

Numbers may not add due to rounding.

Filed: 2013-09-27  
EB-2013-0321  
Exhibit F2  
Tab 3  
Schedule 3  
Table 1

Table 1  
OM&A Project Listing - Nuclear  
Projects ≥ \$20M Total Project Cost<sup>1</sup>

Line No.	Facility	Project Name	Project No.	Category	Start Date	Final Completion Date	Total Project Cost <sup>2</sup> (M\$)	Partial/Devmt Release (\$M)	Initial Full Release (\$M)	Superceding Full Release (\$M)	2010 Actual (\$M)	2011 Actual (\$M)	2012 Actual (\$M)	2013 Budget (\$M)	2014 Plan (\$M)	2015 Plan (\$M)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
		ONGOING PROJECTS FROM EB-2010-0008														
1	DN	Environment Qualification Component Replacements	38457	Regulatory	Oct-04	Jun-12	63.1		63.1		5.6	0.9	0.0	0.0	0.0	0.0
2	ENG	Probabilistic Risk Assessment Upgrade	62440	Regulatory	Jan-09	Dec-13	51.1	37.9			11.2	11.1	8.7	8.3	0.5	0.0
3	ENG	Fuel Channel Life Management	62444	Sustaining	Aug-09	Jun-15	39.9	34.4			5.7	10.1	11.3	2.9	1.6	0.3
4	PB	Boiler Tab & Divider Plate Repair (Pickering 7 & Pickering 8)	40641	Sustaining	Mar-07	Dec-12	39.4		20.5	39.4	11.7	2.3	12.8	0.3	0.0	0.0
5	PA	Locking Tabs - Boiler Divider Plate (Pickering 1 & Pickering 4)	49248	Sustaining	Jun-07	Dec-17	23.9	1.2			0.5	0.2	12.8	0.2	0.0	0.0
6		Subtotal					217.4									
		COMPLETED PROJECTS FROM EB-2010-0008														
7	DN	Boiler Primary Side Cleaning (follow-up to 38296)	38935	Sustaining	Jun-08	Deferred	1.7	2.1			0.0	0.0	0.0	0.0	0.0	0.0
8	DN	Environment Qualification Discovery Work and Scope Reduction	38458	Regulatory	Feb-09	Jun-11	51.2		76.0		27.3	4.8	0.1	0.0	0.0	0.0
9	PB	Steam Generator Water Lancing	40645	Sustaining	May-07	Dec-10	18.3		25.0		4.6	0.0	(0.0)	0.0	0.0	0.0
10		Subtotal					71.3									
		PROJECTS NOT IN EB-2010-0008														
11	DN	Primary Heat Transport Liquid Relief Valve Modifications To Prevent Waterhammer	38933	Regulatory	Dec-08	Dec-23	21.6	10.9			0.6	1.7	1.8	2.1	0.0	0.3
12	ENG	Severe Accident Management Guidelines Implementation Improvements	62449	Regulatory	Mar-12	Dec-15	25.4	0.6			0.0	0.0	2.8	8.2	3.2	2.8
13		Subtotal					47.0									

Notes:  
1 Projects with expenditures during Test Period AND Completed/Deferred Projects (from EB-2010-0008 or subsequent).  
2 "Total Project Cost" reflects BCS amounts, with the exception of Completed/Deferred Projects (for which actual costs are shown).

Table 2  
OM&A Project Listing - Nuclear  
Projects \$5M - \$20M Total Project Cost<sup>1</sup>

Line No.	Facility	Project Name	Project No.	Category	Project Description	Start Date	Final Completion Date	Total Project Cost <sup>2</sup> (\$M)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		ONGOING PROJECTS FROM EB-2010-0008						
1	ENG	Digital Control Computer Aging Management	62553	Sustaining	Participate in CANDU Owners' Group joint project to manage the aging of digital control computers vital to the operation of the units.	Mar-04	Oct-15	14.5
2	IMS	Inspection Qualification	66105	Regulatory	Demonstrate compliance with the CSA Standard N285.4 Periodic Inspection of CANDU Nuclear Power Plant Components by providing a systematic and well-documented approach to non-destructive examination qualification.	Nov-06	Dec-16	15.3
3	NPT	Fire Safety Assessment Upgrades	26003	Regulatory	Update station fire safety assessments to comply with CSA Standard N293-07 Fire Protection for CANDU Nuclear Power Plants	Aug-09	Apr-16	13.0
4	PN	Digital Control Computer Obsolescence Management	40505	Sustaining	Upgrade display hardware, replace necessary components, and procure critical spares.	Aug-03	Nov-13	5.9
5	DN	Boiler Water Lancing (Future campaigns)	38450	Sustaining	Remove deposits from secondary side of Steam Generators to prevent under-deposit corrosion.	Apr-07	May-11	9.4
6	DN	Standby Generator Gas Generator and Power Turbine Overhaul	38324	Sustaining	Complete overhaul and refurbishment of the Standby Generators.	Dec-06	Dec-11	7.7
7	PN	Life Expired Building Demolition <sup>3</sup>	25010	Sustaining	Demolish buildings outside of the Protected Area that are past their expected life and are no longer in use (Fire Code requirement).	Apr-06	Dec-16	8.8
8		Subtotal						74.6
		COMPLETED PROJECTS FROM EB-2010-0008						
9	DN	Feeder Integrity - Generic - Weld Overlay Feeder Repairs Proof of Concept	62435	Value Enhancing	Develop techniques to increase feeder wall thickness by weld overlay.	Feb-05	Feb-10	12.2
10	PN	SG Fuel Oil Remediation <sup>3</sup>	40474	Regulatory	Remediate free floating fuel oil in groundwater in areas under the standby generator fuel pumphouses and fuel oil storage tanks.	Jun-03	Dec-12	0.4
11	PN	Worker Safety Modifications for Feedwater Chemical Addition	40492	Sustaining	Comply with OHSA limits for hydrazine exposure and provide overpressure protection.	Sep-01	Jan-11	5.3
12	PN	Vacuum Building Basement Improvements	49278	Sustaining	Modify Vacuum Building equipment to improve reliability and maintainability.	Jun-09	May-10	8.2
13	PN	Standby Generator Automatic Voltage Regulator Upgrade	49215	Sustaining	Replace the automatic voltage regulators for the standby generators.	Aug-08	Nov-11	3.8
14	PN	PA Calandria Vault Inspection Execution	46606	Sustaining	Inspect a subset of degraded critical calandria vault components.	Jun-09	Jun-10	5.2
15		Subtotal						35.0
		PROJECTS NOT IN EB-2010-0008						
16	DN	Modified 37 Element Fuel Bundle	38936	Sustaining	Develop and quality modified fuel bundle to address heat transport aging effects and prevent de-rating of Darlington.	Jan-09	Feb-12	9.0
17	ENG	Large Break Loss of Coolant Accident (LBLOCA) Margin Restoration Strategy	62443	Sustaining	Support industry response to CNSC requirement to increase LBLOCA margins.	Nov-09	Dec-13	9.6
18	ENG	Power Operated Valve Program Recovery	62447	Sustaining	Update power operated valve program to address deficiencies and complete outstanding work.	Jul-11	Dec-13	6.9
19	SEC	Security Project H	62442	Regulatory	Security Protected	Apr-09	May-14	5.1
20	PN	Fuel Handling Single Point of Vulnerability Equipment Reliability Improvement Project	46635	Sustaining	Refurbish fuel handling equipment that present single points of vulnerability for reliable operation.	Feb-11	Dec-13	7.0
21	PN	Machine Guarding Improvement	40668	Regulatory	Install guards on rotating equipment to meet CSA Z432-04 Safeguarding of Machinery requirements.	Dec-09	Dec-16	9.5
22	PN	Unit 8 Moderator Annubar Retrieval	40547	Sustaining	Locate and retrieve flow measurement primary element that broke off during commissioning that may cause a failure of moderator piping.	Jan-10	Feb-16	9.3
23	DN	Security Revolving Door Replacement	25057	Sustaining	Security Protected	Dec-11	Feb-14	5.6
24	DN	Upgrade containment boundary isolation valves 33810-V38 & V49	38419	Sustaining	Isolate leaks from passing HT P&IC system. Drain valves until planned outage	Dec-11	Jan-20	7.6
25	PB	Boiler Blowdown Pipe Support Improvements	40683	Sustaining	Install new and/or modified piping supports at selected locations in the RAB and Screenhouse to make the BBD system more robust.	Oct-10	May-15	11.3
26		Subtotal						80.9
27		Total						190.5

Notes:  
1 Projects with expenditures during Test Period AND Completed/Deferred Projects (from EB-2010-0008 or subsequent).  
2 "Total Project Cost" reflects BCS amounts, with the exception of Completed/Deferred Projects (for which actual costs are shown).  
3 Projects from Ex. F2-T3-S3 Table 3 in EB-2010-0008.

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Exhibit F2

Tab 3

Schedule 3

Table 3

Table 3  
OM&A Project Listing - Nuclear  
Projects < \$5M Total Project Cost<sup>1</sup>

Line No.	Sponsoring Division	Number of Projects	Total Project Cost (\$M)	Average Cost Of All Projects (\$M)
		(a)	(b)	(c)
	<b>Facility Projects:</b>			
1	<b>Darlington NGS</b>	16	37.3	2.3
2	<b>Pickering NGS</b>	36	111.6	3.1
3	<b>Nuclear Support Divisions<sup>2</sup></b>	11	19.9	1.8
4	<b>Total</b>	63	168.8	2.7

Notes:

- 1 Projects with expenditures during Test Period.
- 2 Nuclear Support Divisions with OM&A projects includes Engineering, Inspection and Maintenance Services, and Security & Emergency Services.

Table 4  
OM&A Project Listing - Nuclear  
Portfolio Projects (Unallocated)<sup>1</sup>

Line No.	Project Name	Category	Potential Start Date
	(a)	(b)	(c)
	<b>Darlington NGS</b>		
1	Boiler Blowdown Piping Refurbishment	Sustaining	2012
2	Gross Fission Product Sample Delay and Alternative Primary Heat Transport Sampling Point	Sustaining	2012
3	Steam Generator Emergency Cooling System Chemistry Control Pressure Monitoring	Sustaining	2013
4	Shutdown System Heat Transport Low Pressure Trip Setpoint Change	Sustaining	2012
5	Public Address System Upgrade	Sustaining	2013
6	Emergency Power Generator 2 Gas Producer Engine Replacement	Sustaining	2012
7	Tritium Removal Facility Air Clean Up Control	Sustaining	2012
8	Pressurizer Sludge Removal	Sustaining	2013
9	Water Treatment Plant Backup Supply Connection	Sustaining	2012
10	Fuel Handling : Pre-Refurb Irradiated Fuel Discharge System Rehabilitation	Sustaining	2014
11	Phase 2 Station Battery Replacement (50310, 50390)	Sustaining	2014
	<b>Pickering NGS</b>		
12	Pickering B Irradiated Fuel Bay Leakage Mitigation	Regulatory	2012
13	Pickering B Station Service Transformer/Generator Service Transformer Spare Transformer Capability	Sustaining	2012
14	Instrumentation & Control Obsolescence	Sustaining	2012
15	Predictive Maintenance Program Review (OM&A)	Sustaining	2012
16	Common Services Drum Cleaning Facility	Sustaining	2016 & Beyond
17	As Low As Reasonably Achievable Source Term/Dose Reduction	Sustaining	2016 & Beyond
18	Reactor Auxiliary Bay/Irradiated Fuel Bay Ventilation	Sustaining	2016 & Beyond
19	West Annex Ventilation Equipment Replacement	Sustaining	2016 & Beyond
20	Back Up Instrument Air	Sustaining	2016 & Beyond
21	Pickering Wet Circumferential Scrape Capability	Value Enhancing	2016 & Beyond
	<b>Inspection &amp; Maintenance Services</b>		
22	Public Alerting Sirens Part II	Regulatory	2016 & Beyond
23	Lite Pipe	Sustaining	2016 & Beyond
24	Weld Profile Inspection Tool Inspection Qualification	Sustaining	2016 & Beyond
25	Feeder Instrument Line Fretting Replication Beyond Arms Reach	Sustaining	2013
26	IMS Feeder Thickness (FP6) Mark 2 & Inspection Qualification	Value Enhancing	2016 & Beyond
27	IMS Steam Generator Inspection Equipment Obsolescence	Sustaining	2013
28	Spacer Location And Reposition System Continuous Operation - Obsolescence/Reliability Upgrades	Sustaining	2016 & Beyond
	<b>Nuclear Waste Management</b>		
29	Spent Solvent Treatment Facility Decommissioning	Sustaining	2016 & Beyond

Notes:

- 1 Projects with potential expenditures during Test Period. Each project is forecast to have a project expenditure of less than \$20M.

Table 5  
 OM&A Projects - Nuclear Operations  
Listing of Business Case Summaries Filed

Line No.	Project Number	Business Case Summary (BCS) Title	BCS Approval Date	Project Stage	BCS Status	BCS Status in EB-2010-0008
	(a)	(b)	(c)	(d)	(e)	(f)
		<b>ONGOING PROJECTS FROM EB-2010-0008</b>				
1	38457	Darlington Environment Qualification Component Replacements	Jan-08	Execution	Full	Full
2	62440	Probabilistic Risk Assessment Upgrade	Apr-12	Execution	Full	Partial
3	62444	Fuel Channel Life Management	Aug-11	Execution	Partial	Partial
4	40641	Pickering B Boiler Tab & Divider Plate Repair (Pickering 7 & Pickering 8)	Dec-10	Execution	Superceding	Full
5	49248	Pickering A Locking Tabs - Boiler Divider Plate (Pickering 1 & Pickering 4)	Dec-11	Execution	Partial	Developmental
		<b>COMPLETED PROJECTS FROM EB-2010-0008</b>				
6	38935	Darlington Boiler Primary Side Cleaning (follow-up to 38296)	Apr-09	Cancelled	Developmental	Developmental
7	38458	Darlington Environment Qualification Discovery Work and Scope Reduction	Apr-10	Complete	Full	Full
8	40645	Pickering B Steam Generator Water Lancing	May-07	Complete	Full	Full
		<b>PROJECTS NOT IN EB-2010-0008</b>				
9	38933	Darlington Primary Heat Transport Liquid Relief Valve Modifications To Prevent Waterhammer	Jul-11	Execution	Partial	N/A
10	62449	Severe Accident Management Guidelines Implementation Improvements	Jul-12	Developmental	Full	N/A