362 meters associated with Unitil's three gas companies was \$64,371.37, or an average of \$19.15 per meter.

It is estimated that in order to bring the meter testing and servicing operation back in-house, Unitil would need to hire two full-time employees and the annual cost with benefits would be:

2 Full Time Employees w/ Benefits	\$171,267
Utility Expenses	\$3,500
Tool Replacements	\$1,000
Total	\$175,767

The estimated annual cost of \$175,767 for two employees, utilities, and tools would result in the cost per meter test for the 3362 meters tested in 2016 to be \$52.28 per meter.

Additional consideration should be taken for the start-up costs that would be incurred and depreciated over time to facilitate a meter testing laboratory are as follows:

	Location	
Start-up Costs	Fitchburg	Portsmouth
Facility Estimate	\$411,348	\$1,003,669
Equipment Estimate	\$257,661	\$257,661
Total	\$669,009	\$1,261,329

Conclusion

Due to the estimated annual operating costs of \$175,767 exceeding the most recent annual expenditures of \$64,371.37 paid to vendors for performing testing, it is not economical at this time for Unitil to pursue establishing a gas meter testing facility.

NU-NH 2016 Meter Test Cost Summary				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Test Cost
Class A Repair	Domestic	\$ 22.25	43	\$ 956.75
Class A Repair	Class 400	\$ 22.12	3	\$ 66.36
Class A Repair	Class 700	\$ 58.79	0	\$ -
Class A Repair	Class 800/1000	\$ 62.25	2	\$ 124.50
Class A Repair	Rotary (all sizes)	\$ 72.00	0	\$ -
Intest/Condemn; or Class B & C Test only	Domestic	\$ 9.81	654	\$ 6,415.74
Intest/Condemn; or Class B & C Test only	Class 400	\$ 9.81	56	\$ 549.36
Intest/Condemn; or Class B & C Test only	Class 700 - 1000	\$ 57.46	97	\$ 5,573.62
Intest/Condemn; or Class B & C Test only	Class 1400	\$ 64.99	0	\$ -
Intest/Condemn; or Class B & C Test only	Class 2300	\$ 70.32	1	\$ 70.32
Intest/Condemn; or Class B & C Test only	Class 5000	\$ 76.99	0	\$ -
Intest/Condemn; or Class B & C Test only	Rotary 1.5M - 7M	\$ 69.86	252	\$ 17,604.72
Intest/Condemn; or Class B & C Test only	Rotary 11M	\$ 72.53	6	\$ 435.18
Intest/Condemn; or Class B & C Test only	Rotary 16M	\$ 75.19	5	\$ 375.95
Intest/Condemn; or Class B & C Test only	Rotary 23M	\$ 80.53	0	\$ -
			1119	\$ 32,172.50
			Shipping Expenses	
			Total	\$ 32,483.01

PUC Meter Group Classification	# of Meters	Total Expense	Cost per Meter
Diaphragm 0 - 500 CFH	756	\$ 8,197.99	\$ 10.84
Diaphragm > 500 CFH	100	\$ 5,796.19	\$ 57.96
Rotary	263	\$ 18,488.83	\$ 70.30
Average Cost Per Meter	1119	\$ 32,483.01	\$ 29.03

Unitil 2016 Meter Test Cost Summary

Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Test Cost	
Class A Repair	Domestic	\$ 22.25	205	\$ 4,561.25	
Class A Repair	Class 400	\$ 22.12	6	\$ 132.72	
Class A Repair	Class 700	\$ 58.79	0	\$ -	
Class A Repair	Class 800/1000	\$ 62.25	2	\$ 124.50	
Class A Repair	Rotary (all sizes)	\$ 72.00	0	\$ -	
Intest/Condemn; or Class B & C Test only	Domestic	\$ 9.81	2525	\$ 24,770.25	
Intest/Condemn; or Class B & C Test only	Class 400	\$ 9.81	140	\$ 1,373.40	
Intest/Condemn; or Class B & C Test only	Class 700 - 1000	\$ 57.46	137	\$ 7,872.02	
Intest/Condemn; or Class B & C Test only	Class 1400	\$ 64.99	0	\$ -	
Intest/Condemn; or Class B & C Test only	Class 2300	\$ 70.32	1	\$ 70.32	
Intest/Condemn; or Class B & C Test only	Class 5000	\$ 76.99	0	\$ -	
Intest/Condemn; or Class B & C Test only	Rotary 1.5M - 7M	\$ 69.86	333	\$ 23,263.38	
Intest/Condemn; or Class B & C Test only	Rotary 11M	\$ 72.53	7	\$ 507.71	
Intest/Condemn; or Class B & C Test only	Rotary 16M	\$ 75.19	6	\$ 451.14	
Intest/Condemn; or Class B & C Test only	Rotary 23M	\$ 80.53	0	\$ -	
			3362	\$ 63,126.69	
			Shipping Expenses		\$ 1,244.68
			Total	\$ 64,371.37	

	Shipping Breakdown	
Diaphragm 0 - 500 CFH	85.5%	\$ 1,064.75
Diaphragm > 500 CFH	4.2%	\$ 51.83
Rotary	10.3%	\$ 128.10
	100.0%	\$ 1,244.68

PUC Meter Group Classification	# of Meters	Total Expense	Cost per Meter
Diaphragm 0 - 500 CFH	2876	\$ 31,902.37	\$ 11.09
Diaphragm > 500 CFH	140	\$ 8,118.67	\$ 57.99
Rotary	346	\$ 24,350.33	\$ 70.38
Average Cost Per Meter	3362	\$ 64,371.37	\$ 19.15

QUOTATION

Utilities and Industries

1995 Industrial Blvd

Reynoldsville, PA 15851

Phone: (814) 653-8269 Fax: (814) 653-4127

Quote Number: 1645

Quote Date: 01/20/16

Page: 1

This quote is valid for 15 days from the date it is received. If 15 days have passed it will be necessary to contact the company representative who sent you the quote to verify the pricing is still valid.

B FITCHBURG GAS AND ELECTRIC
I LIGHT COMPANY
L 285 JOHN FITCH HIGHWAY
L FITCHBURG, MA 01420-8207

S FITCHBURG GAS AND ELECTRIC
H LIGHT COMPANY
I 285 JOHN FITCH HIGHWAY
P FITCHBURG, MA 01420-8207
ATTN: MIKE

Entered By: RF
Location: DEFAULT
Account Cd: UNITIL F
Salesperson: 0

RFQ Number:
Ship Via: UI TRUCK
Taxable: N
Pmt Terms: NET 15

Line	Order Qty	Part# / Description	DISC	Price	UM	Extended Price	Est Ship
	1	CLASS J REP DOM	0.00	\$9.8100	EA	\$9.81	04/30/15
		UNITIL INTEST/CONDEMN DOM					
	1	CLASS J REP 400	0.00	\$9.8100	EA	\$9.81	04/30/15
		UNITIL INTEST/CONDEMN 400'S					
	1	CLASS J REP LC	0.00	\$57.4600	EA	\$57.46	04/30/15
		UNITIL INTEST/CON LC 700-1000					
	1	CLASS J REP LC	0.00	\$64.9900	EA	\$64.99	04/30/15
		UNITIL INTEST/CON LC AL1400					
	1	CLASS J REP LC	0.00	\$70.3200	EA	\$70.32	04/30/15
		UNITIL INTEST/CON LC AL2300					
	1	CLASS J REP LC	0.00	\$76.9900	EA	\$76.99	04/30/15
		UNITIL INTEST/CON LC AL5000					
	1	CLASS J REP ROT	0.00	\$69.8600	EA	\$69.86	04/30/15
		UNITIL INTEST/CON ROT 1.5M-7M					
	1	CLASS J REP ROT	0.00	\$72.5300	EA	\$72.53	04/30/15
		UNITIL INTEST/CON ROT 11M					
	1	CLASS J REP ROT	0.00	\$75.1900	EA	\$75.19	04/30/15
		UNITIL INTEST/CON ROT 16M					
	1	CLASS J REP ROT	0.00	\$80.5300	EA	\$80.53	04/30/15
		UNITIL INTEST/CON ROT 23M					
	1	INTEST DOM	0.00	\$28.0000	EA	\$28.00	01/07/15
		SPECIAL TEST DOMESTIC METER					
	1	LC INTEST	0.00	\$52.6700	EA	\$52.67	01/07/15
		SPECIAL TEST LARGE CAPACITY					
	1	ROTARY INTEST	0.00	\$47.0000	EA	\$47.00	01/07/15
		SPECIAL TEST ROTARY METER					
	1	REPAIR CLASS A	0.00	\$22.5000	EA	\$22.50	01/07/15
		AMERICAN/ROCKWELL DOM METERS					

QUOTATION

Utilities and Industries

1995 Industrial Blvd

Reynoldsville, PA 15851

Phone: (814) 653-8269 Fax: (814) 653-4127

Quote Number: 1645

Quote Date: 01/20/16

Page: 2

This quote is valid for 15 days from the date it is received. If 15 days have passed it will be necessary to contact the company representative who sent you the quote to verify the pricing is still valid.

B FITCHBURG GAS AND ELECTRIC
I LIGHT COMPANY
L 285 JOHN FITCH HIGHWAY
L FITCHBURG, MA 01420-8207

S FITCHBURG GAS AND ELECTRIC
H LIGHT COMPANY
I 285 JOHN FITCH HIGHWAY
P FITCHBURG, MA 01420-8207
ATTN: MIKE

Entered By: RF
Location: DEFAULT
Account Cd: UNITIL F
Salesperson: 0

RFQ Number:
Ship Via: UI TRUCK
Taxable: N
Pmt Terms: NET 15

Line	Order Qty	Part# / Description	DISC	Price	UM	Extended Price	Est Ship
	1	REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$34.9000	EA	\$34.90	01/07/15
	1	REPAIR CLASS C AMERICAN/ROCKWELL DOM METER	0.00	\$40.1100	EA	\$40.11	01/07/15
	0	EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$0.0000	EA	\$0.00	04/30/15
	1	REPAIR CLASS A 400 CLASS METERS	0.00	\$22.1200	EA	\$22.12	01/07/15
	1	REPAIR CLASS B 400 CLASS METERS	0.00	\$35.8300	EA	\$35.83	01/07/15
	1	REPAIR CLASS C 400 CLASS METERS	0.00	\$41.6700	EA	\$41.67	01/07/15
	0	EXTRA PARTS DOM EXTRA PARTS 400 CLASS METERS	0.00	\$0.0000	EA	\$0.00	04/30/15
	1	CLASS A REPAIR 700 CLASS LARGE CAPACITY METER	0.00	\$78.3400	EA	\$78.34	01/07/15
	1	CLASS B REPAIR 700 CLASS LARGE CAPACITY METER	0.00	\$155.4900	EA	\$155.49	01/07/15
	1	CLASS C REPAIR 700 CLASS LARGE CAPACITY METER	0.00	\$182.5900	EA	\$182.59	01/07/15
	1	CLASS A REPAIR AL800/1000 LC METER	0.00	\$75.6700	EA	\$75.67	01/07/15
	1	CLASS B REPAIR AL800/1000 LC METER	0.00	\$154.2600	EA	\$154.26	01/07/15
	1	CLASS C REPAIR AL800/1000 LC METER	0.00	\$189.7200	EA	\$189.72	01/07/15
	0	EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$0.0000	EA	\$0.00	04/30/15

QUOTATION

Utilities and Industries

1995 Industrial Blvd

Reynoldsville, PA 15851

Phone: (814) 653-8269 Fax: (814) 653-4127

Quote Number: 1645

Quote Date: 01/20/16

Page: 3

This quote is valid for 15 days from the date it is received. If 15 days have passed it will be necessary to contact the company representative who sent you the quote to verify the pricing is still valid.

B FITCHBURG GAS AND ELECTRIC
I LIGHT COMPANY
L 285 JOHN FITCH HIGHWAY
L FITCHBURG, MA 01420-8207

S FITCHBURG GAS AND ELECTRIC
H LIGHT COMPANY
I 285 JOHN FITCH HIGHWAY
P FITCHBURG, MA 01420-8207
ATTN: MIKE

Entered By: RF
Location: DEFAULT
Account Cd: UNITIL F
Salesperson: 0

RFQ Number:
Ship Via: UI TRUCK
Taxable: N
Pmt Terms: NET 15

Line	Order Qty	Part# / Description	DISC	Price	UM	Extended Price	Est Ship
	1	ROTARY REPAIR A INTEST,CLEAN,PAINT ALL SIZES	0.00	\$72.0000	EA	\$72.00	01/07/15
	1	ROTARY REPAIR B 1.5M ROTARY METER	0.00	\$268.9800	EA	\$268.98	01/07/15
	1	ROTARY REPAIR B 3M -5M ROTARY METER	0.00	\$268.9800	EA	\$268.98	01/07/15
	1	ROTARY REPAIR B 7M ROTARY METER	0.00	\$239.1400	EA	\$239.14	01/07/15
	1	ROTARY REPAIR B 11M ROTARY METER	0.00	\$239.1400	EA	\$239.14	01/07/15
	1	ROTARY REPAIR B 16M ROTARY METER	0.00	\$268.9800	EA	\$268.98	01/07/15
	1	ROTARY REPAIR B 23M ROTARY METER	0.00	\$327.9600	EA	\$327.96	01/07/15
	0	EXTRA PARTS ROT ROTARY METER EXTRA PARTS	0.00	\$0.0000	EA	\$0.00	04/30/15
	1	DDM INSTALL BADGES	0.00	\$2.8900	EA	\$2.89	01/07/15
	1	DDM INSTALL BADGER UNITS	0.00	\$5.1000	EA	\$5.10	01/07/15
	1	DDM INSTALL ERTS	0.00	\$5.1000	EA	\$5.10	01/07/15
	0	DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$0.0000	EA	\$0.00	04/30/15

Utilities and Industries
1995 Industrial Blvd
Reynoldsville, PA 15851
Phone: (814) 653-8269 Fax: (814) 653-4127

QUOTATION

Quote Number: 1645
Quote Date: 01/20/16
Page: 4

This quote is valid for 15 days from the date it is received. If 15 days have passed it will be necessary to contact the company representative who sent you the quote to verify the pricing is still valid.

B FITCHBURG GAS AND ELECTRIC
I LIGHT COMPANY
L 285 JOHN FITCH HIGHWAY
L FITCHBURG, MA 01420-8207

S FITCHBURG GAS AND ELECTRIC
H LIGHT COMPANY
I 285 JOHN FITCH HIGHWAY
P FITCHBURG, MA 01420-8207
ATTN: MIKE

Entered By: RF
Location: DEFAULT
Account Cd: UNITIL F
Salesperson: 0

RFQ Number:
Ship Via: UI TRUCK
Taxable: N
Pmt Terms: NET 15

Line	Order Qty	Part# / Description	DISC	Price	UM	Extended Price	Est Ship
	0	DELVCHG-DEL	0.00	\$0.0000	EA	\$0.00	04/30/15

UNITIL DELIVERY CHARGES
THIS QUOTE IS 2016 PRICING FOR ALL DIVISIONS OF UNITIL.
PRICING STAYED THE SAME AS 2015.

Serving the Natural Gas
Industry With: Meters, Drips,
Correctors, Recorders, Filters
Prefabs, Separators, Testing,
Repairs, H2S Treatment Units

Subtotal:	\$3,446.63
Sales Tax:	\$0.00
Freight:	\$0.00
Total:	\$3,446.63