

**SHARED SERVICES AND OTHER CAPITAL**

**1.0 INTRODUCTION**

Capital expenditures under the Shared Services program support the Sustainment, Development, and Operations work programs of Hydro One Networks Inc. As such they consist of assets that are largely shared by both the Distribution and Transmission businesses. Shared assets include Information Technology installations such as applications software and computer equipment, land, buildings, office equipment, transportation and work equipment (T&WE), tools, and service equipment.

Shared services cost levels are fully reviewed as part of the annual business planning process described in Exhibit A, Tab 14, Schedule 1.

**Table 1**  
**Shared Services & Other Capital Allocated to Distribution 2004-2008 (\$ Millions)**

	Historic			Bridge	Test
	2004	2005	2006	2007	2008
Information Technology	10.6	19.5	19.3	46.7	43.3
Facilities & Real Estate	2.8	1.8	2.1	6.4	4.4
Transport & Work Equipment	8.8	30.4	31.3	31.2	39.2
Service Equipment	3.2	1.6	2.2	4.5	5.3
Conservation & Demand Management	0.0	0.0	2.9	7.9	0.0
Other	(3.2)	0.1	(0.5)	0.1	(14.4)
<b>Total</b>	<b>22.2</b>	<b>53.4</b>	<b>57.4</b>	<b>96.7</b>	<b>77.8</b>

1 Table 1 is a summary of the Distribution portion of the Shared Services Capital over the  
 2 Historical, Bridge, and Test year. Exhibit C1, Tab 5, Schedule 3 outlines the appropriate  
 3 cost allocation drivers that have been utilized to derive the Distribution allocation of this  
 4 capital.

5

6 The following table provides an overview of the various cost categories for the period  
 7 2004 through 2008, highlighting the total capital spending for Shared Services and Other  
 8 Capital, as well as the portion allocated to the distribution business.

9

10

11

12

13

**Table 2**  
**Total Shared Services & Other Capital (\$ Millions)**

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 Dx
Information Technology*	20.0	39.6	34.3	95.2	90.2	43.3
Facilities & Real Estate	5.9	2.6	3.6	9.6	9.8	4.4
Transport & Work Equipment (T&WE)	13.5	40.5	41.2	41.1	51.6	39.2
Service Equipment	4.9	3.1	3.9	7.9	9.3	5.3
Conservation & Demand Management	0.0	0.0	2.9	7.9	0.0	0.0
Other	(2.2)	3.1	6.1	1.8	(14.4)	(14.4)
<b>Total</b>	42.1	88.9	92.0	163.4	146.4	77.8

14 \* include Customer Care capital expenditures

1 The growth in Shared Services and Other Capital is primarily driven by the need to  
2 support a larger work program and, accordingly, a larger work force. The need for  
3 additional T&WE and facilities is need to support the activities associated with the  
4 execution of the Hydro One Distribution work program. In addition, this capital cost  
5 growth is associated with an over-all IT strategy that includes the replacement of many of  
6 the current large information systems (i.e. Work Management) as they reach their 'end of  
7 life'. The Cornerstone initiative, part of the Information Management costs shown above,  
8 is a major business transformation initiative that deals with not only end of life  
9 replacement issues but also provides a platform for further effectiveness and efficiency  
10 gains at Hydro One. (Reference Section 2.0 of this exhibit)

11  
12 Sections 2.0 through 8.0 details the capital requirements which make up the Shared  
13 Services Capital program.

## 14 15 **2.0 INFORMATION TECHNOLOGY**

16  
17 Information Technology (IT) refers to computer systems (hardware, software and  
18 applications) that support business processes used by employees throughout the  
19 organization. IT infrastructure includes the voice and data telecommunication networks;  
20 data centre installations; and computer equipment (servers, computers and printers) that  
21 enable employees to access IT systems. Staff access software applications from offices,  
22 and field locations using the wide area network, local area networks or through virtual  
23 private network connections.

24  
25 Capital programs include annual maintenance investments so that existing IT assets are  
26 kept current to maintain continuity of operations and minimize risks of interruption or  
27 failure. IT capital programs also include investments in newly developed projects to

1 either replace old technology or to introduce new technological processes to serve the  
2 business operations.

3  
4 For accounting purposes, IT capital expenditures are defined to include software  
5 expenditures for projects and programs that in total cost more than \$2 million. Also  
6 included in this category are minor fixed assets and hardware expenditures such as  
7 desktop computers, which are required as part of ongoing refresh and replacement  
8 programs. IT investments are made in accordance with approved business strategies,  
9 follow the IT Governance process described in Exhibit C1, Tab 2, Schedule 6, and are  
10 subject to a formal review process.

11  
12 A significant capital investment in major enterprise applications and systems was made  
13 concurrently with the de-merger of Ontario Hydro in 1999 to ensure the new company  
14 would have the required business systems and to ensure the de-merged systems would be  
15 Y2K compliant.

16  
17 Investments in enterprise applications made at or around that time were “best of breed”  
18 applications and included: Customer One - customer information and billing system  
19 (1998); PassPort - accounts payable, purchasing, inventory and supply management  
20 system (1999); PeopleSoft - financial and human resources system (1999). Other than in  
21 2002, when an upgrade was made to the PeopleSoft system, the applications have not  
22 been upgraded. Certain of the applications have undergone significant customization to  
23 provide additional functionality since the date of their installation.

24  
25 These applications have reached, or are approaching, their end of life. An application  
26 approaches its end of life when the application does not provide sufficient functionality  
27 or does not have additional capacity to be redesigned or modified to add such  
28 functionality to meet current and foreseen business needs. Additionally these older

1 versions are no longer, or will no longer be, supported by the software vendors. Work  
2 which is planned for the major application replacement program (Cornerstone) in 2006,  
3 2007 and 2008 is discussed below under the heading Development Projects.

4 Hydro One's approach to ensuring ongoing reliability and capacity is to upgrade and/or  
5 renew/replace applications and systems when required to either meet changing business  
6 needs, when the software application or systems are no longer vendor supported, or to  
7 mitigate business risks. Hydro One's objective is to maintain its systems as near to a  
8 current basis as possible to ensure its technology environment is vendor supported.

9  
10 In addition to the replacement cycle for existing systems, organic business growth and  
11 increased reliance on technology requires the systems to grow to accommodate the  
12 business needs. In data storage, Hydro One has observed increases averaging 30% per  
13 annum. According to a June 2006 White Paper by IBM, this is in line with Industry  
14 expectations estimated at 37% per annum. Faster processing speeds to address upgraded  
15 application requirements are also facilitated through server and storage improvements or  
16 replacements. The increasingly heavy reliance of technology in the field and at field  
17 locations has continued to place an upward demand on the IT data infrastructure in terms  
18 of volume, speed, connectivity and concurrent use. Field office locations are increasingly  
19 utilizing larger more complex business applications such as Passport, Customer One,  
20 ArcFM (Geographic Information Spatial application used for Distribution design work)  
21 and outage management applications (ORMS). Data networks (wide area and local area  
22 networks) are monitored on an ongoing basis and upgrades are made as required to  
23 address the business needs and to ensure that application performance is acceptable.

1 **2.1 Total IT Capital Expenditures**

2  
3 As noted above IT capital expenditures are driven by the business need to upgrade  
4 applications and hardware that are no longer vendor supported, to mitigate business risks,  
5 to address additional business requirements, to maintain system performance and to meet  
6 the custodial requirement of ensuring technology assets are being properly and  
7 appropriately managed and maintained.

8 Table 3 lists the capital expenditures for programs and projects.  
9

**Table 3**  
**Total IT Capital Expenditure**  
**(\$ Millions)**

Description	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 DX
Software Refresh & Maintenance	3.0	14.2	8.6	11.9	7.1	3.3
Minor Fixed Assets Program	8.8	14.6	13.2	17.5	14.6	8.3
Development Projects	8.2	10.8	12.5	65.8	68.6	31.7
<b>TOTAL</b>	<b>20.0</b>	<b>39.6</b>	<b>34.3</b>	<b>95.2</b>	<b>90.2</b>	<b>43.3</b>

10  
11 Capital IT expenditures respond to the needs of three general business drivers and are  
12 undertaken as projects or programs:

- 13
- 14 • Software Refresh and Maintenance Program ensures continued operations of the  
15 installed IT application infrastructure
  - 16 • Minor Fixed Assets (MFA) program ensures the continued operations of the installed  
17 IT hardware infrastructure. Expenditures in this category address equipment needs  
18 which are generated by the growth in demand for IT services, in addition to the  
19 replacement of end-of-life and under-capacity assets in IT and in the Business  
20 Telecom network.
  - 21 • Development Projects replace or upgrade older and end-of-life applications or  
22 develop new applications or processes, including those:

- 1       ○ that have become inadequate for current functional needs;
- 2       ○ that require new applications to improve Business operations
- 3       ○ that result from legislative or market driven initiatives

4

5       Software Refresh and Maintenance includes costs related to upgrading existing operating  
6       systems.

7

8       MFA includes desktop computing equipment, field tablet computers, mainframe and  
9       storage systems, servers, and peripherals and telecommunication infrastructure including  
10       PBX's, computerized telephony interfaces etc. Other capital items include systems  
11       applications and operating systems required to operate the IT and telecommunication  
12       infrastructure hardware.

13

14       Development projects include the cost for new applications or the replacement of exiting  
15       applications which are at end of life.

16

17       The following architecture principles underlie IT strategy and planning and as such will  
18       guide the required application upgrades that will take place over the next 5 years:

19

- 20       ● Applications will be "off the shelf" with built-in protocols (tested and generally used  
21       throughout like industries).
- 22       ● The system architecture will be on an open standards platform allowing systems to  
23       run on any hardware platform.
- 24       ● Middleware, interfaces and hubs, will be used as appropriate to facilitate application  
25       interconnectivity.
- 26       ● Systems architecture and chosen applications will be:
  - 27       ○ robust (generally understood to mean unlikely to fail, but rapid response if it does)

- 1       ○ secure (generally understood to mean 3-tiered, fire-walled and password
- 2           protected)
- 3       ○ flexible service oriented architecture (generally accepted as the most appropriate
- 4           and efficient IT strategy).
- 5       • System hardware will be upgraded as required to support the new application.
- 6       • Costs will be managed on a total cost of operations basis.

7

8       In support of new and planned applications the current hardware infrastructure will be  
9       upgraded and designed to:

10

- 11       • improve disaster recovery processes;
- 12       • improve system security;
- 13       • facilitate the increased application of mobile technologies;
- 14       • continue the transition to storage area networks that benefit from generally accepted
- 15           industry practices;
- 16       • secure improved functionality from new and expected technology.

17

18       IT capital project spending increases significantly from 2002 through 2008 and beyond as  
19       existing enterprise applications are upgraded and replaced. The larger number of smaller  
20       projects which had been undertaken in 2003 through 2006 will decline and be replaced by  
21       a phased series of large projects.

22

23       The major planned capital projects that will be funded in 2007 and 2008 are described  
24       below.

25

## 26       **2.2     Software Refresh and Maintenance Program Capital Expenditures**

27

28       Table 4 lists the capital expenditures for the software refresh and maintenance program.

**Table 4**  
**Software Refresh and Maintenance Program Capital Expenditure**  
 (\$ Millions)

Description	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 DX
Software Refresh & Maintenance	1.7	2.6	1.0	11.9	7.1	3.3
Windows (O/S)	1.4	11.6	7.6	0.0	0.0	0.0
<b>TOTAL</b>	<b>3.0</b>	<b>14.2</b>	<b>8.6</b>	<b>11.9</b>	<b>7.1</b>	<b>3.3</b>

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

Hydro One utilizes just over 700 commercial software programs in order to equip its employees with the required technologies to perform their tasks efficiently and safely. The software refresh and maintenance program provides the needed software vendors' releases, periodic version upgrades, and replacements of applications that meet the total capital threshold of \$2 million aggregated.

Applications are replaced or upgraded with the line of business involvement to address their business needs and to ensure that applications remain compatible with current IT platforms and other interfacing applications. In this manner, vendor support is maintained to help fix breakdowns or other issues that may occur with the applications. Funding decisions are made based on software lifecycles, vendor schedules, reliability requirements, and experience with similar initiatives/projects.

In 2005-2006 work was undertaken to upgrade the Microsoft Windows operating system technology from Windows NT and Windows/Office 98 to Windows XP and Office 2003 for all users operating on the Hydro One system. In addition to upgrading the desktop operating system and e-mail application the platform was simplified and consolidated to improve system reliability, redundancy and to ensure better security. Coincident with the XP software investment in 2005/2006 a significant increase in MFA investments for computers, servers and storage was required to replace those operating on the old Windows NT/98 platform to retain functionality in the XP/2003 environment.

1 Software refresh and maintenance expenditures identified for 2007 and 2008 include an  
 2 upgrade to the Open Market Systems to utilize the functionality of the existing Company  
 3 hub technology, increased use of Citrix solutions, virtualization of the Storage Area  
 4 Network to improve data retention and stabilize storage costs, collaboration technology  
 5 investments using Windows Sharepoint, and a number of other technology investments  
 6 related to intrusion detection, firewalls, enhanced security and to a greater use of portal  
 7 technologies.

8  
 9 In 2007, application investment was undertaken in the area of security related to intrusion  
 10 detection and network access controls; upgrades to oracle database versions and database  
 11 management tools; upgrades to the middleware application , the informatica tool and to  
 12 the mainframe operating systems.

13  
 14 **2.3 Minor Fixed Assets**

15  
 16 Table 5 lists the capital expenditures for IT Minor Fixed Assets.

**Table 5**  
**IT Minor Fixed Assets Programs Capital Expenditures**  
**(\$ Millions)**

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 DX
IT Mainframe, Servers and Storage Program	1.8	5.9	4.7	11.5	5.9	3.4
IT Desktops, Laptops, Tablets, Printers & Plotters	5.0	6.9	5.9	4.8	7.1	4.0
Telecom Networks & PBX/Voicemail	2.1	1.7	2.5	1.2	1.6	0.9
<b>TOTAL</b>	<b>8.8</b>	<b>14.6</b>	<b>13.2</b>	<b>17.5</b>	<b>14.6</b>	<b>8.3</b>

17  
 18 Minor Fixed Asset investments are for IT hardware and include specific programs to  
 19 refresh older hardware such as computers. Equipment refresh is planned to ensure that if  
 20 system upgrades or applications are added over the life of the hardware that the system  
 21 will continue to be functional with only a minimal upgrade being required. This strategy  
 22 minimizes the costs of ownership, ensures operational risk is kept at an acceptable level,

1 and maintains functionality. Planned funding is based on equipment lifecycles. This  
2 work is broken down into the categories discussed below for the expenditures shown in  
3 Table 5.

4  
5 2.3.1 MFA: IT Mainframe, Servers and Storage Sustainment program

6  
7 This investment in servers and mainframe computing capability is an ongoing  
8 infrastructural obligation for Hydro One information technology.

9 The majority of the costs in the MFA category in 2006 were spent on replacement of  
10 UNIX servers and on Windows servers. The UNIX server replacement cost has been  
11 brought forward from future years to ensure improved system reliability and to respond  
12 to and manage projected annual growth in demand for additional IT processing and  
13 storage capacity. The replacement of the UNIX servers with more modern and efficient  
14 equipment addresses the end of life issues, which the Company would face with some of  
15 the existing UNIX servers.

16  
17 Included in the 2006 and 2007 work program are improvements to the current Disaster  
18 Recovery (DR) strategy and processes. In 2007 costs included upgrading the mainframe  
19 computer and the associated operating system. The DR program allows for the recovery  
20 of critical Hydro One systems in the event of a major technology disruption. The DR  
21 project will take advantage of the replacement of a number of existing UNIX servers and  
22 storage devices by transferring the replaced units to the recovery and back-up role.

23  
24 UNIX and Windows servers are used to run business applications, networks, web  
25 services and email. Data storage devices are used by business applications and email to  
26 store and retrieve data. In assessing when to replace or add additional servers and storage  
27 devices vendor's end-of-support-life, capacity requirements, maintenance costs, and

1 systems criticality are assessed. Hardware upgrades are ongoing costs and are needed to  
2 maintain reliable service for business applications.

3  
4 The funding for the mainframe, servers and storage refresh program varies year to year  
5 depending upon hardware lifecycles, capacity management, and business requirements  
6 for increased processing capacity. In 2005 and 2006 the spend increased to address end  
7 of life issues with a number of e-mail exchange and file servers which were replaced  
8 coincident with the Windows XP/2003 project. In 2007 costs, as noted, include server  
9 upgrades to the DR site and the consolidation of and replacement of servers at the main  
10 data centre. In 2008 costs in this category include servers and infrastructure which are  
11 undergoing refresh at the Grid Operations Data Centre. Distribution applications  
12 supported at the operations centre include distribution outage and reporting applications.

13  
14 2.3.2 MFA: IT Desktops, Laptops, Tablets, Printers, and Plotters Sustainment Program

15  
16 Desktop and laptop computers are used by most Hydro One staff for office productivity  
17 applications (email, word processing, spreadsheet, presentation, and personal databases)  
18 and for business applications such as PassPort, ArcFM and PeopleSoft among many  
19 others. Rugged tablet computers are used by field staff using Geographical Information  
20 System (GIS) based applications for doing system design and asset condition  
21 assessments. Printers and Plotters are used by most Hydro One staff throughout the  
22 company.

23  
24 Hardware upgrades are required to accommodate new software processing requirements,  
25 to replace end of life equipment and to maintain reliability. Properly programmed  
26 equipment refreshes can maintain or reduce maintenance costs. Hardware maintenance  
27 and capability costs tend to increase with aging hardware that is no longer under vendor  
28 warranty. Hydro One's intent is to replace desktop computers every four years, laptops

1 every three years, and printers and plotters every four to five years. This is consistent  
2 with industry practice and ensures that spares which are maintained by service  
3 technicians are consistent with the computer population at Hydro One.

4  
5 Hardware and support service pricing combinations are compared in the market regularly  
6 and at times of major purchases in line with corporate procurement policies.

7  
8 The funding for desktops, laptops, tablets, printers, and plotters varies year to year  
9 depending upon hardware lifecycles, business needs and projected requirements to meet  
10 forecast work programs. Funding costs in 2005 and 2006 reflect the acceleration in the  
11 laptop and desktop refresh program and tied back to the XP upgrade, whereby  
12 obsolescence caused by the added application requirements caused 2,100 and 2,382  
13 desktop/laptop units respectively to be replaced.

14  
15 Tests using XP applications on existing laptop computers, which had been enhanced with  
16 additional memory, did not result in acceptable performance. The cost of enhancing the  
17 existing equipment combined with the still suboptimal performance of the equipment  
18 when XP software was installed, and then combined with the hardware's end of life  
19 issues, negated any business benefit that might have been achieved by delaying the full  
20 replacement of the equipment. Therefore, the decision was made to purchase new  
21 hardware that met current needs and standards. Ongoing sustainment funding for laptop  
22 and desktop equipment and peripheral replacement consistent with the refresh objectives  
23 noted above, is reflected in the cost projections for 2007. Costs for 2008 include  
24 additional equipment which will be purchased for new staff.

1   2.3.3   MFA: Telecom Networks and PBX/Voicemail Sustainment Program

2  
3   The telecom assets of Hydro One are many and have a large variety of install dates,  
4   lifecycles, and capacities. Data and voice hardware is improved or replaced over time as  
5   part of ongoing program management. Continuous initiatives are undertaken to improve  
6   data and voice communication efficiency across the wide area networks, the local area  
7   networks, the virtual private networks. These upgrades are also necessary to ensure  
8   systems are supported by third party vendors.

9  
10   The telecom MFA program includes the work to rewire local area networks, replace end  
11   of life data network switches and routers, upgrade telephone PBX switches, and replace  
12   un-interruptible power systems (UPS). Work in this category includes the replacement of  
13   end of life hardware and software in the Internet Security Node which is used for  
14   authenticating Market Open business to business transactions and for internet access to  
15   Hydro One Networks Inc. applications.

16  
17   The Telecom MFA program is needed to maintain reliable telecommunications  
18   availability plus capacity as well as network security against intrusions by computer  
19   hackers, viruses and worms. IT will replace telecommunications hardware facilities that  
20   are at end of life, no longer able to meet changing function, capacity or performance  
21   needs, and/or expensive to repair and unreliable because they are no longer supported by  
22   vendors.

23  
24   The telecommunication hardware includes wiring, switches, and routers used to provide  
25   local area network (LAN) and wide area network (WAN) services to offices throughout  
26   Ontario. The business telecom network is used to transmit data required to run business  
27   applications, for email, to perform ongoing systems and information backups and to push  
28   new applications or software upgrades to end users in the field.

1 PBX/Voicemail hardware includes private branch exchange (PBX) and key set telephone  
2 switches, and voice mail equipment used to provide business telephone services to Hydro  
3 One employees at central and field locations throughout the province.

4

5 Within the Hydro One voice and data network there are more than 500 routers/switches  
6 and hubs that connect to 70 PBX's and 35 smaller multi-line office sets. A majority of the  
7 routers/switches and hubs are reaching end of life.

8

9 The investment in business telecommunications Networks and PBX/Voicemail is  
10 undertaken to replace end-of-life assets and to maintain service reliability and security.  
11 The strategy is again to replace equipment that is no longer supported by vendors. For  
12 network equipment the refresh occurs about every five years and about every ten years  
13 for PBX/Voicemail equipment.

14 The funding for business telecommunications Networks and PBX/Voicemail varies year  
15 to year depending upon hardware lifecycles, business needs for increased bandwidth and  
16 availability of resources. Changes to business applications and work methodologies, the  
17 introduction of new applications and new work processes, may require the upgrades to  
18 occur more frequently.

**2.4 IT Development Projects Capital Expenditures**

Table 6 lists the capital development project expenditures of IT.

**Table 6**  
**IT Development Projects Capital Expenditures**  
**(\$ Millions)**

Description	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 DX
<b>Cornerstone Project</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>60.4</b>	<b>63.0</b>	<b>28.0</b>
<b>CIS/CSS Hybrid Upgrade/CRM</b>	<b>0.0</b>	<b>0.0</b>	<b>0.4</b>	<b>2.9</b>	<b>2.0</b>	<b>2.0</b>
<b>CTI Upgrades</b>	<b>0.0</b>	<b>1.5</b>	<b>3.3</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>
<b>ArcFM</b>	<b>6.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>APCi/WEP</b>	<b>0.9</b>	<b>8.7</b>	<b>8.0</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>
<b>IREIS</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>0.1</b>
<b>PeopleSoft Upgrade</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Mobile IT</b>	<b>0.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.0</b>	<b>1.4</b>
<b>Asset Data Collection and Data Mart</b>	<b>0.0</b>	<b>0.6</b>	<b>0.8</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>
<b>Asset Information System</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.4</b>	<b>0.2</b>
<b>TOTAL</b>	<b>8.2</b>	<b>10.8</b>	<b>12.5</b>	<b>65.8</b>	<b>68.6</b>	<b>31.7</b>

The following IT Capital projects are active in the Bridge year 2007 and/or are planned for the Test year, 2008.

**2.4.1 Cornerstone Project**

The major software applications used by Hydro One consist of Peoplesoft (Finance and HR), Passport (Supply Chain, Procurement, Accounts Payable) and Customer One (CSS: Customer Service System). These systems were implemented in anticipation of the de-merger of Ontario Hydro and to address Y2K concerns. The applications were modified extensively following their implementation to provide the required business functionality. Functionality of these core systems was also enhanced by the addition of some 700 separate applications, which allow the field and head office staff to complete their work.

1 These core systems are aged and beyond economical maintenance. They no longer  
2 efficiently fulfill the Company's growing needs for information management and  
3 reporting. The PassPort system has been the daily source of asset and work information  
4 since its inception in the de-merger days of the late 1990's. The financial system,  
5 Peoplesoft, uses PassPort information and derives financial reporting information. The  
6 CSS system is used for billing and collections and by customer service representatives to  
7 address customer inquires on a daily basis. The systems have limited interconnectivity,  
8 which has resulted in the requirement for manual input duplication or other workarounds.  
9 Bridging of data and the development of workflow between systems is costly and  
10 complex.

11  
12 All three of these extremely critical systems have been customized and altered to varying  
13 degrees to meet the current needs of the Company, over the past several years. Vendors  
14 are unwilling to support these older applications and have been unable to help with add-  
15 on customized changes that have been initiated. As software vendors for these  
16 applications are moving to new architectures, support for these older applications is being  
17 phased out. This leaves the Company with the option of continuing with these  
18 applications and developing its own support expertise or migrating to more current  
19 versions, or potentially replacing the existing applications with a more integrated and  
20 current application platform.

21  
22 Continuing with these applications however limits the company's ability to employ  
23 current technology, to make use of mobile business solutions, and to address evolving  
24 business needs and processes. Even if the Company were to support its own legacy  
25 applications, the risk with the business systems would increase as the existing hardware  
26 would also require replacement with more modern systems. These more modern systems  
27 might not be able to operate the older applications.

1 This investment, which addresses replacement of the core business systems, in a phased  
2 approach, positions the company on a robust, secure and flexible enterprise base and will  
3 allow the replaced applications to be upgrade on a continual basis, without the cost of a  
4 significant one time upgrade.

5

6 The Cornerstone name and concept has been adopted inside the company to assist in  
7 communicating with every employee the 'how' and 'when' of changes that will benefit  
8 them throughout the conversion.

9

10 The Cornerstone Project envisions four staged replacements of core applications which  
11 are scheduled to occur between 2008 and 2011. Hydro One intends to retain outside  
12 consultants and software application vendors, through a competitive bidding process, to  
13 assist it with its replacement program.

14

15 The capital work program for Cornerstone commenced in 2007. Work is currently  
16 ongoing with Phase 1 of the project (described below) and work has begun on Phase 2  
17 and Phase 3 planning.

18

19 The four phases of the Cornerstone Project are:

20

21 **Phase 1** – EAM (Enterprise Asset Management) Core Functionality (Target In-Service  
22 Q2 2008)

23

24 As discussed in the project IJD, found in Exhibit D2, Tab2, Schedule 3, the EAM  
25 initiative will replace the existing Passport applications with a modern EAM solution.  
26 The result will be an integrated EAM application which will allow for more effective  
27 information transfer within the Company and provide the basis for connectivity with the  
28 other core systems as they are replaced or upgraded.

1 The first part of Cornerstone is to replace the current installation of PassPort 6. The  
2 current version, which supports work management, supply chain and certain asset  
3 management processes is old, unsupported, and has been heavily customized since its  
4 installation in 1998 and has been in a “locked down” mode and no software code changes  
5 have been made since 2004.

6  
7 The PassPort 6 version is no longer supported by the software vendor, Indus. This means  
8 that the vendor will not provide ongoing application fixes for the application and may not  
9 be able to fix the application if it breaks. Additionally the continuous customization  
10 which was undertaken to extend the life of the Version 6 now significantly complicates  
11 upgrading the current application and requires the system be replaced.

12  
13 Hydro One commenced with Phase 1 after obtaining the Hydro One Board approval in  
14 February 2007. Phase 1 will provide similar and enhanced functionality to the existing  
15 Passport application, will improve business processes, will put in place governance and  
16 structure around data collection and management, will address Bill 198 and other  
17 regulatory issues, will change business processes and by turning on or up modules within  
18 the application suite will serve as the basis for future phases of the project.

19  
20 The chosen EAM solution is an SAP suite of applications using SAP 2005 and the SAP  
21 netweaver platform. The application will use service oriented architecture principles and  
22 the architecture and solution will be overseen and approved by SAP Canada.

23 The upgrade will be an “off the shelf” “vanilla” solution and implementation. Accenture  
24 has been chosen through a competitive RFP process to be the system integrator and will  
25 deliver a solution utilizing work practices based on its high performance utility model.  
26 The Accenture agreement includes a holdback clause to ensure the solution is delivered.

1 The Cornerstone project philosophy is to make changes to corporate processes and to  
2 utilize the built in functionality of the application tool to support those processes. This  
3 enables the application to upgraded and business processes to be continually improved  
4 through enhancements provided by the application vendor. Hence, a significant portion of  
5 this project relates to change management, streamlining business processes and putting in  
6 processes and process measures to ensure ongoing adherence to the new business model  
7 and to the business rules embedded in the application.

8

9 Inergi is working closely with Hydro One, in its role as outsource business service  
10 provider and as an end user of the applications and revised business processes. Inergi and  
11 its parent company, Cap Gemini, are working with Accenture to ensure the solution  
12 delivered meets Hydro One's needs. Accenture, SAP and Cap Gemini/Inergi have all  
13 committed to delivering the required solution and working in a collaborative and open  
14 process. Accenture, SAP and Cap Gemini/Inergi, along with Hydro One staff all have  
15 central roles on the project and are active participants in the project governance process.

16

17 Governance over the project includes oversight by a sub committee of the Hydro One  
18 Board of Directors, Executive and project level reviews and an ongoing Quality  
19 Assurance /Quality Control process implemented by Accenture. Hydro One executives  
20 have included in their performance compensation a portion of their compensation which  
21 is specifically related to the success of the project.

1 Phase 1 of Cornerstone was undertaken following an exhaustive selection and discovery  
2 process completed in 2006 and early 2007 which was used to confirm cost and scope.  
3 Costs for Phase 1 represent the current estimate of how the project costs will be incurred  
4 in each of 2007 and 2008.

5  
6 A similar exercise has not been completed for future phases and the costs associated  
7 therein are to be reviewed at an appropriate point prior to final approval. Included in  
8 2008 are project start up and initiation costs for subsequent phases.

9  
10 Value added, beyond the value from a like-for-like replacement, is expected in all phases  
11 of Cornerstone.

12  
13 The benefits from Phase 1 are based upon a fulsome understanding of the benefits from  
14 the SAP application. These benefits are derived from three key value levers underpinned  
15 by Cornerstone Phase 1 application, process and organizational changes. These value  
16 levers are:

- 17 1) Centralizing to a single asset registry with a uniform hierarchy and selective  
18 integration to legacy databases;
- 19 2) Providing greater process transparency, integration and collaboration (enabled  
20 through the application and process changes) across Hydro One's lines of  
21 business (LOB); and,
- 22 3) Enhancing compliance to the underlying processes and data requirements.

23  
24 Phase 1 corporate savings total \$200 million and are based upon 12 areas of identified  
25 benefit over the period from mid 2008 to end of 2015. These identified benefits include:

- 26  
27 • Enhanced crew productivity due to better materials availability through more efficient  
28 forecasting, planning and execution.

- 1       ○ Estimated Benefit – \$35.5 million
- 2       ● Optimized O&M and Capital spend through enhanced asset analysis and
- 3       maintenance.
- 4       ○ Estimated Benefit – \$50.3 million
- 5       ● More accessible information from Electronic Asset Management systems through
- 6       better leverage of IT.
- 7       ○ Estimated Benefit – \$19.9 million
- 8       ● Improved contract compliance and management through reduction in P-Card and
- 9       non-PO spend for direct purchase materials and services.
- 10      ○ Estimated Benefit – \$35.0 million
- 11      ● Improved system reliability through higher quality asset data and avoided emergency
- 12      “trouble” work.
- 13      ○ Estimated Benefit – \$21.6 million
- 14      ● Work bundling for routine inspections and Preventive Maintenance work.
- 15      ○ Estimated Benefit – \$6.3 million
- 16      ● Increased back-office productivity (Designer/Clerical) through reduced costs of
- 17      tracking work to be scheduled and time prioritizing work.
- 18      ○ Estimated Benefit – \$12.2 million
- 19      ● Improved inventory performance through reduced expediting, material handling,
- 20      storage costs, returns and excess/obsolete inventory.
- 21      ○ Estimated Benefit – \$9.5 million
- 22      ● Improved warehouse shipping processes and payment reconciliation.
- 23      ○ Estimated Benefit – \$1.6 million
- 24      ● Improved ERS processes through better automation.
- 25      ○ Estimated Benefit - \$7.5 million
- 26      ● Greater control governance around one-time setup vs. regular AP vendor setup.
- 27      ○ Estimated Benefit - \$0.6 million

- 1 • Improve Transmission customer satisfaction through more detailed reporting and  
2 improved connection process.
- 3 ○ Estimated Benefit - intangible

4  
5 Each of the future phases build on the foundation set by Phase 1 and each of Phases 1  
6 through 3 will utilize the interconnected SAP application platform. Each phase is stand-  
7 alone to the extent that each will add its own benefits to the overall Cornerstone program.

8  
9 As future phases are developed, it is expected that the cumulative benefits of the  
10 Cornerstone program will improve; however, the extent is not quantifiable at this time as  
11 this is dependent on further refinement of scopes of work for future phases as well as the  
12 impacts of such factors as Smart Meters as these become better known.

13  
14 **Phase 2 – Upgrade PeopleSoft – HR and Finance Functionality**

15  
16 The PeopleSoft financial and HR modules were installed in 1998 and the HR module was  
17 upgraded in 2002 and subsequently customized. PeopleSoft has been purchased by  
18 Oracle, and support for older versions of the PeopleSoft applications will be phased out  
19 as PeopleSoft moves to an integrated platform with Oracle applications.

20  
21 As in Phase 1, the main objective is not only to install an off-the-shelf solution, but also  
22 to adopt industry-standard practices that are enabled by the off-the shelf packages.  
23 Integration of the new financial and HR application with the modules installed in Phase 1  
24 will enhance financial reporting capabilities.

25  
26 Recent discussions with Peoplesoft have indicated that the existing applications will not  
27 be supported past 2008. The Company will implement a temporary solution utilizing  
28 temporary “patch” support from another vendor. However, as these systems are core to

1 the Company's financial reporting and human resource management ability the project  
2 timelines may be advanced such that this Phase of the Cornerstone project is commenced  
3 prior to starting work on Phase 3. The relatively contained nature of the project allows  
4 this to occur without disrupting work on Phase 1.

5

6 **Phase 3 – Enhanced EAM Functionality**

7

8 This phase is intended to enhance the functionality and information available to the Asset  
9 Manager. Key deliverables for Phase 3 include:

10

- 11 • the release of the additional functionality offered by the system replacement
- 12 implemented in Phase 1 (EAM-Core)
- 13 • replace most of the existing end-user applications with the EAM solution or with
- 14 specialized packaged point solutions designed to integrate with the EAM, especially
- 15 focused on Asset Management capabilities
- 16 • enhance reporting capabilities
- 17 • integrate the asset repository with Geospatial Information Systems (GIS) and
- 18 technology.

19

20 **Phase 4 - Replace Customer Information System Functionality**

21

22 The Customer Service System (CSS) or Customer -1 application was purchased in 1997  
23 from Andersen Consulting. The application has undergone significant modifications in  
24 order to address the changes in the Ontario regulatory environment and to meet OEB  
25 requirements. This is an extensively customized product which is very costly to maintain  
26 and very costly to modify to meet new business needs.

27

1 The Hydro One IT strategy is to make modifications to the existing system to extend its  
2 useful life and to address known regulatory and business requirements. The system itself  
3 is robust but difficult to work with. Improvements to the system, which are discussed  
4 below, are intended to stream line work processes, provide additional functionality and to  
5 make changes to the application less costly.

6  
7 To obtain full functionality with the newer systems, and to improve workflow and  
8 improve customer satisfaction the intent of Phase 4 is to replace the existing Customer -1  
9 system with a more integrated application which would interface with the application  
10 suite implemented in Phases 1-3.

11  
12 Andersen Consulting no longer supports the application and Hydro One is part of a user  
13 group who continue to maintain the core functionality of the Customer -1 application.  
14 The number of users in the user group, who support the application, is however declining,  
15 as more of the utilities using the Customer-1 application are switching to newer  
16 integrated CSS applications.

17  
18 Inevitably, the Customer -1 application will have to be replaced. No application solution  
19 has been chosen at this stage and Hydro One intends to maintain its flexibility to take  
20 advantage of business and application solutions as they become available.

21  
22 2.4.2 CIS/CSS Hybrid Upgrade Project/CRM

23  
24 Capital spending for this area is for 2 end customer impacting projects – Customer  
25 Information System (CIS) application changes and the upgrade of the existing Customer  
26 Relationship Management (CRM) applications

1 The CIS is the term given to a suite of billing and customer applications which includes  
2 the Customer-1 application and the Open Market Systems. To improve their existing  
3 performance, and prior to their replacement with Phase 4 of the Cornerstone project,  
4 Hydro One intends to make a series of investments in the CIS and related applications  
5 (\$2.9M in 2007 and \$2.0M in 2008) to improve current performance and reliability.

6  
7 Some aspects of previously planned work to update applications in Customer Care will  
8 become part of the Cornerstone project.

9  
10 This project is allocated 100% to distribution account categories. The upgrade is labeled  
11 as “hybrid” because some components will be upgraded and others will not, rendering the  
12 resultant configuration as a hybrid application, rather than a full replacement or upgrade.

13  
14 The Customer-1 application is the predominant part of the CIS suite of applications. It  
15 provides the technology backbone for billing, customer care, field services, and open  
16 market services to customers and key constituents.

17  
18 Upgrades were made to the CIS platform in 2006 and changes which improve business  
19 efficiency will continue in 2007 and 2008.

20  
21 Undertaking the Hybrid project will enable the CIS application to remain functional until  
22 its upgrade or replacement in 2011. It is expected through investment in a Hybrid  
23 program, rather than in replacement of the existing CIS application at this time, that  
24 Hydro One will maintain flexibility and have a number of options available to it in light  
25 of the Government’s smart metering program.

26  
27 Timing as to when this work may occur, or how much work is able to be done is  
28 dependent on the Smart Meter project and on any OEB mandated rate changes. The CIS

1 Hybrid, Smart Metering and rate change projects require access to the same CIS system  
2 or elements of the system, and the scheduling and testing of any application code  
3 changes, and system maintenance programs requires resource co-ordination.

4  
5 Customer Relationship Management refers to the applications used by Hydro One to  
6 track information, work programs and projects for its large distribution and transmission  
7 customers. Hydro One intends to replace the existing applications which are at end of life  
8 with an SAP CRM solution. The solution will be implemented initially on a stand alone  
9 basis and will be integrated at a later date into the Cornerstone ERP solution.

10  
11 Data in the current CRM applications will be reviewed prior to its being exported to the  
12 new solution. The SAP implementation will follow the same Cornerstone philosophy  
13 where no modification or customization will be allowed to the base code. This will  
14 enable Hydro One to utilize application upgrades provided by the application vendor.

15  
16 A Systems Integrator for the project implementation, including business process change  
17 and change management will be selected through a competitive RFP process.

18  
19 2.4.3 CTI Upgrades

20  
21 In 2007 work will be completed on the upgrade to the contact centre's computer-telecom-  
22 interface (CTI) technology and applications. This technology enables contact centre  
23 agents to handle customer inquiries in a variety of media, such as telephone calls, emails,  
24 faxes and posted letters. These changes will provide for the requisite flexibility to meet  
25 growing and changing customer needs going forward. This project is allocated fully to  
26 Distribution accounts.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

2.4.4 ACPi/WEP Project

This project will complete the IT provisioning for work planning, crew scheduling, dispatching and time recording functions to the Lines of Business users such as Customer Operations, Grid Operations and E&CS. The result will be the Work Planning and Reporting System (WPRS).

This will be achieved by leveraging the system integration tool that is being delivered through the ACPi (ArcFM, CSS, Passport integration) project. The WEP project will add work planning and crew scheduling plus the application to view assigned activities for time capture and job status. New applications will be utilized by field staff in Customer Operations regarding the dispatch of the high-volume of short duration jobs.

There is a wide range of benefits for this project including efficiency in resource utilization by organizing work orders by geographical area and better tracking of resource assignments. There are additional benefits for Finance in the areas of time capture and up front time approval.

The WEP application will interface with the Cornerstone solution through the use of the hub technology solution developed in the ACPi project.

2.4.5 IREIS Project

This project converts and stores geospatial information data, which will be accessed through the Integrated Real Estate Information System.

1    2.4.6   Mobile IT Project

2  
3    Mobile IT (\$3.0 million in 2008) will equip field forces with the tools required to access  
4    current and planned asset data applications when in the field. In 2007, Hydro One is  
5    undertaking a study to develop a cohesive IT Mobile strategy.

6  
7    The strategic review is intended to assess how to best use technology in the field and how  
8    to best support what work processes. The study will consider the Cornerstone project as  
9    well as the enhanced process functionality provided by the WEP suite of applications to  
10   develop a direction that the Company will follow in building mobile applications.

11  
12   Direction from the strategic review will enable the Company to respond to staff and  
13   vehicle location safety needs, mobile computing requirements, consider Smart Network  
14   preparedness and optimization of the Smart Metering initiative.

15  
16   The investment provides additional commercial software products, enhancements to  
17   existing software products and the installation, configuration and integration of those  
18   products along with associated hardware (database and application servers and upgraded  
19   hand-held devices). This project will permit field management and staff access to critical  
20   systems and information regarding work crew projects, field assets and optimal  
21   scheduling as part of work management processes.

22  
23   2.4.7   Asset Data Collection and Data Mart Project

24  
25   Through the use of handheld tablets system information data is being collected on the  
26   current state of the Distribution system. The scope of the project provides software to  
27   analyze the information and allow it to be transferred and used in the corporate

1 Geographical Information System (GIS). The information will assist in the efficient  
2 expansion, operation, and maintenance of the distribution system.

3  
4 Costs included in the period 2006 to 2008 relate to systems and applications costs for the  
5 data collection work being performed on distribution poles and lines assets. In 2007,  
6 \$0.9M has been identified for capital items associated with distribution data collection  
7 project.

### 8 9 **3.0 FACILITIES & REAL ESTATE**

10  
11 This section addresses the capital expenditures that are required to acquire (own or lease)  
12 and maintain Hydro One Networks Inc.'s workspace (office space and service centres).  
13 The distribution facilities represents approximately \$4.4 million of overall capital  
14 estimated spending in 2008, as illustrated in Table 7, below.

15  
16 **Table 7**  
17 **Total Real Estate Capital Expenditures (\$ Millions)**  
18

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 Dx
<b>Major</b>	5.1	2.6	3.0	6.5	9.2	4.0
<b>MFA</b>	0.8	0.0	0.6	3.1	0.6	0.4
<b>Total</b>	5.9	2.6	3.6	9.6	9.8	4.4

### 19 20 **3.1 Major Capital**

21  
22 The Real Estate major capital program allows for the provision of workspace of head  
23 office facilities, including Ontario Grid Control Centre – Barrie, field administrative &  
24 service centre facilities, and other work locations such as the London Call Centre.

1 The increase in costs over the 2006 to 2008 period reflects the increased operational  
2 requirements as a result of the program expansion resulting in the Distribution and  
3 Transmission Businesses. Key components of this expanded work program are discussed  
4 below.

5  
6 The capital program focuses on undertaking critical component replacement work on a  
7 priority basis (e.g. roof replacement). As a result of the planned and corrective  
8 replacement of these critical components, the amount of capital spent varies year over  
9 year. Contracted facility service providers conduct regular inspections of administrative  
10 and service centre sites across the province to ensure critical building/site components are  
11 inspected regularly and major structural and related problems are identified. Maintaining  
12 building and site assets in a condition that ensures their longer-term viability, while  
13 meeting the workspace needs of employees on a day to day basis, is critical to the  
14 successful completion of a variety of corporate work activities. Equally important is  
15 ensuring that employee workspaces are consistently maintained to a standard that meets  
16 current work requirements and complies with all corporate, legislative and other related  
17 safety and environmental regulations. This program also considers the facilities portfolio  
18 accommodation strategy in terms of facility improvements, building additions, and new  
19 facilities in line with the Company's changing operational requirements.

20  
21 Key Program work activities include:

- 22
- 23 • New buildings, buildings additions and major facility renovation as part of facility  
24 program accommodation strategy that responds to need to address aged facilities  
25 (reaching their end of life) and is in line with current and projected operational and  
26 work programs requirements including staff growth at locations across the Province.

- 1 • Replacement of major building components including roof structures, windows,  
2 heating, ventilating and air conditioning (HVAC) systems and other structural  
3 elements and building systems;
- 4 • Dealing with environmental issues that may arise such as mould;
- 5 • Water treatment upgrades to improve quality and reliability of water supply,  
6 including conversions to municipal supply;
- 7

8 The Company in particular is looking for new space standards to meet accommodation  
9 needs and achieve their customer, technologies, health and safety initiatives. Forecast  
10 expenditures for 2008 for distribution are \$4 million.

11

### 12 **3.2 Minor Fixed Assets (MFA)**

13

14 As noted in Table 7, MFA expenditures are based on spent on replacement of furniture or  
15 additional furniture due to increased staff levels. Forecast expenditures in this area are  
16 \$0.4 million for 2008.

17

### 18 **4.0 TRANSPORT AND WORK EQUIPMENT (TWE)** 19 **REPLACEMENT PROGRAM**

20

21 This section identifies the Transport and Work Equipment (TWE) capital expenditures  
22 for the period 2004 to 2008. The increase in capital expenditures is directly related to the  
23 increase in work programs and additional staffing required to execute these work  
24 programs identified by each of the Lines of Business. Fleet capital requirements are  
25 primarily based on industry standards (manufacturer's recommendations) for life cycle  
26 expectancy, the remaining capital value, and operating cost drivers which are then linked  
27 to the Business Plan and Work Programs. Light vehicles are replaced after 6 years or

1 180,000 km, service trucks are replaced after 6 years or 200,000 km, and work  
2 equipment is replaced after 8 to 10 years or 230,000 km.

3  
4 **Table 8**  
5 **Capital Expenditures (\$ Millions)**  
6

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 Dx
<b>Total</b>	13.5	40.5	41.2	41.1	51.6	39.2

7  
8 The objective of the TWE Replacement Program is to promote an orderly system of  
9 purchasing and funding a standardized fleet replacement process and to plan for future  
10 transportation requirements. The TWE Replacement Program annually analyzes 5-year  
11 cycles for capital investment requirements and maintains a safe and efficient fleet. It is  
12 critical to evaluate and forecast spending requirements to minimize fluctuating spending  
13 patterns and to stabilize long term capital investment. The fleet capital program, on an  
14 annual basis, is evaluated against the business plan and is subject to the work program  
15 prioritization and forecasting process.

16  
17 Business cases for the program are prepared and approved and the equipment is  
18 strategically procured through a tendering process.

19  
20 The TWE Replacement Program reviews:

- 21
- 22 • Equipment capital forecast;
  - 23 • Equipment productivity, functionality, and future requirements;
  - 24 • Equipment standards, equipment age, mechanical condition, kilometers traveled and  
25 cost per kilometer, downtime, and repair time;
  - 26 • Safety/risk;

- 1 • Work programs, evaluating staff and equipment complement;
- 2 • Tendered procurement process;
- 3 • Fleet's Original Capital Value and Net Book Value;
- 4 • Historical and future utilization;
- 5 • Strategic procurement; and
- 6 • Cost versus 5-year business plan.

7

8 The guidelines for vehicles considered for replacement are based on vehicles meeting  
9 predetermined criteria including, but not limited to: manufacturer's life expectancy,  
10 average cost per kilometer, regulated maintenance standards, safety/risk, and beneficial  
11 purchasing cycles. As vehicles reach the targeted criteria, a vehicle maintenance  
12 evaluation is performed and, in some cases, the unit may be reassigned to other functions  
13 with "low usage" requirements. The replacement program measures the age and value of  
14 the fleet and meets the requirements and due diligence of a typical Utility fleet.

15

16 The benefits of our replacement program include:

17

- 18 • Maximum safety, productivity and utilization;
- 19 • Minimum downtime, repair time, and fleet complement;
- 20 • Reduced operating costs.

21

22 Hydro One Networks Inc. Fleet Operations has increased its yearly capital expenditures  
23 significantly in order to replace its aging equipment.

24

25 Over the 2004 to 2008 period, the Sustainment, Development, and Operations work  
26 programs have grown by over 70% and the growth of the TWE replacement program is  
27 aligned with this.

1 \$20 million of planned capital was brought forward to 2003 from 2004 based on the  
2 substantial increase in the work program for 2004 and 2005.

3  
4 The actual capital expenditures for new vehicles in 2005 (\$40.5 million), 2006 (\$41.2  
5 million) and 2007 (\$41.1 million), along with the budget in 2008 (\$51.6 million) are  
6 based on the additional vehicles required to execute the planned work programs. The  
7 additional capital identified in 2008 is a direct reflection of the increase in the work  
8 programs and additional staffing indentified by all the Lines of Business.

#### 9 10 **4.1 Capital vs. Operating Leases**

11  
12 The evaluation of leasing as a financial alternative to the approved capital program was  
13 evaluated during the 2003 strategic sourcing initiative. The evaluation included the  
14 review of both capital and operating leases and the total operating costs. The risks and  
15 benefits generated by leasing were evaluated and it was decided the risks outweighed the  
16 modest benefits. The results therefore indicated that leasing was not cost effective.

17  
18 The requirement for short term rentals (as distinct from long term rentals) is recognized  
19 and is included with our operating expenses in Exhibit C1, Tab 4, Schedule 1,  
20 Attachment A.

#### 21 22 **4.2 Procurement Initiatives**

23  
24 Fleet Services follow capital procurement objectives for material and service, listed  
25 below, to achieve cost reductions over the next five years:

- 26  
27 • Profile the commodities, collect and analyze cost drivers;  
28 • Analyze the supply market;

- 1 • Develop a strategy for sourcing;
- 2 • Select the suppliers through a rigorous RFP process;
- 3 • Conduct negotiations.

4

5 These procurement initiatives have allowed Hydro One Networks Inc. to control pricing  
6 for 3 year terms with preferred vendors.

7

## 8 **5.0 SERVICE EQUIPMENT**

9

10 Table 9 below identifies the expenditures for Service Equipment for the 2004 to 2008  
11 period.

12

13

14

15

**Table 9**  
**MFA Service Equipment (\$ Millions)**

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 Dx
<b>Total</b>	4.9	3.1	3.9	7.9	9.3	5.3

16

17 Minor fixed assets for service equipment represents capital items  $\geq$  \$2,000 required by  
18 our staff to carry out the construction and maintenance work programs. Capital items  $<$   
19 \$2,000 are expensed to OM&A. Minor fixed asset expenditures for service equipment are  
20 required to replace end of life service equipment, replace technologically obsolete service  
21 equipment when new standards and safer work practices come into effect, and provide for  
22 sufficient levels of new service equipment consistent with work program expansion and  
23 increased staffing levels.

24

25 Purchases in this category include specialized transportation equipment for off-road work  
26 sites and mobile equipment required to carry out a variety of work such as all terrain

1 vehicles, boats, barges, snowmobiles and related accessories to transport crews to off-  
 2 road work sites. It also includes measuring and testing equipment to carry out a variety of  
 3 work activities including trouble shooting, performance testing of equipment, wood pole  
 4 density testing, battery testing, etc.; tools; AED devices used by Health & Safety &  
 5 Environment group to promote more safety and emergency awareness and other  
 6 miscellaneous equipment.

7

8 In order to complete overhaul and maintain large power transformers and manage the  
 9 related oil requirements over the planning period, the largest portion of the purchases are  
 10 Mobile equipment such as dryair supply machines, oil filters, oil tankers, mobile  
 11 degassifiers, heater banks, insulated tanks and Schnabel car upgrades .

12

13 Higher year over year spending in 2007 & 2008 is the result of end-of-life replacement of  
 14 specific large transport equipment and to accommodate planned growth in distribution  
 15 and transmission work program.

16

17 **6.0 CONSERVATION AND DEMAND MANAGEMENT**

18

19

20

21

**Table 10**  
**Conservation & Demand Management (\$ Millions)**

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 Dx
<b>Total</b>	0.0	0.0	2.9	7.9	0.0	0.0

1 Capital expenditures are related to load control programs under development and to  
2 distribution loss reduction. Board Decision RP-2004-0203 / EB-2004-0461 December 7,  
3 2004 – line 125, relating to the approval of Utility C&DM Plans indicated that any capital  
4 projects related to C&DM should be placed in the utility’s rate base.

5  
6 The objective of the “Residential Load Control Program” is to assess residential customer  
7 response and the potential load impact of controlling central air conditioning, pool  
8 pumps, and electric hot water heating during system peak periods through installation of  
9 load control units and interval meters. Air conditioning and water heating are significant  
10 contributors to both summer and winter peak loads on Hydro One Network Inc.’s system.  
11 Accordingly, potential demand savings from load control could contribute significantly to  
12 Hydro One Network Inc.’s demand management effort. Customers will experience  
13 reductions in their energy usage without a significant effect on their comfort.

14  
15 The “Distribution Network Loss Reduction Program” will be beneficial to all Hydro One  
16 Network Inc. customers. The program involves identifying and implementing projects  
17 where incremental investments will result in an overall economic benefit to customers by  
18 reducing system delivery losses.

19  
20 Work under the loss reduction program was initiated following a study prepared by  
21 Kinetrics in 2005 as part of 2006 Distribution Rates proceeding RP-2005-0020/EB-2005-  
22 0378. In its Decision with Reasons for Proceeding RP-2005-0020/EB-2005-0378, the  
23 Board approved \$8M in capital spending on loss reduction initiatives.

24  
25 **7.0 CUSTOMER CARE**

26  
27 Capital investments are required to build or upgrade the major Information Technology  
28 (IT) systems used in the delivery of Hydro One Distribution’s Customer Care work

1 program. The major IT systems supporting the delivery of the Customer Care service  
2 programs are: the Customer Information System (CIS) application suite and the Contact  
3 Centre Technology suite.

4  
5 The CIS is an application suite providing billing, metering, contact, and service order  
6 support. The CIS is principally made up of the Customer Service System (CSS), and the  
7 Open Market Systems, which interface with the CSS. The Contact Centre Technology  
8 includes a suite of applications used at the contact centres, to queue and route calls,  
9 manage resources, provide Interactive Voice Response equipment and provide other  
10 support to call handling.

11 Capital expenditures for the Customer Care work program are cyclical in nature. There  
12 are years when no capital expenditure is required to be invested to support the IT system  
13 infrastructure. In other years, expenditures are required for major development or  
14 replacement of existing infrastructure, or to develop new infrastructure to keep pace with  
15 industry standards, address regulatory requirements, or address end of life issues.

16  
17 Renovations to the Customer Information System (CIS) suite of applications began in  
18 2006, with two initiatives: an initiative of data clean-up to update the 911 addresses in  
19 CIS and correct other data discrepancies; and, an initiative to implement process  
20 efficiencies for bill exception handling. Upgrades to the Contact Centre Technology,  
21 initiated in 2005, will be completed in 2007.

22  
23 The capital expenditures related to these projects are identified in Table 6.

1 **8.0 OTHER SHARED SERVICES**

2  
3 **Table 11**  
4 **Other Shared Services Capital (\$ Millions)**  
5

	Historic			Bridge	Test	
	2004	2005	2006	2007	2008	2008 Dx
<b>Total</b>	(2.2)	3.1	6.1	1.8	(14.4)	(14.4)

6  
7 Other costs are comprised of a variety of minor costing elements.

8  
9 2004 to 2005 costs represent an (over)/under recovery of burdened rates which were  
10 assessed to be attributable to the capital program, but not applied back to specific  
11 programs; as well as other adjustments to capital projects.

12  
13 The 2006 other costs include the Transmission capital contribution refund to Transalta as  
14 well as other small adjustments.

15  
16 Other capital in 2007 includes an adjustment for contributed capital related to the  
17 Transmission earnings sharing mechanism, as well as other minor adjustments to capital  
18 projects. In 2008 Other capital comprises a credit related to the true-up of capitalized  
19 overheads in the Distribution business for 2006, as described in Exhibit C1, Tab 5,  
20 Schedule 2.  
21