

700 University Avenue, Toronto, Ontario M5G 1X6

Tel: 416-592-5419 Fax: 416-592-8519

barbara.reuber@opg.com

September 13, 2010

RESS and Overnight Courier

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
PO Box 2319
2300 Yonge Street, Suite 2700
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: EB-2010-0008 – Ontario Power Generation Inc. Payment Amounts for Prescribed Facilities

This letter addresses confidential information in the Technical Conference Undertakings in EB-2010-0008. Certain undertakings and the associated responses include information that the OEB has ordered to be treated as confidential information pursuant to Procedural Orders No. 3 and No. 6. One undertaking response includes information for which OPG is requesting confidential treatment.

Undertakings related to documents with confidential status

The following Undertakings include information that the OEB has determined will receive confidential treatment:

- JT1.5
- JT1.13
- JTX1.1
- JTX1.2

With the exception of JTX1.2, OPG has filed redacted versions for the public record and provided the full responses to only those persons who have signed the Declaration and Undertaking. In the case of JTX1.2, the entire response is confidential and OPG has provided the response to only those persons who have signed the Declaration and Undertaking.

Request for confidential treatment of JT1.7 Part 1 of 3

In accordance with Rule 10 of the Ontario Energy Board's (OEB) *Rules of Practice and Procedure* and section 5.3 of the Board's *Practice Direction on Confidential Filings* (the Practice Direction), Ontario Power Generation Inc. (OPG) requests the confidential treatment of certain of its information provided in Undertaking JT1.7 Part 1 of 3 from the Technical Conference held August 26, 2010. In accordance with section 5 of the

Practice Direction, the reasons for this confidentiality request, including the reasons why OPG considers parts of the response to JT1.7 Part 1 of 3 as confidential and the reasons why public disclosure of the information would be detrimental to OPG, are set out below. In addition, confidential, un-redacted documents fulfilling the Undertaking are provided as attachments.

In accordance with the Practice Direction, this letter is being provided to the OEB along with the attachments identified below. The information for which confidentiality is being requested, which is included at Attachments A.1 and A.2, is to remain confidential at least until the OEB makes its determination on this request. A copy of this letter, including all attachments other than the confidential information, is being provided to each party to the proceeding.

As an interim measure and in the interests of efficiency, prior to the OEB making its final determination, OPG has provided the confidential information to all persons that have filed a Declaration and Undertaking in the form referenced in Procedural Order No. 1.

On a final determination, should the OEB grant OPG's request for confidentiality, OPG proposes that the OEB order that the confidential information be disclosed, subject to any conditions the OEB may find appropriate, to only those persons that have signed the Declaration and Undertaking.

OPG requests that any reference to confidential information contained in the documents produced be conducted *in camera* so as to preserve its confidential nature.

At the conclusion of the proceeding or in the event that the confidentiality request is refused and OPG requests that the information be withdrawn in accordance with 5.1.12 of the Practice Direction, all persons in possession of the information will be required to destroy or return to the OEB Secretary for destruction the confidential information in accordance with 6.1.6 of the Practice Direction.

Reasons for the Request for Confidential Treatment

JT1.7 Part 1 of 3 is a response to AMPCO technical conference question #3. This question requests production of "the business case, the document upon which the budget overrun was approved, and any follow-up analysis performed related to the lessons learned" in relation to the Cafeteria Modifications Project referenced in Ex. L-02-013. By undertaking JT1.7 Part 1 of 3, OPG agreed to produce documents responding to AMPCO's request. OPG is producing the Full Release Business Case Summary on the public record. However, OPG requests confidential treatment of the redactions in the two Superseding Business Case Summaries (JT1.7 Part 1 of 3 Attachments 2 and 3, respectively) related to this project and confidential treatment of the Post Implementation Review (PIR) (JT1.7 Part 1 of 3 Attachment 4) in its entirety. The *confidential* two Superseding Business Case Summaries without redactions are provided at **Attachment A.1** and the *confidential* PIR is provided at **Attachment A.2**.

A non-confidential version of the two Superseding Business Case Summaries, with redactions, is provided at **Attachment A.3**.

The redactions in the first Superseding Business Case Summary consist of factors applied to develop budget estimates. OPG consistently treats this information as confidential and disclosure of it could prejudice OPG's competitive and negotiating positions. Confidential treatment of this type of information is specifically contemplated by the provisions of Appendix B to the Practice Directions. The redactions in the second Superseding Business Case Summary relate to contractor performance. Issues associated with disclosure of information related to contractor performance and the reasons for seeking confidential treatment are considered in the paragraph below.

The PIR provides details of the most significant issues that impacted the achievement of project milestones and budget. As OPG wished to learn from the challenges experienced with this project, a comprehensive PIR was conducted which includes unfavourable performance reviews of the various persons or entities involved in the project. Disclosure of this information could result in potential harm to those persons with respect to their competitive positions, their abilities to fulfill existing contractual obligations, and could affect any negotiations they are engaged in or would likely produce a significant loss to them. Given that the identity of the persons involved in the project was not confidential at the outset, mere redactions of the names of the persons throughout the PIR would not protect their identities. OPG consistently treats the type of information in the PIR as confidential. Confidential treatment of this type of information is specifically contemplated by Appendix B, subsections (a) i, ii and iv and (b) of the Practice Direction.

A non-confidential description of the PIR is as follows:

The Post Implementation Review (PIR) sets out the origin of the project, a summary of the project approval, planning design and scope, a summary of the project execution, a summary of the project outcomes, a summary of lessons learned and the conclusions of the PIR.

Respectfully submitted,

[Original Signed By]

Barbara Reuber
Director, Ontario Regulatory Affairs
Ontario Power Generation

Attach:

cc: Charles Keizer Torys LLP
Carlton Mathias OPG
EB-2010-2008 Intervenors (attachments A.1 and A.2, not included for parties who have not signed the Declaration and Undertaking)

Attachment – A3

PICKERING ADMINISTRATION BUILDING CAFETERIA MODIFICATION

PROJECT NUMBER: 13-25607

1. RECOMMENDATION:

We recommend approval of a superseding release of \$ 6,815 k (including contingency) and \$ 385 k MFA to allow Nuclear East Facilities to complete the refurbishment of Pickering Administration Building Cafeteria kitchen, server, loading and receiving areas, the upgrading of HVAC, mechanical and electrical systems serving the new kitchen equipment, and modification of washrooms on the first floor of Administration Building.

Total Investment Cost: \$ 6,815 k Capital and \$ 385 k MFA (including previous releases of \$ 5,215 k Capital and \$ 265 k MFA)						
Project Cash Flow (\$k)						
Currently Release	Funding	LTD 2006	2007	2008	2009	Total
	Capital	1,522	3,693			5,215
	MFA	120	265	0		385
Currently Release						
This Release	Capital	56	1,544	0		1,600
This Release	MFA	0	0			0
Total Project Costs	Capital	1,578	5,237	0		6,815
Total Project Costs	MFA	157	228			385
Life to date Expenditure	Capital	1578	886			2464
Life to date Expenditure	MFA	157	0			157
Investment Type	Class	NPV		IRR	Discounted Payback	
Capital & MFA	Sustaining	(K)		N/A	N/A	

This project is included in the approved 2007-2011 Business Plan

The objective of this sustaining project is to refurbish the existing Cafeteria in order to:

- Address sub-standard health & safety conditions of Cafeteria facilities and kitchen equipment
- Improve functionality and aesthetics of Kitchen/Server by remodelling of floors, walls, & fixtures
- Upgrade existing HVAC, mechanical & electrical systems associated with Cafeteria modifications
- Improve public image, employee & visitor satisfaction

2. SIGNATURES:

Submitted By:

Terry Doran
Director, Nuclear Integration

Date

April 19/07

Line Approval:

Mark Elliott
SVP, Pickering A

Date

April 29, 2007

Finance Approval:

Randy Leavitt
Director, Investment Management

Date

April 26, 2007

Inc. cash costs have been challenged by Project Manager using another constructor & a line by line review by SVP. Project can proceed

3. BACKGROUND & ISSUES

There have not been any significant improvements made to the cafeteria equipment or aesthetics since the last addition 20 years ago except replacement of some kitchen equipment in 2003. The food service equipment is obsolete, defective, and poses a safety concern (a fire in 2003 has been attributed to old equipment). Cafeteria requires modernization and updating in order to meet the needs of the kitchen staff and customer. In addition, the cafeteria is the focal point as you enter the Administration Building. It needs updating to provide a positive message to visitors entering the building.

The refurbishments include bringing the Kitchen and Server area up to current standards, updating the loading and receiving area, modify exiting washrooms and basement rooms to accommodate the cafeteria upgrade, and upgrading the Kitchen/Server area floors, walls and fixtures to ensure a healthy and aesthetically pleasing cafeteria.

An initial release of \$ 365 k Capital in 2005 covered the development of detailed design of Cafeteria refurbishment, equipment purchases and some modifications for the temporary food service facilities. The second release of \$ 1,157 k Capital and \$ 120 k MFA was approved in 2006 to fund the detailed design for discovery work to upgrade mechanical/electrical systems associated with the Cafeteria, install temporary equipment and food service facilities, upgrade power supply to electrical services serving the new kitchen equipment, and purchase new kitchen equipment.

A full release of 5,215 k Capital and \$ 385 k MFA was approved in Jan 2007 to fund the construction costs of Cafeteria refurbishment, installation of temporary food service facilities, new HVAC system, upgrade all mechanical and electrical systems associated with the refurbishment, and complete the project.

Project construction costs included in the full release were based on tendered price for Cafeteria kitchen/servery, budgetary estimates for HVAC package, and an additional 10% (\$ 500k) contingency to total project costs. HVAC design package was not completed, and not included in the tendered Scope of Work for Cafeteria. Budget estimates for HVAC provided by Design Agency were [REDACTED] of Cafeteria tender price versus Design Agency's estimates.

During the demolition phase of Cafeteria, additional scope of work and scope changes were discovered due to interferences with new equipment, removal of abandon piping and cables, and lack of updated drawings from previous renovations. Major scope changes include removal and relocation of supply ducting to building 2 nd floor, and addition of platform for HVAC roof top equipment. Actual HVAC cost provided by Cafeteria's Constructor with a good knowledge of demolition issues, and scope changes is 3 times higher than the budgetary estimates. The cost variance of HVAC package is \$ 1,200 k.

4. ALTERNATIVES AND ECONOMIC ANALYSIS

\$ 000's	Do Nothing	Alt 1 (Recommended)		Alt 2 Delay	Alt 3	Alt 4	Alt 5
		Full Cost	Incremental Cost				
Project Cost Capital		(6,815)					
NPV (after tax)		(5,867)					
Impact on Economic Value		N/A					
IRR%		N/A					
Discounted Payback (Yrs)		N/A					

ALTERNATIVES & ECONOMIC ANALYSIS

Base Case: (Status Quo) – Not Recommended

Do nothing. There will be no improvements to the Pickering Cafeteria; this will continue to impact on safety and public image. There will be no upgrades to meet current standards, and to ensure a healthy and aesthetically pleasing cafeteria. It is anticipated that continued deterioration of food service equipment will result in shutdown of Cafeteria.

We do not recommend this alternative as this will not address the business objectives of this project.

Alternative 1: (Implement Modifications) – Recommended Alternative

NPV = - \$ 5,867 k

The improvements to the Pickering Nuclear Cafeteria refurbishment will proceed as per approved Business Plan and Project Charter P-PCH-28160-00002 R01.

These improvements will have intrinsic value for the Pickering nuclear station and also a positive impact on visitors to the station.

Current full releases of \$ 5,215 k covered the complete refurbishment of Cafeteria kitchen, server, loading and receiving areas, upgrading of HVAC, mechanical, electrical systems serving the new kitchen equipment, and modification of washrooms on the first floor of Administration Building.

This release of \$ 1,600 k will cover the completion of independent kitchen/server HVAC system, high cost variance of HVAC installation, additional cost of discovery work and scope changes for Cafeteria project including HVAC system during demolition and installation phases.

We recommend satisfying the Business Objectives of this project by completing the installation of Cafeteria modifications outlined in the proposal section.

Alternative 2: (Delay work) – Not Recommended

Delaying the investment is not considered as a feasible alternative since it is anticipated that continued deterioration of equipment will result in shutdown of cafeteria food services.

5. THE PROPOSAL

The Cafeteria is to be refurbished to upgrade the Kitchen, Server and loading and receiving area up to current standards, modify existing washrooms and basement rooms to accommodate the Cafeteria upgrade, and replace walls, floors, and fixtures to ensure a healthy and pleasing facility.

To support this project and maintain food services during Cafeteria refurbishment, Temporary Facilities will be set up on site.

The existing electrical, HVAC, grease interceptors and drainage systems were found deficient, obsolete and unable to handle the current or future upgrades. The full release covers the costs of Cafeteria refurbishment, installation of Temporary Food Service Facilities, new HVAC system, and upgrade of all mechanical and electrical systems associated with the refurbishment. This superseding release will cover

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-001*	Revision: R04 **	Page: 4 of 10
	BUSINESS CASE SUMMARY Filed: 2010-0903 JFM/PA/11 Of 3 EB-2010-0008 Attachment 2 (NON-CONFIDENTIAL)		

the additional installation cost of HVAC system, extensive discovery work and scope changes due to interferences, configuration management errors, higher labour rates, and project contingency.

The project will be executed as an Owner-Constructor Contract.

Deliverables/refurbishments completed in 2005:

- Develop project scope.
- Detailed design of selected layout option and design documents.
- Detailed design of Temporary Food Service Facilities
- Equipment purchases for Temporary Facilities

Deliverables/refurbishments completed in 2006:

- Detailed Design for the Discovery Work to upgrade mechanical/electrical systems in the Administration Building
- Final design and design documents
- Installation of temporary food service facilities including:
 - Retrofit training trailer to accommodate hot food services and extra seating
 - Installation of mobile kitchen & food prep trailers
 - Installation of cold food server area in the main building
- Prepare tendering package for upgrade installation and award construction contract
- Upgrade power supply to electrical services serving the new kitchen equipment
- Install covered walkway between Administration Building and renovated trailer
- Close main Cafeteria and move operation to Temporary Facilities

Deliverables/refurbishments to complete in 2007:

- Install Cafeteria Kitchen/Server/loading and receiving refurbishment
- Install independent kitchen/server HVAC system
- Install additional work due to Scope changes and discovery work
- **Upgrade mechanical/electrical systems for new Cafeteria**
- Modify existing washrooms and basement rooms to accommodate Cafeteria upgrade
- Removal of Temporary Food Services Facilities

Milestones:

- Project Charter: August 2006
- Detailed Design Phase Complete: September 2006
- Temporary Food Service Facilities Complete: October 2006
- Close main Cafeteria : December 2006
- Cafeteria Construction Complete: September 2007
- Washrooms modifications Complete: September 2007
- Project Complete: December 2007

6. QUALITATIVE FACTORS

Implementation will result in visible improvements and help to sustain a healthy and aesthetically pleasing cafeteria at the Pickering Nuclear station; this in turn will result in positive public image; there are no Sustainable Energy Development impacts.

7. RISKS

The Risk Management Table identifying the Risks, Consequences, Mitigating Activity and residual risk is attached in Appendix A.

8. POST IMPLEMENTATION REVIEW (PIR) PLAN

The Post Implementation Review (PIR) plan will be prepared by the Project Leader, reviewed by project Manager/Owner and approved by the Project Sponsor.

Type of PIR		Target Project In Service date		Target PIR Completion date
Simplified		(30/September/2007)		(31/Dec/2007)
Measurable Parameter	Current Baseline	Target Result	How will it be measured?	Who will measure it? (person/group)
1. Upgrade Cafeteria to address current health and safety conditions	Modifications have not been installed	Modifications installed & successfully turned over to Operations	Successful Available for Service (AFS)	Sponsor-Common Services Manager
2. Improve capacity, customer throughput & aesthetics of Cafeteria	General deterioration of facilities & food service equipment	Improved public image and employee & visitor satisfaction	JH&SC walk down & reviews	Sponsor-Common Services Manager and JH&SC

APPENDIX A:

Attachment 2 (NON-CONFIDENTIAL)

Project title: Pickering Administration Building Cafeteria Modifications

Project Risk Profile

Risk category	Description of Risk	Description of Consequence	Risk Before Mitigation	Mitigating Activity	Risk After Mitigation
Cost	Additional costs of project execution -Discovery work during demolition & installation -Design Changes required due to field changes	Increased Costs Schedule Delays	High	-Contract changes will be handled through the Contractor Management process - Design Changes will be executed by Design Agency -Project contingency (\$700k) covers the additional work and unforeseen costs	Low
Scope	Additional Scope -Difficulty to isolate electrical/water systems in Admin. Building -Design Changes due to field changes & discovery work -Interface of new HVAC ductwork with existing piping systems/structural steel during demolition & installation	Increased Costs Schedule Delays due to additional work	High	-Scope changes will be handled through the Project Management process -Contract changes will be handled through the Contractor Management process -Project contingency (\$700k) covers the additional work and unforeseen costs	Low
Schedule	-Delays in field work due to interface with Admin. Building station activities not allowing the tie in connections to be completed on time during day shift	Contract cost penalties for stand down time Missed Milestones	Medium	-Monitor through Project Management process -Plan for shift work to reduce impact on schedule	Low
Resources	Lack of sufficient Project Support during installation Contract/Administrator/Monitor for second shift	Schedule delays Increased Costs	Medium	Project management to find the resources as required	Low

BUSINESS CASE SUMMARY TEMPLATE

Attachment 2 (NON-CONFIDENTIAL)

Technical	Cafeteria & HVAC Design changes are complete. Potential of design changes required by shop drawings for equipment	Increased Costs Schedule Delays	Medium	- Design Changes will be executed by Design Agency through Management process -Project contingency (\$700k) covers the additional work and unforeseen costs	Low
Regulatory	None-Regulators are not involved in this project and associated modifications				
Environmental	None- There are no environmental issues associated with this project				
Health & Safety	Discovery of asbestos during demolition in areas not included in the test program	Not in compliance with Regulation respecting Asbestos on Construction projects and in Buildings and Repair Operations (O. Reg 278/05)	Medium	Sample and test material to confirm asbestos presence	Low
Investment	Scope of work is defined, and major discovery work is identified. Business objectives were identified.	Business Objectives will not be met	Low	Modifications are according to current standards for new Cafeteria facilities	Low
Other Specify					

APPENDIX B:

ONTARIOPOWER GENERATION	PROJECT Summary of Estimate	Date	19 April 07
		Project #	13-25607

Facility Name:	Pickering Nuclear Generating Station	
Project Title:	Pickering Administration Building Cafeteria Modifications	

Year	2006	2007	2008	2009	2010	2011	Totals	%
OPG Project Management	120	260					380	6
Engineering	20	20					40	0.5
Permanent Materials	196	219					415	6
Consultants	210	260					470	7
OPG Construction	92	58					150	2.2
Construction Contracts	910	3,600					4,510	66
Interest	30	120					150	2.3
Contingency		700					700	10
TOTAL CAPITAL	1,578	5,237					6,815	100
TOTAL MFA	120	265					385	100

- Notes:
- Schedule Start Date: Jan 2007
In-Service Date: Dec 2007
 - Interest and Escalation rates are based on current allocation rates provided by Corporate Finance
 - Includes Removal Costs of: 0
 - Includes Definition Phase Costs of: 0
 - Percentages above relate to the total cost. 0

Prepared by:

Ane Marie Dorneanu
Ane Marie Dorneanu
Project Leader

Approved by:

Jack Ballard
Jack Ballard
Manager, NEF Project Eng & Support

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 9 of 10
	BUSINESS CASE SUMMARY TEMPLATE		Filed: 2010-0903 JT1.7 Part 1 of 3 EB-2010-0008

APPENDIX C:

Attachment 2 (NON-CONFIDENTIAL)

Financial Model – Assumptions

Project Cost Assumptions:

1. The cost of the project was calculated assuming that project will be completed by December, 2007. Changes in the schedule, scope and, the availability of resources would likely increase the cost of the project.
2. Project Cost includes the interest of 3% and contingency of 10%.

Financial Assumptions:

1. Only the recommended alternative was analysed. The other alternatives (Status Quo and Delay Work) are not viable alternatives and were not analysed.
2. Project Type –Sustaining
3. Capital Expenditure Type: Class 1- Buildings& other structures

Economic Analyses Spreadsheets for Recommended Alternative

APPENDIX D:

ONTARIO POWER GENERATION

Document Number: FIN-TMP-PA-008
Revision: R01

BCS FINANCIAL EVALUATION

Project Description: **SIMPLIFIED ECONOMIC EVALUATION**

Name of Project: Pickering Administration Building Cafeteria Modifications
Alternative: #1
Description of Alternative: Proceed with the refurbishment of Cafeteria

User Inputs

Generation Asset (to select tax rate - Yes/No) ☐ **10.0%**
Discount rate **10.0%**
Project Type **no**

Output
NPV **(5,887.2)**
IRR (10 year) **N/A**

\$k	Present	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
REVENUE/SAVINGS											
Total Revenue/Savings											
OM&A COSTS											
Total OM&A Costs											
Total REVENUE less OM&A costs											
e) After tax cash inflows (outflows)											
CAPITAL EXPENDITURES											
Class 1 - Buildings & other structures											
Class 8 - office equipment, miscellaneous equipment											
Class 10 - Automotive equipment, trailers											
Class 12 - computer appl. software											
Class 17 - generating equipment, road-side-walk parking area											
Class 27 - Construction material, acquired area 2005 Feb 22											
Class 28 - heavy water											
Class 42 - fibre optic											
Class 43 - Small Hydro Electric											
Class 43 - High efficiency vapor & renewables											
Class 45 - Personal computers, systems software to Class 10											
Class 46 - Data network infrastructure equipment											
Land											
b) Total CAPITAL EXPENDITURES											
c) Tax Shield and											
Tax Shield Factor in terminal year											
d) Total net cash flows (e) + (b) + (c)											
Present value factor											
Present value of cash flows											
Accumulated present value of cash flows											
NPV											
IRR (10 year)											

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 1 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

PICKERING ADMINISTRATION BUILDING CAFETERIA MODIFICATIONS
PROJECT NUMBER: 13-25607

1. RECOMMENDATION:

We recommend approval of a superseding release of \$ 8,615 k (including contingency) and \$ 303 k MFA to allow Nuclear East Facilities to complete the refurbishment of Pickering Administration Building Cafeteria kitchen, server, loading and receiving areas, the upgrading of HVAC, mechanical and electrical systems serving the new kitchen equipment, and modification of washrooms on the first floor of Administration Building.

Total Investment Cost: \$ 8,615 k Capital and \$ 303 k MFA (including previous releases of \$ 6,815 k Capital and \$ 265 k MFA)						
Project Cash Flow (\$k)						
	Funding	LTD 2006	2007	2008	2009	Total
Currently Release	Capital	1,578	5,237			6,815
Currently Release	MFA	157	146	0		303
This Release	Capital	0	1,400	400		1,800
This Release	MFA	0	0			0
Total Project Costs	Capital	1,578	6,637	400		8615
Total Project Costs	MFA	157	146			303
Life to date Expenditure	Capital	1578	4349			5,927
Life to date Expenditure	MFA	157	146			303
Investment Type	Class		NPV (7,342)		IRR	Discounted
Capital & MFA	Sustaining		(k)		N/A	Payback N/A
This project is included in the approved 2007-2011 Business Plan						

The objective of this sustaining project is to refurbish the existing Cafeteria in order to:

- Address sub-standard health & safety conditions of Cafeteria facilities and kitchen equipment
- Improve functionality and aesthetics of Kitchen/Server by remodelling of floors, walls, & fixtures
- Upgrade existing HVAC, mechanical & electrical systems associated with Cafeteria modifications
- Improve public image, employee & visitor satisfaction

2. SIGNATURES:

Submitted By:

Terry Doran
 Director, Nuclear Integration

Date

Line Approval:

Mark Elliott
 SVP, Pickering A

Date

Finance Approval:

Randy Leavitt
 Director, Investment Management

Date

VP Finance Approval

Jim Beech
 VP, Nuclear Finance

Date

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 2 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

3. BACKGROUND & ISSUES

There have not been any significant improvements made to the cafeteria equipment or aesthetics since the last addition 20 years ago except replacement of some kitchen equipment in 2003. The food service equipment is obsolete, defective, and poses a safety concern (a fire in 2003 has been attributed to old equipment). Cafeteria requires modernization and updating in order to meet the needs of the kitchen staff and customer. In addition, the cafeteria is the focal point as you enter the Administration Building. It needs updating to provide a positive message to visitors entering the building.

The refurbishments include bringing the Kitchen and Server area up to current standards, updating the loading and receiving area, modify exiting washrooms and basement rooms to accommodate the cafeteria upgrade, and upgrading the Kitchen/Server area floors, walls and fixtures to ensure a healthy and aesthetically pleasing cafeteria.

A full release of 5,215 k Capital and \$ 385 k MFA was approved in Jan 2007 to fund the construction costs of Cafeteria refurbishment, installation of temporary food service facilities, new HVAC system, upgrade all mechanical and electrical systems associated with the refurbishment, and complete the project.

Project construction costs included in the full release were based on tendered price for Cafeteria kitchen/server, budgetary estimates for HVAC package. HVAC design package was not completed, and not included in the tendered Scope of Work for Cafeteria. During the demolition phase of Cafeteria, HVAC design package was tendered and the actual HVAC installation cost provided by Cafeteria's Constructor with a good knowledge of demolitions issues, and scope changes was 3 times higher than the budgetary estimates. The cost variance of HVAC package was \$ 1,200 k. The superseding release of \$6,815 k and \$ 385 k MFA was approved in April 2007.

During the installation phase of Cafeteria and the HVAC, mechanical and electrical systems, additional scope of work and scope changes were discovered due to interferences with new equipment, actual site conditions, building code violations, and lack of updated drawings from previous renovations.

Additional factors that coupled with the estimates have contributed to exceeding the budget: higher overhead charges, EPSCA and training costs, EPSCA rates increase, and cost of additional engineering and station support resources.

This new superseding release will cover the completion of installation and commissioning of the Cafeteria equipment, HVAC system, mechanical and electrical system, modifications of existing washrooms on first floor, resolution of open items, and the closing the EC engineering packages.

The total cost variance of this superseding release is \$ 1,800 k with a required cash flow of \$ 1,400 k in 2007 and \$ 400 k in 2008.

4. ALTERNATIVES AND ECONOMIC ANALYSIS

\$ 000's	Do Nothing	Alt 1 (Recommended)		Alt 2 Delay	Alt 3	Alt 4	Alt 5
		Full Cost	Incremental Cost				
Project Cost Capital		(8 500)					
NPV (after tax)		7 342					
Impact on Economic Value		N/A					
IRR		N/A					
Discounted Payback (hrs)		N/A					

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 3 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

ALTERNATIVES & ECONOMIC ANALYSIS

Base Case: (Status Quo) – Not Recommended

Do nothing.

Cafeteria and HVAC system installations are near completion and commissioning plans are in place to start in November. The Cafeteria upgrades will not be completed, the facility will be shut down permanently, and food services will be discontinued.

The objective of this project to improve the existing facility and ensure a healthy, safe, modern and aesthetically pleasing Cafeteria for Pickering staff and visitors.

We do not recommend this alternative as this will not address the business objectives of this project.

Alternative 1: (Implement Modifications) – Recommended Alternative

NPV = - \$ 7,342 k

The improvements to the Pickering Nuclear Cafeteria refurbishment will proceed as per approved Business Plan and Project Charter P-PCH-28160-00002 R01.

These improvements will have intrinsic value for the Pickering nuclear station and also a positive impact on staff and visitors to the station.

Current superseding releases of \$ 6,815 k covered the complete refurbishment of Cafeteria kitchen, server, loading and receiving areas, upgrading of HVAC, mechanical, electrical systems serving the new kitchen equipment, and modification of washrooms on the first floor of Administration Building.

This new release of \$ 1,800 k will cover the additional funding required to complete the installation, commissioning of systems and equipment, additional cost of discovery work, scope changes during installation of Cafeteria, HVAC system and washrooms modification. This release includes the allowance for resolution of open items to project close-out in May 2008, and performance of chilled water loop commissioning in spring of 2008. Existing system has been already winterized.

We recommend satisfying the Business Objectives of this project by completing the installation of Cafeteria modifications outlined in the proposal section.

Alternative 2: (Delay work) – Not Recommended

Delaying the investment is not considered as a feasible alternative.

Delays will result in higher expenditure of OM&A funds (Project 13-40514) for extension of rental and operation of the Temporary Mobile Kitchen Trailers through another winter. Also the covered walkway between the Administration Building and renovated seating trailer would be re-installed.

5. THE PROPOSAL

The Cafeteria is to be refurbished to upgrade the Kitchen, Server and loading and receiving area up to current standards, modify existing washrooms and basement rooms to accommodate the Cafeteria upgrade, and replace walls, floors, and fixtures to ensure a healthy and pleasing facility.

To support this project and maintain food services during Cafeteria refurbishment, Temporary Facilities were set up on site.

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 4 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

The existing electrical, HVAC, grease interceptors and drainage systems were found deficient, obsolete and unable to handle the current or future upgrades. The full release covered the costs of Cafeteria refurbishment, installation of Temporary Food Service Facilities, new HVAC system, and upgrade of all mechanical and electrical systems associated with the refurbishment. This first superseding release covered the additional installation cost of HVAC system, extensive discovery work and scope changes due to interferences, configuration management errors, higher labour rates, and project contingency.

The new superseding release is required for the completion of installation, commissioning, and resolution of the open items to project close-out in May 2008.

[REDACTED]

The project will be executed as an Owner-Constructor Contract.
Construction contract is set as a MSA "Target Price" contract.

Deliverables/refurbishments completed in 2005:

- Develop project scope.
- Detailed design of selected layout option and design documents.
- Detailed design of Temporary Food Service Facilities
- Equipment purchases for Temporary Facilities

Deliverables/refurbishments completed in 2006:

- Detailed Design for the Discovery Work to upgrade mechanical/electrical systems in the Administration Building
- Final design and design documents
- Installation of temporary food service facilities including:
 - Retrofit training trailer to accommodate hot food services and extra seating
 - Installation of mobile kitchen & food prep trailers
 - Installation of cold food server area in the main building
- Prepare tendering package for upgrade installation and award construction contract
- Upgrade power supply to electrical services serving the new kitchen equipment
- Install covered walkway between Administration Building and renovated trailer
- Close main Cafeteria and move operation to Temporary Facilities

Deliverables/refurbishments to complete in 2007:

- Install Cafeteria Kitchen/Server/loading and receiving refurbishment
- Install independent kitchen/server HVAC system
- Install additional work due to Scope changes and discovery work
- Upgrade mechanical/electrical systems for new Cafeteria

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 5 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

- Modify existing washrooms and basement rooms to accommodate Cafeteria upgrade
- Removal of Temporary Food Services Facilities

Deliverables/refurbishments to complete in 2008:

- Commissioning of chilled water loop for HVAC in spring
- Resolve open items
- Project documentation & EC 's close-out

Milestones:

- Project Charter: August 2006
- Detailed Design Phase Complete: September 2006
- Temporary Food Service Facilities Complete: October 2006
- Close main Cafeteria : December 2006
- Cafeteria In-Service: November 2007
- Washrooms modifications Complete: December 2007
- Project Complete: December 2007
- Project Close-out May 2008

Note: Cafeteria In-service is contingent on the availability of fire water supply from the station to Cafeteria sprinklers system

6. QUALITATIVE FACTORS

Implementation will result in visible improvements and help to sustain a healthy and aesthetically pleasing cafeteria at the Pickering Nuclear station; this in turn will result in positive public image; there are no Sustainable Energy Development impacts.

7. RISKS

The Risk Management Table identifying the Risks, Consequences, Mitigating Activity and residual risk is attached in Appendix A.

8. POST IMPLEMENTATION REVIEW (PIR) PLAN

The Post Implementation Review (PIR) plan will be prepared by the Project Leader, reviewed by project Manager/Owner and approved by the Project Sponsor.

Type of PIR		Target Project In Service date		Target PIR Completion date
Simplified		(30/September/2007)		(31/Dec/2007)
Measurable Parameter	Current Baseline	Target Result	How will it be measured?	Who will measure it? (person/group)
1. Upgrade Cafeteria to address current health & safety conditions	Modifications have not been installed	Modifications installed & successfully turned over to Operations	Successful Available for Service (AFS)	Sponsor-Common Services Manager
2. Improve capacity, customer throughput & aesthetics of Cafeteria	General deterioration of facilities & food service equipment	Improved public image and employee & visitor satisfaction	JH&SC walk down & reviews	Sponsor-Common Services Manager and JH&SC

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 6 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

APPENDIX A:

Project title: Pickering Administration Building Cafeteria Modifications

Project Risk Profile

Risk category	Description of Risk	Description of Consequence	Risk Before Mitigation	Mitigating Activity	Risk After Mitigation
Cost	Additional costs of project execution - Cost of deficiencies -Discovery work during demolition & installation of male washroom -Premium costs for demolition & installation of washroom -Design Changes required due to field changes	Increased Costs Schedule Delays	High	-Monitor Contract changes through the Contractor Management process -Allowance for future discovery work in the new required release	Low
Scope	Additional Scope -Difficulty to isolate electrical/water systems and install civil modifications in Admin. Building due to building condition, and lack of updated drawings -Changes due to discovery work during commissioning - Commissioning of chilled water will be scheduled in spring of 2008, current system is winterized	Increased Costs Schedule Delays due to additional work	High	-Monitor Scope changes through the Project Management process Allowance of funding required in 2008 is identified in the new release request	Low
Schedule	-Delays in field work due to interface with Admin. Building station activities not allowing the tie in connections to be completed and have fire water supply available to Cafeteria sprinklers system - Lack of construction trades such as pipe fitters, welders	Contract cost penalties for stand down time Missed Milestones	Medium	-Monitor through Project Management process -Plan for shift work and week ends to reduce impact on schedule	Low
Resources	Lack of sufficient Project Support during installation Contract/Administrator/Monitor for second shift	Schedule delays Increased Costs	Medium	Project management to find the resources as required	Low
Technical	As Built Drawings and documentation for completion of open items during AFS, update of project documentation and close-out	Increased Costs Schedule Delays	Medium	-Completion of open items will be executed as per Project Management process -Allowance of funds in 2008 in the new required release to resolve all open items	Low

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 7 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

Regulatory	None-Regulators are not involved in this project and associated modifications				
Environmental	None- There are no environmental issues associated with this project				
Health & Safety	Health & Safety Inspection - Durham Region and certification required for Cafeteria opening	Not in compliance with Regulation	Medium	Original Plans were approved and recommendations implemented.	Low
Investment	Scope of work is defined, and major discovery work is identified. Business objectives were identified.	Business Objectives will not be met	Low	Modifications are according to current standards for new Cafeteria facilities	Low
Other Specify					

ONTARIOPOWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 8 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

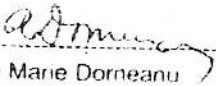
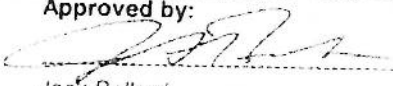
APPENDIX B:

ONTARIOPOWER GENERATION	PROJECT Summary of Estimate	Date	30 October 07
		Project #	13-25607

Facility Name:	Pickering Nuclear Generating Station
Project Title:	Pickering Administration Building Cafeteria Modifications

Year	2006	2007	2008	2009	2010	2011	Totals	%
OPG Project Management	120	318	45				483	5.6
Engineering	20	20	35				75	1.0
OPG Construction	92	150	30				272	3.2
Interest	30	185	20				235	2.7
Contingency		190	115				305	3.5
TOTAL CAPITAL	1,578	6,637	400				8615	100
TOTAL MFA	157	146					303	100

Notes:	1. Schedule	Start Date:	Jan 2007
		In-Service Date:	Dec 2007
	2. Interest and Escalation rates are based on current allocation rates provided by Corporate Finance		
	3. Includes Removal Costs of:		0
	4. Includes Definition Phase Costs of:		0
5. Percentages above relate to the total cost.			0

Prepared by:	Approved by:
 Ane Marie Dorneanu Project Leader	 Jack Ballard Manager, NEF Project Eng & Support

ONTARIO POWER GENERATION	Document Number: FIN-TMP-PA-004*	Revision: R04 **	Page: 9 of 10
	BUSINESS CASE SUMMARY TEMPLATE		

APPENDIX C:

Financial Model – Assumptions

Project Cost Assumptions:

1. The cost of the project was calculated assuming that project will be completed by December, 2007. Changes in the schedule, scope and, the availability of resources would likely increase the cost of the project.
2. Project Cost includes the interest of 3% and contingency of 3.5% for the cost variance.

Financial Assumptions:

1. Only the recommended alternative was analysed. The other alternatives (Status Quo and Delay Work) are not viable alternatives and were not analysed.
2. Project Type –Sustaining
3. Capital Expenditure Type: Class 1- Buildings& other structures

Printed on 07/11/02. This template may have been revised since it was printed. Approved current version posted on the Intranet.
 * Associated with FIN PHOC PA-001, Business Case Summary Guidelines
 ** Revised June 2006