

1 **1.0 INTRODUCTION**

2
3 The purpose of this document is to summarize the meter rebate and exit program
4 proposed by Hydro One Networks Inc. (“Hydro One”) for transitional Wholesale
5 Revenue Metering Service that Hydro One currently provides in accordance with the
6 Market Rules. This program will become effective upon approval by the Ontario Energy
7 Board (“Board”).

8
9 The rebate and exit program described herein is being submitted to the Board in response
10 to a request from the Minister of Energy to the Board Chair, a copy of which is included
11 here in Appendix A. This request stated that the issue of meter rebates and exit fees
12 should be resolved expeditiously. As a result of the need for expediency, the rate and fee
13 calculations included in this document are based on the cost data that was filed in support
14 of the rates that were approved in proceeding RP-1999-0044. This approach is
15 consistent with the Minister’s request that “this rebate should be based exclusively on the
16 metering costs included in Hydro One Networks’ currently approved revenue
17 requirement for its transmission business.”

18
19 Section 2.0 below sets the context of Wholesale Revenue Metering (“WRM”) Service by
20 summarizing the Market Rules with respect to the transitional WRM Service provided by
21 Hydro One, and by explaining the rationale for the meter rebates and exit fees. Section
22 3.0 summarizes the total net book value and annual revenue requirement for wholesale
23 metering as per Hydro One submission, and OEB approval, for transmission revenue
24 requirement under Proceeding RP-1999-0044. Section 4.0 addresses the matter of the
25 rebate determinant and rebate rate for the Metered Market Participants (“MMPs”) that
26 exit from the transitional arrangement for WRM Service provided by Hydro One in
27 accordance with the Market Rules. The exit fee to recover asset costs stranded as a result
28 of MMPs exiting transitional WRM Service is covered in Section 5.0. The
29 implementation matters for the meter rebate and exit program to be administered by
30 Hydro One are summarized in Section 6.0.

1 The Wholesale Metering Exit Policy, included here in Appendix B, provides the terms
2 and conditions for exiting the transitional arrangement for WRM Service and, if
3 applicable, for the continued use of Hydro One-owned instrument transformers at its
4 station sites, by the MMPs that exit the transitional arrangement for WRM Service. The
5 companion policy on “Conditions for the Installation of Third Party Equipment in Hydro
6 One Networks Inc. Property and Access to Hydro One Sites” is included here in
7 Appendix C.

8
9 The meter rebate and exit program envisioned herein shall apply to MMPs that pay
10 Provincial Transmission Service charges to the IMO or Retail Transmission Service
11 charges to a host Local Distribution Company (LDC). The rebates payable by Hydro
12 One, in accordance with this program, would apply only to the MMPs that are Hydro
13 One’s Transmission Customers and to the MMPs that are customers of an LDC that is
14 connected to Hydro One’s transmission system.

15
16 For certainty, the said meter rebates envisioned in this schedule would not apply to
17 MMPs that do not pay transmission service charges to the IMO, and to LDCs and
18 distribution connected MMPs that are connected to the licensed transmission system
19 owned by a transmission company other than Hydro One.

20
21 The rebate arrangement is intended as an interim measure until such time as Hydro One
22 unbundles the wholesale metering costs to establish a separate Wholesale Revenue
23 Metering Pool. This unbundling is envisaged to take place at the time of Hydro One’s
24 next submission of transmission rate proposals to the Board.

25
26 Hydro One hereby seeks Board approval for the following matters based on the
27 considerations described in this document:

- 28
29 i. The amount for annual rebates payable by Hydro One to load-consuming MMPs
30 that are not under transitional arrangement for WRM Service shall be \$5,700 per
31 Meter Point; and

1 ii. The amount of one-time, uniform exit fee payable by load-consuming MMPs that
2 exit the transitional arrangement for WRM Service shall be \$5,200 per Meter
3 Point.

4
5 Hydro One will administer the approved Meter Rebates and Exit Fees in accordance with
6 the respective policies included in Appendices B and C of this document.

7
8 **2.0 SETTING THE CONTEXT**

9
10 This section covers the key definitions pertaining to WRM Service arising out of the
11 Market Rules and summarizes the rationale for rebates to load-consuming MMPs that
12 self-provide WRM Service and for exit fees pertaining to entities that exit from the
13 transitional WRM Service arrangement with Hydro One. For the purpose of this
14 document and the Meter Rebate and Exit Program described herein, the term “MMPs that
15 self-provide WRM Service” refers to those MMPs that elect to provide the WRM Service
16 themselves and to those MMPs that elect to acquire WRM Service from a third party.

17
18 **2.1 Metering Installations and Meter Points**

19
20 The wholesale metering assets which ownership was transferred from the former Ontario
21 Hydro to Hydro One, and similar assets installed by Hydro One between the period of the
22 demerger from Ontario Hydro and the electricity market opening on May 1, 2002, are
23 included in the transmission business of Hydro One. These assets comprise metering
24 equipment that measures the electricity supplied to the following entities¹ from the
25 transmission system and, in some cases, from the distribution system for the purpose of
26 settlement of energy and/or transmission charges by the IMO:

27

¹ In very few cases, the meter assets owned by Hydro One are used to measure the output of generation, mostly Non Utility Generation which sold electricity to the former Ontario Hydro and which now sell it to OEFC. These meter assets are not germane to the issues covered in this document since the rebates envisioned herein would not be applicable to the generators who do not presently pay transmission service charges.

- 1 • The LDCs and the End Use Customers that are connected to the transmission
2 facilities owned by Hydro One;
- 3 • The LDCs that are embedded in the distribution systems owned by other
4 distributors, if these embedded LDCs were former customers of Ontario Hydro
5 and if they are registered to be market participants with the IMO; and
- 6 • Some Large Use Customers that are embedded in the distribution systems owned
7 by LDCs; if these embedded customers were former wholesale customers of
8 Ontario Hydro, and if these customers are registered to be market participants
9 with the IMO.

10
11 The terms Metering Installation and Meter Point which are defined in Chapter 11 of the
12 Market Rules are relevant for the purpose of identifying the users of WRM assets and
13 related services. Further, the definition of the term Meter Point is also relevant for the
14 meter rebate and exit program described in this document. These definitions are
15 reproduced below:

16
17 “Metering Installation means any apparatus, including but not limited to a RWM
18 [Registered Wholesale Meter], used to measure electrical quantities and includes
19 the communication system by which metering data is transferred to the relevant
20 telecommunications network through which metering data is transferred to the
21 communication of the metering database.”

22
23 “Meter Point means, in respect of a load facility and of a generation facility with
24 respect to which the current transformers are located on the output side of the
25 generation facility, the physical location of the current transformers used to
26 measure power flow and, in respect of a generation facility with respect to which
27 the current transformers are located on the grounded side of the generation
28 facility, the physical location of the voltage transformers.”

29
30 Hydro One owns over 1,200 Metering Installations, comprising over 1,700 Meter Points,
31 that fall under the transitional arrangement for WRM Service provided to MMPs. Just

1 over a quarter of these are used by the distribution business of Hydro One, with the
2 remainder split between the LDCs and the load customers that are market participants in
3 the IMO-Administered market.

4 5 **2.2 Rationale for Rebates for MMPs Self-Providing WRM Service**

6
7 Based on the currently approved cost allocation methodology for transmission service,
8 the revenue requirement for the wholesale revenue metering service provided by Hydro
9 One is included in the Network Pool, for which all load customers pay charges on the
10 basis of the approved Network Service rate.

11
12 In accordance with the transitional arrangement requirements in Chapter 6 of the Market
13 Rules for the Ontario Electricity Market, Hydro One is registered with the IMO as a
14 Metering Service Provider (MSP) with respect to the Metering Installations that it owned
15 as of market opening (May 1, 2002). This transitional arrangement is envisaged to exist
16 for each metering installation up to the earliest expiry date of any seal period² (“seal
17 expiry”) of any meter or logger (recorder) forming part of such metering installation.
18 Once such seal period expires, the MMP(s) using these particular metering installations
19 are required to secure the services of a competitive MSP and make alternative
20 arrangements as necessary to comply with the provisions of the Market Rules.

21
22 Through its Exit Policy that is included here in Appendix B, Hydro One proposes to offer
23 the choice to all MMPs to exit the transitional arrangement, irrespective of seal expiry
24 provisions of the Market Rules. Thus, MMPs may also exit the transitional arrangements
25 with Hydro One before the seal expiry date, at which time they will be obliged to make
26 alternative arrangements to comply with the Market Rules.

27
28

² Under federal guidelines administered by Measurement Canada, each meter or logger used for wholesale revenue transactions has a seal period, normally 6 years, after which it has to be re-verified with respect to its accuracy of measurement and resealed.

1 When the transitional arrangement ends for a Meter Point, either due to seal expiry or by
2 choice, and the corresponding MMP obtains WRM Service from a competitive MSP of
3 their choice, Hydro One will no longer have an obligation to act as a transitional MSP for
4 that Meter Point. Accordingly, the MMPs will contract with other MSPs to take
5 responsibility for the metering cost through negotiated WRM Services.

6
7 The MMPs that have registered new Meter Points after market opening (May 1, 2002)
8 and MMPs that register new Meter Points in the future take full cost responsibility for
9 wholesale metering service immediately when the new Meter Points are first established.

10
11 The MMPs that are load customers continue to pay a portion of Hydro One's wholesale
12 metering service costs through bundled Network Pool charges. These charges are
13 payable by all transmission and distribution customers through the Provincial
14 Transmission Service charges (Transmission) and Retail Transmission Service charges
15 (Distribution) respectively. Thus, the load-consuming MMPs that exit the transitional
16 arrangement and new load-consuming MMPs would be paying for Hydro One's meter
17 related costs in the bundled Network Pool as well as the costs for WRM Services
18 provided to them by another MSP.

19
20 In order to mitigate the concerns about potential double-payment by MMPs that do not
21 utilize the transitional arrangement for WRM Service, Hydro One is proposing to
22 establish meter rebates described herein. The implementation of rebates will increase the
23 choice for the MMPs to obtain meter service from other MSPs and it will enhance
24 competition in the provision of the wholesale meter service.

25
26 The rebate component of the program described in this document will result in all load-
27 consuming MMPs receiving rebates from Hydro One if they choose to self-provide
28 WRM Service, provided that these MMPs are transmission customers of Hydro One or
29 they are distribution customers of a LDC that is a transmission customer of Hydro One.

1 The rebate determinants and rebate rates that would be used to calculate the rebate
2 payment for eligible MMPs are described in Section 4.0 below.

4 **2.3 Rationale for Exit Fees for MMPs in Transitional Arrangement**

6 The wholesale revenue meter assets that are owned by Hydro One were installed under a
7 “pooling” arrangement, mostly by the former Ontario Hydro, over a period of several
8 decades. Some of these installations took place as recently as just before market opening.

10 All load customers currently pay for annual charges associated with the wholesale meter
11 assets owned by Hydro One at a uniform rate, irrespective of the fact that some meter
12 installations may have cost more than others and irrespective of the vintage of the meter
13 assets.

15 As MMPs exit the transitional arrangement, some meter assets will become redundant.
16 In most, if not all, cases, these redundant meter assets cannot be used by other MMPs,
17 since the costs associated with removing and relocating the assets would be substantial
18 compared to the cost of installing new meter assets. In some cases, these meter assets
19 cannot be used for wholesale metering purposes after seal expiry, as they may no longer
20 conform to the requirements of the Market Rules³.

22 In order to ensure that the remaining MMPs or transmission customers are not unfairly
23 penalized due to stranding of pooled meter assets, the costs associated with stranded
24 assets should be recovered from the MMPs that exit the transitional meter service
25 provided by Hydro One. Therefore, it is proposed that an Exit Fee be levied on MMPs
26 that exit from the existing metering installations when the transitional arrangement ends
27 at seal expiry or when the MMPs choose to exit the transitional arrangement prior to seal
28 expiry.

³ The Market Rules have a grandfathering provision that allows the non-conforming metering assets to be used for wholesale metering until seal expiry.

1 The Exit Fees will not be levied on new Meter Points that were installed after market
2 opening since these points do not fall under the transitional arrangement. (Even though
3 the new Meter Points will not be levied Exit Fees, they will be still be eligible to receive
4 the WRM Rebates, as described in Section 2.2 above.)

5
6 The determinants to be used for calculating the Exit Fees are covered in Section 5.0
7 below.

8
9 **3.0 ASSET DATA AND REVENUE REQUIREMENT FOR WHOLESALE**
10 **METER SERVICE PER RP-1999-0044**

11
12 As noted in Section 1.0 above, the Minister's letter requested that the resolution of the
13 issue of rebating metered market participants should be based on the metering costs
14 included in Hydro One's currently approved transmission revenue requirement.

15
16 The revenue requirement and total asset cost (net book value) data filed in support of the
17 rates approved in Proceeding RP-1999-0044 is provided at Appendix D and Appendix E
18 to this document, and the relevant information is summarized below.

19
20 Annual Revenue Requirement

21
22 Appendix A attached to Exhibit E, Tab 1, Schedule 38(a) filed on January 28,
23 2000 indicates (Row 14, Column Q) that the annual revenue requirement for the
24 Wholesale Meter Pool is \$ 9.9 million. (A copy of this table is attached as
25 Appendix D to this document).

26
27 The revenue requirement for WRM Service, identified above, was merged with
28 the revenue requirement for Network Pool, before calculating the Network
29 Service rate on the basis of meter service costs included in the much larger
30 Network Pool.

1 Net Book Value

2

3 Appendix A attached to Exhibit E, Tab 1, Schedule 27(a) filed on January 28,
4 2000 indicates (at Row 13, Column S) that the Net Book Value of the wholesale
5 metering assets in-service (at that time) was \$ 13.86 million. (A copy of this table
6 is attached as Appendix E to this document).

7

8 The net book value of the meter assets noted above (and the net book value of
9 other allocated assets) was merged with the net book value for assets in the much
10 larger Network Pool for the purpose of determining the bundled net book value of
11 the Network Pool.

12

13 Consistent with the Minister's request, Hydro One proposes that the Meter Rebate and
14 Exit Program that is described in this document should be based on the approved annual
15 revenue requirement (\$ 9.9 million) and net book value (\$ 13.86 million) for the
16 Wholesale Meter Pool based on Proceeding RP-1999-0044.

17

18 **4.0 REBATE DETERMINANT AND ANNUAL REBATE RATE**

19

20 This section covers the identification of options for rebates, the assessment of options,
21 and a recommendation for the rebate rate on the basis of this assessment.

22

23 **4.1 Rebate Options**

24

25 The costs incurred for the provision of WRM Service include asset related charges such
26 as interest, depreciation, and maintenance expenses related to the meter assets, and the
27 operation costs which include costs associated with activities to comply with Market
28 Rules administered by the IMO. The activities required by the Market Rules include
29 trouble call services and corrective requirements associated with meter equipment and
30 data; routine inspection requirements; meter registration requirements in accordance with
31 the Market Rules; dealing with the IMO initiated requests and IMO initiated audits.

1 There are two options that may be considered for rebates payable by Hydro One to the
2 load-consuming MMPs that obtain their WRM Service outside the transitional
3 arrangement contemplated by the Market Rules. These two options are summarized
4 below.

5
6 **Option 1: Meter Point Specific Rebate**

7
8 Under this option, the load-consuming MMPs would be eligible for Meter
9 Point specific rebates that will depend on the specific costs incurred for
10 serving the respective Meter Points.

11
12 **Option 2: Uniform Rebate for Each Meter Point**

13
14 Under this option, the load-consuming MMPs would be eligible to receive
15 a “postage stamp” type uniform rebate from Hydro One, on a “Per Meter
16 Point”.

17
18 Irrespective of the option chosen, the rebate will be provided on an annualized basis for
19 each Meter Point that is not covered by the transitional arrangement for WRM Service.

20
21 **4.2 Assessment of Rebate Options**

22
23 The following discussions summarize the pertinent issues relevant for the assessment of
24 the options and Hydro One’s recommendation for the rebate mechanism.

25
26 Operation and Maintenance Costs

27
28 A substantial portion of the meter service costs are associated with the operation,
29 maintenance and trouble call corrective services for the metering equipment, and
30 the provision of other services in conformance with the Market Rules. Indeed, for
31 meters installed within transformer stations, where the instrument transformers

1 are embedded in power equipment or where these devices are used for multiple
2 functions, nearly all of the separately identifiable meter service costs are
3 associated with Operation and Maintenance.

4
5 The Operation and Maintenance costs are similar for each Meter Point; i.e. they
6 do not vary noticeably between Meter Points. Even if there were some
7 differences in the Operation and Maintenance costs for different metering
8 installations, it would be administratively complex and inefficient to account for
9 these differences on a customer by customer basis or on a Meter Point specific
10 basis.

11 12 Capital Related Costs

13
14 The former Ontario Hydro installed the wholesale revenue metering assets for the
15 benefit of the wholesale power pool. Ontario Hydro did not maintain a separate,
16 customer-specific registry of wholesale revenue metering equipment. Therefore,
17 except for a very small proportion of the metering equipment (installed by Hydro
18 One within the last two years), Hydro One does not have historical (sunk) capital
19 cost data for wholesale revenue metering broken down by Meter Points or by
20 customers.

21 22 Meter Point Specific Rebates Result in Wrong Signals

23
24 Meter Point Specific Rebates should not be based on the actual cost incurred by
25 an MMP for the services of an MSP outside transitional arrangement. Such an
26 approach would result in perverse incentives for MMPs to obtain WRM Service
27 and to install new Meter Points in a manner such that they get higher rebates, even
28 if it is not economically efficient to do so. In any case, to the extent that some
29 new Meter Points may attract higher rebates under Option 1, other Meter Points
30 would have to receive relatively lower rebates, since the total revenue requirement

1 that would be available for distribution to all MMPs is fixed (at \$ 9.9 million per
2 year).

3 In summary, Meter Point Specific Rebates are not feasible since location specific
4 data is not available to support such an approach.

5

6 Comparison of Options

7

8 Based on the considerations noted above, it is impractical (and probably
9 infeasible) to provide rebates on a Meter Point specific basis, as envisaged by
10 Option 1.

11

12 On the other hand, the postage stamp type Uniform Rebate for each Meter Point,
13 as per Option 2, is preferable on the basis of several considerations that are judged
14 to have beneficial outcomes:

15

- 16 • It is readily feasible and practical to calculate and implement;
- 17 • It can be implemented within the time frame envisaged by all
18 stakeholders;
- 19 • It results in a transparent methodology that does not lend itself to disputes
20 and conflicts;
- 21 • It does not send inappropriate signals to MMPs;
- 22 • It is consistent with the “pooling” approach that has been traditionally
23 used to collect regulated transmission service charges; and
- 24 • It is also consistent with the “pooling” approach that has been used until
25 now to provide regulated WRM Service under the transitional
26 arrangements.

27

28 **4.3 Recommendation and Determination of Rebate Rate**

29

30 On the basis of the assessment summarized above, it is recommended that the rebates to
31 eligible MMPs should be based on Option 2. In this Option, all load-consuming MMPs

1 would be eligible to receive a “postage stamp” type uniform rebate from Hydro One, on
2 an annualized basis, for each Meter Point that exits the transitional arrangement, and for
3 each new Meter Point that does not come under the transitional arrangement.

4
5 As noted in Section 3.0 above, the approved annual revenue requirement for transitional
6 WRM Service that is provided by Hydro One is approximately \$ 9.9 million.

7
8 Based on the current data of metered market participants, there are 1750 load Meter
9 Points that can be eligible for WRM rebates. These Meter Points can be broadly
10 classified into one of the following two categories:

- 11
12 • Hydro One is currently a MSP for 1700 of these Meter Points, under the
13 transitional arrangement in accordance with the Market Rules. The corresponding
14 MMPs will be entitled to receive rebates when they exit the wholesale revenue
15 meter service provided by Hydro One, subject to the Board approval of the
16 Wholesale Revenue Metering Rebate Program described in this application.
- 17
18 • The MMPs for the other 50 Meter Points have already made arrangements for
19 procuring meter service from a MSP other than Hydro One. These entities will be
20 also eligible to receive rebates from Hydro One immediately upon Board approval
21 of the rebate program.

22
23 The annual Rebate Rate, payable by Hydro One to the load-consuming MMPs that make
24 arrangements for WRM Service outside of the transitional arrangement with Hydro One,
25 is calculated by the following formula;

26
27 Annual Rebate Rate =

28
29 *(Hydro One’s approved revenue requirement for wholesale meter service which is*
30 *currently included in the Network Pool)*

1 Divided by

2

3 *(Total number of Meter Points eligible for rebates, comprising Meter Points for*
4 *which Hydro One is currently a MSP and the Meter Points for which the metered*
5 *market participants have already made arrangements to obtain the meter service*
6 *competitively)*

7

8 Based on the above formula, the Annual Rebate for metered market participants that self-
9 provide wholesale revenue meter service is equal to \$ 9.9 million divided by 1750, or
10 \$ 5,700 per year (rounded upwards to the nearest hundred). This rebate would be
11 applicable retroactively from May 1, 2002 for those MMPs who have exited the
12 transitional arrangement or installed new Meter Points. All Meter Points that exit the
13 transitional arrangement in the future and new Meter Points that are established in the
14 future will be eligible for meter rebates from Hydro One.

15

16 Additional information regarding the implementation of the rebate program is provided in
17 Section 6.0 below.

18

19 **5.0 EXIT FEE TO RECOVER STRANDED COSTS**

20

21 This section first addresses some of the key aspects that are pertinent for the
22 identification of options for determining Exit Fees, the rationale for which is described in
23 section 3.0 above. The section then identifies the Exit Fee options that are feasible,
24 provides an assessment of these options, and concludes with a recommendation for the
25 exit fee option.

26

27 **5.1 Pertinent Aspects of Meter Assets**

28

29 In developing the options for Exit Fees, Hydro One has also taken into account the
30 following considerations:

31

1 Brief Description of WRM Assets

2
3 Each Metering Installation comprises the physical meter(s), the recorder and
4 associated communication equipment, wiring, panels and instrument transformers.
5 The metering installations in the regulated WRM Pool are connected at different
6 voltages ranging from 0.6 kV up to 230 kV, depending on metering configuration
7 and system design as determined by the former Ontario Hydro.

8
9 The cost of meters and recorders is relatively small compared to the total installed
10 cost of the metering installation that includes instrument transformers. In broad
11 terms, the meters and recorders cost between \$ 3,000 and \$ 10,000 (year 2003
12 dollars), depending on the type of the meter and recorder. On the other hand, the
13 total installed cost of the metering installation can range from about \$ 50,000 for
14 metering installations at 13.8 kV to \$ 250,000 for metering installations at
15 230 kV.

16
17 The instrument transformers that are part of a metering installation “step down”
18 the current and voltage to a more manageable level that is consistent with the
19 requirements of the meter. Almost all of the Hydro One-owned instrument
20 transformers that are used for wholesale revenue metering fall into one of the
21 three categories listed below:

- 22
- 23 • In many cases, dedicated instrument transformers are included in the
24 stand-alone Pole-mounted Metering Equipment (PME) located outside a
25 Hydro One station. Typical cost of this type of pole-mounted equipment,
26 including meters and other related apparatus, ranges from \$ 60,000 for
27 13.8 kV installation up to \$ 120,000 for a 44 kV installation. Typically,
28 the PMEs are used for metering the consumption of medium and small
29 LDCs.

30

- 1 • In other cases, the instrument transformers are integrated with bulk power
2 equipment such as high voltage transformers, circuit breakers or
3 switchgear such as is found in transformer stations (that is, the instrument
4 transformers are a relatively small component embedded into, and
5 inseparable from, the power equipment). These “embedded” instrument
6 transformers may also be used for other purposes including power system
7 protection, system control and supervisory functions. The embedded
8 instrument transformers *cannot* be separated from the bulk power
9 equipment in the Hydro One-owned station, although the electricity meters
10 and recorders can be deemed dedicated to a MMP.
- 11
- 12 • In a few cases, the current and/or voltage transformers are installed on a
13 stand-alone basis, and integrated with high voltage equipment in a Hydro
14 One-owned station, and are used for revenue metering purposes as well as
15 for power system protection, system control and supervisory functions.
16 The stand-alone instrument transformers in Hydro One-owned stations
17 cannot be dedicated exclusively to a MMP.

18

19 In some installations, the current and/or potential transformers may be installed on
20 a stand-alone basis as part of a high voltage station owned by Hydro One and they
21 may be dedicated to the wholesale revenue metering function.

22

23 WRM Asset Pool Financial Data

24

25 Based on data maintained by the former Ontario Hydro, the financial information
26 associated with Hydro One-owned WRM assets is maintained by Hydro One on a
27 pool basis.

28

29 The meter equipment installed by the former Ontario Hydro is not identified on
30 the basis of specific geographical location of the equipment and, except in a few
31 specific cases, various components of the metering equipment are not identified

1 separately. Thus, the asset data is not readily available on a customer specific, or
2 Meter Point specific basis.

3

4 Embedded and Multi-Use Instrument Transformers

5

6 The available financial data for the meter pool does not include net book value
7 associated with instrument transformers built into either power equipment or used
8 by Hydro One for multiple purposes (such as power system protection, system
9 control and supervisory functions as well as metering). Indeed, it is not feasible
10 to allocate asset values among operating and metering functions without
11 considerable arbitrariness.

12

13 "Proxy" Net Book Value for Dedicated Assets

14

15 In order to overcome the practical limitations regarding the unavailability of the
16 actual net book values for individual meter assets, it may be possible to determine
17 a reasonable proxy for Net Book Value of Hydro One-owned meter assets
18 dedicated for a MMP. A conceptual methodology to determine the proxy Net
19 Book Value may proceed as follows:

20

- 21 – A set of generic capital cost data, or replacement costs based on
22 installation in 2002 dollars, may be developed for each type of dedicated
23 equipment that is used for metering installations contained in the regulated
24 meter pool.
- 25 – A set of escalation factors may be identified, on the basis of data from
26 Statistics Canada, in order to allow backward extrapolation of replacement
27 cost that is developed above to adjust the replacement cost to the actual
28 year of installation.
- 29 – A set of depreciation allowance formulae may be identified to adjust the
30 metering installation cost to the date of stranding.

- 1 – The original in-service date for each component of a metering installation
2 may be identified in order to adjust for depreciation of that component. In
3 most cases, it would be necessary to estimate the installation date based on
4 other data, such as installation date of power transformers and circuit
5 breakers, since the actual in-service date of the metering component is not
6 readily available.
- 7 – Using the information noted above, the proxy Net Book Value for the
8 components of a WRM installation can be determined by adjusting the
9 2002 replacement cost to account for the number of years to original in-
10 service and accumulated depreciation. Such determination may not be
11 initially necessary for all equipment, since the proxy net book value is
12 likely to be necessary only when stranding is imminent at a particular
13 location.

14
15 By its very nature, a process to establish proxy Net Book Value is time
16 consuming. As such, the data about proxy Net Book Value cannot be made
17 readily available. However, it may be possible to calculate the proxy Net Book
18 Value on a case by case basis for each Meter Point that exits the meter pool at the
19 time the MMP makes an application to withdraw from the transitional
20 arrangement. If the concept of proxy Net Book Value is accepted for
21 implementation, it would be necessary to agree on the generic capital cost data,
22 escalation rates, and depreciation allowance formulae in advance so as to avoid
23 disputes and complexities in future.

24
25 Economic Utilization of Reusable Meter Assets

26
27 There is a need to provide for a mechanism so that, as much as possible, each
28 MMP that exits the transitional arrangement would be able to make use of well-
29 performing and usable meter assets from the regulated meter pool, provided these
30 assets are fully dedicated to that MMP. This will make the approach

1 economically sound and it would also benefit the MMPs that exit from the
2 transitional arrangement with Hydro One.

3

4 Non-Reusable Meter Assets and Assets Useful for Transmission Service

5

6 Some of the metering equipment included in the cost data for the RP-1999-0044
7 proceeding may no longer be compliant with the Market Rules, and therefore this
8 equipment will not be re-usable by the exiting MMPs. In addition, some other
9 metering equipment located in Hydro One stations may be useful for operating
10 and maintenance of the transmission system even after the Meter Point has exited
11 the transitional arrangement; as a result, such equipment cannot be considered
12 stranded or dedicated to a specific MMP. Detailed data concerning the
13 compliance of all meter equipment, or the usability of the meter equipment for
14 transmission service, cannot be obtained readily at this point in time.

15

16 Based on engineering judgement and experience, it is estimated that metering
17 equipment with Net Book Value of about \$ 5 million may no longer be compliant
18 with Market Rules or it may be usable in the provision of transmission service at
19 Hydro One stations.

20

21 On the basis of the above considerations, it is estimated that the Net Book Value
22 of re-usable metering assets that are dedicated to MMPs is \$ 8.86 million
23 (i.e. \$ 13.86 million in accordance with the RP-1999-0044 submission, less
24 \$ 5 million for non re-usable equipment and for equipment that can be used by
25 Hydro One).

26

27 **5.2 Exit Fee Options**

28

29 Based on the considerations described in Section 5.1 above, there are two options that
30 could be considered for Exit Fees to recover the stranded cost of metering assets, upon a

1 MMP's exit from the transitional arrangement. These two options are summarized
2 below.

3
4 Option E1: NBV-Based (Meter Point Specific) Exit Fee

5
6 Under this option, each MMP that exits the transitional arrangement
7 would be required to pay a one-time charge for the cost of stranded
8 equipment on a "per Meter Point" cost basis. The specific stranded cost
9 would be calculated on the basis of the Net Book Value or, if that is not
10 available, on the basis of proxy Net Book Value for the assets that are
11 dedicated to that MMP. The calculation for stranded assets excludes
12 "embedded" instrument transformers and "multi-use" instrument
13 transformers that are also being used by Hydro One for operation and
14 control of the transmission system.

15
16 To the extent that a MMP pays the net book value (or equivalent) for the
17 stranded dedicated equipment, the MMP may apply to Hydro One for
18 transfer (conveyance) of wholesale meter assets dedicated to that MMP.
19 The MMP may then reuse that equipment for the self-provision of its
20 meter service.

21
22 It is estimated that, under this Option, the Exit Fee for Meter Points will
23 range from zero (\$ 0) up to about \$ 150,000. In general, the relatively
24 higher Exit Fee will apply to Meter Points that are located outside the
25 Hydro One-owned stations, compared to Meter Points inside the stations
26 which will attract lower, or no, Exit Fees. Most of the PMEs that are used
27 by medium and small LDCs will likely have an Exit Fee that is at the
28 upper end of this range (i.e. of the order of \$ 80,000 and more). On the
29 other hand, the larger LDCs and transmission-connected customers that
30 have metering equipment within Hydro One-owned station will likely
31 have to pay lower exit fees.

1 Option E2: Uniform Exit Fee

2
3 Under this option, each MMP that exits the transitional arrangement for
4 WRM service would be required to pay a one-time Uniform Exit Fee on a
5 “Per Meter Point” basis. The postage stamp Exit Fee, which will be
6 calculated by dividing the total Net Book Value of the stranded, re-usable
7 dedicated WRM assets (\$ 8.86 million) by the total of Meter Points that
8 is in the transitional pool (about 1700). (Approximately 50 existing Meter
9 Points that were first established outside the transitional arrangement for
10 meter service, and other new Meter Points that are established, would not
11 the attract exit fees).

12
13 Thus, the Exit fee will be equal to \$ 5,200 per exiting Meter Point
14 (rounded downwards to the nearest hundred).

15
16 Under this option, an exiting MMP, having paid the Uniform Exit Fee,
17 may apply to Hydro One for transfer (conveyance) of wholesale meter
18 assets dedicated to that MMP. Provided that Hydro One does not require
19 use of these assets for the provision of regulated transmission service, and
20 provided there is no risk of damage to other equipment or injury to
21 personnel, Hydro One will transfer the ownership of such assets to the
22 MMP at no further cost.

23
24 **5.3 Assessment of Exit Fee Options**

25
26 Both of the options described above are effective in addressing the issue of stranded cost
27 recovery. Both options also make provision for economic use of reusable assets.

28
29 However, the two options are likely to have a different impact on the payments by
30 MMPs. Some will pay less and some more with one option compared to the other option.

31 The main advantages and disadvantages of the two options are summarized below.

1 Option E1: NBV-Based (Meter Point Specific) Exit Fee

2
3 Advantages:

- 4
- 5 – To some extent, this option better reflects cost-causality.
 - 6 – Each MMP is responsible only for the cost of stranded assets
7 associated with the specific metering installation applicable to that
8 MMP.
 - 9 – Since most of the re-usable assets with relatively higher Net Book
10 Value are outside Hydro One stations, this option will ensure that
11 MMPs with Meter Points inside Hydro One stations are not
12 subsidizing the MMPs with Meter Points outside the stations.
- 13

14 Disadvantages:

- 15
- 16 – It would result in some MMPs paying zero (\$ 0) stranded cost for
17 the regulated meter pool, while others will have to pay very high
18 costs.
 - 19 – This option is difficult to implement, since it requires the
20 calculation of proxy Net Book Value as described in section 5.1
21 above.
 - 22 – Some stakeholders will consider this methodology of collecting
23 stranded costs to be inconsistent with the “pool” approach, since
24 the meter assets were placed in-service under a uniform pricing
25 methodology by the former Ontario Hydro.
 - 26 – The MMPs that utilize PME outside Hydro One stations,
27 especially medium and small LDCs that will have to pay relatively
28 higher Exit Fees ranging to over \$ 100,000, will consider this
29 option unfair and inequitable since other MMPs that utilize
30 “embedded” and multi-use and instrument transformers will pay
31 minimal exit fee. At the same time, these users of “embedded” and

1 multi-use instrument transformers will likely be able to continue
2 using these instrument transformers – for free – after exiting from
3 the transitional agreement (as per Exit Policy attached in Appendix
4 B).

- 5 – This option does not address the concern identified in the
6 Minister’s letter to the Board Chair, which indicated concerns
7 raised by some LDCs with respect to the large exit fees.

8
9 Option E2: Uniform Exit Fee

10
11 Advantages:

- 12
13 – This option is easier to implement and understand.
- 14 – The option reflects a “pooled” approach to winding down the
15 current metering pool, which was established and maintained on a
16 pool basis until now.
- 17 – The one-time Uniform Exit fee (\$ 5,200) is less than the annual
18 Rebate Rate (\$ 5,700) for which the exiting MMPs will be eligible
19 upon exit from transitional arrangement. Therefore, most, if not
20 all, stakeholders may consider this option to be acceptable, as it is
21 equivalent to forgoing the rebate for one year.
- 22 – This option addresses the concern raised in the Minister’s letter
23 about large exit fees that may have to be paid by some LDCs, since
24 the uniform Exit Fee is lower than the much higher Exit Fee that
25 would have been payable by some LDCs under Option E1.

26
27 Disadvantages:

- 28
29 – This option does not reflect cost causality.
- 30 – Some MMPs, such as the MMPs with Meter Points inside Hydro
31 One stations who do not cause stranding of any assets that have

1 significant net book value, will consider this option to be unfair.
2 They would claim that they should not have to pay for stranded
3 costs as a result of other MMPs requiring more expensive assets
4 for the provision of WRM service.

- 5 – This option maintains the cross-subsidy that exists in a “pooled”
6 approach.

7 8 **5.4 Recommendation of the Exit Fee Option**

9
10 Based on the assessment summarized in Section 5.3 above, it is proposed that Option E2
11 (Uniform Exit Fee) should be adopted for the recovery of stranded costs. This
12 recommendation is based on the following rationale:

- 13
14 – Option E2 is based on winding down the regulated meter function in a “pooled”
15 manner, i.e. it is the same manner in which the function has been operated for many
16 decades.
- 17 – Option E2 will *not* result in some MMPs, especially medium and small LDCs, paying
18 relatively high Exit Fee (of Option E1) which could range up to twenty times more
19 than the Uniform Fee envisioned by Option E2.
- 20 – Most of the “losers” of this approach, compared to Option E1, will be the MMPs that
21 rely on “embedded” and multi-use instrument transformers at Hydro One-owned
22 stations, since they would have had to pay relatively lower Exit Fees under the Option
23 E1. However, these entities have the option to use these instrument transformers for
24 free (as described in the exit Policy attached in Appendix B), while the other entities
25 do not have such an option. Therefore, the MMPs that are likely to be the “losers”,
26 initially, under Option E2, may more readily accept the Uniform Fee approach that
27 relieves other MMPs from very high Exit fees.

28
29 Finally, Option E2 also addresses the concern noted in the aforementioned letter from the
30 Minister of Energy wherein it is stated that some distributors are concerned with the level
31 of exit fee identified by Hydro One Networks.

1 **6.0 IMPLEMENTATION OF METER REBATE AND EXIT PROGRAM**

2
3 The implementation of the Meter Exit and Rebate Program will be based on the
4 Wholesale Metering Exit Policy that is attached as Appendix B.

5
6 Annual Rebates of \$ 5,700

7
8 The rebates will be retroactive to May 1, 2002 when the electricity market opened. The
9 rebates for eligible load-consuming MMPs that self-provide WRM Service will be in the
10 form of payments forwarded by Hydro One on an annual basis, before the end of each
11 year, on the basis of the number of Meter Points that are not under the transitional
12 arrangement for WRM Service. As noted in Section 2.0 above, the term “MMPs that
13 self-provide WRM Service” refers to those MMPs that elect to provide the WRM Service
14 themselves and to those MMPs that elect to acquire WRM Service from a third party.

15
16 For Meter Points that exit the transitional arrangement within a calendar year, the rebates
17 will be calculated by prorating on a monthly basis, taking into account the number of full
18 months during which the Meter Point is no longer served by Hydro One.

19
20 The MMPs that have not been served under a transitional arrangement before (for
21 example, for Meter Points that are established after market opening) shall apply to Hydro
22 One for the rebates to commence.

23
24 "One-Time" Uniform Exit Fee Totaling \$ 5,200

25
26 Where applicable, the Uniform Exit fee will be deducted from the annual rebates.
27 Therefore, the rebates will be equal to \$ 500 in the first year of exit and \$5,700 per year
28 thereafter.

1 Where an Exit Fee is not applicable, as would be the case for new Meter Points
2 established after market opening, the applicable MMPs would be eligible for the full
3 rebate.

4
5 Accounting Statement

6
7 An accounting statement will be mailed out annually to each load-consuming MMP
8 before the end of each year that the rebate program is in effect. This statement will
9 indicate the rebates accrued; the Uniform Exit Fee payable, if applicable; and the net
10 rebate due to the MMP.

11
12 Termination of Rebates

13
14 As noted in Section 1.0 above, the meter rebates will cease when the Wholesale Revenue
15 Meter Pool is established after the next transmission rate filing by Hydro One.

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APPENDIX A

Minister's Request

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APPENDIX B

Wholesale Metering Exit Policy

1 **WHOLESALE METERING EXIT POLICY**

2

3 **1.0 INTRODUCTION**

4

5 Hydro One Networks Inc. (“Hydro One”) has developed a policy to define the terms and
6 conditions for exiting from Hydro One’s provision of metering services. The policy
7 applies to all load and generation Metered Market Participants (“MMPs”).

8

9 Under the Market Rules and the Transmission System Code, Hydro One is obligated to
10 provide metering services to the meters it owned and that were in service on the market
11 commencement date (May 1st, 2002). The obligation terminates on the earlier of the First
12 Meter-seal / Exemption Expiry date or replacement of the meter. At that time, the MMPs
13 are required to contract a registered Metering Service Provider (MSP) of their choice,
14 regardless of ownership of the equipment.

15

16 The purpose of the policy is to:

- 17 (a) efficiently manage Hydro One’s assets,
18 (b) minimize Hydro One’s risks and liabilities,
19 (c) ensure cost recovery to keep the transmission pool harmless,
20 (d) ensure compliance with regulatory requirements and
21 (e) enable the transition of metering obligations from Hydro One to MMPs.

22

23 Following below is a summary of the policy.

24

25 **2.0 POLICY RULES**

26

27 2.1 For the period of time prior to the First Meter-seal / Exemption Expiry date,
28 Hydro One shall continue to provide metering services to the metering equipment
29 it owned and that was in service on the market commencement date.

1 2.2 Hydro One’s obligation during the above period is limited to the level of metering
2 services provided prior to market commencement date plus services related to
3 Market Rules obligations.

4 2.3 MMPs shall continue to pay the regulated transmission rates, including pooled
5 metering charges, until these rates are unbundled.

6 2.4 MMPs shall pay Hydro One an Exit Fee of an amount to be approved by the
7 Ontario Energy Board.

8 2.5 MMPs who own their meters or Metering Installations ("MI"s) shall escape
9 payment of metering rates once unbundled metering rates become effective.

10

11 **3.0 OPTIONS TO MMPs BEFORE FIRST METER-SEAL / EXEMPTION**
12 **EXPIRY DATE**

13

14 3.1 Option A-1: Continue the status quo. In this option Hydro One:

15 (a) owns the existing metering equipment; and

16 (b) provides regulated metering service at the same level as before open
17 market or as required to comply with the Market Rules;

18

19 3.2 Option A-2: Assume full responsibility for its wholesale revenue metering as if
20 the First Meter-seal / Exemption Expiry had taken place.

21

22 **4.0 OPTIONS TO MMPs AT FIRST METER-SEAL / EXEMPTION EXPIRY**
23 **DATE**

24

25 At First Meter-seal / Exemption Expiry date, or earlier for MMPs exercising Option A-2
26 above, Hydro One’s obligation to provide metering services terminates and the MMPs
27 become fully accountable for the provision of service to the MIs associated with them,
28 regardless of ownership of the equipment. At that time, MMPs must arrange for the
29 provision of metering services by a registered MSP of their choice and pay for all related
30 costs. At First Meter-seal / Exemption Expiry date, MMPs who are still using Hydro
31 One’s meters and service must take steps to comply with the Market Rules requirements.

1 The options that Hydro One has developed depend on whether the MIs are located inside
2 or outside the Hydro One's owned stations.

3
4 4.1 MIs located inside Hydro One's facilities

5
6 MMPs using MIs located inside a Hydro One's station must exercise one of the
7 following options:

8
9 4.1.1 Option B-1: Abandon the use of any existing Hydro One's Instrument
10 Transformers (ITs) and other associated equipment and arrange for the installation
11 of a new MI. In this option the MMP shall:

- 12 (a) own, or allow its MSP to own, and pay for the new MI;
13 (b) be responsible for arranging and paying for related metering services of the
14 entire MI; and
15 (c) be responsible for complying with the Market Rules with respect to the MI.

16
17 4.1.2 Option B-2: Arrange the installation of a new meter, utilizing the remaining
18 metering equipment owned by Hydro One. In this option the MMP shall:

- 19 (a) own, or allow its MSP to own, the new meter;
20 (b) be responsible for arranging and paying for related metering services of the
21 entire MI; and
22 (c) be responsible for complying with the Market Rules with respect to the MI.

23 Hydro One will permit MMPs to use, at no charge, the ITs it owns, under the
24 following conditions:

- 25 (a) Hydro One will continue to own these ITs;
26 (b) Usage will terminate at:
27 i. end of life; or
28 ii. failure requiring replacement deemed to be a substantial modification by
29 the IMO; or

1 iii. failure requiring replacement deemed to be a non-substantial modification
2 by the IMO, if Hydro One decides, at its own discretion, not to replace the
3 ITs.

4 (c) The MMP shall indemnify and save harmless Hydro One from any liabilities
5 arising from the failure of Hydro One owned ITs.

6
7 At the time the usage of Hydro One’s owned ITs terminates, due to the above
8 reasons, the MMP will need to make alternative arrangements for a new MI, that
9 is, use Option B-1 above.

10
11 4.2 MIs located outside Hydro One’s facilities

12
13 MMPs using MIs located outside a Hydro One’s station must exercise one of the
14 following options:

15
16 4.2.1 Option C-1: Abandon the use of any existing Hydro One ITs and other associated
17 equipment and arrange for the installation of a new MI. In this option the MMP
18 shall:

- 19 (a) own, or allow its MSP to own, and pay for the new MI;
20 (b) be responsible for arranging and paying for related metering services of the
21 entire MI; and
22 (c) be responsible for complying with the Market Rules with respect to the MI.

23
24 4.2.2 Option C-2: Request the transfer of ownership of the MI, from Hydro One to
25 the MMP, at no cost to the MMP.

26 Hydro One shall consider the transfer of ownership of the MI, provided that:

- 27 (a) the equipment to be transferred includes meters, ITs and other associated
28 metering equipment;
29 (b) the assets are not required for the provision of regulated transmission service;
30 (c) there is no risk of damage to equipment or injuries to persons; and
31 (d) the MMP agrees to take ownership on an “as is, where is” condition.

1 In this Option C-2, the MMP shall:

2 (a) own, or allow its MSP to own, the MI.

3 (b) be responsible for arranging and paying for related metering services of the
4 entire MI; and

5 (c) be responsible for complying with the Market Rules with respect to the MI.
6

7 **5.0 RULES GOVERNING THE USE OF HYDRO ONE'S EQUIPMENT**

8
9 5.1 Hydro One will permit MMPs to use, at no charge, the ITs that Hydro One owns,
10 when located inside Hydro One's stations. Usage will be subject to the following
11 conditions:
12

13 5.1.1 Ownership

14 (a) As regulated assets, Hydro One shall continue to own these ITs.

15 (b) In the event that any of these ITs fails, requires refurbishment or upgrading,
16 requires end-of-life replacement, or transmission work on Hydro One's
17 facilities takes place, the MMP must make all necessary changes and provide,
18 at its own cost, separate ITs in a new MI that is dedicated to the metering
19 associated with that MMP. Hydro One will then act separately and on its own
20 to reinstate supply to the existing regulated services previously supplied from
21 the failed ITs.
22

23 5.1.2 Eligibility for Usage of ITs

24 Hydro One will only permit the use of ITs by a MMP which has a point of
25 delivery at the station in which the ITs are located. The usage of these ITs shall
26 be limited to the functions that are required for the wholesale metering service as
27 defined in the Market Rules.
28

29 5.1.3 Maintenance

30 In the case of MIs utilizing ITs located inside Hydro One's facilities, Hydro One
31 shall continue to be responsible for providing IT maintenance even beyond Meter-

1 seal / Exemption Expiry date. If this is not acceptable to the MMP, the MMP will
2 alternatively be permitted to provide its own separate ITs and make all necessary
3 changes at its own cost any time after the Meter-seal / Exemption Expiry date.
4

5 5.1.4 Metering Service Provision

6 If the MMP continues to use Hydro One's ITs after Meter-seal / Exemption
7 Expiry date (Option B-2), but decides to obtain services from a provider other
8 than Hydro One, Hydro One shall not be liable in any manner or be responsible
9 for any obligation that applies to an MMP's MSP in respect to these ITs.
10 After the Meter-seal / Exemption Expiry date, the MMP shall be wholly
11 responsible (through its own MSP) for the entire MI, including without limitation,
12 maintaining a stock of spare ITs and replacing them within the prescribed time
13 limit in the case of failure.
14

15 5.1.5 Service of MIs beyond their Meter-seal / Exemption date

16 If an MMP fails to take action to upgrade or otherwise bring a MI into compliance
17 with the Market Rules, Hydro One will re-seal and continue to service these
18 meters as in pre-market commencement conditions, to fulfil its obligations with
19 Measurement Canada.

20 If any component in the re-sealed MI fails or reaches end-of-life, Hydro One may
21 decide, at its own discretion, not to repair or replace the facilities.
22

23 **6.0 INSTALLATION OF MMP'S EQUIPMENT ON HYDRO ONE'S** 24 **PROPERTY AND SITES**

25
26 6.1 In general, new metering equipment associated with third party supply shall be
27 located outside Hydro One's stations and sites.
28

29 6.2 Hydro One may, at its own discretion, permit to install metering equipment within
30 Hydro One's stations and property where the cost difference between locating
31 such equipment within or outside Hydro One's stations or sites is significant.

1 Where such permission is granted, such equipment must be located outside of the
2 operational area in the station. Installation of equipment in Hydro One’s property
3 and sites shall be governed by Hydro One’s policy on Installation of Third Party
4 Owned Equipment in Hydro One’s Property (Appendix C).

5
6 **7.0 EXIT FEE**

7
8 Upon Exit, MMPs shall be required to pay Hydro One a one-time Exit Fee for
9 each Meter Point associated with their supply. The Exit Fee shall have an amount
10 and conditions of payment to be approved by the Ontario Energy Board.

11
12 **8.0 REBATE**

13
14 Hydro One shall establish a meter rebate program to compensate MMPs that must
15 continue paying unbundled Network rates upon taking full responsibility for the
16 MIs associated with their supply. Details of the rebate program follow.

17
18 **8.1 Amount and timing**

19
20 8.1.1 The Ontario Energy Board shall approve the amount and timing of the rebates.

21
22 8.1.2 Where applicable, the rebate will be retroactive to the Market Commencement
23 date (May 1st, 2002).

24
25 8.1.3 Payments shall be forwarded on an annual basis, before the end of each year.

26
27 8.1.4 Payments to MMPs that exit the Hydro One transitional MSP, within a calendar
28 year, will be prorated on a monthly basis, considering the number of full months
29 during which the MMP had full responsibility for the MI.

30

1 8.1.5 The rebate will cease at the time unbundled metering service rates receive
2 regulatory approval.

3

4 8.2 Eligibility

5

6 8.2.1 The following load-consuming MMPs shall be entitled to the rebate:

7 (a) MMPs that pay Provincial Transmission Service charges to the IMO and are a
8 Hydro One transmission customer, that is, are connected to Hydro One's
9 transmission system; and

10 (b) MMPs that pay Retail Transmission Service charges to a local LDC that is
11 connected to Hydro One's transmission system.

12

13 8.2.2 Eligible new load-consuming customers whose MIs have not been served by
14 Hydro One under the transitional arrangements, must apply to Hydro One for the
15 rebate payments to commence.

16

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APPENDIX C

**Conditions For the Installation of Third Party Equipment In Hydro
One Networks Inc. Property And Access To Hydro One Sites**

1
2 **CONDITIONS FOR THE INSTALLATION OF THIRD PARTY EQUIPMENT IN**
3 **HYDRO ONE NETWORKS INC. PROPERTY AND ACCESS TO HYDRO ONE**
4 **SITES**

5
6 **1.0 INTRODUCTION**

7
8 Hydro One Networks Inc. (“Hydro One”) developed policies to define the terms and
9 conditions to authorize the installation of third party owned equipment within Hydro
10 One’s property and to grant access to third party personnel to the sites. These policies
11 apply to any third party entering into a contract with Hydro One Inc. or any of its
12 subsidiaries, for the secondary use of facilities and property managed by Hydro One.

13 The purpose of these policies is to:

- 14 (a) efficiently manage Hydro One’s assets,
15 (b) minimize Hydro One’s risks and liabilities when equipment belonging to a third
16 party (who may or may not be a customer) is installed on property managed by
17 Hydro One, and
18 (c) manage the access of the third party’s staff, contractors, or agents to Hydro One’s
19 facilities and sites.

20 Following below is a summary of the policies.

21
22 **2.0 POLICY RULES FOR THE USE OF HYDRO ONE INC.’s PROPERTY**

23
24 **2.1 Principles**

25 Permission for the use of Hydro One Inc.’s property shall only be permitted
26 providing the proposed use:

- 27 (a) is consistent with Hydro One Inc.’s business objectives which include
28 provision of safe and reliable transmission service at the lowest cost possible;
29 (b) does not present an undue risk to Hydro One Inc.’s assets, personnel, or
30 physical security;
31 (c) satisfies prescribed technical requirements;

- 1 (d) does not undermine Hydro One Inc.'s obligation to maintain acceptable
2 environmental standards; and
3 (e) does not adversely affect the public in nearby surroundings.
4

5 2.2 Equipment Separation

6 A physical barrier shall be erected and maintained to restrict access to the facility
7 to authorized personnel only. Where possible, the third party shall be required to
8 provide a separate access point to its equipment.
9

10 2.3 Contract

11 Contracts providing for the use of Hydro One Inc.'s property shall ensure that:

- 12 (a) Hydro One Inc. is "saved harmless" from all adverse impacts and risks
13 resulting from the third party use;
14 (b) this protection remains in effect throughout the project's lifecycle and shall
15 survive the termination of agreements.
16

17 3.0 CONTRACT

18
19 3.1 A contract shall be signed and executed between Hydro One Inc., or its
20 Subsidiaries, and the third party in the event the decision is made to allow the
21 installation of third party equipment. The contract shall only create contractual
22 rights between Hydro One Inc., or its Subsidiaries, and the third party and shall
23 not constitute an interest of the third party in Hydro One Inc.'s property.
24

25 3.2 The contract shall address the following requirements:

- 26 (a) maintenance and construction of the third party's facilities;
27 (b) operation of the third party's facilities;
28 (c) technical requirements for third party facilities;
29 (d) station access protocols;
30 (e) liability;
31 (f) indemnification;

- 1 (g) compensation;
- 2 (h) cost recovery;
- 3 (i) environment;
- 4

5 3.3 Indemnification

6

7 Hydro One shall be indemnified and saved harmless from and against all
8 liabilities, damages, suits, claims, demands, costs, actions, proceedings, causes of
9 action, losses, expenses and injury (including death) of any kind or nature
10 whatsoever resulting from or related to the third party's installed equipment on
11 Hydro One's facilities or sites. These will include, but not be limited to:

- 12
- 13 (a) causes of actions arising out of health and safety violations or environmental
14 spills;
- 15 (b) costs incurred by Hydro One having to pay other customers due to
16 interruptions caused by the third party;
- 17 (c) damage to Hydro One's equipment;
- 18 (d) the cost of having a Hydro One representative accompany the third party's
19 staff, contractors, or agents accessing Hydro One's facilities or sites;
- 20 (e) incremental costs and expenses incurred by Hydro One related to the third
21 party equipment installations, removals, relocations, upgrades, regular
22 maintenance charges related to site usage (e.g. snow plowing, grass cutting,
23 etc.), or any other third party work, including but not limited to, all costs
24 associated with protection and tele-metering facilities; and
- 25 (f) incremental costs and expenses incurred by the third party related to Hydro
26 One's normal activities in managing its assets including operation,
27 maintenance, and future asset investments.
- 28
- 29

1 3.4 Compensation

2 The third party shall compensate Hydro One for:

- 3 (a) any loss of revenue resulting from Hydro One having to operate its facilities
4 in departure from its normal operation due to any additional constraints
5 caused by the presence of the third party's equipment.
- 6 (b) the use of their facilities and space by the collection of rent and other charges
7 from the third party. The rental fee shall be calculated as an "opportunity cost
8 rental" based on the commercial value of the usage.
- 9 (c) the consumption of energy and applicable tariffs when power is taken from
10 Hydro One service. If metered values are not available, the consumption shall
11 be billed based on an estimate of monthly demand.
- 12 (d) 100% of the realty taxes for the occupied area.
- 13 (e) incremental costs of measures needed to mitigate any risks identified by
14 Hydro One.
- 15 (f) annual charges for routine site maintenance such as, but not limited to, snow
16 removal and access road maintenance on a prorated basis for the occupied
17 area in comparison to the total property.

18
19 3.5 Liability

20
21 3.5.1 The third party shall be liable for:

- 22 (a) direct and indirect damages suffered by Hydro One and restoration of all
23 damaged equipment to their original condition including negligent and
24 malicious acts.
- 25 (b) forced outages of Hydro One equipment which are originated by failures in
26 the third party's equipment, and penalties that Hydro One may be subject to,
27 due to these failures.
- 28
29

1 3.5.2 Where applicable, the third party shall at its own expense, arrange and maintain a
2 liability insurance policy satisfactory to Hydro One.

3

4 3.5.3 All third party's personnel and property at any time on Hydro One's lands shall be
5 at the third party's sole risk and Hydro One will not be liable for any loss, damage
6 or injury (including loss of life) to them or it, however occurring.

7

8 3.5.4 The third party shall not allow any liens to be registered against Hydro One
9 property arising in connection with the supply of services or materials to or in
10 respect of the third party's equipment and shall promptly cause any liens so
11 registered to be discharged at its own expense.

12

13 3.5.5 Environment.

14 The third party shall covenant and agree to ensure that no contaminants,
15 pollutants, or toxic, dangerous or hazardous substances or materials as defined
16 under any applicable statutes, regulations, by-laws, ordinances, requirements or
17 orders imposed by any competent authority, shall be used, emitted, discharged,
18 stored or disposed of except in strict compliance with such statutes, regulations,
19 by-laws, ordinances, requirements or orders.

20

21 3.5.6 Termination.

22 Hydro One shall have the right to terminate the agreement with appropriate
23 notice.

24

25 3.5.7 Site restoration

26 The third party shall restore, at its own expense, the site and all Hydro One
27 equipment to its original condition at the time of termination.

28

29 3.5.8 Technical requirements

30 Any equipment, owned by the third party, shall be technically compatible with
31 Hydro One's existing and planned facilities, and meet the Electricity Safety

1 Authority (“ESA”) requirements and all other applicable standards and
2 regulations.

3

4 3.5.9 Maintenance and Construction

5 (a) Third party’s staff, contractors, and agents shall not interfere with any of
6 Hydro One facilities or property.

7 (b) Maintenance of the third party’s equipment requiring outages to Hydro One’s
8 facilities are to be coordinated in such a manner to coincide with Hydro One’s
9 outage plans. At the same time, maintenance work on the third party’s
10 equipment should not interfere with Hydro One work.

11

12 3.5.10 Regulatory and Legislative Obligations

13 The third party must ensure compliance with all relevant regulatory and
14 legislative obligations including but not limited to the Transmission System Code,
15 the Market Rules and Exemption Order OH-27 made under the Environmental
16 Assessment Act.

17 No leases, licenses, easements or similar rights shall be granted until approvals
18 have been obtained and all terms and conditions of Exemption OH-27 are met.

19

20 3.5.11 Staff Qualifications

21 The third party and its contractors or agents shall at all times exercise all due skill
22 and diligence in the performance of its work. Where the third party’s equipment
23 interfaces with Hydro One equipment, the third party’s personnel, its contractors
24 or agents, must be certified and deemed qualified as stated in the Hydro One’s
25 Utility Work Protection Code

26 All training, testing and certification needed by the third party’s staff, its
27 contractors or agents must comply with the Hydro One’s Utility Work Protection
28 Code, and shall be at the third party’s expense.

29

30

31

1 3.5.12 Permits

2 The third party shall, at its sole risk and expense, prior to commencing
3 construction work:

4 (a) obtain and maintain all permits, licenses, consents, authorizations, inspections
5 or approvals required under any Applicable Laws as may be necessary for the
6 placement, construction, operation or maintenance of its transformer station;
7 and

8 (b) where an environmental assessment relating to the proposed use of Hydro One
9 property under Applicable Laws is required, the customer shall obtain and pay
10 for same at its own expense.

11
12 **4.0 POLICY RULES TO ACCESS TO HYDRO ONE’S TRANSMISSION AND**
13 **DISTRIBUTION STATIONS**

14
15 4.1 Access to a station shall be granted to a third party provided that party:

16 (a) has signed a contract or outlining the terms and conditions by which access is
17 obtained;

18 (b) consents to a security check performed, at their own expense, by Hydro One
19 Inc. Corporate Security;

20 (c) is accompanied by a Hydro One’s representative if so deemed by Hydro One.

21
22 4.2 Accompaniment Requirements

23 A Hydro One representative shall accompany any party requiring access to an
24 operational area. Hydro One may authorize exceptions where in Hydro One’s
25 view: (a) the person is deemed qualified and (b) access to the station does not
26 pose a risk to the security of Hydro One’s assets.

27
28 4.3 Accompaniment Costs

29 All Costs for a Hydro One’s representative to accompany a party shall be totally
30 recovered from the third party.

1 4.4 Protective Equipment

2 The person(s) requesting access shall ensure that appropriate personal protective
3 equipment is worn as follows:

4
5 4.4.1 Minimum Requirements

6 (a) Head Protection: Approved hard hat where the use of head protection is
7 compulsory or where they can be exposed to head injury.

8 (b) Foot Protection: CSA Approved electrically resistive footwear with puncture
9 resistant sole and protective toe cap.

10
11 4.4.2 Additional Requirement (depending on specific circumstances):

12 (a) Eye Protection: Safety glasses meeting CSA/ANSI Standards.

13 (b) Hearing Protection: Disposable ear-plugs.

14
15 4.5 Communications

16 Any person accessing a station must notify Hydro One's Controlling Authority
17 immediately upon entry and departure.

18
19 4.6 Qualifications

20 The minimum levels of qualification are:

21
22 4.6.1 Access for the delivery of materials or products requires knowledge of the site
23 layout including, but not limited to, (i) driving on suitable surfaces, (ii) entry and
24 exit of buildings via posted walkways and (iii) interpretation of signage.

25
26 4.6.2 Access to work on equipment or to facilitate occupancy requires the same as
27 above plus Electrical Safety Awareness knowledge including, but not limited to,
28 (i) voltage identification, (ii) limits of approach, (iii) step and touch potential, (iv)
29 hazard identification, (v) use of protective barriers, and (vi) Work Protection
30 Code Tag awareness.

31 4.6.3 Hydro One reserves the right to request proof of the above qualifications.

1 4.7 Accountability

2 Any party approved to access a station is responsible for their safety and well
3 being while on the station property.

4

5 4.8 Security

6 The third party with approved access shall:

7 (a) not permit access by any person not authorized to have such access;

8 (b) ensure that the access gate, or room building door, to electrical equipment is
9 closed and locked at all times regardless of site activity unless a guard is
10 posted to restrict access to authorized personnel only.

11 (c) promptly notify Hydro One of any (i) degradation in integrity of the gate,
12 fence or building doors, (ii) a fire, (iii) reportable incidents.

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APPENDIX D

**Revenue Requirement for Meter Service As Per
Proceeding RP-1999-0044**

(The attached table is a copy of the “Appendix A” that is attached to
Exhibit E, Tab 1, Schedule 38(a)
Of Proceeding RP-1999-0044)

Appendix A (attached to Exhibit E, Tab 1, Schedule 38(a) of Proceeding RP-1999-0044)
Worksheet "Pool Income Statement" of
File "Cost Allocation Spreadsheets"

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
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APPENDIX E

**Net Book Value for Meter Assets As Per
Proceeding RP-1999-0044**

(The attached table is a copy of the “Appendix A” that is attached to
Exhibit E, Tab 1, Schedule 27(a)
Of Proceeding RP-1999-0044)

Appendix A (attached to Exhibit E, Tab 1, Schedule 27(a) of Proceeding RP-1999-004)

Worksheet “NBV Allocator” of File
 “Cost Allocation Spreadsheets”

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
	Allocation Factors for Net Book Value By Pool																									
	Ontario Hydro Services Company																									
	For Year Ending December 31, 2000																									
	(Million \$)																									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)															(10)	
	OEB Order	Assignments to Pools	Line Connections	Transformation Connections	Generation Line Connections	Generation Transformation Connections	Common	Wholesale Metering	Other Identified	Assigned on Another Allocation Factor																
Categories	Total	Network	Line Connections	Transformation Connections	Generation Line Connections	Generation Transformation Connections	Common	Wholesale Metering	Other Identified	Assigned on Another Allocation Factor																
11	(1)																									
12																										
13	(1) In-service Plant (T-NAM)	2943.68	720.18	1114.75	77.25	12.89	204.17	13.86	0.00																	
14																										
15																										
16	(2) Minor Fixed Assets	10.62					10.62																			
17																										
18	2000 Additions:	226.30	92.35	43.53	57.48		39.33	3.62																		
19	(3) Sustaining	153.00	67.07	29.08	28.24		27.80	0.82																		
20																										
21	(4) Development	53.30	19.22	10.68	20.60			2.80																		
22																										
23																										
24																										
25	(5) Operation	19.00	6.06	3.77	8.64		0.53																			
26																										
27																										
28	(6) Transmission Support	11.00					11.00																			
29																										
30																										
31	1999 Additions/Residual:																									
32	(7) Combined	284.00	95.13	81.56	67.72	0.00	35.78	3.81	0.00																	
33																										
34	### Sustaining	146.00	64.71	45.77	34.47		0.00	1.05	0.00																	5527.80
35	(8) Development	88.00	28.53	32.00	24.72		0.00	2.76	0.00																	
36	(1) Operation	19.00	1.90	3.79	8.53		4.78																			
37	### Transmission Support	31.00					31.00																			289.90
38	(8) Total	5617.70	3131.17	845.26	1239.95	77.25	289.90	21.29	0.00																	
39																										
40	Allocation Factor:																									
41	(9) Spread of Common and Other to all six Pools	5617.70	3301.54	891.25	1307.42	81.45	0.00	22.45																		
42																										
43	(10) Allocation Factor	284	0.5877	0.1587	0.2327	0.0145	0.0000	0.0040																		
44			116.16	87.23	76.04	0.52	0.09	3.95																		
45		236.3	115.46	49.76	66.64	0.57	0.10	3.77																		
46																										

Source: Based on OEB Order and OHSC Accounting Data