

APPENDIX 2D

ENERGY

TABLE OF CONTENTS

0.	INTERPRETATION	1
0.1	New Infrastructure	1
1.	ENERGY SUPPLY AND CONSUMPTION	1
1.1	Energy Supply and Payment	1
1.2	Weather Data Monitoring and Measurement of Energy Consumption.....	1
1.3	Energy Consumption	2
1.4	Power Factor Surcharges	2
2.	ENERGY GUARANTEE	3
2.1	New Infrastructure to Meet or Beat Energy Targets	3
2.2	Monitoring of Energy Consumption	3
2.3	Adjustment to Energy Targets	3
2.4	Failure to Achieve Energy Targets	4
2.5	New Infrastructure Modifications	4
2.6	Retest Period	4
2.7	Retest Period Adjustment to Energy Targets	5
2.8	Failure to Achieve Energy Targets after Retest Period	5
3.	ANNUAL ENERGY TARGETS	5
3.1	New Infrastructure to Meet or Beat Annual Energy Targets	5
3.2	Annual Energy Targets	6
3.3	Adjustment to Annual Energy Targets	6
4.	SHARING GAIN AND PAIN	6
4.1	Energy Gainshare	6
4.2	Energy Painshare	7
4.3	Calculation and Invoicing.....	7
4.4	Entitlement to Environmental Credits	8
4.5	Energy Management Plan	8
4.6	Plan Compliance	8

APPENDIX 2D

ENERGY

0. INTERPRETATION

0.1 New Infrastructure

For the purpose of this Appendix 2D [Energy] only, the upgraded and expanded Food Services Area and laundry facilities shall be deemed to be excluded from the definition of “New Infrastructure”, as set out in Schedule 1 [Definitions and Interpretation].

1. ENERGY SUPPLY AND CONSUMPTION

1.1 Energy Supply and Payment

During the Construction Period, Project Co will be responsible for the supply and delivery of Energy as required for the Design and Construction. Project Co will ensure that arrangements have been made with the Authority to fill all diesel fuel oil tanks (at the Authority’s expense), such that on the Service Commencement Date all diesel fuel oil tanks are 100% full.

During the Operating Period:

- (a) the Authority will, from time to time, as required enter into contracts for the supply and delivery of Energy to the Facility;
- (b) Project Co will make arrangements pursuant to the Authority's Energy supply contracts, for the delivery of diesel fuel oil to the Facility whenever any diesel fuel oil tank is less than 75% full;
- (c) the Authority will be responsible for all payments related to its Energy supply contracts and deliveries; and
- (d) without limiting Project Co's obligations in Appendix 4E [Utility Management Services], Project Co will provide such other reasonable assistance related to the Authority's Energy supply contracts as may be requested by the Authority.

1.2 Weather Data Monitoring and Measurement of Energy Consumption

Prior to the Service Commencement Date, Project Co will install:

- (a) the Weather Monitoring Station on the Site; and
- (b) equipment to record and monitor consumption of each type of Energy used in the New Infrastructure.

The Energy consumption monitoring equipment must be suitable to enable a detailed monitoring of Energy trends and consumption in accordance with the International Performance Measurement & Verification Protocol (IPMVP) Volume 1: Concepts and Options for Determining Energy and Water

Savings and, in compliance with, the requirements of LEED Canada NC, Version 1.0, EA Credit 5: Measurement and Verification, to allow analysis of the data collected and to enable various matters, including:

- (c) comparisons to be made with the Design and Construction Energy Targets or the Annual Energy Targets, as applicable; and
- (d) early warning of malfunctions and deviations from norms.

Project Co will cause an independent qualified expert, acceptable to Project Co and the Authority acting reasonably, to calibrate the Weather Monitoring Station and all other Energy consumption monitoring equipment prior to the Service Commencement Date, and thereafter annually throughout the Term. Project Co will cause the independent qualified expert to provide a certificate to Project Co and the Authority, confirming calibration of the Weather Monitoring Station and all other Energy consumption monitoring equipment, promptly following completion of each calibration.

Project Co will collect the Weather Data and secure all such information so that it is not under any circumstances lost, degraded, adjusted or otherwise modified.

The provisions of this Section 1.2 [Weather Data Monitoring and Measurement of Energy Consumption] do not prejudice or limit the provisions of Schedule 3 [Design and Construction Specifications] of this Agreement.

1.3 Energy Consumption

Promptly after the end of each month following the Service Commencement Date, Project Co will deliver to the Authority, as part of the Performance Monitoring Report, a certificate showing:

- (a) the Energy Consumption, in Gigajoules, for each type of Regulated Energy consumed during that month;
- (b) Weather Data recorded for that month;
- (c) details of all New Infrastructure Operation Variances; and
- (d) any other variable that affects the Energy Consumption relative to the Authority's Baseline Assumptions.

1.4 Power Factor Surcharges

Project Co will be responsible for any Power Factor Surcharge. The Authority will notify Project Co of any Power Factor Surcharges and Project Co will pay the Authority the amount of such surcharges in accordance with the provisions of Schedule 8 [Payments].

2. ENERGY GUARANTEE

2.1 New Infrastructure to Meet or Beat Energy Targets

Project Co warrants to the Authority that the New Infrastructure will be Designed and Constructed so that the Energy Consumption per year for each type of Regulated Energy will not exceed the applicable Adjusted Energy Target.

The consequences to Project Co for breach of this warranty are limited to those set out in Section 2.4 [Failure to Achieve Energy Targets] and Section 2.8 [Failure to Achieve Energy Targets after Retest Period] of this Appendix, as applicable.

2.2 Monitoring of Energy Consumption

The Occupying Period will be used by the Authority to transition into occupying the New Infrastructure and by Project Co to monitor and stabilize the Energy Consumption.

During the Adjusting Period, Project Co and the Authority will jointly monitor the Energy Consumption in order to allow Project Co to identify and, subject to Section 2.5 [New Infrastructure Modifications], make such modifications and adjustments to the New Infrastructure as are necessary for the New Infrastructure to achieve the Design and Construction Energy Targets.

During the Test Period, Project Co and the Authority will jointly monitor the Energy Consumption in order to establish whether, and to what extent, the actual Energy Consumption for each type of Regulated Energy differs from the applicable Adjusted Energy Target for the Test Period.

2.3 Adjustment to Energy Targets

Prior to the expiry of the Test Period, Project Co will engage an independent energy consultant, acceptable to Project Co and the Authority acting reasonably (the "**Independent Energy Consultant**"). Where, for any reason during the Operating Period, the Independent Energy Consultant is, or becomes, unable or unwilling to continue to perform the Independent Energy Consultant's services Project Co will promptly engage a replacement Independent Energy Consultant, acceptable to Project Co and the Authority, acting reasonably.

Promptly after the expiry of the Test Period, Project Co will cause the Independent Energy Consultant to review the Energy Consumption certificates and all other relevant data collected during the Test Period and to determine, in his or her professional opinion, whether, and to what extent, the Design and Construction Energy Targets should be adjusted to account for observed conditions during the Test Period which differ materially from the Authority's Baseline Assumptions. Project Co will ensure that, in determining whether any adjustment should be made to the Design and Construction Energy Targets, the Independent Energy Consultant considers adjustments to the portion of the Design and Construction Energy Target attributable to gas and to electricity separately, and does not take into account any increased Energy Consumption caused by the acts or omissions of any Project Co Persons.

Within 30 days after the expiry of the Test Period, Project Co will cause the Independent Energy Consultant to issue a certificate documenting the applicable adjustments, if any, to be made to the Design and Construction Energy Targets, in respect of the Test Period.

2.4 Failure to Achieve Energy Targets

If the annual Energy Consumption for either type of Regulated Energy during the Test Period exceeds the applicable Adjusted Energy Target for the Test Period, then Project Co will:

- (a) Within 30 days after expiry of the Test Period, complete such modifications and adjustments to the New Infrastructure, subject to Section 2.5 [New Infrastructure Modifications], as are necessary for the New Infrastructure to achieve the Design and Construction Energy Targets; and
- (b) pay to the Authority a lump sum amount calculated as follows:



Where:

- Eg** = the Excess Energy Consumption (gas) during the Test Period
- Ee** = the Excess Energy Consumption (electricity) during the Test Period
- ACg** = the Average Unit Cost of gas for the Test Period
- ACe** = the Average unit Cost of electricity for the Test Period

2.5 New Infrastructure Modifications

Where Project Co is required to make modifications or adjustments to the New Infrastructure in order for the New Infrastructure to achieve the Design and Construction Energy Targets, all such modifications and adjustments will be subject to:

- (a) compliance with the Design and Construction Specifications;
- (b) minimization of disruption to the operation of the Facility; and
- (c) the prior approval of the Authority, not to be unreasonably withheld or delayed.

2.6 Retest Period

Where the annual Energy Consumption for either type of Regulated Energy during the Test Period exceeds the applicable Adjusted Energy Target for the Test Period, then commencing on the day which is 30 days after the expiry of the Test Period, and continuing for a period of 12 months thereafter (the "**Retest Period**"), Project Co and the Authority will monitor the Energy Consumption in order to establish whether, and to what extent, the actual Energy Consumption for each type of Regulated Energy during the Retest Period differs from the applicable Adjusted Energy Target for the Retest Period.

2.7 Retest Period Adjustment to Energy Targets

Promptly after the expiry of the Retest Period, Project Co will cause the Independent Energy Consultant to review the Energy Consumption certificates and all other relevant data collected during the Retest Period and to determine whether, and to what extent, the Design and Construction Energy Targets should be adjusted, using the same methodology as applied by the Independent Energy Consultant pursuant to Section 2.3 [Adjustment to Energy Targets] of this Appendix.

Within 30 days after the expiry of the Retest Period, Project Co will cause the Independent Energy Consultant to issue a certificate documenting the applicable adjustments, if any, to be made to the Design and Construction Energy Targets in respect of the Retest Period.

2.8 Failure to Achieve Energy Targets after Retest Period

If the annual Energy Consumption for either type of Regulated Energy during the Retest Period exceeds the applicable Adjusted Energy Target for the Retest Period, then Project Co will pay to the Authority a lump sum amount equal to the lesser of:

- (a) \$1,000,000; and
- (b) the net present value of the cost to the Authority, over the remainder of the 60 year Design Service Life of the New Infrastructure, of the amount by which the Energy Consumption for the applicable type(s) of Regulated Energy will exceed the applicable Adjusted Energy Target(s) for the Retest Period, on the assumption that the Excess Energy Consumption during the Retest Period will continue for the balance of the Design Service Life of the New Infrastructure. For the purpose of calculating the net present value pursuant to this Section 2.8(b) [Failure to Achieve Energy Targets after Retest Period], the cost of each type of Regulated Energy (including application of the applicable Escalation Factors) will be discounted using 7.5%.

If this Section 2.8 [Failure to Achieve Energy Targets after Retest Period] is applied, the provisions of Schedule 9 [Compensation on Termination] will be amended as necessary to ensure that the Authority will not, as a consequence of the application of this Section 2.8 [Failure to Achieve Energy Targets after Retest Period], face any additional liability upon early termination of this Agreement.

3. ANNUAL ENERGY TARGETS

3.1 New Infrastructure to Meet or Beat Annual Energy Targets

Project Co warrants to the Authority that the New Infrastructure will be Designed and Constructed and that Project Co will perform the Services so that the Energy Consumption per year, in each Energy Year, will not exceed the Annual Energy Targets for the applicable Energy Year.

The consequences to Project Co for breach of this warranty are limited to those set out in Section 4 [Sharing Gain and Pain] of this Appendix.

3.2 Annual Energy Targets

Where Section 2.8 [Failure to Achieve Energy Targets after Retest Period] of this Appendix is applied, the Annual Energy Targets for each Energy Year after the Retest Period will be the actual Energy Consumption for each type of Regulated Energy during the Retest Period, as they may be adjusted in accordance with Section 3.3 [Adjustment to Annual Energy Targets] of this Appendix.

In all other cases, the Annual Energy Targets for each Energy Year after the Test Period (or the Retest Period, where Section 2.6 [Retest Period] of this Appendix applies), will be the applicable Design and Construction Energy Targets, as they may be adjusted in accordance with Section 3.3 [Adjustment to Annual Energy Targets] of this Appendix.

3.3 Adjustment to Annual Energy Targets

Promptly after the expiry of each Energy Year, Project Co will cause the Independent Energy Consultant to review the Energy Consumption certificates and all other relevant data collected during the applicable Energy Year and to determine whether, and to what extent, the Annual Energy Targets for the applicable Energy Year should be adjusted, using the same methodology as applied by the Independent Energy Consultant pursuant to Section 2.3 [Adjustment to Energy Targets], and where applicable, in accordance with Section 4.6 [Plan Compliance] of this Appendix.

Within 30 days after the expiry of the applicable Energy Year, Project Co will cause the Independent Energy Consultant to issue a certificate documenting the applicable adjustments, if any, to be made to the Annual Energy Targets in respect of the applicable Energy Year.

4. SHARING GAIN AND PAIN

4.1 Energy Gainshare

- (a) Where the Energy Consumption for gas in an Energy Year is less than 97% of the applicable Annual Energy Target, the Energy Gainshare for gas in the applicable Energy Year will be calculated as follows:

[REDACTED]

Where:

- ET_g** = the Annual Energy Target (gas) for the applicable Energy Year
EC_g = the Energy Consumption (gas) in the applicable Energy Year
AC_g = the Average Unit Cost of gas for the applicable Energy Year

- (b) Where the Energy Consumption for electricity in an Energy Year is less than 97% of the applicable Annual Energy Target, the Energy Gainshare for electricity in the applicable Energy Year will be calculated as follows:

[REDACTED]

Where:

- ETe** = the Annual Energy Target (electricity) for the applicable Energy Year
- ECe** = the Energy Consumption (electricity) in the applicable Energy Year
- ACe** = the Average unit Cost of electricity for the applicable Energy Year

4.2 Energy Painshare

- (a) Where the Energy Consumption for gas in an Energy Year is greater than 103% of the applicable Annual Energy Target, the Energy Painshare for gas in the applicable Energy Year will be calculated as follows:



Where:

- ETg** = the Annual Energy Target (gas) for the applicable Energy Year
- ECg** = the Energy Consumption (gas) in the applicable Energy Year
- ACg** = the Average Unit Cost of gas for the applicable Energy Year

- (b) Where the Energy Consumption for electricity in an Energy Year is greater than 103% of the applicable Annual Energy Target, the Energy Painshare for electricity in the applicable Energy Year will be calculated as follows:



Where:

- ETe** = the Annual Energy Target (electricity) for the applicable Energy Year
- ECe** = the Energy Consumption (electricity) in the applicable Energy Year
- ACe** = the Average unit Cost of electricity for the applicable Energy Year

4.3 Calculation and Invoicing

As soon as practicable, and in any event within 20 Business Days after the end of each Energy Year, Project Co will submit to the Authority an invoice setting out Project Co's calculation of the Average Unit Cost for each type of Regulated Energy and the Energy Gainshare or Energy Painshare for each type of Regulated Energy, if any. Within 30 days after delivery of an invoice in accordance with this Section 4.3 [Calculation and Invoicing], the Authority will pay to Project Co any undisputed Energy Gainshare and Project Co will pay to the Authority any undisputed Energy Painshare, as applicable.

Any unresolved dispute about such calculations will be resolved in accordance with the Dispute Resolution Procedure.

4.4 Entitlement to Environmental Credits

The Authority will be entitled to any and all Environmental Credits related to the Facility and its operation. If, however, there is an increase in Environmental Credits after the Test Period (or the Retest Period, where Section 2.6 [Retest Period] of this Appendix applies) as a result of improvements or innovations by Project Co, Project Co will be entitled to, and the Authority will transfer to Project Co, 50% of such incremental Environmental Credits.

4.5 Energy Management Plan

Within 12 months after the Effective Date the parties will develop an energy management plan (“**Energy Management Plan**”). Project Co will prepare the first draft and provide the Authority with a copy within 9 months after the Effective Date. The Energy Management Plan will detail reasonable operating rules for all Authority and Project Co staff in the New Infrastructure and will be structured to take into account Good Industry Practice, the anticipated activities of Project Co and the Authority and use of the New Infrastructure, and will seek to minimise Energy Consumption and Demand Charges while maintaining the required environmental and other conditions specified in the Room Data Sheets and this Agreement, including Schedule 3 [Design and Construction Specifications] and Schedule 4 [Services Protocols and Specifications]. Failure to agree on the Energy Management Plan within 18 months after the Effective Date will be a Dispute that will be resolved pursuant to the Dispute Resolution Procedure.

4.6 Plan Compliance

The parties will monitor compliance with the Energy Management Plan at each meeting of the Operating Period Joint Committee. Where the Authority does not comply with the Energy Management Plan and such non-compliance:

- (a) was not caused by, or the result of, a failure by Project Co to comply with the Energy Management Plan; and
- (b) causes a material increase or decrease in Energy Consumption,

then the Annual Energy Targets will be adjusted by an appropriate amount to reflect the effect of the non-compliance.