FILE

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Columbia Gas of Ohio, Inc. for Authority to Amend Filed Tariffs to Increase the Rates and Charges for Gas Distribution Service.	))))	Case No. 08-0072-GA-AIR
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of an Alternative Form of Regulation and for a Change in its Rates and Charges.	))))	Case No. 08-0073-GA-ALT
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods.	)))	Case No. 08-0074-GA-AAM
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Authority to Revise its Depreciation Accrual Rates.	)))	Case No. 08-0075-GA-AAM

PREPARED SUPPLEMENTAL DIRECT TESTIMONY OF
DAVID A. ROY
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.

- ☐ MANAGEMENT POLICIES, PRACTICES AND ORGANIZATION
- ☐ OPERATING INCOME
- ☐ RATE BASE
- ☐ ALLOCATIONS
- ☐ RATE OF RETURN
- ☐ RATES AND TARIFFS
- ☒ OTHER

Mark R. Kempic, Assistant General Counsel
Kenneth W. Christman, Associate General Counsel
Stephen B. Seiple, Lead Counsel (Trial Attorney)
Daniel A. Creekmur, Attorney
200 Civic Center Drive
P.O. Box 117
Columbus, OH 43216-0117
Telephone: (614) 460-4648
Fax: (614) 460-6986
Email: sseiple@nisource.com

David J. Leland
Timothy R. Bricker
Angela M. Paul Whitfield
CARPENTER LIPPS & LELAND LLP
280 Plaza, Suite 1300
280 North High Street
Columbus, Ohio 43215
Telephone: (614) 365-4100
Fax: (614) 365-9145
leland@carpenterlipps.com
bricker@carpenterlipps.com
paul@carpenterlipps.com

Attorneys for
COLUMBIA GAS OF OHIO, INC.

September 25, 2008

PREPARED SUPPLEMENTAL DIRECT TESTIMONY OF DAVID A. ROY

Q: Please state your name and business address.

A: My name is David A. Roy and my business address is 200 Civic Center Drive, Columbus, OH 43215.

Q. By whom are you employed and in what capacity?

A. I am employed by Columbia Gas of Ohio, Inc. ("Columbia"). My current title is Manager, Field Engineering.

Q. Are you the same David A. Roy who submitted Prepared Direct Testimony in this proceeding?

A. Yes.

Q. What is the purpose of your Supplemental Direct Testimony in this proceeding?

A. This testimony is being filed in support of the following issues raised by Columbia in its Objections to the Staff Report of Investigation ("Staff Report") filed in this case:

Objection number 20 – Pipeline Infrastructure Replacement Program – Customer Owned Service Lines – Cost Benefit Analysis (Staff Report at 28). Staff has recommended "that the Commission require Columbia, where it plans to raise gas pressure as a result of AMRP, to provide a cost benefit analysis of moving and where necessary replacing the meter as opposed to venting meters to the outside of the structure."

Objection number 24 – Alternative Regulation Plan – Infrastructure Replacement Program – Cap on Annual Increase in Rider IRP (Staff Report at 33). Columbia objects to

Staff's recommendation that the annual increases to Rider IRP be capped in years two and three such that the annual increase for residential customers shall not exceed $1.00 per month including excise taxes.

Q. What did Staff recommend with regard to moving meters in conjunction with Columbia's proposed AMRP?

A. On page 28 of the Staff Report, Staff recommended "that the Commission require Columbia, where it plans to raise gas pressure as a result of AMRP, to provide a cost benefit analysis of moving, and where necessary, replacing the meter as opposed to venting meters to the outside of the structure."

Q. Does Columbia agree with Staff's recommendation to provide such a cost benefit analysis?

A. Yes. Columbia has completed this cost benefit analysis and it is included as Attachment DAR-1 hereto.

Q. Please summarize the cost benefit analysis.

A. The analysis identifies various applicable codes, rules, regulations, and standards that influence a meter's location. It also identifies the various costs associated with moving meters outside, leaving meters inside with above ground entry, and leaving meters inside with below ground entry. The breakdown of costs illustrates that it is cheaper to move a meter outside than to leave it inside, whether or not Columbia utilizes below or above ground entry, given the specified assumptions. The cost comparisons support Columbia's

proposal to move inside meters outside whenever possible. The added benefit of increasing safety by moving a meter outside was not considered in the analysis, but that is nonetheless an intangible benefit. Based on this analysis, Columbia recommends it be allowed to continue to move meters outside whenever possible in conjunction with its proposed AMRP or the replacement of hazardous service lines.

Q. What did the Staff recommend with regard to the recovery of the costs associated with Columbia's proposed AMRP?

A. While Staff generally agreed with Columbia's proposed Accelerated Main Replacement Program ("AMRP") and Columbia's proposed recovery of AMRP costs through the Infrastructure Replacement Program ("IRP") Rider, Staff proposed that the annual increases to Rider IRP be capped in years two and three such that the annual increase for residential customers shall not exceed $1.00 per month including excise taxes. Columbia does not agree with Staff's recommended cap on the level of Rider IRP.

Q. Why does Columbia object to the Staff's recommendation that the annual increases to Rider IRP be capped in years two and three?

A. The Staff recommends that Columbia manage its AMRP costs in years two and three in order to achieve the $1 per month cap for residential customers. In order to achieve the recommended caps, Columbia would need to cut its AMRP capital budget by approximately $13.75 million in year two and $30 million in year three. These cuts directly impact the expected cost of the AMRP, which could result in greater program costs to customers.

The increase in program costs will be primarily attributed to contractor labor. Columbia has been working with its network of external contractor resources in order to ensure field execution of the AMRP, as well as, to discuss potential ideas to reduce overall costs of the program. To date, Columbia has been able to successfully obtain the required contractor resources at reasonable pricing to construct its 2008 projects and is in the process of bidding all of the 2009 program work. A significant AMRP budget reduction in 2009 and 2010 will force contractors to send many of their resources elsewhere or potentially lay off employees. Once contractor resources are lost they are extremely difficult to regain due to the costs associated with relocating employees and equipment In trying to lure back the contractor resources to execute Columbia's 2011 program, Columbia will likely have to pay a premium to re-build its contractor base. Approximately 60% of replacement project costs are attributed to contractor charges. Based on this information, and assuming Columbia had to pay a premium of ten percent on its replacement work in 2011 to regain its contractor base, customers would likely pay between $2-5 million more for the same work due to implementing the rate caps. It is unknown as to whether the potential contractor premiums would have a carryover affect into future years. If so, there would be additional associated costs.

Q. Does Columbia recommend a potential cap on the incremental increase in Rider IRP for years two and three?

A. No. However, if the Commission considers a cap to be necessary Columbia recommends a cap on the incremental increase in Rider IRP of $1.11 for year two and $1.24 for year three. These caps allow for all programs associated with Rider IRP to be administered as planned,

as well as, establish an incremental price ceiling per month for years two and three. This assumes the various programs associated with Rider IRP remain unchanged from what Columbia originally proposed.

Q. Does Columbia have any other recommendations with regard to Staff's proposed cap on Rider IRP?

A. Yes, if the Commission implements any kind of cap on Rider IRP for years two and three, there is another way that Columbia could manage its AMRP program without experiencing the detrimental impacts that I described earlier in this testimony. If any cap is established on Rider IRP (whether the level is $1.00 or the increased levels I suggested above), the Commission could permit Columbia to defer any costs not recovered under Rider IRP in years two and three, so that those costs could be recovered in a later period without exceeding any cap on Rider IRP. This deferral accounting alternative is discussed in the Supplemental Direct Testimony of Columbia witness Martin.

Q. Does this conclude your Prepared Supplemental Direct Testimony?

A. Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Prepared Supplemental Direct Testimony of David A. Roy was served upon all parties of record by electronic mail and regular U. S. mail this 25th day of September, 2008.

Stephen B. Seiple
Attorney for
COLUMBIA GAS OF OHIO, INC.

SERVICE LIST

Stephen Reilly
John Jones
Sarah Parrot
Assistant Attorneys General
Public Utilities Section
180 East Broad Street
Columbus, OH 43215
Email: stephen.reilly@puc.state.oh.us
john.jones@puc.state.oh.us
sarah.parrot@puc.state.oh.us

David F. Boehm
Michael L. Kurtz
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, OH 45202
Email: dboehm@bkllawfirm.com,
mkurtz@bkllawfirm.com

Larry S. Sauer
Joseph P. Serio
Michael E. Idzkowski
Office of the Ohio Consumers' Counsel
10 West Broad Street, Suite 1800
Columbus, OH 43215-3485
Email: sauer@occ.state.oh.us
serio@occ.state.oh.us
idzkowski@occ.state.oh.us

Michael R. Smalz
Joseph V. Maskovyak
Ohio State Legal Services Association
555 Buttles Avenue
Columbus, OH 43215-1137
Email: msmalz@oslsa.org
jmaskovyak@oslsa.org

Samuel C. Randazzo
Lisa G. McAlister
Daniel J. Neilsen
McNees, Wallace & Nurick, LLC
Fifth Third Center
21 East State Street, 17th Floor
Columbus, OH 43215-4228
Email: sam@mwncmh.com
lmcalister@mwncmh.com
dneilsen@mwncmh.com

William S. Newcomb, Jr.
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
P.O. Box 1008
Columbus, OH 43216-1008
Email: wsnewcomb@vorys.com

John M. Dosker
General Counsel
Stand Energy Corporation
1077 Celestial Street, Suite 110
Cincinnati, OH 45202-1629
Email: jdosker@stand-energy.com

John W. Bentine
Mark S. Yurick
Chester, Willcox & Saxbe, LLP
65 East State Street, Suite 1000
Columbus, OH 43215
Email: jbentine@cswlaw.com
myurick@cwslaw.com

Colleen L. Mooney
Ohio Partners for Affordable Energy
231 West Lima Street
P.O. Box 1793
Findlay, OH 45839-1793
Email: cmooney2@columbus.rr.com

Barth E. Royer
Bell & Royer Co., LPA
33 South Grant Ave.
Columbus, OH 43215-3927
Email: barthroyer@aol.com

M. Howard Petricoff
Stephen M. Howard
Vorys, Sater, Seymour & Pease, LLP
52 East Gay Street
P.O. Box 1008
Columbus, OH 43216-1008
Email: mhpetricoff@vorys.com

Leslie A. Kovacik
Attorney for NOAC
420 Madison Ave., Suite 100
Toledo, OH 43604-1219
Email: leslie.kovacik@toledo.oh.gov

Larry Gerhardt
Chief Legal Counsel
Ohio Farm Bureau Federation
280 North High Street, P.O. Box 182383
Columbus, OH 43218-2383
Email: lgearhardt@ofbf.org

W. Jonathon Airey
Gregory D. Russell
Vorys, Sater, Seymour and Pease, LLP
52 East Gay St., P.O. Box 1008
Columbus, OH 43216-1008
Email: wjairey@vorys.com
gdrussell@vorys.com

Columbia Gas of Ohio Business Case

Moving Meters Outside versus Leaving Meters Inside

Introduction

Columbia Gas of Ohio ("Columbia") distributes natural gas to over 1,400,000 customers. Approximately 25% of these customers have their meters located inside their homes and businesses. Most of the customers with inside meters, but not all, are served by low pressure gas distribution pipelines. As part of Columbia's proposed accelerated main replacement program ("AMRP"), it is Columbia's desire to continue its previously established practice of moving inside meters to the outside of buildings, where practical. A key element necessary for successful execution of the AMRP is the assumption that Columbia will be replacing its existing low pressure pipelines with smaller diameter, higher pressure pipelines. This assumption affects how existing inside meters fed from low pressure systems are piped.

The following discussion and associated attachments explore the applicable codes and recommended practices associated with inside meters that require pressure regulation. Also reviewed and contrasted are the costs associated with moving a meter outside versus leaving it inside.

Applicable Code

There are several code and standard-related requirements that influence a meter's location. Columbia's established standard as stated in the Plumber's Guide is to move a meter out at the time of a service line repair or replacement; however, Columbia acknowledges that this is not always possible or practical. Some townships require the gas meters to be located inside buildings. Other times a practical location outside, that simultaneously meets the requirements of the applicable code or Columbia's established practices, is difficult to obtain. For instance, 49 CFR Part 192 ("Part 192"), Subpart H specifies that a meter must be installed in a readily assessable location and be protected from vehicular damage that may be anticipated. Consequently, installations near driveways, parking lots, and public passages, may cause one to consider an inside installation. Another requirement of Part 192 is that meter settings are to be located not less than 3 feet from sources of ignition or a heat source that could damage a meter. Therefore, a meter's location may be dictated by the space available that meets each of these requirements.

Part 192, Subpart H also specifies that "each regulator that might release gas in its operation must be vented to the outside atmosphere." Further, Subpart H specifies that service regulator vents must terminate outdoors and be located in a place where gas from the vent can escape freely into the atmosphere and away from any opening into a building. Other requirements of the vent from Columbia's established practices are that the vent be metallic and sized at least as large as the regulator vent opening. Further, the practice has been to require the regulator vents terminate at least 3 feet either left or right of, or 1 foot above any atmospheric opening into a building such as windows or doors. A building having a forced air inlet has the additional requirement to install the vent a minimum of 10 feet either left or right of or 3 feet above such an inlet.

Another specification of Part 192, Subpart H is that each service line must have a shutoff valve in a readily accessible location that is outside the building if possible. Columbia's established standard is to install a curb valve in all service lines where there is no accessible above ground shut off device located outside the building. Consequently, all service lines having inside meters will have a curb valve and other associated materials.

Assumptions

Columbia has conducted a study of the costs between moving a meter outside versus leaving it inside. The study presents the minimum cost that is required of either moving a meter outside or leaving it inside while acknowledging that the maximum can change significantly from building to building. The following assumptions were used in the analysis:

- The inside/outside analysis incorporates the minimum that must be done for both activities.
- Existing blanket contracts with Columbia were used as a basis for the cost estimate. A weighted average of the blanket contract costs were used to apply throughout the state.
- The service is residential.
- The pressure of the gas distribution service line will be increased requiring pressure regulation; or the service line must be replaced.
- The service is not located in a flood prone area.
- The main tap will be 2" and a short service will be replaced with ½" plastic by insertion (insertion will not always be used as preferred method of service line replacement).
- No part of the service line will be installed under a building.
- The entire service, from main to meter, is not under pavement.
- For entries below grade, the existing sleeve and grout are assumed to be in good condition.

Cost of Service Line: Moving a Meter Outside

There are four typical costs associated with installing a service and moving a meter outside: material, contract labor, company labor, and truck expense. Schedule A provides a detail of each of these costs.

Item 76-010, Move Residential Meter is the cost specifically used for moving a meter outside. This item includes moving the meter and/or regulator outside, drilling exterior building walls where required, installing up to 6 feet of fuel line, tie-in from outlet of meter set to existing customer fuel line (pipe size not to exceed 1-1/4"), removal of old service pipe and necessary patching of building wall. The average cost across Columbia for moving a meter is $193.90. Columbia sometimes finds that a meter set requires greater than 6 feet of fuel line; consequently, there is an additional pay item for fuel line in excess of 6 feet.

The estimated cost of moving an inside meter outside, in accordance with the assumptions identified above, is $759.59.

Cost of Service Line: Leaving Meter Inside with Above Ground Entry

Schedule B provides a detail of costs associated with leaving a meter inside with an above ground entry into the dwelling. According to Columbia's established standard, an entrance to the building above grade requires the installation of an approved riser and associated wall bracket. Also, the steel carrier pipe must be encased in a sealed and approved steel or plastic sleeve and the opening between the sleeve and outer masonry wall shall be filled with grout or sealed by the use of service entry flanges. Once inside the building, the steel fuel line is piped to the meter location. Because Columbia will be installing higher pressure mains and services as part of its proposed AMRP, a service regulator will be required. This regulator must have a vent line between the regulator vent opening and the outside if the meter and

regulator are installed inside. The contract labor for each of these inside activities is generally paid hourly.

The estimated cost of leaving a meter inside with above ground entry, in accordance with the assumptions identified above, is $839.75.

Cost of Service Line: Leaving Meter Inside with Below Ground Entry

Schedule C provides a detail of costs associated with leaving a meter inside with a below grade entry into a dwelling. A below grade entry has a slightly different set of requirements than that of an above grade entry. When a plastic service line enters a building through its outer wall below grade, it shall be encased with steel pipe through the foundation wall and the transition from steel to plastic shall be made using an approved adapter fitting used specifically for insert renewal of service lines. This additional material is included in the material detail of Schedule C. Additionally, a bell hole is required outside to ensure the steel casing pipe is in good condition and firmly anchored to the wall. This hole also provides access to the existing steel being used as casing so that it may be cut and sealed 12 inches beyond the wall. This action prevents migrating gas from entering the structure and permits the installation of a vent if the service is under pavement. Just as in the case with inside meters having above ground entry, this replacement scenario requires the steel fuel line to be piped to the meter/regulator location and a vent line installed from the regulator vent opening to the outside. The contract labor for each of these activities is also paid hourly.

The estimated cost of leaving a meter inside with below ground entry, in accordance with the assumptions identified above, is $812.46.

Conclusion

A comparison of the three installation scenarios reveals that Columbia's initial investment is $52.87 less when moving a meter outside compared with leaving it inside when it has below ground entry into the dwelling. The difference in costs is greater at $80.16 when moving a meter out compared to leaving it inside with the service line entering above grade. These cost comparisons support Columbia's desire to move inside meters outside whenever possible. This analysis does not take into consideration the additional safety benefits of moving meters outside versus leaving them inside. Columbia believes the analysis presented illustrates the optimum meter location for both cost, safety, and customer convenience is outside of buildings and recommends that it be permitted to move inside meters outside to the greatest extent practical.

Schedule A - Outside Meter Above Ground Entry

Material

Stock No.	Description	Quantity	UOM	Unit Cost	Total Cost
07-42-053	1 PIPE 179W GB BARE SMLS CS SA106	6	FT	$ 3.54	$ 21.24
09-45-005	PIPE, 1/2" X 1000' PP COIL, 0.090 WALL, SDR 7, PE2406	100	FT	$ 0.13	$ 13.00
16-03-005	EXCESS FLOW VALVE, 1" X 1/2", UMAC P58 SERIES 400 ST PE2406	1	EA	$ 20.17	$ 20.17
25-01-026	1 ELL 90 DEG THD BLK MI 150# A197	2	EA	$ 1.28	$ 2.56
42-53-303	WARNING TAPE	100	FT	$ 0.01	$ 0.82
43-10-1153	1" CTS X 1/2" CTS REDUCING COUPLING S/F PE2406	1	EA	$ 1.65	$ 1.65
43-15-2509	TAPPING TEE, 2" IPS X 1" CTS, ELECTOFUSION, W/SLEV PE2406	1	EA	$ 10.34	$ 10.34
44-84-250	DOMESTIC METER SETTING, PRE-FABRICATED, WITH REGULATOR, 7" W.C. OUTLET	1	EA	$ 53.55	$ 53.55
44-84-1139	1" CTS X 1" MIPS RISER PRE-BENT PM PERFECTION #75270	1	EA	$ 37.30	$ 37.30
44-84-082	WALL BRACKET, 1/2"-2", RISER, PERFECTION, #74500	1	EA	$ 6.06	$ 6.06
51-75-100	METER, NEW DOMESTIC, TEMPERATURE COMPENSATED, MODEL AR-250TC	1	EA	$ 55.57	$ 55.57
74-47-505	LOCATE WIRE	100	FT	$ 0.07	$ 6.78
				Total Material ===>>>	$ 229.04

Contract Labor

Item No.	Description of Work	Quantity	UOM	Cost	Total Cost
21-290	SERVICE, REPLACE, BY INSERT	1	EA	$208.88	$ 208.88
76-010	MOVE RESIDENTIAL METER	1	EA	$193.90	$ 193.90
				Total Contract Labor ===>>>	$ 402.78

Company Labor

Item No.	Description of Work	Quantity	UOM	Cost	Total Cost
	INSPECTION OF SERVICE INSTALLATION	2	HR	$ 26.99	$ 53.98
	SET METER	1	HR	$ 26.99	$ 26.99
				Total Company Labor ===>>>	$ 80.97

Truck Expense

Item No.	Description of Work	Quantity	UOM	Cost	Total Cost
	INSPECTION OF SERVICE INSTALLATION	2	HR	$ 15.60	$ 31.20
	SET METER	1	HR	$ 15.60	$ 15.60
				Total Truck Expense ===>>>	$ 46.80

Total Cost of service installation when moving meter out ===>>> $ 759.59

Common items between all installation scenarios

Schedule B - Inside Meter Above Ground Entry

Material					
Stock No.	Description	Quantity	UOM	Unit Cost	Total Cost
07-42-053	1 PIPE 179W GB BARE SMLS CS SA106	6	FT	$ 3.54	$ 21.24
07-42-063	1.25P1191W GB BLK BE SMLS CS SA105	10	FT	$ 4.68	$ 46.80
09-45-005	PIPE, 1/2" X 1000' PP COIL, 0.090 WALL, SDR 7, PE2406	100	FT	$ 0.13	$ 13.00
16-03-005	EXCESS FLOW VALVE, 1" X 1/2", UMAC P58 SERIES 400 ST PE2406	1	EA	$ 20.17	$ 20.17
16-08-086	CURB VALVE, 1/2" V/PC PERFECTION #45019, SF CTS PE2406 60#	1	EA	$ 29.63	$ 29.63
25-01-026	1 ELL 90 DEG THD BLK MI 150# A197	2	EA	$ 1.28	$ 2.56
25-01-031	1.25 ELL 90 DEG THD BLK MI 150# A197	2	EA	$ 2.09	$ 4.18
42-53-303	WARNING TAPE	100	FT	$ 0.01	$ 0.82
43-10-1153	1" CTS X 1/2" CTS REDUCING COUPLING S/F PE2406	1	EA	$ 1.65	$ 1.65
43-15-2509	TAPPING TEE, 2" IPS X 1" CTS, ELECTOFUSION, W/SLEV PE2406	1	EA	$ 10.34	$ 10.34
44-84-250	DOMESTIC METER SETTING, PRE-FABRICATED, WITH REGULATOR, 7" W.C. OUTLET	1	EA	$ 53.55	$ 53.55
44-84-1139	1" CTS X 1" MIPS RISER PRE-BENT PM PERFECTION #75270	1	EA	$ 37.30	$ 37.30
44-31-014	CURB BOX 2-1/2" 22-36 CL 5 1.25 P202-016	1	EA	$ 13.26	$ 13.26
44-31-502	CURB BOX SUPPORT, VC2	1	EA	$ 6.95	$ 6.95
44-84-082	WALL BRACKET, 1/2"-2", RISER, PERFECTION, #74500	1	EA	$ 6.06	$ 6.06
51-75-100	METER, NEW DOMESTIC, TEMPERATURE COMPENSATED, MODEL AR-250TC	1	EA	$ 55.57	$ 55.57
74-47-505	LOCATE WIRE	100	FT	$ 0.07	$ 6.78
	MISC. BRACKETS, HARDWARE, AND SLEEVES FOR VENT LINE	1	EA	$ 5.00	$ 5.00
				Total Material ===>>>	$334.86

Contract Labor

	Description of Work	Quantity	UOM	Unit Cost	Total Cost
21-290	SERVICE, REPLACE, BY INSERT	1	EA	$208.88	$ 208.88
98-130	LABORER (TWO PEOPLE, TWO HOURS EACH)	4	HR	$ 42.06	$ 168.24
				Total Contract Labor ===>>>	$ 377.12

Company Labor

Item No.	Description of Work	Quantity	UOM	Unit Cost	Total Cost
	INSPECTION OF SERVICE INSTALLATION	2	HR	$ 26.99	$ 53.98
	SET METER	1	HR	$ 26.99	$ 26.99
				Total Company Labor ===>>>	$ 80.97

Truck Expense

Item No.	Description of Work	Quantity	UOM	Cost	Total Cost
	INSPECTION OF SERVICE INSTALLATION	2	HR	$ 15.60	$ 31.20
	SET METER	1	HR	$ 15.60	$ 15.60
				Total Truck Expense ===>>>	$ 46.80

Total Cost of service installation when leaving meter inside ===>>> $839.75

Common items between all installation scenarios
Common items between inside meter installation types

Schedule C - Inside Meter Below Ground Entry

Material

Stock No.	Description	Quantity	UOM	Cost	Total Cost
07-42-053	1 PIPE 179W GB BARE SMLS CS SA106	6	FT	$ 3.54	$ 21.24
07-42-063	1 PIPE 179W GB BLK BE SMLS CS SA105	10	FT	$ 4.68	$ 46.80
09-45-005	PIPE, 1/2" X 1000' PP COIL, 0.090 WALL, SDR 7, PE2406	100	FT	$ 0.13	$ 13.00
16-03-005	EXCESS FLOW VALVE, 1" X 1/2", UMAC P58 SERIES 400 ST PE2406	1	EA	$ 20.17	$ 20.17
16-08-086	CURB VALVE, 1/2" V/PC PERFECTION #45019, SF CTS PE2406 60#	1	EA	$ 29.63	$ 29.63
25-01-026	1 ELL 90 DEG THD BLK MI 150# A197	2	EA	$ 1.28	$ 2.56
25-01-031	1-25ELL 90 DEG THD BLK MI 150# A197	2	EA	$ 2.09	$ 4.18
42-53-303	WARNING TAPE	100	FT	$ 0.01	$ 0.82
43-10-1153	1" CTS X 1/2" CTS REDUCING COUPLING S/F PE2406	1	EA	$ 1.65	$ 1.65
43-15-2509	TAPPING TEE, 2" IPS X 1" CTS, ELECTOFUSION, W/SLEV PE2406	1	EA	$ 10.34	$ 10.34
44-84-250	DOMESTIC METER SETTING, PRE-FABRICATED, WITH REGULATOR, 7" W.C. OUTLET	1	EA	$ 53.55	$ 53.55
44-31-014	CURB BOX 2.1/2-22-36 CL 5-1.25 P202-016	1	EA	$ 13.26	$ 13.26
44-31-502	CURB BOX SUPPORT VC2	1	EA	$ 6.95	$ 6.95
44-84-102	1-1/4" FX1" CTS X 2" Basement Service Head Adapter NM#1093A101	1	EA	$ 16.07	$ 16.07
51-75-100	METER, NEW DOMESTIC, TEMPERATURE COMPENSATED, MODEL AR-250TC	1	EA	$ 55.57	$ 55.57
74-47-505	LOCATE WIRE	100	EA	$ 0.07	$ 6.78
	MISC. BRACKETS, HARDWARE, AND SLEEVES FOR VENT LINE	1	EA	$ 5.00	$ 5.00
	Total Material ===>>>				**$307.57**

Contract Labor

	Description of Work	Quantity	UOM	Cost	Total Cost
21-290	SERVICE, REPLACE, BY INSERT	1	EA	$208.88	$ 208.88
99-130	LABORER (TWO PEOPLE, TWO HOURS EACH)	4	HR	$ 42.06	$ 168.24
	Total Contract Labor ===>>>				**$377.12**

Company Labor

Item No.	Description of Work	Quantity	UOM	Cost	Total Cost
	INSPECTION OF SERVICE INSTALLATION	2	HR	$ 26.99	$ 53.98
	SET METER	1	HR	$ 26.99	$ 26.99
	Total Company Labor ===>>>				**$ 80.97**

Truck Expense

Item No.	Description of Work	Quantity	UOM	Cost	Total Cost
	INSPECTION OF SERVICE INSTALLATION	2	HR	$ 15.60	$ 31.20
	SET METER	1	HR	$ 15.60	$ 15.60
	Total Truck Expense ===>>>				**$ 46.80**

Total Cost of service installation when leaving meter inside ===>>> **$812.46**

Common items between all installation scenarios
Common items between inside meter installation types