

**Norther Utilities, Inc. 2022 Annual Meter Testing Report
(Calendar Year 2021)**

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, 2019, 2020 and 2021 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
2021	3455	\$47,121.72	\$13.64
2020	2129	\$26,546.95	\$12.47
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	2755	\$33,484.48	\$12.12

Class B – Large Diaphragm > 500 CFH

Test Year	Meter Tests	Total Expense	Cost per Meter
2021	240	\$15,737.36	\$65.57
2020	166	\$10,380.84	\$62.54
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	163	\$9,939.47	\$60.37

**Norther Utilities, Inc. 2022 Annual Meter Testing Report
(Calendar Year 2021)**

Class C Rotary

Test Year	Meter Tests	Total Expense	Cost per Meter
2021	253	\$18,776.85	\$74.22
2020	130	\$9,694.86	\$74.58
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	268	\$18,959.46	\$72.22

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 2021.

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

Response: Please see Attachment 2 Unutil - Gas Testing Facility Cost Analysis 2021.

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: 32880
 Invoice Date: 06/30/21
 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 HAMBLÉN

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

Sales Ord No: 29656
 Order Date: 06/28/21
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 06/29/21

Purchase Order: NNH77073
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	2		0 CLASS A REPAIR AL800/1000 LC METER	0.00	\$79.5000	EA	\$159.00
	16		0 CLASS B REPAIR AL800/1000 LC METER	0.00	\$162.0700	EA	\$2,593.12
	1		0 EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$889.9400	EA	\$889.94
	16		0 DDM INSTALL BADGES	0.00	\$3.0400	EA	\$48.64
	16		0 DDM REPLACE MFG BADGES AS NEEDED	0.00	\$3.0400	EA	\$48.64
	18		0 DDM INSTALL ERTS	0.00	\$5.3600	EA	\$96.48
	1		0 DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$607.5000	EA	\$607.50
	1		0 DELVCHG-DEL UNITIL DELIVERY CHARGES	0.00	\$607.5000	EA	\$607.50

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

Subtotal: \$5,050.82
 Freight: \$0.00
 Total: \$5,050.82

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: 32894
 Invoice Date: 09/09/21
 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
 6 LIBERTY LANE WEST
 HAMPTON, NH 03842-1720
 knowles@unitil.com
L
L ATTN: STEVEN HAMBLÉN

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

Sales Ord No: 29811
 Order Date: 09/08/21
 Account Cd: UNITIL.PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 09/16/21

Purchase Order: NNH77073
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	261	0	CLASS J REP DOM UNITIL INTEST/CONDEMN DOM	0.00	\$12.0900	EA	\$3,155.49
	26	0	CLASS J REP 400 UNITIL INTEST/CONDEMN 400'S	0.00	\$12.0900	EA	\$314.34
	5	0	CLASS J REP LC UNITIL INTEST/CON LC 700-1000	0.00	\$62.8300	EA	\$314.15
	17	0	CLASS J REP ROT UNITIL INTEST/CON ROT 1.5M-7M	0.00	\$73.4000	EA	\$1,247.80
	1	0	CLASS J REP ROT UNITIL INTEST/CON ROT 11M	0.00	\$76.2000	EA	\$76.20
	1	0	CLASS J REP ROT UNITIL INTEST/CON ROT 16M	0.00	\$78.9900	EA	\$78.99
	2	0	ROTARY INTEST INTEST ROTARY METER SPECIAL TEST ROTARY METERS	0.00	\$49.3800	EA	\$98.76
	14	0	REPAIR CLASS A AMERICAN/ROCKWELL DOM METERS	0.00	\$23.6400	EA	\$330.96
	138	0	REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$36.6700	EA	\$5,060.46
	1	0	EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$763.3000	EA	\$763.30
	6	0	REPAIR CLASS A 400 CLASS METERS	0.00	\$23.2400	EA	\$139.44
	15	0	REPAIR CLASS B 400 CLASS METERS	0.00	\$37.6500	EA	\$564.75
	1	0	EXTRA PARTS DOM EXTRA PARTS 400 CLASS METERS	0.00	\$125.4200	EA	\$125.42

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: 32894
 Invoice Date: 09/09/21
 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
L ATTN: STEVEN HAMBLÉN

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

Sales Ord No: 29811
 Order Date: 09/08/21
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 09/16/21

Purchase Order: NNH77073
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	15		0 CLASS A REPAIR AL800/1000 LC METER	0.00	\$79.5000	EA	\$1,192.50
	94		0 CLASS B REPAIR AL800/1000 LC METER	0.00	\$162.0700	EA	\$15,234.58
	1		0 EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$4,212.7000	EA	\$4,212.70
	29		0 ROTARY REPAIR B 3M -5M ROTARY METER	0.00	\$282.5900	EA	\$8,195.11
	2		0 ROTARY REPAIR B 7M ROTARY METER	0.00	\$251.2400	EA	\$502.48
	2		0 ROTARY REPAIR B 11M ROTARY METER	0.00	\$251.2400	EA	\$502.48
	1		0 EXTRA PARTS ROT ROTARY METER EXTRA PARTS	0.00	\$3,451.2200	EA	\$3,451.22
	239		0 DDM INSTALL BADGES	0.00	\$3.0400	EA	\$726.56
	231		0 DDM REPLACE MFG BADGES AS NEEDED	0.00	\$3.0400	EA	\$702.24
	302		0 DDM INSTALL ERTS	0.00	\$5.3600	EA	\$1,618.72
	1		0 DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$607.5000	EA	\$607.50
	1		0 DELVCHG-DEL UNITIL DELIVERY CHARGES	0.00	\$607.5000	EA	\$607.50

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: 32894
 Invoice Date: 09/09/21
 Page: 3

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: 29811
 Order Date: 09/08/21
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 09/16/21

Purchase Order: NNH77073
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
------	-------------	-------------	-------------------------	----------	-------	----	----------------

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

Subtotal: \$49,823.65
 Freight: \$0.00
 Total: \$49,823.65

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: 33185
 Invoice Date: 11/30/21
 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 HAMBLÉN

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

Sales Ord No: 30057	Taxable: N	Purchase Order: NNH77073
Order Date: 11/29/21	Pmt Terms: NET 15	Ship Via: UI TRUCK
Account Cd: UNITIL PL	Shipper No: 0	FOB: PLANT
Salesperson: 0	Ship Date: 11/23/21	Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	350		0 CLASS J REP DOM UNITIL INTEST/CONDEMN DOM	0.00	\$12.0900	EA	\$4,231.50
	6		0 CLASS J REP 400 UNITIL INTEST/CONDEMN 400'S	0.00	\$12.0900	EA	\$72.54
	2		0 CLASS J REP LC UNITIL INTEST/CON LC 700-1000	0.00	\$62.8300	EA	\$125.66
	22		0 REPAIR CLASS A AMERICAN/ROCKWELL DOM METERS	0.00	\$23.6400	EA	\$520.08
	158		0 REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$36.6700	EA	\$5,793.86
	1		0 EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$800.7800	EA	\$800.78
	2		0 REPAIR CLASS A 400 CLASS METERS	0.00	\$23.2400	EA	\$46.48
	5		0 REPAIR CLASS B 400 CLASS METERS	0.00	\$37.6500	EA	\$188.25
	1		0 EXTRA PARTS DOM EXTRA PARTS 400 CLASS METERS	0.00	\$24.5600	EA	\$24.56
	12		0 CLASS B REPAIR AL800/1000 LC METER	0.00	\$162.0700	EA	\$1,944.84
	1		0 EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$349.2000	EA	\$349.20
	177		0 DDM INSTALL BADGES	0.00	\$3.0400	EA	\$538.08
	194		0 DDM REPLACE MFG BADGES AS NEEDED	0.00	\$3.0400	EA	\$589.76

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: 33185
 Invoice Date: 11/30/21
 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
L ATTN: STEVEN HAMBLÉN

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

Sales Ord No: 30057	Taxable: N	Purchase Order: NNH77073
Order Date: 11/29/21	Pmt Terms: NET 15	Ship Via: UI TRUCK
Account Cd: UNITIL PL	Shipper No: 0	FOB: PLANT
Salesperson: 0	Ship Date: 11/23/21	Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	198	0	DDM INSTALL ERTS	0.00	\$5.3600	EA	\$1,061.28
	1	0	DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$405.0000	EA	\$405.00
	1	0	DELVCHG-DEL UNITIL DELIVERY CHARGES	0.00	\$405.0000	EA	\$405.00

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

Subtotal:	\$17,096.87
Freight:	\$0.00
Total:	\$17,096.87

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: 33400
 Invoice Date: 12/31/21
 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
 6 LIBERTY LANE WEST
 HAMPTON, NH 03842-1720
 knowles@unitil.com
L
L ATTN: STEVEN HAMBLÉN

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

Sales Ord No: 30251
 Order Date: 01/27/22
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 12/31/21

Purchase Order: NNH77073
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
	37	0	CLASS J REP DOM UNITIL INTEST/CONDEMN DOM	0.00	\$12.0900	EA	\$447.33
	5	0	REPAIR CLASS A AMERICAN/ROCKWELL DOM METERS	0.00	\$23.6400	EA	\$118.20
	15	0	REPAIR CLASS B AMERICAN/ROCKWELL DOM METER	0.00	\$36.6700	EA	\$550.05
	1	0	EXTRA PARTS DOM DOMESTIC EXTRTA PARTS	0.00	\$50.7100	EA	\$50.71
	1	0	CLASS B REPAIR AL800/1000 LC METER	0.00	\$162.0700	EA	\$162.07
	1	0	EXTRA PARTS LC LARGE CAPACITY EXTRA PARTS	0.00	\$11.2900	EA	\$11.29
	16	0	DDM INSTALL BADGES	0.00	\$3.0400	EA	\$48.64
	18	0	DDM REPLACE MFG BADGES AS NEEDED	0.00	\$3.0400	EA	\$54.72
	2	0	DDM INSTALL ERTS	0.00	\$5.3600	EA	\$10.72
	1	0	DELVCHG-PU UNITIL PICKUP CHARGES	0.00	\$405.0000	EA	\$405.00
	1	0	DELVCHG-DEL UNITIL DELIVERY CHARGES	0.00	\$405.0000	EA	\$405.00

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: 33400
 Invoice Date: 12/31/21
 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
L ATTN: STEVEN HAMBLER

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

Sales Ord No: 30251
 Order Date: 01/27/22
 Account Cd: UNITIL PL
 Salesperson: 0

Taxable: N
 Pmt Terms: NET 15
 Shipper No: 0
 Ship Date: 12/31/21

Purchase Order: NNH77073
 Ship Via: UI TRUCK
 FOB: PLANT
 Job Number:

Line	Qty Shipped	Backordered	Part Number/Description	Discount	Price	UM	Extended Price
------	-------------	-------------	-------------------------	----------	-------	----	----------------

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

Subtotal:	\$2,263.73
Freight:	\$0.00
Total:	\$2,263.73

Invoice Reconciliation

Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 23.64		\$ -
Class A Repair	Class 400	\$ 23.24		\$ -
Class A Repair	Class 700	\$ 82.31		\$ -
Class A Repair	Class 800/1000	\$ 79.50	2	\$ 159.00
Class A Repair	Rotary (all sizes)	\$ 75.64		\$ -
Class B Repair	Domestic	\$ 36.67		\$ -
Class B Repair	Class 400	\$ 37.65		\$ -
Class B Repair	Class 700	\$ 163.36		\$ -
Class B Repair	Class 800/1000	\$ 162.07	16	\$ 2,593.12
Class B Repair	Rotary 1.5M	\$ 282.59		\$ -
Class B Repair	Rotary 3M - 5M	\$ 282.59		\$ -
Class B Repair	Rotary 7M	\$ 251.24		\$ -
Class B Repair	Rotary 11M	\$ 251.24		\$ -
Class B Repair	Rotary 16M	\$ 282.59		\$ -
Class B Repair	Rotary 23M	\$ 344.56		\$ -
Class C Repair	Domestic	\$ 42.14		\$ -
Class C Repair	Class 400	\$ 43.78		\$ -
Class C Repair	Class 700	\$ 191.83		\$ -
Class C Repair	Class 800/1000	\$ 199.32		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 12.09		\$ -
Class J Repair - Intest/Condemn	Class 400	\$ 12.09		\$ -
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 62.83		\$ -
Class J Repair - Intest/Condemn	Class 1400	\$ 70.74		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 76.34		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 83.35		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 73.40		\$ -
Class J Repair - Intest/Condemn	Rotary 11M	\$ 76.20		\$ -
Class J Repair - Intest/Condemn	Rotary 16M	\$ 78.99		\$ -
Class J Repair - Intest/Condemn	Rotary 23M	\$ 84.60		\$ -

Special Test Domestic Meter		\$ 29.42		\$ -
Special Test Large Capacity Meter		\$ 55.33		\$ -
Special Test Rotary Meter		\$ 49.38		\$ -
Install New Meter Badges	All Diaphragm Sizes	\$ 3.04	32	\$ 97.28
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.36	18	\$ 96.48
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 889.94	N/A	\$ 889.94
New Rotary Meter Parts	All Rotary Sizes		N/A	\$ -
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 607.50	N/A	\$ 607.50
DELVCHG - DEL	Total Shipment	\$ 607.50	N/A	\$ 607.50
Invoice #	32880		Total	\$ 5,050.82
Invoice Date	6/30/2021			

Invoice Reconciliation				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 23.64	14	\$ 330.96
Class A Repair	Class 400	\$ 23.24	6	\$ 139.44
Class A Repair	Class 700	\$ 82.31		\$ -
Class A Repair	Class 800/1000	\$ 79.50	15	\$ 1,192.50
Class A Repair	Rotary (all sizes)	\$ 75.64		\$ -
Class B Repair	Domestic	\$ 36.67	138	\$ 5,060.46
Class B Repair	Class 400	\$ 37.65	15	\$ 564.75
Class B Repair	Class 700	\$ 163.36		\$ -
Class B Repair	Class 800/1000	\$ 162.07	94	\$ 15,234.58
Class B Repair	Rotary 1.5M	\$ 282.59		\$ -
Class B Repair	Rotary 3M - 5M	\$ 282.59	29	\$ 8,195.11
Class B Repair	Rotary 7M	\$ 251.24	2	\$ 502.48
Class B Repair	Rotary 11M	\$ 251.24	2	\$ 502.48
Class B Repair	Rotary 16M	\$ 282.59		\$ -
Class B Repair	Rotary 23M	\$ 344.56		\$ -
Class C Repair	Domestic	\$ 42.14		\$ -
Class C Repair	Class 400	\$ 43.78		\$ -
Class C Repair	Class 700	\$ 191.83		\$ -
Class C Repair	Class 800/1000	\$ 199.32		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 12.09	261	\$ 3,155.49
Class J Repair - Intest/Condemn	Class 400	\$ 12.09	26	\$ 314.34
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 62.83	5	\$ 314.15
Class J Repair - Intest/Condemn	Class 1400	\$ 70.74		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 76.34		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 83.35		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 73.40	17	\$ 1,247.80
Class J Repair - Intest/Condemn	Rotary 11M	\$ 76.20	1	\$ 76.20
Class J Repair - Intest/Condemn	Rotary 16M	\$ 78.99	1	\$ 78.99
Class J Repair - Intest/Condemn	Rotary 23M	\$ 84.60		\$ -

Special Test Domestic Meter		\$ 29.42		\$ -
Special Test Large Capacity Meter		\$ 55.33		\$ -
Special Test Rotary Meter		\$ 49.38	2	\$ 98.76
Install New Meter Badges	All Diaphragm Sizes	\$ 3.04	470	\$ 1,428.80
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.36	302	\$ 1,618.72
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 5,101.42	N/A	\$ 5,101.42
New Rotary Meter Parts	All Rotary Sizes	\$ 3,451.22	N/A	\$ 3,451.22
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 607.50	N/A	\$ 607.50
DELVCHG - DEL	Total Shipment	\$ 607.50	N/A	\$ 607.50
Invoice #	32894		Total	\$ 49,823.65
Invoice Date	9/9/2021			

Invoice Reconciliation				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 23.64	22	\$ 520.08
Class A Repair	Class 400	\$ 23.24	2	\$ 46.48
Class A Repair	Class 700	\$ 82.31		\$ -
Class A Repair	Class 800/1000	\$ 79.50		\$ -
Class A Repair	Rotary (all sizes)	\$ 75.64		\$ -
Class B Repair	Domestic	\$ 36.67	158	\$ 5,793.86
Class B Repair	Class 400	\$ 37.65	5	\$ 188.25
Class B Repair	Class 700	\$ 163.36		\$ -
Class B Repair	Class 800/1000	\$ 162.07	12	\$ 1,944.84
Class B Repair	Rotary 1.5M	\$ 282.59		\$ -
Class B Repair	Rotary 3M - 5M	\$ 282.59		\$ -
Class B Repair	Rotary 7M	\$ 251.24		\$ -
Class B Repair	Rotary 11M	\$ 251.24		\$ -
Class B Repair	Rotary 16M	\$ 282.59		\$ -
Class B Repair	Rotary 23M	\$ 344.56		\$ -
Class C Repair	Domestic	\$ 42.14		\$ -
Class C Repair	Class 400	\$ 43.78		\$ -
Class C Repair	Class 700	\$ 191.83		\$ -
Class C Repair	Class 800/1000	\$ 199.32		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 12.09	350	\$ 4,231.50
Class J Repair - Intest/Condemn	Class 400	\$ 12.09	6	\$ 72.54
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 62.83	2	\$ 125.66
Class J Repair - Intest/Condemn	Class 1400	\$ 70.74		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 76.34		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 83.35		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 73.40		\$ -
Class J Repair - Intest/Condemn	Rotary 11M	\$ 76.20		\$ -
Class J Repair - Intest/Condemn	Rotary 16M	\$ 78.99		\$ -
Class J Repair - Intest/Condemn	Rotary 23M	\$ 84.60		\$ -

Special Test Domestic Meter		\$ 29.42		\$ -
Special Test Large Capacity Meter		\$ 55.33		\$ -
Special Test Rotary Meter		\$ 49.38		\$ -
Install New Meter Badges	All Diaphragm Sizes	\$ 3.04	371	\$ 1,127.84
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.36	198	\$ 1,061.28
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 1,174.54	N/A	\$ 1,174.54
New Rotary Meter Parts	All Rotary Sizes		N/A	\$ -
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 405.00	N/A	\$ 405.00
DELVCHG - DEL	Total Shipment	\$ 405.00	N/A	\$ 405.00
Invoice #	33185		Total	\$ 17,096.87
Invoice Date	11/30/2021			

Invoice Reconciliation				
Description of Test/Repair	Size of Meter	Cost per Test	Quantity	Total
Class A Repair	Domestic	\$ 23.64	5	\$ 118.20
Class A Repair	Class 400	\$ 23.24		\$ -
Class A Repair	Class 700	\$ 82.31		\$ -
Class A Repair	Class 800/1000	\$ 79.50		\$ -
Class A Repair	Rotary (all sizes)	\$ 75.64		\$ -
Class B Repair	Domestic	\$ 36.67	15	\$ 550.05
Class B Repair	Class 400	\$ 37.65		\$ -
Class B Repair	Class 700	\$ 163.36		\$ -
Class B Repair	Class 800/1000	\$ 162.07	1	\$ 162.07
Class B Repair	Rotary 1.5M	\$ 282.59		\$ -
Class B Repair	Rotary 3M - 5M	\$ 282.59		\$ -
Class B Repair	Rotary 7M	\$ 251.24		\$ -
Class B Repair	Rotary 11M	\$ 251.24		\$ -
Class B Repair	Rotary 16M	\$ 282.59		\$ -
Class B Repair	Rotary 23M	\$ 344.56		\$ -
Class C Repair	Domestic	\$ 42.14		\$ -
Class C Repair	Class 400	\$ 43.78		\$ -
Class C Repair	Class 700	\$ 191.83		\$ -
Class C Repair	Class 800/1000	\$ 199.32		\$ -
Class J Repair - Intest/Condemn	Domestic	\$ 12.09	37	\$ 447.33
Class J Repair - Intest/Condemn	Class 400	\$ 12.09		\$ -
Class J Repair - Intest/Condemn	Class 700 - 1000	\$ 62.83		\$ -
Class J Repair - Intest/Condemn	Class 1400	\$ 70.74		\$ -
Class J Repair - Intest/Condemn	Class 2300	\$ 76.34		\$ -
Class J Repair - Intest/Condemn	Class 5000	\$ 83.35		\$ -
Class J Repair - Intest/Condemn	Rotary 1.5M - 7M	\$ 73.40		\$ -
Class J Repair - Intest/Condemn	Rotary 11M	\$ 76.20		\$ -
Class J Repair - Intest/Condemn	Rotary 16M	\$ 78.99		\$ -
Class J Repair - Intest/Condemn	Rotary 23M	\$ 84.60		\$ -

Special Test Domestic Meter		\$ 29.42		\$ -
Special Test Large Capacity Meter		\$ 55.33		\$ -
Special Test Rotary Meter		\$ 49.38		\$ -
Install New Meter Badges	All Diaphragm Sizes	\$ 3.04	34	\$ 103.36
Install New Badger/Itron Endpoints	All Diaphragm Sizes	\$ 5.36	2	\$ 10.72
New Diaphragm Meter Parts	All Diaphragm Sizes	\$ 62.00	N/A	\$ 62.00
New Rotary Meter Parts	All Rotary Sizes		N/A	\$ -
Special Test Shipping	All		N/A	\$ -
DELVCHG - PU	Total Shipment	\$ 405.00	N/A	\$ 405.00
DELVCHG - DEL	Total Shipment	\$ 405.00	N/A	\$ 405.00
Invoice #	33400		Total	\$ 2,263.73
Invoice Date	12/31/2021			

**Unitil - Northern
Gas Meter Testing Facility Cost Analysis 2021**

Cost Analysis

The 2021 cost for Northern to outsource the testing of the 1259 meters associated with its NH customers was \$27,856.48 or an average of \$22.13 per meter.

The total cost for the 3948 meters associated with Unitil’s three gas companies was \$81,635.93 or an average of \$20.68 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	\$192,763
Utility Expenses	\$3,500
Tool Replacements	\$1,000
Total	\$197,263

The estimated annual cost of \$197,263 for two employees, utilities, and tools would result in the cost per meter test for the 3948 meters tested in 2021 to be \$49.96 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	\$344,562
Total	\$1,441,298

Conclusion

Due to the estimated annual operating costs of \$197,263 exceeding the most recent annual expenditures of \$81,635.93 paid to vendors for performing testing, it is not economical at this time for Unitil to pursue establishing a gas meter testing facility.