Burlington hydro inc.

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto, ON
M4P 1E4

May 16, 2012

Dear Ms. Walli,

RE: Burlington Hydro Inc.
Smart Meter Recovery Application
EB-2012-0081

Please find attached Burlington Hydro Inc.'s response to VECC's interrogatories relating to this application. Supporting appendices and models are also attached.

Two hard copies of the response together with a CD of the materials have been couriered to the Board.

I can be reached at 905-332-1851 x234 should you require anything further.

Yours truly,

Original signed by

Stephen Shields
Manager, Regulatory Affairs

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Burlington Hydro Inc.
2012 Smart Meter Cost Recovery
EB-2012-0081

Response to VECC Interrogatories

VECC Question # 1

Reference: Application, 2) Status of Smart Meter and Time of Use Implementation, Page 10

Preamble: Burlington installed a total of 63,640 smart meters as of year-end 2011.

a) Please provide the average cost per meter by year and rate class on a total cost basis (capex + opex) and capex only.

b) Please discuss any variances (>10%) in average costs per year.

Response:

a) Appendix A provides detailed calculation of the average cost per meter by year and rate class.

   The input cost data has been extracted from Burlington's accounting system and is the invoiced amount for the purchase of smart meters in each respective year. Since the A3RL meters were purchased and installed in both the GS<50kW and GS>50kW customer classes, it was not possible to distinguish between those meters purchased/installed for a specific customer class in a particular year; best judgment was therefore used to allocate these costs to the respective classes by year in addressing this interrogatory.

   Since the meters installed in a specific year were not always paid for in the year they were purchased (due to purchase/install timing differences and possible hold-backs), the average cost per meter will be seen in Appendix A to vary significantly from one year to the next. The difference is particularly pronounced for the Residential class in 2011. The results of the Appendix A calculations are shown in the following tables.

The average total cost (capex + opex) per meter by year for the three rate classes are:

Class	2006	2007	2008	2009	2010	2011
Residential		$4,812.01	$275.36	$98.71	$78.30	$119,817.25
GS<50kW		$364.30	$753.65	$324.55	$457.75	$28,716.20
GS>50kW		$655.40	$1,364.40	$1,101.51	$276.84	n/a

The average capital cost (capex) by year for the three rate classes are:

Class	2006	2007	2008	2009	2010	2011
Residential		$4,800.69	$274.45	$95.52	$74.99	$14,344.00
GS<50kW		$363.87	$753.11	$320.22	$454.93	$15,819.00
GS>50kW		$654.60	$1,363.40	$1,086.80	$274.88	n/a

While it is very evident that the year-by-year values in the tables above are not meaningful, the last column in the model in Appendix A is meaningful since it is the cost per meter per class averaged over *all* years.

b) All the variances shown in the tables above are significant (>10%) and are attributable to timing differences between purchasing meters and installing them, and possibly due to hold-back (i.e. to ensure orders were delivered fully or work was completed satisfactorily).

VECC Question # 2

Reference: Application 2) Status of Smart Meter and Time of Use Implementation, Page 10

a) Please summarize the types of meters installed for each rate class.

b) Please complete the following table to show the average installed cost per meter type and total costs for each meter type.

Class	Type of Meter	Quantity	Average Cost	Total Meter Cost per Meter Type
Residential				
GS<50 kW				
GS>50 kW				

c) Please explain the difference between Elster Rex 1 Smart Meters and Rex 2 Smart Meters.

Response:

a) Residential homes use Rex2 meters. These meters are required in different configurations in order to accommodate the different types of network and single-phase electrical services; i.e. the different ways electrical services into homes are "wired". For example, Network 120/208 type service, Transformer type service (i.e. larger 400 amp and above services), etc. It should be noted that Burlington also uses a special type of Rex2 meter which is designed for 600v Delta applications at 200 amps and less and is the only Measurement Canada-approved meter for this type of application with Energy Axis system.

GS<50kW AND GS>50kW customers' meters require the ability to measure both energy consumption (kWh) and demand (kW) due to the possible flip-flop between commercial classes as was explained in the application. A3RL meters differ from Rex2 meters primarily in that the former are three-phase meters and measure both kWh and kW. Like the Rex2 meter, the A3RL meter comes in different configurations to accommodate the wiring configurations as described above; i.e. Self-Contained or Transformer Type.

b) Appendix B provides the average installed cost per meter type and total costs for each meter type.

The average installed cost per meter type and total costs for each meter type is summarized in the following table.

Class	Type of Meter	Quantity	Average Cost	Total Meter Cost per Meter Type
Residential	Rex2	58,789	$103.64	$8,188,886
GS<50 kW	A3RL	5,110	$456.01	$2,322,752
GS>50 kW	A3RL	571	$421.87	$259,549

c) The Rex1 meter does not have the ability to provide “End of Interval” (EOI) register reads which is required by Measurement Canada for Billing/ Validation (i.e. Validation, Editing and Estimation or “VEE”) and is also required by the MDM/R in the VEE process. Part of the VEE process is to provide the interval data in TOU buckets with the start and end reads (i.e. EOI); this data must be included on the bills. Rex2 meters have the ability to provide EOI register reads and thus meets all Measurement Canada requirements.

While not required to meet Measurement Canada requirements, other valuable features that the Rex1 meter is missing but the Rex 2 meter has are:

- There is no encryption of the LAN side (900 MHz) data which is necessary to ensure data security.
- The Rex1 meter does not have the Phone Home “Last Gasp” function. This function permits the meter to phone home with relevant data in the event of a meter failure (e.g. power outage, theft, etc.).
- In-Home Display (IHD) support through LAN (i.e. meter to IHD) is not available.
- Limited meter signal strength so that only a small number of attempts can be made to overcome telecommunications blockages; this reduces system robustness.

VECC Question # 3

Reference: Application, 2) Status of Smart Meter and Time of Use Implementation, Page 10

Preamble: The application indicates by the end of December 2011, Burlington decided on the purchasing option to own its AMI system but to have it operated by the AMI vendor.

a) Please discuss the rationale for this decision.

Response:

Due to the lack of experienced staff at the time, Burlington initially decided to outsource the AMI role on a shared system until: (i) meter read data and MDM/R issues were resolved, (ii) the AMI network was stabilized and (iii) internal growing pains (re new business processes) were addressed.

However, Burlington experienced long delays in receiving data from the shared AMI system. Furthermore, in a shared environment, Burlington was not availed to Administrator's rights which allow access to a number of additional system controls.

It was recognized that by having its own dedicated AMI system, the data delay problems experienced in a shared system would be eliminated. Moreover, Burlington staff would be able to query the network in real time through web access to create schedules, request on-demand reads, perform remote resets of demands and collectors, and many others.

Additionally, by having its own dedicated AMI system, Burlington's customers would be better served by utilizing the Rex2 meter "last gasp" feature, to quickly identify and resolve outages. This feature was not available in real time in a shared environment.

Hence, Burlington made the decision at the end of 2011, to opt for the purchase of its own AMI system.

VECC Question # 4

Reference: Smart Meter Recovery Model, Sheet 2

Preamble: On Sheet 2 under 2.5 Other AMI OM&A Costs Related to Minimum Functionality, amounts are shown for the years 2007 to 2012.

a) Please specify the nature of these costs for each year.

Response:

The main cost elements on Sheet 2 under 2.5 Other AMI OM&A Costs Related to Minimum Functionality are:

- Customer Communication for all years: $279,082
  This includes development of a communications strategy/plan, copy design work, preparation of TOU handouts and wall hangers, postage, telephone, printing, etc.
- System audit by N-Dimension with support by Olameter for year 2012: $56,448
- Start up support provided by Sky Energy for year 2012: $49,000
- London Hydro RFP for year 2009: $6,809
- Legal advice and support for year 2009: $5,026
- Consulting support by AESI for year 2010: $3,816

VECC Question # 5

Reference: Smart Meter Recovery Model

Preamble: Sheet 2 provides Total Smart Meter OM&A Costs.

a) Please provide a breakdown of the total number and cost of additional incremental permanent and contract staff hired by year for the deployment of smart meters and include the work functions for each position. Please provide all assumptions.

b) Please advise if Burlington used internal staffing resources to install meters. If yes, please provide details of the type, quantity and average installed meter costs.

Response:

a) Burlington did not hire any permanent or contract staff for the deployment of the smart meters. Instead, it outsourced the smart meter installation work to specialized companies.

   The installation of the Rex2 meters was outsourced to Olameter. Olameter typically allocated a team of 4 to 6 staff over the two year period to install the meters. The attached Appendix C provides the pricing schedule agreed to as a result of issuing an RFP to perform this work.

   The installation of the A3RL meters was outsourced to Rodan which typically allocated a team of 2 to 4 staff for the duration of the work. Rodan was selected to perform this work through a sole-source contract because of the specialized nature of A3RL installation work. The attached Appendix D provides the agreed pricing schedule.

b) During regular hours as time permitted, Burlington's own staff complemented the crews provided by Olameter and Rodan. The time spent by Burlington's staff installing smart meters during regular time was expensed and has not been claimed in this application. Only a minimal amount of installation work was performed outside regular hours and this time was charged to a special charge number and subsequently claimed in this application. Detailed records regarding the number of meters installed and the average installation cost per meter is not available.

VECC Question # 6

Reference 1: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Page 19

Preamble: The Guideline states, "The Board views that, where practical and where data is available, class specific SMDRs should be calculated on full cost causality."

Reference 2: Application, Cost Allocation, Page 21

Preamble: Burlington indicates that while detailed records exist for the smart meters acquired for each of the three metered classes, an accurate allocation of the balance of the capital costs together with the operating expenses was not possible with any degree of accuracy.

a) Please discuss the detailed records that exist and the challenges in determining an allocation of costs by rate class.

b) In its 2011 Smart Meter Disposition application (EB-2011-0128), PowerStream proposed a cost allocation methodology using capital costs as the allocation driver as follows:

- Allocation of the return (deemed interest plus return on equity) and amortization between the customer classes based on the capital costs of the meters installed for each class;
- Allocation of OM&A based on number of meters installed for each class;
- Allocation of PILs based on the revenue requirement derived for each class before PILs

Please provide a calculation of class-specific SMDR and SMIRR rate riders based on PowerStream's cost allocation methodology.

Response:

a) Burlington has detailed records regarding the capital cost of the Rex2 and A3RL smart meters; it also has the associated PILs. While it also has the total cost for the installation of all its smart meters, it does not have this information accurately allocated to the individual customer classes. Similarly, while the capital cost for computer hardware and software, LAN collectors and repeaters, WAN activation, customer communications, system audit and support, together with miscellaneous costs are known in totality, the fair and equitable apportionment to individual classes is not known.

Burlington's request for a uniform rate rider across all classes was motivated by its concern about arbitrarily allocating costs to individual classes without a solid

basis for doing so. Some of the costs requiring to be allocated were substantial. Nevertheless, Burlington recognizes that the cost per meter for those meters purchased for commercial customers is significantly greater than those meters purchased for residential customers.

In short – Burlington's challenge was developing a fair and equitable apportionment of costs to the customer classes and to the customers that would be subsequently required to pay for the recovery of these costs.

b) Please see Burlington's response to Board staff interrogatory # 10 where class-specific SMDR and SMIRR rate riders were calculated based on cost allocation methodology described above.

Appendices

Appendix A: Capex and Opex Costs
Appendix B: Installed Costs
Appendix C: Olameter Pricing Schedule
Appendix D: Rodan Pricing Schedule

Appendices to VECC Interrogatories

Appendix A

Smart Meter Cost		YEAR						
VECC Interrogatory		2006	2007	2008	2009	2010	2011	Total
	RESIDENTIAL							
a	Meter Installed		71	559	27,999	30,156	4	58,789
b	Meter Cost - Ref 1.1.1		340,849	153,417	2,674,359	2,261,282	57,376	5,487,283
c	Opex - Ref line 197		804	509	89,323	99,895	741,893	932,424
d = b+c	Total Cost		341,653	153,926	2,763,682	2,361,177	799,269	6,419,707
e = d/a	Per Meter Cost		4,812.01	275.36	98.71	78.30	199,817.25	109.20
f = b/a	Per Meter Cost		4,800.69	274.45	95.52	74.99	14,344.00	93.34
	GS < 50							
a	Meter Installed		161	81	1792	3071	5	5110
b	Meter Cost - Ref 1.1.1		58,583	61,002	573,834	1,397,076	79,095	2,169,590
c	Opex - Ref 197		70	44	7,764	8,683	64,486	81,047
d = b+c	Total Cost		58,653	61,046	581,598	1,405,759	143,581	2,250,637
e = d/a	Per Meter Cost		364.30	753.65	324.55	457.75	28,716.20	440.44
f = b/a	Per Meter Cost		363.87	753.11	320.22	454.93	15,819.00	424.58
	GS > 50							
a	Meter Installed		10	5	59	497	0	571
b	Meter Cost - Ref 1.1.1		6,546	6,817	64,121	136,617	8,838	222,939
c	Opex - Ref 197		8	5	868	970	7,206	9,057
d = b+c	Total Cost		6,554	6,822	64,989	137,587	16,044	231,996
e = d/a	Per Meter Cost		655.40	1,364.40	1,101.51	276.84	#DIV/0!	406.30
f = b/a	Per Meter Cost		654.60	1,363.40	1,086.80	274.88	#DIV/0!	390.44

Appendix B

Smart Meter Cost		YEAR						
VECC Interrogatory		2006	2007	2008	2009	2010	2011	Total
	RESIDENTIAL							
a	Meter Installed		71	559	27,999	30,156	4	58,789
b	Meter Cost - Ref 1.1.1		340,849	153,417	2,674,359	2,261,282	57,376	5,487,283
c	Installation Cost - Ref 1.1.2		16,140	5,250	166,299	410,614	7,369	605,672
d	Total Cost - Line 193+197		381,852	189,915	3,010,231	3,494,652	1,112,236	8,188,886
e = b+c/a	Per Meter Cost		5,028.01	283.84	101.46	88.60	16,186.25	103.64
f = d/a	Per Meter Cost		5,378.20	339.74	107.51	115.89	278,059.00	139.29
	GS < 50							
a	Meter Installed		161	81	1792	3071	5	5,110
b	Meter Cost - Ref 1.1.1		58,583	61,002	573,834	1,397,076	79,095	2,169,590
c	Installation Cost - Ref 1.1.2					134,326	26,279	160,605
d	Total Cost - Line 193+197		60,744	63,718	588,574	1,413,293	196,423	2,322,752
e = b+c/a	Per Meter Cost		363.87	753.11	320.22	498.67	21,074.80	456.01
f = d/a	Per Meter Cost		377.29	786.64	328.45	460.21	39,284.60	454.55
	GS > 50							
a	Meter Installed		10	5	59	497	0	571
b	Meter Cost - Ref 1.1.1		6,546	6,817	64,121	136,617	8,838	222,939
c	Installation Cost - Ref 1.1.2					15,010	2,937	17,947
d	Total Cost - Line 193+197		6,788	7,120	65,769	157,923	21,949	259,549
e = b+c/a	Per Meter Cost		654.60	1,363.40	1,086.80	305.08	#DIV/0!	421.87
f = d/a	Per Meter Cost		678.80	1,424.00	1,114.73	317.75	#DIV/0!	454.55

Appendix C

Olameter Pricing Schedule

5 PRICE OFFER

Olameter has provided multiple pricing options below. Pricing per the RFP table is provided with the option of personnel-owned vehicles or uniform vans, and an alternate "True Cost" price structure is provided with the same two vehicle options.

5.1 *Option 1: RFP Format Pricing*

5.1.1 RFP Format Pricing (Uniform Vans Provided)

Pricing – Schedule "A"

Description	Per Unit Install Price
Easy Access, Self-Contained Socket Meter	$9.22/installation
Residential Inside Socket Based Installation	$13.51/installation
Residential Back/Side Yard, Customer Involvement Required for Access	$11.06/installation
Residential Semi-Urban Socket Based	$11.06/installation
Residential Rural Installation Socket Based	$17.91/installation
Confirmed Theft of Service/Tampering	$82.50/confirmed site
Adaptor Installation	$11.46/adaptor
Customer Drop Card/Literature Notice Delivery, Pre-Install (Residential)	$0.28/notice
Customer Drop Card/Literature Notice Delivery, Pre-Install (Rural)	$0.89/notice
Customer Drop Card/Literature Notice Delivery, at time of Install	Included - N/C
FSR Downtime	$33.12/hour
Appointment Scheduling / Call Centre	$5,000 flat rate
Meter Disposal Labour (Separation)	$24.38/hour

Notes:

- Based on Olameter FSRs utilizing company provided uniform, white vans and working in teams of two (2) FSRs per team for enhanced safety purposes.
- The above rates are based on existing difficult access requirement of less than 1%, as per BHI
- The "Installation of A-S Adaptor" rate is based on the labour component only, and is to be charged in addition to applicable installation service rate.
- Network Meter rates are available upon request.

- "FSR Downtime" rate applicable to utility requests to remain on-site until relieved by BHI representative (ref: unsafe meter bases) and/or WFM/CIS-related issues.
- Call operations shall be maintained from 8:00 a.m. to 7:00 p.m., Monday to Friday
- Call Centre pricing assumes a maximum of 3 calls per meter
- The "Meter Disposal" rate includes labour only and does not include bin or related services.
- Prices valid for ninety (90) days
- Annual increase equal only to the then current, Consumer Price Index (CPI) will apply to each year of the contract
- All the above prices are in Canadian currency and do not include federal, provincial, local or any other taxes (where applicable)

5.1.2 RFP Format Pricing (FSRs Utilizing Personal Vehicles)

Description	Per Unit Install Price
Easy Access, Self-Contained Socket Meter	$7.49/installation
Residential Inside Socket Based Installation	$12.32/installation
Residential Back/Side Yard, Customer Involvement Required for Access	$9.56/installation
Residential Semi-Urban Socket Based	$9.56/installation
Residential Rural Installation Socket Based	$17.40/installation
Confirmed Theft of Service/Tampering	$82.50 /confirmed site
Adaptor Installation	$9.00/adaptor
Customer Drop Card/Literature Notice Delivery, Pre-Install (Residential)	$0.28/notice
Customer Drop Card/Literature Notice Delivery, Pre-Install (Rural)	$0.89/notice
Customer Drop Card/Literature Notice Delivery, at time of Install	Included - N/C
FSR Downtime	$33.12/hour
Appointment Scheduling / Call Centre	$5,000 flat rate
Meter Disposal Labour (Separation)	$24.38/hour

Notes:

- Above rates are based on Olameter FSRs working in one (1) person teams utilizing their own personal vehicles to perform the installation services as per RFP specifications.
- Above rates based on existing difficult access requirement of less than 1%, as per BHI

- The "Installation of A-S Adaptor" rate is based on the labour component only, and is to be charged in addition to the applicable installation service rate
- Network Meter rates are available upon request.
- "FSR Downtime" rate applicable to utility requests to remain on-site until relieved by BHI representative (ref: unsafe meter bases) and/or WFM/CIS-related issues.
- Call operations shall be maintained from 8:00 a.m. to 7:00 p.m., Monday to Friday
- Call Centre pricing assumes a maximum of 3 calls per meter
- The "Meter Disposal" rate includes labour only and does not include bin or related services.
- Prices valid for ninety (90) days
- Annual increase equal only to the then current, Consumer Price Index (CPI) will apply to each year of the contract
- All the above prices are in Canadian currency and do not include federal, provincial, local or any other taxes (where applicable)

5.2 *Option 2: True Cost Pricing*

5.2.1 True Cost Pricing (Uniform Vans Provided)

Description	Per Unit Install Price
Easy Access, Self-Contained Socket Meter	$8.81/installation
Residential Inside Socket Based Installation	$13.11/installation
Residential Back/Side Yard, Customer Involvement Required for Access	$10.66/installation
Residential Semi-Urban Socket Based	$10.66/installation
Residential Rural Installation Socket Based	$17.50/installation
Confirmed Theft of Service/Tampering	$82.50 /confirmed site
Appointment Call	$18.87/appointment
Unsuccessful Attempt	$1.00/attempt
Adaptor Installation	$11.46/adaptor
Customer Drop Card/Literature Notice Delivery, Pre-Install (Residential)	$0.28/notice
Customer Drop Card/Literature Notice Delivery, Pre-Install (Rural)	$0.89/notice
Customer Drop Card/Literature Notice Delivery, at time of Install	Included - N/C
FSR Downtime	$33.12/hour

Appointment Scheduling / Call Centre	$5,000 flat rate
Meter Disposal Labour (Separation)	$24.38/hour

Notes:

- Above rates are based on Olameter FSRs utilizing company provided uniform, white vans and working in teams of two (2) FSRs per team for enhanced safety purposes.
- Above rates based on existing difficult access requirement of less than 1%, as per BHI
- The "Installation of A-S Adaptor" rate is based on the labour component only, and is to be charged in addition to the applicable installation service rate.
- Unsafe meter bases (i.e. Murray Jensen) to be considered and invoiced as an "Unsuccessful Attempt"
- Network Meter rates are available upon request.
- "FSR Downtime" rate applicable to utility requests to remain on-site until relieved by BHI representative (ref: unsafe meter bases) and/or WFM/CIS-related issues.
- Call operations shall be maintained from 8:00 a.m. to 7:00 p.m., Monday to Friday
- Call Centre pricing assumes a maximum of 3 calls per meter
- The "Meter Disposal" rate includes labour only and does not include bin or related services.
- Prices valid for ninety (90) days
- Annual increase equal only to the then current, Consumer Price Index (CPI) will apply to each year of the contract
- All the above prices are in Canadian currency and do not include federal, provincial, local or any other taxes (where applicable)

5.2.2 True Cost Pricing (FSRs Utilizing Personal Vehicles)

Description	Per Unit Install Price
Easy Access, Self-Contained Socket Meter	$7.09/installation
Residential Inside Socket Based Installation	$11.92/installation
Residential Back/Side Yard, Customer Involvement Required for Access	$9.17/installation
Residential Semi-Urban Socket Based	$9.17/installation
Residential Rural Installation Socket Based	$17.00/installation
Confirmed Theft of Service/Tampering	$82.50 /confirmed site
Appointment Call	$18.56 /appointment
Unsuccessful Attempt	$0.99/attempt

Adaptor Installation	$9.00/adaptor
Customer Drop Card/Literature Notice Delivery, Pre-Install (Residential)	$0.28/notice
Customer Drop Card/Literature Notice Delivery, Pre-Install (Rural)	$0.89/notice
Customer Drop Card/Literature Notice Delivery, at time of Install	Included - N/C
FSR Downtime	$33.12/hour
Appointment Scheduling / Call Centre	$5,000 flat rate
Meter Disposal Labour (Separation)	$24.38/hour

Notes:

- Above rates are based on Olameter FSRs working in one (1) person teams utilizing their own personal vehicles to perform the installation services as per RFP specifications.
- Above rates based on existing difficult access requirement of less than 1%, as per BHI
- The "Installation of A-S Adaptor" rate is based on the labour component only, and is to be charged in addition to the applicable installation service rate.
- Unsafe meter bases (i.e. Murray Jensen) to be considered and invoiced as an "Unsuccessful Attempt"
- Network Meter rates are available upon request.
- "FSR Downtime" rate applicable to utility requests to remain on-site until relieved by BHI representative (ref: unsafe meter bases) and/or WFM/CIS-related issues.
- Call operations shall be maintained from 8:00 a.m. to 7:00 p.m., Monday to Friday
- Call Centre pricing assumes a maximum of 3 calls per meter
- The "Meter Disposal" rate includes labour only and does not include bin or related services.
- Prices valid for ninety (90) days
- Annual increase equal only to the then current, Consumer Price Index (CPI) will apply to each year of the contract
- All the above prices are in Canadian currency and do not include federal, provincial, local or any other taxes (where applicable)

Appendix D

Rodan Pricing Schedule

Proposal for:
Non Interval Meter Changes with Smart Meters

PRESENTED TO:

Burlington Hydro

Kevin Boggs – Manager of Metering

April 7, 2009

PROPOSAL

1. Scope of Work

Provide Burlington Hydro assistance to change out Non Interval Three Phase Meters with Smart Meters for customers designated by Burlington Hydro within Burlington Hydro's service territory. More specifically but not limited to:

Self-contained change out:

- Approx. 3000 meters to change (Information from Burlington Hydro)
- 25 -30 change outs per day (average if working 10 hour day)
- Four (4) day work week (10hrs per day)
- Hours of work 6:00AM to 8:00PM as necessary
- Premium time for after 8:00PM and weekends
- Reporting center is Burlington Hydro
- Meters, rings etc. supplied by Burlington Hydro
- Meter change info and photos required
- Single meter technician
- Two crew's
- Hourly rate $70.00/hr per person
- Mileage charge rate $0.70/km

Rewire 2 Element to 2.5 Element change out:

- Approx. 600 meters to change (Information from Burlington Hydro)
- 6 change outs per day (average if working 10 hour days)
- Four (4) day work week (10hrs per day)
- Hours of work 6:00AM to 8:00PM as necessary
- Premium time for after 8:00PM and weekends
- Reporting center Burlington Hydro
- Meters, test blocks, wire, rings etc. supplied by Burlington Hydro
- Outage may be required
- Two man crew's
- No cross phase test required
- Meter change info and photos required
- Hourly rate $70.00/hr per person
- Mileage charge rate $0.70/km

Meter change out of existing 2.5 element meter, possible change out of existing test block:

- Approx. 1000 meters to change (Information from Burlington Hydro)
- 12 change outs per day (average) Meter only
- 4 change outs per day (average) Meter and test block change out
- Four (4) day work week (10hrs per day)

- Hours of work 6:00AM to 8:00PM as necessary
- Premium time for after 8:00PM and weekends
- Reporting center Burlington Hydro
- Meters, test blocks, wire, rings etc. supplied by Burlington Hydro
- Outage may be required
- Two man crew
- No cross phase test required
- Recording of meter change info and photos required
- Hourly rate $70.00/hr per person
- Mileage charge rate $0.70/km

The following pricing is based on our best understanding of the requirements from utility provided documents and/or prior discussions with the utility. As the scope of work for this project can vary greatly from site to site some conditions and assumptions apply to our unit cost per location as defined below.

2. PRICING

Hourly rate per Meter technician	$70.00/hr
Mileage charge rate	$ 0.70/perKM

3. MATERIAL

This project will be executed by qualified Rodan Meter Technicians. Burlington Hydro will provide the following:

1. Meters, seals, seal rings, test blocks, metering wire and other metering materials as required;
2. Electronic or paper instruction orders as required, to include any specific instructions pertaining to client needs;
3. Site specific training if required;
4. Notification to clients one week ahead of meter change outs;
5. Vehicle and personnel ID of Burlington Hydro contractor;

General Notes and Assumptions (Apply to all Items)

1. Pricing based on Rodan being able to schedule work for maximum efficiency.
2. Contact person at Utility will be identified regarding any questions related to Utility policies.
3. Any issues with customer owned equipment (faulty disconnect switches etc.) will be identified to a contact person at Burlington Hydro, resolution of the problem will be the responsibility of Burlington Hydro
4. Any other work outside the scope of this proposal will be at an additional fee to the contract at an hourly rate of $90.00 per crew member during regular business hours. Prior approval from utility will be necessary before proceeding.
5. This proposal is valid for 30 days.
6. Taxes are not included.

4. PROJECT ACCEPTANCE FORM

Client: **Burlington Hydro**
Subject: **Non Interval Meter replacements with Smart Meters**

Purchase Order Number: _____

Purchase Order date: _____

By signing this acceptance form you agree to accept the proposal as described in the table below. ***Rodan*** will provide the services and meet the deliverables as discussed in process of completing the proposed project. Please sign and Fax back to ***Rodan*** as confirmation of the terms and conditions described below along with you Purchase Order Number. ***Rodan*** will provide a copy of the executed acceptance form once completed.

The main contact at Rodan for the purpose of this proposal presentation is:

Gary Guenther
Director – Business Development
RODAN ENERGY AND METERING SOLUTIONS INC.
Tel: (905) 625-9900 ext 224
Cell: (519) 820-5444
Fax (905) 625-4307

Email: gary.guenther@rodanpower.com

The main contact at Rodan for the purpose of scheduling and managing this project will be:

Barry Simpson
Manager, Operations and Field Services
RODAN ENERGY AND METERING SOLUTIONS INC.
Tel: (905) 625-9900 ext. 239
Fax: (905) 625-4307
Cell: (705) 791-6005

email: barry.simpson@rodanpower.com

The main contact at **Burlington Hydro** for the purpose of this project will be:

Name: _____

Title: _____

Tel. /Cell Number _____

Email _____

5. QUALIFICATIONS & SAFETY

All Rodan staff and management involved in this project are trained to meet utility safety and quality requirements and we are committed to make safety our highest priority in all aspect of our work. As part of the project we have highlighted some aspects related specifically to this project:

1. Rodan confirms that all work on the project will follow OHSA Regulations and Utility Specific Rules and Regulations including wearing all PPE and meeting utility specific requirements.
2. A copy of the minutes from a sample safety meeting is available upon request.
3. A copy of Rodan's Health and Safety Policy is included also available upon request.
4. Rodan confirms that safety is of the utmost importance and concern will be a priority for this project. If any unsafe or hazardous conditions are found they will be reported immediately to the utility contact.

All Rodan management and employees are required to comply with all applicable health and safety regulations in order to provide and maintain a work environment as free as possible from recognized hazards.

All Rodan field staff are properly trained and qualified Among other training, all our field staff are trained and qualified in Electrical Awareness, First Aid, CPR and WHIMIS.

Managers and supervisors are held accountable for the health and safety of workers under their supervision and are responsible to ensure that workers are trained and carry

out their duties in compliance with the law and established safe work practice and procedures.