

**Norther Utilities, Inc. 2020 Annual Meter Testing Report
(Calendar Year 2019)**

1. Please provide a written narrative summarizing overall meter testing program results with observations related to year over year average cost per meter test variances by class.

Response: The year over year average cost per meter variance by class for years 2015, 2016, 2017, 2018 and 2019 are illustrated below. The data shows that the average cost per meter test did not vary significantly year-over-year. The cost per test has direct correlation to the quantity of meters that are shipped per shipment.

Class A – Small Diaphragm 0 – 500 CFH

Test Year	Meter Tests	Total Expense	Cost per Meter
2019	2980	\$ 34,372.12	\$ 11.53
2018	2506	\$ 30,244.65	\$ 12.07
2017	2348	\$ 28,435.84	\$ 12.11
2016	2876	\$ 31,902.37	\$ 11.09
2015	2993	\$ 35,767.69	\$ 11.95
Average	2741	\$ 32,144.53	\$ 11.75

Class B – Large Diaphragm > 500 CFH

Test Year	Meter Tests	Total Expense	Cost per Meter
2019	150	\$ 8,881.72	\$ 59.21
2018	144	\$ 8,531.27	\$ 59.24
2017	146	\$ 8,752.44	\$ 59.95
2016	140	\$ 8,118.67	\$ 57.99
2015	158	\$ 9,174.01	\$ 58.06
Average	148	\$ 8,691.62	\$ 58.89

**Norther Utilities, Inc. 2020 Annual Meter Testing Report
(Calendar Year 2019)**

Class C Rotary

Test Year	Meter Tests	Total Expense	Cost per Meter
2019	210	\$ 15,093.63	\$ 71.87
2018	268	\$ 19,207.64	\$ 71.67
2017	339	\$ 24,473.67	\$ 72.19
2016	346	\$ 24,350.33	\$ 70.38
2015	328	\$ 21,119.23	\$ 70.63
Average	298	\$ 20,848.90	\$ 71.35

2. Please provide a reconciliation of actual outsourced gas meter testing program costs to identified costs in its third-party vendor's purchase order agreement(s).

Response: Please see Attachment 1 - Gas Testing Invoice Reconciliation 2019.

3. Please provide a cost benefit analysis that compares sufficiently detailed actual costs of outsourcing meter testing for each of Unitil's three gas divisions to updated cost estimates to bring the meter testing and servicing operation in-house.

Response: Please see Attachment 2 Unitil - Gas Testing Facility Cost Analysis 2019.

4. For any group of meters that have been flagged with accuracy rates of 87% or less, please provide an updated status of what steps have been taken by Northern or its meter testing program vendor, to determine the defect responsible.

Response: Annual tests did not flag any groups of meters as having accuracy rates of 87% or less.

U & I UTILITIES & INDUSTRIES, INC. INVOICE

Customer Orders
 1995 Industrial Blvd
 Reynoldsville, PA 15851-0190
 Phone: (814) 653-8269 or 653-8411
 Fax: (814) 653-7306

Please Remit Payment To:
 UTILITIES & INDUSTRIES
 c/o DBI Inc.
 1995 Industrial Blvd
 Reynoldsville, Pa 15851

Invoice Number: 30313
 Invoice Date: 06/18/19
 Page: 1

Freight is F.O.B. Plant.

All sales are subject to Net 30 Day payment terms.

A service charge of 1.5% per month will be added to any unpaid balance of 30 days or more.

B NORTHERN UTILITIES NH/ME
I 6 LIBERTY LANE WEST
L HAMPTON, NH 03842-1720
L knowles@unitil.com
 ATTN: STEVEN HAMBLIN

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
 ATTN: STEVEN HAMBLIN

Sales Ord No: 27273
 Order Date: 05/08/19
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 06/11/09

Purchase Order: NNH 73632
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
14		0	CLASS J REP DOM UNITIL INTEST/CONDEMN DOM	0.00	\$10.0100	EA	\$140.14
4		0	INTEST DOM SPECIAL TEST DOMESTIC METER	0.00	\$28.5600	EA	\$114.24
3		0	REPAIR CLASS A AMERICAN/ROCKWELL DOM METERS	0.00	\$22.9500	EA	\$68.85
11		0	REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$35.6000	EA	\$391.60
1		0	EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$37.9900	EA	\$37.99
1		0	CLASS B REPAIR AL800/1000 LC METER	0.00	\$157.3500	EA	\$157.35
1		0	EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$22.6000	EA	\$22.60
5		0	ROTARY REPAIR B 3M -5M ROTARY METER	0.00	\$274.3600	EA	\$1,371.80
1		0	EXTRA PARTS ROT ROTARY METER EXTRA PARTS	0.00	\$3.7200	EA	\$3.72
12		0	DDM INSTALL BADGES	0.00	\$2.9500	EA	\$35.40
20		0	DDM INSTALL ERTS	0.00	\$5.2000	EA	\$104.00
1		0	DELVCHG-PU	0.00	\$403.3300	EA	\$403.33

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Reynoldsville, Pa 15851

Invoice Number: 30313
Invoice Date: 06/18/19
Page: 2

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B NORTHERN UTILITIES NH/ME
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L HAMPTON, NH 03842-1720
L knowles@unitil.com
ATTN: STEVEN HAMBLER

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
ATTN: STEVEN HAMBLER

Sales Ord No: 27273
Order Date: 05/08/19
Account Cd: UNITIL PL
Salesperson: 0

Taxable: N
Pmt Terms: NET 15
Shipper No: 0
Ship Date: 06/11/09

Purchase Order: NNH 73632
Ship Via: UI TRUCK
FOB: PLANT
Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
UNITIL PICKUP CHARGES							
	1	0	DELVCHG-DEL	0.00	\$403.3400	EA	\$403.34
UNITIL DELIVERY CHARGES							

Return Policy: 30 days: No
charge for manufacturers
defect, otherwise 30% restock
fee. Special Orders: NO
Returns unless defective.

Subtotal: \$3,254.36
Freight: \$0.00
Total: \$3,254.36

Invoice Reconciliation				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 22.95	3	\$ 68.85
Class A Repair	Class 400	\$ 22.56		\$ -
Class A Repair	Class 700	\$ 79.91		\$ -
Class A Repair	Class 800/1000	\$ 77.18		\$ -
Class A Repair	Rotary (all sizes)	\$ 73.44		\$ -
Class B Repair	Domestic	\$ 35.60	11	\$ 391.60
Class B Repair	Class 400	\$ 36.55		\$ -
Class B Repair	Class 700	\$ 158.60		\$ -
Class B Repair	Class 800/1000	\$ 157.35	1	\$ 157.35
Class B Repair	Rotary 1.5M	\$ 274.36		\$ -
Class B Repair	Rotary 3M - 5M	\$ 274.36	5	\$ 1,371.80
Class B Repair	Rotary 7M	\$ 243.92		\$ -
Class B Repair	Rotary 11M	\$ 243.92		\$ -
Class B Repair	Rotary 16M	\$ 274.36		\$ -
Class B Repair	Rotary 23M	\$ 334.52		\$ -
Class C Repair	Domestic	\$ 40.91		\$ -
Class C Repair	Class 400	\$ 42.50		\$ -
Class C Repair	Class 700	\$ 186.24		\$ -
Class C Repair	Class 800/1000	\$ 193.51		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 10.01	14	\$ 140.14
Class J Repair - Intest/Condemn	Class 400	\$ 10.01		\$ -
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 58.61		\$ -
Class J Repair - Intest/Condemn	Class 1400	\$ 66.29		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 71.73		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 78.53		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 71.26		\$ -
Class J Repair - Intest/Condemn	Rotary 11M	\$ 73.98		\$ -
Class J Repair - Intest/Condemn	Rotary 16M	\$ 76.69		\$ -
Class J Repair - Intest/Condemn	Rotary 23M	\$ 82.14		\$ -
Special Test Domestic Meter		\$ 28.56	4	\$ 114.24
Special Test Large Capacity Meter		\$ 53.72		\$ -
Special Test Rotary Meter		\$ 47.94		\$ -

Install New Meter Badges	All Diaphragm Sizes	\$ 2.95	12	\$ 35.40
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.20	20	\$ 104.00
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 60.59	N/A	\$ 60.59
New Rotary Meter Parts	All Rotary Sizes	\$ 3.72	N/A	\$ 3.72
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 403.33	N/A	\$ 403.33
DELVCHG - DEL	Total Shipment	\$ 403.34	N/A	\$ 403.34
Invoice #	30313		Total	\$ 3,254.36
Invoice Date	6/18/2019			

U & I UTILITIES & INDUSTRIES, INC. INVOICE

Customer Orders
 1995 Industrial Blvd
 Reynoldsville, PA 15851-0190
 Phone: (814) 653-8269 or 653-8411
 Fax: (814) 653-7306

Please Remit Payment To:
 UTILITIES & INDUSTRIES
 c/o DBI Inc.
 1995 Industrial Blvd
 Reynoldsville, Pa 15851

Invoice Number: 30757
 Invoice Date: 10/23/19
 Page: 2

Freight is F.O.B. Plant.

All sales are subject to Net 30 Day payment terms.

A service charge of 1.5% per month will be added to any unpaid balance of 30 days or more.

B NORTHERN UTILITIES NH/ME
I 6 LIBERTY LANE WEST
L HAMPTON, NH 03842-1720
L knowles@unitil.com
 ATTN: STEVEN HAMBLIN

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
 ATTN: STEVEN HAMBLIN

Sales Ord No: 27791
 Order Date: 10/23/19
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 10/29/19

Purchase Order: NNH 73632
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	1		0 EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$578.4200	EA	\$578.42
	40		0 ROTARY REPAIR B 3M -5M ROTARY METER	0.00	\$274.3600	EA	\$10,974.40
	1		0 EXTRA PARTS ROT ROTARY METER EXTRA PARTS	0.00	\$382.2700	EA	\$382.27
	117		0 DDM INSTALL BADGES	0.00	\$2.9500	EA	\$345.15
	94		0 DDM REPLACE MFG BADGES AS NEEDED	0.00	\$2.9500	EA	\$277.30
	161		0 DDM INSTALL ERTS	0.00	\$5.2000	EA	\$837.20
	1		0 DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$403.3300	EA	\$403.33
	1		0 DELVCHG-DEL UNITIL DELIVERY CHARGES	0.00	\$403.3300	EA	\$403.33

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1995 Industrial Blvd
Reynoldsville, PA 15851-0190
Phone: (814) 653-8269 or 653-8411
Fax: (814) 653-7306

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UTILITIES & INDUSTRIES
c/o DBI Inc.
1995 Industrial Blvd
Reynoldsville, Pa 15851

Invoice Number: 30757
Invoice Date: 10/23/19
Page: 3

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B NORTHERN UTILITIES NH/ME
I 6 LIBERTY LANE WEST
L HAMPTON, NH 03842-1720
L knowles@unitil.com
ATTN: STEVEN HAMBLER

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
ATTN: STEVEN HAMBLER

Sales Ord No: 27791
Order Date: 10/23/19
Account Cd: UNITIL PL
Salesperson: 0

Taxable: N
Pmt Terms: NET 15
Shipper No: 0
Ship Date: 10/29/19

Purchase Order: NNH 73632
Ship Via: UI TRUCK
FOB: PLANT
Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
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Return Policy: 30 days: No
charge for manufacturers
defect, otherwise 30% restock
fee. Special Orders: NO
Returns unless defective.

Subtotal:	\$33,429.06
Freight:	\$0.00
Total:	\$33,429.06

Invoice Reconciliation				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 22.95	16	\$ 367.20
Class A Repair	Class 400	\$ 22.56		\$ -
Class A Repair	Class 700	\$ 79.91		\$ -
Class A Repair	Class 800/1000	\$ 77.18		\$ -
Class A Repair	Rotary (all sizes)	\$ 73.44		\$ -
Class B Repair	Domestic	\$ 35.60	78	\$ 2,776.80
Class B Repair	Class 400	\$ 36.55	5	\$ 182.75
Class B Repair	Class 700	\$ 158.60		\$ -
Class B Repair	Class 800/1000	\$ 157.35	27	\$ 4,248.45
Class B Repair	Rotary 1.5M	\$ 274.36		\$ -
Class B Repair	Rotary 3M - 5M	\$ 274.36	40	\$ 10,974.40
Class B Repair	Rotary 7M	\$ 243.92		\$ -
Class B Repair	Rotary 11M	\$ 243.92		\$ -
Class B Repair	Rotary 16M	\$ 274.36		\$ -
Class B Repair	Rotary 23M	\$ 334.52		\$ -
Class C Repair	Domestic	\$ 40.91	5	\$ 204.55
Class C Repair	Class 400	\$ 42.50	2	\$ 85.00
Class C Repair	Class 700	\$ 186.24		\$ -
Class C Repair	Class 800/1000	\$ 193.51		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 10.01	245	\$ 2,452.45
Class J Repair - Intest/Condemn	Class 400	\$ 10.01	20	\$ 200.20
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 58.61	49	\$ 2,871.89
Class J Repair - Intest/Condemn	Class 1400	\$ 66.29		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 71.73		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 78.53		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 71.26	76	\$ 5,415.76
Class J Repair - Intest/Condemn	Rotary 11M	\$ 73.98		\$ -
Class J Repair - Intest/Condemn	Rotary 16M	\$ 76.69		\$ -
Class J Repair - Intest/Condemn	Rotary 23M	\$ 82.14		\$ -
Special Test Domestic Meter		\$ 28.56	1	\$ 28.56
Special Test Large Capacity Meter		\$ 53.72		\$ -
Special Test Rotary Meter		\$ 47.94		\$ -

Install New Meter Badges	All Diaphragm Sizes	\$ 2.95	211	\$ 622.45
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.20	161	\$ 837.20
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 972.47	N/A	\$ 972.47
New Rotary Meter Parts	All Rotary Sizes	\$ 382.27	N/A	\$ 382.27
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 403.33	N/A	\$ 403.33
DELVCHG - DEL	Total Shipment	\$ 403.33	N/A	\$ 403.33
Invoice #	30757		Total	\$ 33,429.06
Invoice Date	10/23/2019			

U & I UTILITIES & INDUSTRIES, INC. INVOICE

Customer Orders
 1995 Industrial Blvd
 Reynoldsville, PA 15851-0190
 Phone: (814) 653-8269 or 653-8411
 Fax: (814) 653-7306

Please Remit Payment To:
 UTILITIES & INDUSTRIES
 c/o DBI Inc.
 1995 Industrial Blvd
 Reynoldsville, Pa 15851

Invoice Number: 30757
 Invoice Date: 10/23/19
 Page: 1

Freight is F.O.B. Plant.

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B NORTHERN UTILITIES NH/ME
I 6 LIBERTY LANE WEST
L HAMPTON, NH 03842-1720
L knowles@unitil.com
 ATTN: STEVEN HAMBLIN

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
 ATTN: STEVEN HAMBLIN

Sales Ord No: 27791
 Order Date: 10/23/19
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 10/29/19

Purchase Order: NNH 73632
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	245		0 CLASS J REP DOM UNITIL INTEST/CONDEMN DOM	0.00	\$10.0100	EA	\$2,452.45
	20		0 CLASS J REP 400 UNITIL INTEST/CONDEMN 400'S	0.00	\$10.0100	EA	\$200.20
	49		0 CLASS J REP LC UNITIL INTEST/CON LC 700-1000	0.00	\$58.6100	EA	\$2,871.89
	76		0 CLASS J REP ROT UNITIL INTEST/CON ROT 1.5M-7M	0.00	\$71.2600	EA	\$5,415.76
	1		0 INTEST DOM SPECIAL TEST DOMESTIC METER	0.00	\$28.5600	EA	\$28.56
	16		0 REPAIR CLASS A AMERICAN/ROCKWELL DOM METERS	0.00	\$22.9500	EA	\$367.20
	78		0 REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$35.6000	EA	\$2,776.80
	5		0 REPAIR CLASS C AMERICAN/ROCKWELL DOM METER	0.00	\$40.9100	EA	\$204.55
	1		0 EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$384.7100	EA	\$384.71
	5		0 REPAIR CLASS B 400 CLASS METERS	0.00	\$36.5500	EA	\$182.75
	2		0 REPAIR CLASS C 400 CLASS METERS	0.00	\$42.5000	EA	\$85.00
	1		0 EXTRA PARTS DOM EXTRA PARTS 400 CLASS METERS	0.00	\$9.3400	EA	\$9.34
	27		0 CLASS B REPAIR AL800/1000 LC METER	0.00	\$157.3500	EA	\$4,248.45

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Please Remit Payment To:
 UTILITIES & INDUSTRIES
 c/o DBI Inc.
 1995 Industrial Blvd
 Reynoldsville, Pa 15851

Invoice Number: 31165
 Invoice Date: 01/29/20
 Page: 1

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 ATTN: STEVEN HAMBLER

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
 ATTN: STEVEN HAMBLER

Sales Ord No: 28163
 Order Date: 01/27/20
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 01/27/20

Purchase Order: NNH75555
 Ship Via: UT TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	196		0 CLASS J REP DOM UNITIL INTEST/CONDEMN DOM	0.00	\$10.0100	EA	\$1,961.96
	12		0 CLASS J REP 400 UNITIL INTEST/CONDEMN 400'S	0.00	\$10.0100	EA	\$120.12
	5		0 CLASS J REP LC UNITIL INTEST/CON LC 700-1000	0.00	\$58.6100	EA	\$293.05
	2		0 CLASS J REP ROT UNITIL INTEST/CON ROT 1.5M-7M	0.00	\$71.2600	EA	\$142.52
	9		0 REPAIR CLASS A AMERICAN/ROCKWELL DOM METERS	0.00	\$22.9500	EA	\$206.55
	90		0 REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$35.6000	EA	\$3,204.00
	2		0 REPAIR CLASS C AMERICAN/ROCKWELL DOM METER	0.00	\$40.9100	EA	\$81.82
	1		0 EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$402.0300	EA	\$402.03
	4		0 REPAIR CLASS B 400 CLASS METERS	0.00	\$36.5500	EA	\$146.20
	1		0 EXTRA PARTS DOM EXTRA PARTS 400 CLASS METERS	0.00	\$10.1200	EA	\$10.12
	3		0 CLASS B REPAIR AL800/1000 LC METER	0.00	\$157.3500	EA	\$472.05
	1		0 EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$30.3000	EA	\$30.30
	6		0 ROTARY REPAIR B 3M -5M ROTARY METER	0.00	\$274.3600	EA	\$1,646.16

U & I UTILITIES & INDUSTRIES, INC. INVOICE

Customer Orders
 1995 Industrial Blvd
 Reynoldsville, PA 15851-0190
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 Fax: (814) 653-7306

Please Remit Payment To:
 UTILITIES & INDUSTRIES
 c/o DBI Inc.
 1995 Industrial Blvd
 Reynoldsville, Pa 15851

Invoice Number: 31165
 Invoice Date: 01/29/20
 Page: 2

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 ATTN: STEVEN HAMBLIN

S NORTHERN UTILITIES NH
H 325 WEST ROAD
I PORTSMOUTH, NH 03801
P deschambeault@unitil.com
 ATTN: STEVEN HAMBLIN

Sales Ord No: 28163
 Order Date: 01/27/20
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 01/27/20

Purchase Order: NNH75555
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	1		0 EXTRA PARTS ROT ROTARY METER EXTRA PARTS	0.00	\$1,359.8200	EA	\$1,359.82
	99		0 DDM INSTALL BADGES	0.00	\$2.9500	EA	\$292.05
	96		0 DDM REPLACE MFG BADGES AS NEEDED	0.00	\$2.9500	EA	\$283.20
	133		0 DDM INSTALL ERTS	0.00	\$5.2000	EA	\$691.60
	1		0 DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$410.3300	EA	\$410.33
	1		0 DELVCHG-DEL UNITIL DELIVERY CHARGES	0.00	\$410.3300	EA	\$410.33

Return Policy: 30 days: No
 charge for manufacturers
 defect, otherwise 30% restock
 fee. Special Orders: NO
 Returns unless defective.

Subtotal: \$12,164.21
 Freight: \$0.00
 Total: \$12,164.21

Invoice Reconciliation				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 22.95	9	\$ 206.55
Class A Repair	Class 400	\$ 22.56		\$ -
Class A Repair	Class 700	\$ 79.91		\$ -
Class A Repair	Class 800/1000	\$ 77.18		\$ -
Class A Repair	Rotary (all sizes)	\$ 73.44		\$ -
Class B Repair	Domestic	\$ 35.60	90	\$ 3,204.00
Class B Repair	Class 400	\$ 36.55	4	\$ 146.20
Class B Repair	Class 700	\$ 158.60		\$ -
Class B Repair	Class 800/1000	\$ 157.35	3	\$ 472.05
Class B Repair	Rotary 1.5M	\$ 274.36		\$ -
Class B Repair	Rotary 3M - 5M	\$ 274.36	6	\$ 1,646.16
Class B Repair	Rotary 7M	\$ 243.92		\$ -
Class B Repair	Rotary 11M	\$ 243.92		\$ -
Class B Repair	Rotary 16M	\$ 274.36		\$ -
Class B Repair	Rotary 23M	\$ 334.52		\$ -
Class C Repair	Domestic	\$ 40.91	2	\$ 81.82
Class C Repair	Class 400	\$ 42.50		\$ -
Class C Repair	Class 700	\$ 186.24		\$ -
Class C Repair	Class 800/1000	\$ 193.51		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 10.01	196	\$ 1,961.96
Class J Repair - Intest/Condemn	Class 400	\$ 10.01	12	\$ 120.12
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 58.61	5	\$ 293.05
Class J Repair - Intest/Condemn	Class 1400	\$ 66.29		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 71.73		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 78.53		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 71.26	2	\$ 142.52
Class J Repair - Intest/Condemn	Rotary 11M	\$ 73.98		\$ -
Class J Repair - Intest/Condemn	Rotary 16M	\$ 76.69		\$ -
Class J Repair - Intest/Condemn	Rotary 23M	\$ 82.14		\$ -
Special Test Domestic Meter		\$ 28.56		\$ -
Special Test Large Capacity Meter		\$ 53.72		\$ -
Special Test Rotary Meter		\$ 47.94		\$ -

Install New Meter Badges	All Diaphragm Sizes	\$ 2.95	195	\$ 575.25
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.20	133	\$ 691.60
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 442.45	N/A	\$ 442.45
New Rotary Meter Parts	All Rotary Sizes	\$ 1,359.82	N/A	\$ 1,359.82
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 410.33	N/A	\$ 410.33
DELVCHG - DEL	Total Shipment	\$ 410.33	N/A	\$ 410.33
Invoice #	31165		Total	\$ 12,164.21
Invoice Date	1/29/2020			

**Unitil - Northern
Gas Meter Testing Facility Cost Analysis 2019**

Cost Analysis

The 2019 cost for Northern to outsource the testing of the 926 meters associated with its NH customers was \$22,494 or an average of \$24.29 per meter.

The total cost for the 3340 meters associated with Unitil's three gas companies was \$58,347 or an average of \$17.47 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	\$187,148
Utility Expenses	\$3,500
Tool Replacements	\$1,000
Total	\$191,648

The estimated annual cost of \$191,648 for two employees, utilities, and tools would result in the cost per meter test for the 3340 meters tested in 2019 to be \$57.38 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	Portsmouth
Facility Estimate	\$1,096,736
Equipment Estimate	\$247,041
Total	\$1,343,777

Conclusion

Due to the estimated annual operating costs of \$191,648 exceeding the most recent annual expenditures of \$58,347 paid to vendors for performing testing, it is not economical at this time for Unitil to pursue establishing a gas meter testing facility.