

POWER PURCHASE AGREEMENT

BETWEEN

BELIZE ELECTRICITY LIMITED

AND

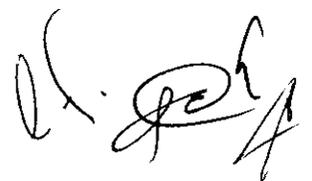
BELIZE CO-GENERATION ENERGY LIMITED

Dated as of February 2, 2007

Q.S. A.
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This POWER PURCHASE AGREEMENT (this "Agreement") is made as of February 2, 2007 (the "Agreement Date")

BETWEEN:

- (1) **BELIZE ELECTRICITY LIMITED** (the "Purchaser" or "BEL", which expressions shall be construed so as to include its successors in title and permitted assigns), a limited liability company having its registered office at 2-1/2 mls. Northern Highway organized and existing under the Laws of Belize; and
- (2) **BELIZE CO-GENERATION ENERGY LIMITED** (the "Seller" or "BELCOGEN", which expressions shall be construed so as to include its successors in title and permitted assigns), a limited liability company having its registered office at 28 Regent Street, Belize City, Belize organized and existing under the Laws of Belize.

WHEREAS:

- (A) The Seller wishes to deliver and sell to the Purchaser, and the Purchaser wishes to purchase and take from the Seller, electrical energy from the Facility in accordance with the terms and subject to the conditions of this Agreement.
- (B) The Seller shall be responsible for the procurement of all fuel for the Facility.
- (C) The Seller shall be responsible for converting fuel into electrical energy and for delivering electrical energy to the Purchaser.

NOW, THEREFORE, in consideration of the mutual benefits to be derived and the representations and warranties, conditions and promises herein contained, and intending to be legally bound hereby, the Seller and the Purchaser hereby agree as follows:

I. **Definitions**

Definitions. Unless otherwise defined herein or in any Exhibit hereto, the following terms, when used herein or in any Exhibit hereto, shall have the meanings set forth below:

"Act" means the Electricity Act Chapter 221 of the Laws of Belize Revised Edition 2000, as further amended or re-enacted from time to time.

"Additional Energy" means electrical energy which is supplied by the Seller to the Purchaser at the request of the Purchaser pursuant to Article 2.5 (*Additional Energy*), which is not Firm Capacity or As-Available Capacity and which is not normally generated by Bagasse fuel.

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"Affiliate" means, with respect to any Person, any other Person directly or indirectly controlling or controlled by or under direct or indirect common control of such Person. For purposes of this definition, a Person shall be treated as being controlled by another if that other Person is able to direct its affairs and/or to control the composition of its board of directors or equivalent body.

"As-Available Capacity" means the electrical generating capacity available from the Facility which is greater than the Firm Capacity.

"Available" means, in relation to the Facility, able to respond to a Dispatch Instruction and to deliver Net Energy Output.

"Available Capacity Declaration" means a declaration by the Seller, in accordance with Prudent Utility Practice and this Agreement, substantially in the form of Part I of Exhibit 6 (*Available Capacity Declaration*).

"Average" means the arithmetical mean.

"Bagasse" means the fibre left after the extraction of juice from sugar cane.

"Base Tariff" shall have the meaning given to such term in Article 17.1.1 (*Tariff for Payment for Net Energy Output Associated with Firm Capacity*).

"BEL's Licence" means the licence issued to BEL under the Act to conduct its business, as amended from time to time.

"Belize Dollar" or "BZ\$" means the lawful currency for the time being of Belize.

"Billing Period" means (i) the period commencing at 00.00 hrs on the Commercial Operation Date and ending at 24.00 hrs on the last day of the calendar month in which the Commercial Operation Date falls and (ii) thereafter, each consecutive period of one calendar month, commencing at 00:00 hrs on the first day of each calendar month and ending at 24:00 hrs on the last day of that calendar month.

"BSI" means Belize Sugar Industries Limited.

"BSI Electrical Energy Metering Facilities" means the metering equipment owned by the Seller for the purpose of measuring electrical energy supplied by the Seller to the Factory.

"Business Day" means any day except Saturday, Sunday and or any weekday on which commercial banks in Belize City are required or authorised to be closed.

"Carbon Credit" means any certified emission reduction unit or similar environmental or greenhouse gas unit under the Kyoto Clean Development Mechanism or similar environmental protocol.

"Change in Law" means any event or circumstance occurring on or after the Agreement Date as a result of or in connection with any action or inaction by any Government Authority including, without limitation:

- (a) a change in or repeal of an existing Law;
- (b) an enactment or making of a new Law;
- (c) a cancellation or non-renewal or change in the conditions applicable to any Government Approval granted to the Purchaser, the Seller or otherwise relating to the Facility;
- (d) a change in the manner in which a Law is applied or the interpretation or application thereof;
- (e) a change in any Law or any alteration in the application of any Law to any of the Purchaser, the Seller, the Facility or any Financing Party including, without limitation, any Law relating to tax rates, depreciation schedules or which affects the revenues, corporate profit, cost of finance, dividend payments or any financial assumption set forth in the Seller's base case financial model included in Exhibit 10 (*Environmental Compliance Plan*).

"Check Metering Facilities" means the metering equipment owned by the Seller for the purpose of checking the accuracy of the Energy Metering Facilities by measuring Net Energy Output at the Delivery Point.

"Claims" means any and all claims, judgments, losses, liabilities, costs, expenses (including reasonable attorneys' fees) and damages of any nature whatsoever (except workers' compensation claims) in relation to personal injury, death or property damage.

"Commercial Operation" means the Availability of the Facility for the purposes set out in this Agreement.

"Commercial Operation Date" means the day which immediately succeeds the day upon which the Seller declares by written notice to the Purchaser that the Facility is ready for Commercial Operation.

"Commissioning Tests" means the tests to be carried out on the Facility by the Seller in order to determine whether the Facility is ready for Commercial Operation, as set out in Exhibit 4 (*Testing Requirements for the Biomass Fired (Bagasse) Project*).

"Committee of Operation" means the committee of operation formed in accordance with Article 9.2 (*Committee of Operation*) for the purpose of elaborating the Operating Procedures and agreeing other issues in relation to the Facility subject to and in accordance with the provisions of this Agreement.

"Contract Price Adjustment Index" means the Seasonally Adjusted Gross Domestic Product: Implicit Price Deflator published from time to time by the United States Department of Commerce: Bureau of Economic Analysis, the 4th Quarter 2003 level for which is 106.244 or, if this index ceases to be published or the basis of the index changes, such alternative index which measures similar data with a comparable degree of authority which shall have been agreed by the Parties at the relevant time.

"Contract Year" means (i) the period commencing on the Commercial Operation Date and ending at 24:00 hrs on the last day of the calendar month which falls twelve (12) calendar months after the last day of the calendar month in which the Commercial Operation Date falls (the "**first contract year**") and (ii) each consecutive period of twelve (12) calendar months thereafter, the first such period commencing at 00.00 hrs on the first day of the calendar month which immediately succeeds the last day of the first contract year and ending at 24.00 hrs on the last day of the preceding calendar month in the following year.

"Control Center" means the System Operation Center of the Purchaser.

"Declared As-Available Capacity" means, in relation to any Dispatch Period, any As-Available Capacity declared to be Available by the Seller during that Dispatch Period pursuant to Article 12.2.1 (*Dispatch Instruction*).

"Declared Available Capacity" means, in relation to any Dispatch Period, either:

- (a) for the periods between 00:00hours and 24:00hrs, the aggregate of Declared Firm Capacity and Declared As-Available Capacity;

"Declared Firm Capacity" means, in relation to any Dispatch Period, the Firm Capacity declared to be Available by the Seller during that Dispatch Period pursuant to Article 12.2.1 (*Dispatch Instruction*).

"Default Interest" means the Prime Rate plus two (2) per cent. per annum or, if lower, the maximum annual interest rate permitted by applicable law.

"Delivery Point" means the physical point at the Site where the Facility output lines are connected with the Interconnection Facilities, which shall be the low voltage side of the step-up transformer located at the Site.

"Demonstrated Capacity" means the maximum electrical energy generating capacity of the Facility (without the Factory drawing electrical energy or steam) as tested in accordance with the criteria set out in Exhibit 4 (*Testing Requirements for the Biomass Fired (Bagasse) Project*) and as agreed by the Committee of Operations in accordance with Article 8.1.6 (*Testing Requirements*).

"Design Limits" means the operating parameters of the Facility as set forth under the heading "Design Limits" in Exhibit 3 (*Description of the Biomass Fired (Bagasse) Project including Design and Operating Limits and Site Description*).

"Dispatch" means the dispatch by the Facility of electrical energy to the Delivery Point in accordance with a Dispatch Instruction, the Dispatch Procedures, the Operating Procedures and this Agreement and subject to the Operating Limits (and any form of the term Dispatch (e.g., "Dispatched," "Dispatches" or "Dispatching") shall be construed accordingly).

"Dispatch Instruction" means an instruction from the Purchaser to the Seller, in accordance with Prudent Utility Practice and this Agreement, to increase, reduce, commence or cease the Dispatch of electrical energy, substantially in the form of Part II of Exhibit 6 (*Dispatch Instruction*).

"Dispatch Period" means the period commencing at 0.00 hrs (Belize time) on the immediately succeeding day (following the Dispatch Instruction) and ending at 24.00 hrs on that day.

"Dispatch Procedures" means the procedures for the Dispatch of electrical energy from the Facility as set forth in Article 12.1 (*Dispatch*), as amended from time to time by the Committee of Operation.

"Early Termination Date" has the meaning assigned to such term in Article 24.2 (*Termination*).

"Emergency" means a condition or situation which exists on the Transmission Grid during times when generation supply is less than load or just equal to load, or when system voltages and/or the system frequency is outside required limits of the Transmission Grid Code as set forth in Exhibit 2 (*Transmission Grid Code*) and parameters for operation of the Transmission Grid as set forth in Exhibit 9 (*Operating Code*) or other circumstances that exist resulting in a condition where the security, stability, integrity or safety of the Transmission Grid may be jeopardized.

"Energy Allocation for Facility and Factory" means the portion of the electrical energy generated by the Facility which is allocated for use by the Facility and the Factory, being 65 GWh per annum unless otherwise agreed in writing between the Parties.

"Energy Metering Facilities" means all meters and metering devices owned by the Purchaser and used to measure the delivery of Net Energy Output at the Delivery Point.

"Environmental Compliance Plan" means the environmental compliance plan set out in the document issued by the Department of the Environment stipulating the environmental measures which must be adopted during the design, construction and operation of the Facility and the Interconnection Facilities, as set forth in Exhibit 10 (*Environmental Compliance Plan*).



"Event of Default" has the meaning assigned to such term in Article 24.1 (*Event of Default*).

"Exhibits" means the following exhibits to this Agreement:

Exhibit 1	Government Approvals;
Exhibit 2	Transmission Grid Code;
Exhibit 3	Description of the Biomass Fired (Bagasse) Project including Design and Operating Limits and Site Description;
Exhibit 4	Testing Requirements for the Biomass Fired (Bagasse) Project;
Exhibit 5	Description of the Interconnection Facilities;
Exhibit 6	Part I - Available Capacity Declaration Part II- Dispatch Instruction;
Exhibit 7	Provisions for electrical energy supplied by the Purchaser through the Seller to the Factory;
Exhibit 8	Description and provisions for the Purchaser's Equipment installed at the Facility;
Exhibit 9	Operating Code
Exhibit 10	Environmental Compliance Plan; and
Exhibit 11	Tariff calculation and adjustment.
Exhibit 12	Deleted by Agreement

"Facility" means the generating station described in Exhibit 3 (*Description of Biomass Fired (Bagasse) Project including Design and Operating Limits and Site Description*), located in Orange Walk adjacent to the Factory and which is constructed and operated for the purpose of (i) supplying electrical energy to the Purchaser in accordance with this Agreement and (ii) supplying electrical energy and steam to the Factory.

"Factory" means the sugar mill and land of BSI located in Orange Walk.

"Financial Close" means the first Business Day on which the Seller is satisfied that (a) the Loan Documents have been executed by each of the parties thereto and (b) all of the conditions precedent to the initial availability of funds under the Loan Documents have been satisfied.

"Financing Parties" shall mean the Lenders, export credit agencies, multilateral institutions, equity providers, and other institutions providing financing or refinancing to the Seller for the development, ownership, operation and maintenance of the Facility, or any trustee, or agent acting on behalf of the foregoing.

"Firm Capacity" means the electrical generating capacity of the Facility at the Delivery Point, as determined by the Committee of Operations in accordance with Article 2.3 (*Firm Capacity*).

"Force Majeure Event" has the meaning assigned to such term in Article 10.6.2 (*Force Majeure Event*).

"Forced Outage" means any partial or complete interruption of, or reduction in, the Facility's electrical energy production capability that is not the result of (a) a Scheduled Outage, (b) a Maintenance Outage or (c) a Force Majeure Event.

"Fossil Fuel" means fuel oil used or to be used by the Facility.

"Fuel" means the combustible material used by the Facility which shall normally comprise Bagasse and may also comprise Fossil Fuel.

"Governmental Approval" means, without limitation, any authorisation, consent, approval, license, ruling, permit, exemption, variance, order, judgment, decree, declaration of or regulation by any Government Authority relating to the acquisition, ownership, occupation, construction, start-up, testing, operation or maintenance of the Facility or to the execution, delivery or performance of this Agreement, including, *inter alia*, those listed in Exhibit 1 (Governmental Approvals).

"Government Authority" means any authority of the Government of Belize having jurisdiction over either Party or the Facility, including any national, district, local, territorial or municipal government or any department, commission, board, bureau, agency, instrumentality, judicial or administrative body thereof.

"GW" means gigawatt.

"GWh" means gigawatt hour.

"Imported Energy Consumed by the Facility" means any electrical energy supplied by the Purchaser to the Seller during periods when the Facility is not generating sufficient electrical energy to meet its own consumption requirements and which is not supplied by the Seller to the Factory.

"Import Metering Facilities" means the metering equipment owned by the Purchaser and installed at the Delivery Point for the purposes of measuring electrical energy supplied by the Purchaser to the Seller.

"Interconnection Facilities" means all the equipment and facilities which are used for the purpose of delivering Net Energy Output from the Delivery Point to the Interconnection Point, including the following: the Energy Metering Facilities, transmission and distribution lines and associated equipment, transformers and associated equipment, relay and switching equipment, protective devices and safety equipment and telemetering equipment, wherever located.

"Interconnection Point" means the physical point or points where interconnection is made between the Interconnection Facilities and the Transmission Grid.

"kW" means kilowatt.

"kWh" means kilowatt-hour.

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"Law" means any statute, law, rule, regulation, order, treaty, court decision existing, enacted, made issued or promulgated or imposed by a Government Authority, whether in effect now or at any time in the future and applicable to the Parties, the Facility or relating to the rate of return on investment of the Seller or its shareholders or the cost of financing, constructing, operating and maintaining the Facility including any of the foregoing relating to Tax, reserve or repatriation requirements of any kind or relating to expropriation or compulsory acquisition.

"Lenders" means, at any time, the banks and other financial institutions who have entered into commitments to provide financing or refinancing facilities (including, without limitation, loans, guarantees, letters of credit and hedging facilities) in connection with the Facility at such time and any successors, permitted assignees or transferees, agents, trustees or other representatives of such persons.

"Loan Documents" means the loan agreements, notes, indentures, security agreements, interest rate hedging agreements, guarantees and other documents entered into or to be entered into relating to the permanent financing (including financing of working capital requirements and refinancing and provision of letters of credit for permanent financing) of the Facility and Interconnection Facilities or any part thereof.

"Maintenance Outage" means a partial or complete interruption of the Availability of the Facility that (a) has been coordinated in advance with the Purchaser in accordance with Article 10.2 (*Maintenance Outages*) (including agreed start date, time and duration), (b) is not a Force Majeure Event, Forced Outage or a Scheduled Outage, and (c) is for the purpose of performing work on specific components of the Facility in order to maintain the performance, safety or durability of the Facility, which should not, in the reasonable opinion of the Seller, be postponed until the next Scheduled Outage. Any partial or complete interruption of the Facility's output which immediately succeeds a Scheduled Outage and which extends beyond the pre-agreed duration of that Scheduled Outage shall be deemed a Maintenance Outage.

"Minimum Load" means the minimum load required by the Facility to be able to run under a stable condition, as defined in Exhibit 3 (*Description of the Biomass Fired (Bagasse) Project including Design and Operating Limits and Site Description*).

"Month" means a period starting on one day in a calendar month and ending on the numerically corresponding day in the next calendar month, except that (i) if the numerically corresponding day is not a Business Day, that period shall end on the next Business Day in that calendar month in which that period is to end if there is one, or if there is not, on the immediately preceding Business Day and (ii) if there is no numerically corresponding day in the calendar month in which that period is to end, that period shall end on the last Business Day in that calendar month.

"MW" means megawatt.

"MWh" means megawatt-hour.

"Net Energy Output" or "NEO" means the electrical energy that is Dispatched by the Facility and delivered by the Seller to the Purchaser at the Delivery Point in accordance with a Dispatch Instruction, as measured in kWh by the Energy Metering Facilities.

"Operating Limits" means, collectively, the Design Limits, the Dispatch Restrictions and the Permit Limits set forth in Exhibit 3 (*Description of the Biomass Fired (Bagasse) Project including Design and Operating Limits and Site Description*).

"Operating Procedures" means the written operating procedures developed by the Seller and the Purchaser pursuant to Article 9.2 (*Committee of Operation*), as amended, modified or supplemented from time to time.

"Operator" means the operator of the Facility appointed or to be appointed by the Seller.

"Performance Test" means a test performed in accordance with Exhibit 4 (*Testing Requirements for the Biomass Fired (Bagasse) Project*).

"Permit Limits" means the approved characteristics of the Facility and any operating constraints specified in the Governmental Approvals for the Facility.

"Person" means any individual, corporation, partnership, limited liability company, joint venture, trust, unincorporated organization or Government Authority.

"Prevailing Rate of Exchange" means, on any day, the official rate of exchange between the United States Dollar and the Belize Dollar as set by Section 20 of the Central Bank Act, Chapter 262, of the Laws of Belize (as amended, varied or re-enacted from time to time) or such other rate of exchange published by such other agency or institution as shall be agreed by the Parties at the relevant time to reflect the official mid-point rate of exchange between the two currencies.

"Prime Rate" means ten (10) per cent. per annum.

"Protected Persons" has the meaning assigned to such term in Article 29.5 (*Confidentiality*).

"Prudent Utility Practice" means the practices and standards generally or customarily followed from time to time by the electrical energy industry having regard to engineering and operational considerations, including manufacturers' recommendations. For the avoidance of doubt, Prudent Utility Practice shall not be limited to optimum practices, methods or acts to the exclusion of all others, but shall be a spectrum of possible practices, methods and acts which could have been expected to accomplish the desired result at reasonable cost consistent with reliability and safety.

"PUC" means the Public Utilities Commission of Belize.

"Quarter" means, in relation to any calendar year, each period of three calendar months commencing on January 1, April 1, July 1 and October 1 of that year.

"Scheduled Commercial Operation Date" means December 31, 2007.

"Scheduled Outage" means a planned partial or complete interruption of the Availability of the Facility that has been coordinated in advance in accordance with Article 10.1 (*Scheduled Outages*).

"Security Arrangements" means arrangements entered into by the Seller in favour of the Purchaser as set forth in Article 5.2 (*Security*) and Article 6.3 (*Security*).

"Site" has the meaning assigned to such term in Exhibit 3 (*Description of the Biomass Fired (Bagasse) Project including Design and Operating Limits and Site Description*).

"Successor Company" means (a) in the case of the Purchaser, any Person who acquires the whole or any substantial part of the rights of the Purchaser under BEL's License and (b) in the case of the Seller, any Person who acquires the whole or any substantial part of the rights of the Seller to conduct the business of generation and sale of the electrical energy to be supplied under this Agreement.

"Tariff" means the price per unit of electrical energy, expressed in United States Dollars per kWh, to be paid by the Purchaser to the Seller in respect of Firm Capacity, as determined in accordance with Article 17.1 (*Tariff for Payment for Net Energy Output Associated with Firm Capacity*).

"Taxes" means any tax, charge, impost, tariff, duty or fee of any kind charged, imposed or levied directly or indirectly by any Government Authority in Belize applicable to the Seller, the shareholders of the Seller or the Facility, including without limitation any such corporate income tax, value added tax, sales tax, stamp tax, import duty, withholding tax (whether on dividends, interest payments, fees, equipment rentals or otherwise), tax on foreign currency loans or foreign exchange transactions, excise tax, property tax, registration fee or license, water tax or environment tax.

"Term" has the meaning assigned to such term in Article 4.1 (*Term*).

"Termination Payment" has the meaning assigned to such term in Article 24.3 (*Termination*).

"Test Date" has the meaning assigned to such term in Article 6.2 (*Notice to Provide Interconnection Facilities*).

"Transmission Grid" means the transmission system owned by the Purchaser.

"True Availability Factor" means, in relation to any Contract Year, the actual Availability of the Facility in that Contract Year as calculated pursuant to Section 18.

"United States Dollar" or "US\$" means the lawful currency for the time being of the United States of America.



1.1 Interpretation. Unless the context otherwise requires:

1.1.1 Words singular and plural in number shall be deemed to include the other and pronouns having masculine or feminine gender shall be deemed to include the other.

1.1.2 Any reference in this Agreement to any Person includes its successors and assigns and, in the case of any Government Authority, any Person succeeding to its functions and capacities.

1.1.3 Unless otherwise indicated, any reference in this Agreement to any Article, Section, Exhibit or Annex means and refers to the Article or Article contained in, or Exhibit or Annex attached to, this Agreement.

1.1.4 Other grammatical forms of defined words or phrases have the meaning corresponding to that of the defined word.

1.1.5 Unless otherwise indicated, a reference to a document or agreement, including this Agreement, is a reference to that document or agreement as amended, supplemented or restated from time to time with the written consent of the Parties.

1.1.6 Unless otherwise indicated, a reference to a Law is a reference to that Law as amended or re-enacted.

1.1.7 If any payment, act, matter or thing hereunder would occur on a day that is not a Business Day, then such payment, act, matter or thing shall, unless otherwise expressly provided for herein, occur on the next Business Day.

1.1.8 The terms "include," "includes" and "including" shall be deemed to be followed by the words "without limitation."

1.1.9 The words "hereof," "herein," and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement.

1.1.10 Any reference to a document *in the agreed form or in the agreed terms* is to the form or terms of the relevant document agreed between the Seller and the Purchaser and initialed by or on their behalf for purposes of identification.

1.1.11 A "regulation" includes any regulation, rule, official directive, request or guideline (whether or not having the force of law) of any governmental, intergovernmental or supranational body, agency, department or regulatory, self-regulatory or other authority or organization.

1.1.12 A "day" means a period beginning at 00:00 hrs on any day and ending at 24:00 hrs on the same day.

1.1.13 A time of day is a reference to Belize time.

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2. Sale and Purchase of Energy and Capacity

2.1 Sale and Purchase. Subject to and in accordance with the other terms and conditions of this Agreement, from (and including) the Commercial Operation Date until (and including) the last day of the Term: (i) the Seller shall make available at the Delivery Point and sell to the Purchaser NEO associated with Firm Capacity and As-Available Capacity from time to time generated by the Facility and (ii) the Purchaser shall purchase from the Seller NEO associated with Firm Capacity for the consideration described in Article 17 (*Compensation*) and As-Available Capacity which it agrees to purchase from time to time for the consideration agreed between the Parties at the relevant time in accordance with Article 2.4 (*Declared As-Available Capacity*).

2.2 Title and Risk of Loss. Title to and risk of loss of electrical energy generated by the Facility shall reside with the Seller until the Delivery Point and shall pass from the Seller to the Purchaser at the Delivery Point.

2.3 Firm Capacity. The Committee of Operation shall agree Firm Capacity for each Contract Year not less than forty-five (45) days prior to the commencement of that Contract Year, taking into account (i) Availability during the then current Contract Year to date, (ii) the Seller's estimate of Bagasse which will be available to it during that Contract Year, (iii) any expected or reasonably foreseeable events or circumstances which may affect the Facility's Availability during that Contract Year and (iv) Energy Allocation for Facility and Factory during that Contract Year **provided that** notwithstanding the foregoing:

- (a) the Committee of Operation shall not be permitted to agree Firm Capacity for any Contract Year at a level which is more than five (5) per cent. higher or lower than Firm Capacity for the then current Contract Year; and
- (b) if the Committee of Operation requires Firm Capacity in respect of any Contract Year to be less than 10,000 kW or more than 16,500kW then the prior written consent of the Parties shall be required.

2.4 Declared As-Available Capacity. From time to time the Seller may offer to the Purchaser As-Available Capacity in accordance with Article 12.2.1 (*Dispatch Instruction*) and the Purchaser shall endeavour to accept NEO associated with such As-Available Capacity for a price to be agreed between the Parties at the relevant time provided that the price for NEO associated with such As-Available Capacity shall not exceed the then current Tariff for NEO associated with Firm Capacity.

2.5 Additional Energy.

2.5.1 Request for Additional Energy. From time to time the Purchaser may request the Seller to supply Additional Energy. It is understood and agreed between the Parties that the Seller may, but shall not at any time be obliged to, supply Additional Energy to the Purchaser and that, if the Seller agrees to supply Additional Energy and determines that it has insufficient Bagasse available to it to generate such Additional Energy, all or any part

of that Additional Energy may be produced by Fossil Fuel. Additional Energy shall be disregarded when calculating Net Energy Output pursuant to Article 17 (*Compensation*).

2.5.2 Price. The price to be paid by the Purchaser for Additional Energy shall be agreed between the Parties at the relevant time (being in any event prior to acceptance of the request) taking into account the availability of Bagasse and the cost of Fossil Fuel at that time.

2.6 Maintaining Availability. Subject to sufficient Bagasse being available, the Seller will use its best efforts to ensure that the True Availability Factor is maintained at 0.9 or greater and shall not, without the written consent of the Purchaser (not to be unreasonably withheld or delayed), sell electrical energy associated with As-Available Capacity to another Person if this will result in the Seller being unable to maintain a True Availability Factor of 0.9.

2.7 Carbon Credits. The Purchaser agrees to facilitate and co-operate with the Seller, at no charge or fee to the Seller, with regard to measures necessary or desirable to obtain Carbon Credits for electrical energy generated by the Facility.

3. **Conditions Precedent and Exhibits**

3.1 Effectiveness of the Seller's Obligations. Other than the Security Arrangements and notwithstanding anything to the contrary contained in this Agreement (but subject nonetheless to Article 3.4 below) or in any other agreement relating to this Agreement, the Seller shall have no obligations under this Agreement until the Seller notifies the Purchaser in writing that the following conditions precedent have been fulfilled or waived in writing by the Seller:

- (a) the Seller shall have received all Government Approvals listed in Exhibit 1 (Government Approvals) and such Governmental Approvals remain in full force and effect;
- (b) the Seller shall have received a copy, certified as true by the Purchaser's company secretary, of the BEL's License;
- (c) the Seller and the Financing Parties shall have received an opinion of Belize legal counsel to the Purchaser, in form and substance satisfactory to the Seller and the Financing Parties, as to the power, capacity and authority of the Purchaser to enter into this Agreement and the transaction contemplated hereby, the enforceability of this Agreement against the Purchaser in accordance with its terms and such other matters as the Seller or any Financing Party may request, acting reasonably; and
- (d) Financial Close shall have occurred.

3.2 Effectiveness of the Purchaser's Obligations. Notwithstanding any other provisions of this Agreement (but subject nonetheless to Clause 3.4 below), the Purchaser shall have no obligations under this Agreement until the date specified in a notice from the Purchaser to the Seller stating that the following conditions precedent have been fulfilled or waived in writing by the Purchaser:

- (a) the Purchaser shall have received copies of the Memorandum and Articles of Association of the Seller, certified as true by the Seller's company secretary, and a copy of the Seller's License to Generate under the Electricity Act;
- (b) the Purchaser shall have received copies of resolutions passed by the Seller's Board of Directors authorising the execution, delivery and performance by the Seller of this Agreement and the transactions contemplated by this Agreement, certified as true by the Seller's company secretary;
- (c) the Purchaser shall have received an opinion of Belize legal counsel to the Seller, in form and substance satisfactory to the Purchaser, as to the power, capacity and authority of the Seller to enter into this Agreement and the transactions contemplated hereby, the enforceability of this Agreement against the Seller in accordance with its terms and such other matters as the Purchaser may reasonably request;
- (d) the Seller shall have provided the Purchaser with copies of the Governmental Approvals described in Exhibit 1 (Government Approvals) attached hereto; and
- (e) The Electricity Tariffs Charges and Quality of Service Standards Byelaws shall have been amended to the Purchaser's satisfaction to ensure that the Purchaser shall be entitled to immediate relief from the adverse impact of price adjustments caused by increase(s) in the costs of fossil fuel.

3.3 Assistance from the Purchaser. The Purchaser shall, at the request of the Seller, afford all reasonable assistance to the Seller in achieving the necessary funding for the Facility including, without limitation, by making its officers available to respond to any comments or to answer any questions which any potential Financing Party may have **provided that** in the absence of gross negligence or willful misconduct of the Purchaser, the Purchaser shall not be liable for any failure of Financial Close to occur.

3.4 Exhibits – Conditions of Effectiveness. Notwithstanding any other provision of this agreement the parties hereto mutually agree that this Agreement shall not become binding and enforceable until all Exhibits [Save and Except for Exhibit 9 – the Operating Code] have been completed and duly added to this Agreement. The parties hereto mutually agree to explore in good faith the formulation of an Operating Code but

acknowledge that the non-completion or non-formulation of such Code is not a condition for the enforceability of this Agreement and shall not constitute any ground for a claim by either party.

4. **Term and Termination**

4.1 Term. The term of this Agreement shall commence on the Agreement Date and shall continue in full force and effect until the day which falls one hundred and eighty (180) Months after the Commercial Operation Date, unless it is terminated earlier in accordance with this Agreement.

4.2 Termination. The termination or expiry of this Agreement shall be without prejudice to the rights and obligations of the Parties accrued under this Agreement prior to, or which are expressed to continue beyond, such termination or expiry.

4.3 Extension. Subject to authorisation from the PUC being obtained, the Term may be extended by prior written agreement of the Parties. It is hereby understood and agreed between the Parties that the Purchaser shall not object unreasonably to an extension of the Term by an additional sixty (60) Months.

5. **Penalty for Failure to Achieve Scheduled Commercial Operation**

Date

5.1 Penalty. Subject to Article 7.1.2 (*Unavailability of Interconnection Facilities*), if the Commercial Operation Date is not achieved on or before the Scheduled Commercial Operation Date, the Seller shall pay to the Purchaser a penalty in an amount equal to BZ\$405,000 (four hundred and five thousand Belize Dollars) (the "First Guaranteed Amount").

5.2 Security. Not later than twelve (12) Months before the Scheduled Commercial Operation Date the Seller shall deliver to the Purchaser any one of the following (at the Seller's option) in an amount equal to the First Guaranteed Amount as security (the "Security") for the Seller's obligation to pay the First Guaranteed Amount:

- (a) a cash deposit held in an escrow account with a bank acceptable to the Seller and the Purchaser; or
- (b) a guarantee from a Person satisfactory to the Purchaser in favour of the Purchaser; or
- (c) a stand-by letter of credit issued by a bank in Belize on behalf of the Seller in favour of the Purchaser.

5.3 Enforcement and Release of Security

5.3.1 If the Commercial Operation Date does not occur on or before the Scheduled Commercial Operation Date then the Security may be enforced by the

Purchaser in payment and discharge in full of the Seller's obligations under Article 5.1 (*Penalty for Failure to Achieve Scheduled Commercial Operation Date*).

5.4 If the Commercial Operation Date does occur on or before the Scheduled Commercial Operation Date then the Security shall not be enforced by the Purchaser and the Purchaser shall promptly, but in any event not later than ten (10) days following the Commercial Operation Date, return or release the Security (as appropriate) and provide evidence thereof to the Seller.

6. Interconnection Facilities

6.1 Provision of the Interconnection Facilities. The Purchaser shall, at its own cost and expense and in consultation with the Seller, design, finance, construct, own, operate and maintain the Interconnection Facilities as described in Exhibit 5 (Description of Interconnection Facilities) and the Environmental Compliance Plan.

6.2 Notice to Provide Interconnection Facilities. Not later than the day (the "Notice Date") which falls twelve (12) Months prior to the day (the "Test Date") on which the Seller estimates that Interconnection Facilities will be required by the Seller to allow Commissioning Tests to proceed, the Seller shall deliver written notice of the anticipated Test Date to the Purchaser. Without prejudice to any other provision of this Agreement, it is understood and agreed between the parties that the Commercial Operation Date is intended to occur approximately three (3) Months after the Test Date.

6.3 Security. On the Notice Date, the Seller shall deliver or cause to be delivered to the Purchaser a bond or guarantee (at the Seller's option) from a Person satisfactory to the Purchaser in an amount equal to US\$600,000 (six hundred thousand United States Dollars) or its equivalent in Belize Dollars (at the Seller's option) (the "Second Guaranteed Amount") as security for any and all costs reasonably incurred by the Purchaser in providing Interconnection Facilities in circumstances where, subject to Article 7.1.2 (*Unavailability of Interconnection Facilities*), the Seller has failed to ensure that the Commercial Operation Date is achieved on or before the Scheduled Commercial Operation Date.

6.4 Claims under the Guarantee or Bond. If the Commercial Operation Date has not occurred on or before a date specified in the first column below then, at any time after that date, the Purchaser shall be permitted to deliver to the Person who has issued the bond or guarantee referred to in Article 6.3 (*Security*) a demand for payment in an amount equal to the amount specified in the second column below alongside that date:

<i>Months after Test Date</i>	<i>Amount (US Dollars)</i>
6	100,000
18	100,000
30	100,000

42	100,000
54	100,000
60	100,000

6.5 Expiry of Guarantee or Bond. The Purchaser shall not be permitted to make further demands for payment pursuant to Article 6.4 (*Claims under the Guarantee or Bond*) at any time after the Commercial Operation Date and the guarantee or bond referred to in Article 6.3 (*Security*) shall expire at 15.00 hrs on the tenth (10) day after the Commercial Operation Date (the "**expiry time**"). Any demand for payment must be delivered to the Person who has issued the guarantee or bond before the expiry time.

6.6 Sole Remedy. The Security for the First Guaranteed Amount and the Second Guaranteed Amount shall be the sole remedy of the Purchaser against the Seller in respect of any and all costs, expenses, losses and liabilities incurred or suffered by the Purchaser as a result of the Commercial Operation Date not falling on or before the Scheduled Commercial Operation Date.

7. **The Purchaser's Obligation in respect of Interconnection Facilities.**

7.1 Unavailability of Interconnection Facilities.

7.1.1 In the event that the completion of the Facility, the Commissioning Tests or the Scheduled Commercial Operation Date is delayed or cannot occur as a result of the Interconnection Facilities not being available to transmit electrical energy from the Delivery Point to the Transmission Grid on the Test Date, the Commercial Operation Date shall be deemed to occur on the day which falls three (3) Months after the Test Date (the "Deemed Commercial Operation Date") and the purchase and payment obligations of the Purchaser hereunder (including, without limitation, the Purchaser's Energy Purchase Guarantee set out in Article 19 (*The Purchaser's Energy Purchase Guarantee*)) shall commence with effect from the Deemed Commercial Operation Date.

7.1.2 The Seller shall not be liable for payment of the whole or any part of the First Guaranteed Amount or the Second Guaranteed Amount (and the Purchaser shall not enforce the security constituted thereby) if the Commercial Operation Date is delayed due to the Purchaser's failure to make fully operational Interconnection Facilities available to the Seller or to ensure that the Facility has been properly connected thereto as required pursuant to Article 8.1.2 (*Testing Requirements*) from and at any time after the Test Date.

8. **Commissioning, Testing and Capacity Ratings**

8.1 Testing Requirements

8.1.1 The Seller shall perform the Commissioning Tests of the Facility and the Interconnection Facilities as per Exhibit 4 (*Testing Requirements for the Biomass Fired (Bagasse) Project*) to demonstrate the capability of the Facility and the Interconnection Facilities.

8.1.2 The Purchaser shall at its own cost and expense do or provide all such things which may be required to enable the Facility to be properly connected to the Interconnection Facilities and the Transmission Grid for the purposes contemplated by this Agreement, including, without limitation, by: (i) providing all relevant services and facilities, (ii) obtaining all relevant clearances, permits to work and other authorisations, (iii) permitting access to its property and (iv) isolating and de-energizing transmission lines.

8.1.3 The Purchaser shall at its own cost and expense undertake any works required on the Transmission Grid to enable the Interconnection Facilities to remain properly connected to the Transmission Grid from and at any time after the Test Date.

8.1.4 The Purchaser shall at its own cost and expense co-operate with the Seller to facilitate the Commissioning Tests including, without limitation, acceptance of the electrical energy generated, provision of data and information relating to the Transmission Grid and other such services which may be required or desirable to enable the Seller to perform the Commissioning Tests.

8.1.5 The procedures and programme for the Commissioning Tests shall be in accordance with recognised international standards appropriate to the Facility, and shall be agreed by the Committee of Operation not later than forty-five (45) days prior to the Test Date. The Purchaser shall nominate a representative to be present at the appropriate times to witness the Commissioning Tests.

8.1.6 Promptly upon completion of the Commissioning Tests, the Committee of Operation shall agree the Demonstrated Capacity, which shall be not less than 13,500 kW and not more than 16,500 kW.

8.1.7 At the same time as agreeing the procedures and programme for the Commissioning Tests, the Committee of Operation shall agree the appropriate procedures and acceptance criteria such that acceptance or rejection in whole or in part of the Commissioning Tests is to be determined objectively and automatically. Any rejected parts of the Commissioning Tests shall be repeated until the acceptance criteria have been met. In the event that it becomes clear that the acceptance criteria cannot reasonably be met, the Parties hereby agree to relax the criteria to an appropriate level, either permanently or for a defined period **provided that** the security and safety of the Transmission Grid and any facilities connected to the Transmission Grid are not compromised.

9. Maintenance and Operation of the Facility

9.1 Permits; Compliance with Laws.

9.1.1 The Seller shall, at its own cost and expense, acquire and maintain in effect, in accordance with applicable Law, any Governmental Approvals which the Seller determines may be necessary or advisable from time to time (i) for the operation and maintenance of the Facility and (ii) for the Seller to perform its obligations, in each case in accordance with this Agreement.

9.1.2 The Purchaser shall use its best efforts to support the application by the Seller for such Governmental Approvals, and shall use its best efforts to assist with the procurement of such Governmental Approvals.

9.1.3 The Seller shall, at all times, comply in all material respects with all material Laws and Governmental Approvals applicable to it, the Facility and the generation of electrical energy, including all applicable environmental Laws in effect at any time during the Term.

9.1.4 The Purchaser shall, at all times, comply in all material respects with all Laws and, at its expense, acquire and maintain in effect any and all Governmental Approvals which may be necessary from time to time for the Purchaser to perform its obligations under this Agreement.

9.1.5 The Purchaser shall operate the Transmission Grid in accordance with Prudent Utility Practice and within the operating parameters defined in Exhibit 9 (Operating Code) and Exhibit 2 (Transmission Grid Code) if and when agreed and completed. Furthermore, the Purchaser shall procure that other generators which supply electrical energy to the Transmission Grid shall conduct their operations substantially in accordance with the Transmission Grid Code or otherwise in a manner which does not conflict with any right of the Seller under this Agreement or in respect of the transactions contemplated by this Agreement.

9.2 Committee of Operation.

9.2.1 A Committee of Operation shall be formed within ninety (90) days of the Agreement Date. Such Committee of Operation shall comprise an equal number of representatives of each of the Purchaser and the Seller (each a "Representative"). Each Party shall delegate to its Representative(s) authority to agree procedures and technical issues in respect of the construction, operation and maintenance of the Facility and the Interconnection Facilities.

9.2.2 Any and all procedures and technical issues to be agreed by the Committee of Operation shall be in accordance with, and shall not conflict with, this Agreement. The Committee of Operation shall have no authority to waive, alter or amend any provision of this Agreement.

9.2.3 The Committee of Operation shall meet at times to be agreed between the Parties, not less than twice and not more than six times per annum, unless specifically agreed otherwise. Any and all costs incurred by a Party in respect of such meetings shall be borne by the Party which has incurred them. The decisions of, and any procedures agreed by, the Committee of Operation shall be recorded in writing, and shall be verified and signed on behalf of each Party by one Representative of such Party.

9.3 Operating Procedures.

9.3.1 The Committee of Operation shall develop and agree written Operating Procedures not later than sixty (60) days before the Scheduled Commercial Operation Date. The Operating Procedures shall take into account the design of the Facility, the

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requirements of the Transmission Grid and the requirements of any Governmental Authorities. Topics covered in the Operating Procedures shall include, without limitation, the method for day-to-day communications, key personnel lists for both Seller and Purchaser, outage reporting and scheduling, forms of monthly capacity reports, daily capacity reports and energy reports, unit operations logs to be maintained, clearances and switching practices.

The Parties agree to implement in good faith from time to time any changes to the Operating Procedures which either Party has identified as being required at the relevant time.

9.4 Covenants of Seller and Purchaser

9.4.1 Compliance by the Seller. The Seller shall, and shall ensure that its employees, agents and representatives shall do the same, use its best efforts to construct, operate, maintain and insure the Facility in accordance with (a) this Agreement, (b) the Operating Limits, (c) Prudent Utility Practice, (d) the Operating Procedures, (e) the Transmission Grid Code, (f) any applicable Governmental Approvals and Laws (including the Act) including any environmental guidelines, occupational health and safety standards and g) any supplier maintenance and repair guidelines

9.5 Compliance by the Purchaser. The Purchaser shall, and shall ensure that its employees, agents and representatives shall do the same, use its best efforts to operate, maintain and insure the Interconnection Facilities in accordance with (a) this Agreement, (b) Prudent Utility Practice, (c) the Transmission Grid Code, (d) any applicable Governmental Approvals and Laws (including the Act) including any environmental guidelines, occupational health and safety standards and (e) any applicable maintenance and repair guidelines.

9.6 Personnel. The Seller may appoint an Operator to operate the Facility in accordance with this Agreement and, if so appointed, shall ensure compliance by the Operator with the terms of this Agreement. The Seller shall employ only personnel (management, supervisory or otherwise) who are qualified and experienced in (i) operating and maintaining facilities similar to the Facility and (ii) coordinating operation of the Facility with the Transmission Grid. The Seller shall ensure that sufficient personnel is available at all times during operation of the Facility.

9.7 Operation of Facility and Transmission Grid. The Seller shall operate the Facility and the Purchaser shall operate the Transmission Grid such that, subject to Prudent Utility Practice, Net Energy Output delivered by the Seller is as close as possible to Net Energy Output requested by the Purchaser in a Dispatch Instruction.

9.8 Control of Reactive Power. The Seller's synchronous generation system shall be designed, operated and controlled within the Operating Limits and the Transmission Grid Code in Exhibit 2 (Transmission Grid Code) to provide reactive power in accordance with the Dispatch Instructions issued in accordance with this Agreement. The Purchaser shall use reasonable efforts to maintain a power factor near to unity on the Transmission Grid.

9.9 BEL's License. The Purchaser shall at all times comply with BEL's License and shall use its best efforts to ensure that BEL's License is renewed or extended to a

date which falls after the expiry of the Term and shall disclose to the Seller all information which is available to it and which relates or might be relevant to the Facility, the transactions contemplated by, or any right of the Seller under, this Agreement.

10. Outages, Emergencies and Force Majeure

10.1 Scheduled Outages.

10.1.1 On the day which falls sixty (60) days before the Scheduled Commercial Operation Date and on or before November 1 of each Contract Year, the Seller shall deliver to the Purchaser written notice of the dates for Scheduled Outages for the next Contract Year and the reasons for such Scheduled Outages. The Committee of Operation shall coordinate and agree on the scheduling of all Scheduled Outages. Subject to the limits described in this Article 10.1, Scheduled Outages shall be scheduled in accordance with Prudent Utility Practice and manufacturers' recommendations. From time to time during each Scheduled Outage, the Seller shall keep the Purchaser apprised of the status of the Facility and the expected duration of that Scheduled Outage.

10.1.2 The Purchaser shall coordinate the maintenance programmes for the Interconnection Facilities with Scheduled Outages so as to minimise any disruption to the operation of the Facility. The Committee of Operation shall coordinate and agree on the scheduling of all such maintenance programmes.

10.2 Maintenance Outages. In addition to Scheduled Outages, the Seller may schedule additional hours of Maintenance Outages **provided that** the Seller must deliver to the Purchaser, as soon as reasonably possible but in any event not later than twenty-four (24) hours prior to commencement of a proposed Maintenance Outage, prior written notice of the reason for the maintenance, the start time and the anticipated duration of the Maintenance Outage.

10.3 The Committee of Operations shall ensure that Scheduled Outages and Maintenance Outages are scheduled so as to minimise disruption to the operation of the Facility and the Purchaser shall ensure that no preference or priority is given to any other providers of electrical energy to the Purchaser (including, without limitation, those providers which are affiliated or controlled by the Purchaser) in relation to the timing of their scheduled outages and/or maintenance outages in circumstances where such timing conflicts or would conflict with the timing proposed by the Seller.

10.4 Forced Outages.

10.4.1 Promptly upon the occurrence of a Forced Outage, the Seller shall notify the Control Center thereof.

10.4.2 If such Forced Outage is continuing forty-eight (48) hours after it first occurred, the Seller shall deliver to the Purchaser a written notice describing, to the extent that it is aware thereof (i) the nature and cause of the Forced Outage, (ii) the expected restoration date or time and (iii) the measures being implemented to remedy the cause(s) of that Forced Outage.

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10.5 Emergencies.

10.5.1 Not less than forty-five (45) days prior to the Test Date, the Committee of Operation shall agree written procedures for operating the Facility during an Emergency which shall be consistent with the Design Limits, Permit Limits and safe operation of the Facility. Such Emergency procedures shall include recovery procedures following a local or widespread electrical blackout and voltage reduction procedures in order to effect load curtailment. Each of the Seller and the Purchaser shall use their best efforts to comply with such procedures in the event of an Emergency.

10.5.2 During an Emergency, the Seller shall supply such electrical energy as the Facility is able to generate and the Purchaser is able to receive, and which is in excess of Energy Allocation for Facility and Factory, in accordance with Prudent Utility Practice and within the Operating Limits.

10.6 Force Majeure Event.

10.6.1 Except as expressly provided in this Agreement, neither Party (the "**Claiming Party**") shall be in breach of its obligations under this Agreement or be otherwise liable to the other Party (the "**Non-Claiming Party**") for any delay in performance or any non-performance of any such obligations (other than payment obligations) if and to the extent that such delay or non-performance is due to a Force Majeure Event **provided that**:

- (a) the Claiming Party could not have avoided the effect of the Force Majeure Event by taking precautions which, having regard to all matters known to it before the occurrence of the Force Majeure Event and all other relevant factors, it ought reasonably to have taken but did not take and such Force Majeure Event was beyond the reasonable control of the Claiming Party;
- (b) the Claiming Party has used its reasonable endeavours to mitigate the effect of the Force Majeure Event and remedy any inability to perform its obligations under this Agreement due to such Force Majeure Event **provided that** the Claiming Party shall not be obliged to take any such steps if the Facility is no longer economically viable or technically viable due to, or as a direct or indirect result of, such Force Majeure Event.

10.6.2 A "**Force Majeure Event**" shall be defined as any event or circumstance or combination of events or circumstances beyond the control of the Claiming Party that satisfies Article 10.6.1 and materially and adversely affects the Claiming Party in the performance of its obligations (other than its payment obligations) in accordance with the terms of this Agreement, such events and circumstances to include, without limitation:

- (a) flood, earthquake, tornado, hurricane, storm, fire, civil disobedience, labor disputes (other than between the Claiming Party and its employees), sabotage, war, drought;

- (b) restraint by court order or public authority (whether valid or invalid) not resulting from any improper or illegal action or inaction of the Claiming Party;
- (c) any action or failure to act on the part of a Government Authority not resulting from any improper or illegal action or inaction of the Claiming Party; or
- (d) the inability to obtain or renew required Governmental Approvals not resulting from any failure by the Claiming Party to comply with the terms of such Governmental Approvals, pay the prescribed fee therefor or fill out the prescribed application therefore.

10.6.3 The Claiming Party shall notify the Non-Claiming Party in writing of the occurrence of a Force Majeure Event as soon as reasonably possible, and in any event within forty-eight (48) hours after the Claiming Party knew, or ought reasonably to have known, of its occurrence and that the Force Majeure Event would be likely to have an impact on the performance of its obligations under this Agreement. Any notice pursuant to this Article shall set out full particulars of:

- (a) the nature of each Force Majeure Event which is the subject of any claim for relief;
- (b) the effect which such Force Majeure Event is having or had on the Claiming Party's performance of its obligations hereunder;
- (c) the measures which the Claiming Party is taking, or proposes to take, to mitigate the impact of each Force Majeure Event;
- (d) the expected duration of the Force Majeure Event (if known); and
- (e) any other information relevant to the Claiming Party's claim.

10.6.4 For so long as the Claiming Party continues to claim to be affected by a Force Majeure Event, it shall provide the Non-Claiming Party with regular (and not less than monthly) written reports containing:

- (a) the information required by Article 10.6.3; and
- (b) such other information and evidence as the Non-Claiming Party may reasonably request concerning the Claiming Party's claim.

10.6.5 The Claiming Party shall promptly notify the Non-Claiming Party in writing when any Force Majeure Event, which is the subject of any claim, ceases or when there is a material change in its impact on the Claiming Party's performance of its obligations under this Agreement.

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10.6.6 Upon the occurrence of a Force Majeure Event, the Scheduled Commercial Operation Date and any other deadlines for the performance of obligations under this Agreement by the Claiming Party shall be extended to the extent reasonably necessary to compensate for the delay experienced by that Claiming Party **provided that**:

- (a) the performance by the Claiming Party of its obligations hereunder is resumed promptly upon the cessation of such Force Majeure Event;
- (b) the Claiming Party uses its best efforts to perform its obligations hereunder notwithstanding that such Force Majeure Event is continuing **provided that** nothing herein shall be construed so as to require the Seller to deliver electrical energy to the Purchaser by oil firing of the Facility if that Force Majeure Event has resulted in (i) Bagasse not being available or being available but in insufficient quantities to generate electrical energy in excess of Energy Allocation for Facility and Factory or (ii) the Seller otherwise being unable to use Bagasse to generate electrical energy in excess of Energy Allocation for Facility and Factory . For the avoidance of doubt, any electrical energy which is generated by oil firing of the Facility during the continuance of a Force Majeure Event shall be treated as if it were Additional Energy;
- (c) the Force Majeure Event was not caused by, or the result of (i) any negligent acts or willful misconduct on the part of the Claiming Party; (ii) any failure by the Claiming Party to comply with any Law; or (iii) any breach or default by the Claiming Party of any term of this Agreement.

10.6.7 If a Force Majeure Event causes a breakdown of communications such that a Party is unable to serve notice under this Agreement, the period for the serving of such notice shall be extended for every day whilst such Force Majeure Event prevents the service of such notice.

10.6.8 In the event that one or more consecutive Force Majeure Events delays or prevents a Party's performance for a period in aggregate exceeding ninety (90) days and **provided that** the Claiming Party is not responsible for the occurrence or continuation of such Force Majeure Event(s), the Term shall be extended by a period equal to the duration or the aggregate of the durations of such Force Majeure Event(s) subject to the following conditions:

- (a) the performance by the Claiming Party of its obligations hereunder is resumed promptly upon the cessation of each Force Majeure Event; and

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- (b) (if the Claiming Party is the Seller) the Term shall be extended only to the extent that the Seller has not received payment or insurance proceeds in an amount equal to the full revenue which would have been received by it from the Purchaser in the absence of such Force Majeure Event(s).

10.6.9 Notwithstanding anything to the contrary contained in this Agreement, the Seller shall never be required to control and/or operate the Facility in a manner which (i) is inconsistent with the Permit Limits or Design Limits, (ii) might reasonably be expected to cause damage to the Facility or the Factory or (iii) may cause physical injury to any individual.

11. Administration

11.1 Books and Records; Information.

11.1.1 Each Party shall keep proper books of record and account, in which full and correct entries shall be made of all dealings and transactions of, or in relation to, its business and affairs in accordance with generally accepted accounting principles in Belize and consistently applied.

11.1.2 All such records shall be maintained for a minimum of seven (7) years after the creation of such records and for any additional length of time required by applicable law.

11.1.3 The Seller shall maintain accurate and up-to-date operating logs and work order history, as appropriate, at the Facility with records of real and reactive power production for each clock hour, changes in operating status, Scheduled Outages, Maintenance Outages, Forced Outages and any unusual conditions found during inspections. The Seller shall require that all major equipment inspections be recorded with a reasonable amount of detail and consistent with Prudent Utility Practice. Operating logs for the plant shall be maintained throughout the life of the plant.

11.1.4 Each Party shall have the right, upon three (3) Business Days prior written notice to the other Party, to examine and/or make copies of the records and data of the other Party relating to transactions contemplated by this Agreement and the operation of the Facility, the Interconnection Facilities and the Transmission Grid at any time during normal office hours during the period such records and data are required to be maintained. In the case of any event or circumstance which affects or might reasonably be expected to affect the safety, security or operation of the Facility, the Interconnection Facilities or the Transmission Grid, the requirement for written notice shall be waived.

12. Dispatch Procedures

12.1 Dispatch.

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12.1.1 The Purchaser shall, pursuant to a Dispatch Instruction (i) request the Seller to Dispatch electrical energy in accordance with this Article 12 and (ii) accept delivery of Net Energy Output at the Delivery Point.

12.1.2 Save as otherwise provided herein, from and at any time after the Commercial Operation Date, the Seller shall Dispatch the electrical energy requested by the Purchaser in a Dispatch Instruction to the Delivery Point.

12.1.3 The Purchaser shall cause the Control Center to accept and deliver Net Energy Output in accordance with the Dispatch Procedures and the operating conditions of the Transmission Grid.

12.2 Dispatch Instruction.

12.2.1 Not later than 16.00 hrs on any day, the Seller shall deliver to the Purchaser an advance projection of Declared Available Capacity for the next Dispatch Period. Such advance projection shall, if possible, be delivered by telephone and shall be confirmed by the Seller by delivery to the Purchaser of a duly completed Available Capacity Declaration.

12.2.2 Not later than 19.00 hrs on any day, the Purchaser shall deliver to the Seller a request for delivery of electrical energy and capacity projected to be required by it during the next Dispatch Period, which shall not exceed the Declared Available Capacity for that Dispatch Period. Such request shall, if possible, be delivered by telephone and shall be confirmed by the Purchaser to the Seller by delivery of a duly completed Dispatch Instruction.

12.2.3 The Purchaser may, in relation to any Dispatch Period, vary the amount of electrical energy and capacity requested by it in a Dispatch Instruction, but not exceeding the Declared Available Capacity for that Dispatch Period, by notifying the Seller thereof by telephone, followed by delivery of a substitute Dispatch Instruction which must be delivered to the Seller not later than thirty (30) minutes prior to the clock hour during which such electrical energy was scheduled to be Dispatched.

12.3 Failure to Dispatch.

12.3.1 Upon the occurrence of a Force Majeure Event or Forced Outage and for so long as it is continuing, the Seller may deliver such electrical energy as it is reasonably able to deliver using Bagasse fuel after allowing for Energy Allocation for Facility and Factory **provided that** the Seller shall have informed the Purchaser of the occurrence of such a Force Majeure Event or Forced Outage promptly upon becoming aware thereof.

12.3.2 The Seller shall not be liable for any failure by the Seller to deliver the whole or any part of the electrical energy requested by the Purchaser in a Dispatch Instruction if such failure occurred as a result of:

- (a) any partial or complete interruption or reduction in Availability following an order or instruction given to the Seller by the Control Center or any Governmental Authority for whatever reason (and whether or not a reason was given) including, but not limited to, any limitations on the Transmission Grid;
- (b) the failure of the Purchaser to arrange for transmission of Net Energy Output beyond the Delivery Point; or
- (c) the failure of the Purchaser to accept delivery of Net Energy Output at the Delivery Point.

12.3.3 The Parties agree to implement in good faith any changes to the Dispatch Procedures as set forth in this Article 12 which may be agreed by the Committee of Operation from time to time.

13. **Electric Metering**

13.1 Ownership of Meters.

13.1.1 The Purchaser shall own and maintain the Energy Metering Facilities and the Import Metering Facilities.

13.1.2 The Seller shall own and maintain the Check Meter Facilities and the BSI Electrical Energy Metering Facilities.

13.2 Meter Usage Testing and Inspection.

13.2.1 The Energy Metering Facilities shall be used to determine the Net Energy Output delivered by the Seller to the Purchaser at the Delivery Point.

13.2.2 The Check Metering Facilities shall be used to check the accuracy of the Energy Metering Facilities and to provide back-up metering facilities in the event of faults occurring in the Energy Metering Facilities.

13.2.3 Each Party will notify the other when the meters are to be inspected, calibrated, tested or adjusted, giving not less than seven (7) days prior written notice thereof. Calibration and testing shall be carried out at least once per calendar year and from time to time as may be required by either Party at any time following the occurrence of any discrepancy between the Energy Metering Facilities and the Check Metering Facilities. The other Party shall be entitled to have a representative present and to receive copies of all test and calibration reports.

13.3 Meter Reading Corrections.

13.3.1 If, at any time and in relation to any Relevant Period (as defined below), either Party (acting reasonably) determines that the Energy Metering Facilities

have not registered the true amount of Net Energy Output which was delivered by the Seller to the Delivery Point during that Relevant Period, such Net Energy Output shall be determined by the Committee of Operation by reference to the records of the Check Metering Facilities.

13.3.2 The Committee of Operation shall determine (i) the Relevant Period and (ii) the amount of any balancing payments due from the Purchaser to the Seller or from the Seller to the Purchaser (as the case may be) in respect of that Relevant Period by calculating the difference between the Net Energy Output registered by the Energy Metering Facilities and the Net Energy Output registered by the Check Metering Facilities during the Relevant Period.

13.3.3 Where "**Relevant Period**" means (i) (if the actual period can be determined by the Committee of Operation) the actual period during which different amounts of Net Energy Output were registered by the Energy Metering Facilities and the Check Metering Facilities or (ii) (if the actual period cannot be determined by the Committee of Operation) a period equal to one-half (1/2) of the time elapsed since the most recent test of the Energy Metering Facilities **provided that** a Relevant Period under paragraph (ii) shall not at any time exceed twelve (12) Months.

13.4 Meter Repair. If either Party discovers that any component of the Energy Metering Facilities or the Check Metering Facilities is found to be outside acceptable limits of accuracy or is otherwise not functioning properly, it shall notify the other Party thereof and (in the case of the Energy Metering Facilities) the Purchaser and (in the case of the Check Metering Facilities) the Seller shall forthwith repair, recalibrate or replace such component (as required) and shall notify the other Party promptly upon the completion of any examination, maintenance, repair, recalibration or replacement thereof.

13.5 Metering of Imported Electrical Energy to the Facility.

13.5.1 The Import Metering Facilities shall be used to determine the delivery by the Purchaser to the Seller of electrical energy to the Facility.

13.5.2 The BSI Electrical Energy Metering Facilities shall be used to determine the delivery by the Seller to the Factory of electrical energy.

13.5.3 During any period when electrical energy is delivered by the Purchaser to the Seller and:

- (a) the Facility is not generating electrical energy, Imported Energy Consumed by the Facility shall be determined by deducting the electrical energy measured by the BSI Electrical Energy Metering Facilities from the electrical energy measured by the Import Metering Facilities during that period; or
- (b) the Facility is generating to supply electrical energy and steam to the Factory, electrical energy supplied by the Purchaser to the Seller shall be deemed to be electrical energy supplied by the Purchaser to the Factory.

13.5.4 Electrical energy supplied by the Purchaser to the Seller and passed on by the Seller to the Factory, as measured by the BSI Electrical Energy Metering Facility, shall be paid for by the Seller in accordance with the provisions of Exhibit 7 (*Provisions for electrical energy supplied by the Purchaser to the Factory through the Seller*).

13.5.5 In relation to any Billing Period, payment due by the Seller for Imported Energy Consumed by the Facility may be set-off against payment due by the Purchaser for Net Energy Output for that Billing Period **provided that** for the purpose of calculating the Purchaser's energy purchase guarantee in Section 18 or otherwise in determining the electrical energy supply or capacity of the Facility the actual amounts of electrical energy consumed or delivered (as the case may be) shall apply.

14. Access and Non-interference

14.1 The Seller hereby grants, and shall procure that the Factory shall grant to the Purchaser (including the Purchaser's duly authorised agents and representatives) a right of access, at reasonable hours (and, in an emergency, immediately upon request) to the Facility in order to construct, install, operate, maintain, repair, replace, inspect and remove the Purchaser's equipment and facilities consistent with the Purchaser's obligations and rights under this Agreement provided that such right of access shall:

- (a) expire automatically on the last day of the Term;
- (b) exist only to the extent necessary for the Purchaser to verify the Seller's compliance with this Agreement; and
- (c) extend to such parts of the Facility in which the Purchaser has placed its equipment pursuant to Exhibit 8 (*Description and Provision for the Purchaser's Equipment Installed at the Facility*); and
- (d) exist only to the extent necessary for the Purchaser to construct part of the Interconnection Facilities on land which forms part of the Facility or the Factory,

and provided further that in no event shall such right interfere with the Seller's rights of ownership and operation of the Facility.

14.2 The Purchaser shall ensure that, during periods of access to the Facility or the Factory, the Purchaser's personnel and/or agents shall at all times comply with health, safety and security rules or regulations applicable in respect of the Facility and/or the Factory (as the case may be) and the Seller shall not be liable for any loss or damage to any Person which results (directly or indirectly) from any failure by the Purchaser's personnel and/or agents so to comply PROVIDED nonetheless that the Seller shall take reasonable steps to post in a conspicuous manner or otherwise provide notice of the applicable safety and security rules or regulations .

14.3 The Seller shall, at the request and sole cost and expense of the Purchaser, execute such documents as may reasonably be required formally to record such right of access of the Purchaser.

15. **Payment and Billing**

15.1 Delivery and Form of Invoice.

15.1.1 On or after the tenth (10) day of each calendar month following a Billing Period, the Seller shall deliver to the Purchaser a detailed written invoice in respect of Net Energy Output for the Billing Period most recently ended. Each invoice shall specify amounts owed by the Purchaser to the Seller and, if applicable, amounts owed by Seller to the Purchaser.

15.1.2 Each original invoice shall be in paper format and the Seller shall provide an electronic copy of each such invoice (in the original software file format with all formulae and calculations attached).

15.1.3 Each invoice shall be in a form agreed by the Committee of Operation from time to time and shall include the amount which is owing by the Purchaser to the Seller and a calculation of the following:

- (a) payments for Net Energy Output associated with Firm Capacity during the relevant Billing Period calculated in accordance with Article 17.2.1 (*Compensation*);
- (b) payments for Net Energy Output associated with As-Available Capacity during the relevant Billing Period calculated in accordance with Article 17.2.2 (*Compensation*);
- (c) payments for Additional Energy;
- (d) any adjustments in respect of any differences between Net Energy Output as measured by the Energy Metering Facilities and the Check Metering Facilities;
- (e) any other amounts owed by the Purchaser to the Seller;
- (f) any amounts owed by the Seller to the Purchaser in respect of electrical energy supplied by the Purchaser to the Factory through the Seller; and
- (g) any other amounts owed by the Seller to the Purchaser under or pursuant to this Agreement and which are to be set-off against the amount due from the Purchaser to the Seller for the applicable Billing Period.

15.2 Payment and Payment Disputes

15.2.1 The Purchaser shall pay the amount specified in the relevant invoice within thirty (30) days of delivery of that invoice by the Seller to the Purchaser.

15.2.2 Invoices shall be denominated in US Dollars and payments shall be made in Belize Dollars converted at the Prevailing Rate of Exchange on the date of payment.

15.2.3 If any amounts are owing by the Seller to the Purchaser under this Agreement and if such amounts are not specified on the relevant invoice, the Purchaser may submit to the Seller a separate invoice. Except as otherwise set forth herein, the Seller shall pay such invoice within thirty (30) days of delivery of that invoice by the Purchaser to the Seller.

15.3 If a Party reasonably believes that an invoice is inaccurate, it shall notify the other Party thereof within five (5) days of delivery of that invoice and the Parties shall enter into negotiations with a view to resolving any dispute in accordance with Article 25.1 (*Mutual Discussion*). Any adjustments to which the Parties shall agree shall be made by a credit or an additional charge on the next invoice rendered.

15.4 If the Parties are unable to resolve the dispute in this manner, the dispute shall be resolved in accordance with Article 25.2 (*Arbitration Generally*) **provided that** (i) any amount (or part thereof) specified on the relevant invoice which is undisputed shall be promptly paid and (ii) any disputed amounts required to be paid as a result of resolution of a dispute shall be paid within ten (10) days after resolution of such dispute and shall be paid together with Default Interest on that disputed amount from the date the payment should originally have been made until payment is received by the relevant Party in freely available funds.

15.5 Any payment due hereunder but not made by a Party on its due date and not subject to a dispute will incur Default Interest from the time payment was due until the time payment was actually received by the other Party provided that such payment shall remain due and payable and this Article 15.5 shall not be construed as agreement by the other Party to any delay or deferral thereof.

15.6 Same Day Funds. Notwithstanding anything contained in this Agreement to the contrary, all payments to be made under this Agreement shall be made by wire transfer of freely available same day funds to such account as the Party receiving such payment shall have specified. If the applicable payment due date is not a Business Day, the payment shall be due on the immediately preceding Business Day.

16. Security for the Purchaser's Payment Obligations

The Purchaser shall comply with the provisions of the Electricity Act, the Public Utilities Commission Act and the BEL's License in respect of its payment obligations under this Agreement and shall co-operate and comply with PUC's instructions to remedy any payment default under this Agreement.

17. Compensation

17.1 Tariff for Payment for Net Energy Output Associated with Firm Capacity. The tariff for NEO associated with Firm Capacity (T_{fc}) shall be determined with reference to a base tariff T_b and the formulae as set out in Part 1 of Exhibit 11 (*Tariff calculation and Adjustment*).

T_b comprises two tariff components: a biomass component $BComp_b$ and a fossil fuel component $FFComp_b$.

$$T_b = BComp_b + FFComp_b$$

where;

T_b = Base Tariff for NEO associated with firm capacity for 2001 = US\$0.0728/ kWh

$BComp_b$ = The biomass component of the Tariff for NEO associated with Firm capacity for 2001.

$FFComp_b$ = The fossil fuel component of the Tariff for NEO associated with Firm Capacity for 2001.

For information and the purpose of clarity the calculation of 2001 Tariff T_b is provided in Table 1 in Part 1 of Exhibit 11.

17.1.1 For the period up to 31st December 2007.

T_{fc} for the relevant year shall be calculated in accordance with the formulae as set-out in Part 2 of Exhibit 11 and applied to T_b

$$T_{fc} = (BComp_b \times BAdj_{fc}) + (FFComp_b \times FFAdj_{fc})$$

The components of T_{fc} will be subject to the application of separate Tariff adjustment indices. The biomass component $BComp_b$ shall be adjusted according to a biomass adjustment index ($BAdj_{fc}$) and the Fossil Fuel component $FFComp_b$ shall be adjusted according to a fossil fuel index ($FFAdj_{fc}$).

where

T_{fc} = Tariff for NEO associated with Firm Capacity applicable for the relevant year

$BComp_b$ = The biomass component of the Tariff for NEO associated with Firm capacity for 2001

$FFComp_b$ = The fossil fuel component of the Tariff for NEO associated with Firm Capacity for 2001

$BAdj_{fc}$ = Tariff adjustment for the applicable year to biomass component of the Tariff for NEO associated with Firm Capacity for the applicable year

$FFAdj_{fc}$ = Tariff adjustment for the applicable year to fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year as calculated on a monthly basis

$BAAdj_{fc}$ for the period 2001 to 2007 shall be calculated assuming an annual adjustment of 1.5% per year.

$FFAdj_{fc}$ is based on an index linked to the 2001 No6 fossil fuel price quoted in the Request for Proposal document issued by the Belize Public Utilities Commission and Belize Electricity Limited in 2002.

The formulae and calculation of both the biomass and fossil fuel indices are stated in Part 2 of Exhibit 11.

For information and the purpose of clarity the calculation of the resultant 2003 tariff T_{fc2003} is provided in Table 3 in Part 2 of Exhibit 11 and an indicative calculation is provided also for the period to 31st December 2007 in Table 4 in Part 2 of Exhibit 11.

17.1.2 For the period from 1st January 2008 until 31st December 2017.

T_{fc} shall be determined by the application of adjustment formulae to the components of T_{fc2007} as calculated in Part 3 of Exhibit 11 such that for each applicable year:

$$T_{fc} = (BComp_{fc2007} \times BAdj_{fc}) + (FFComp_{fc2007} \times FFAdj_{fc})$$

where:

$BComp_{fc2007}$ = Biomass component of the Tariff for NEO associated with Firm Capacity for the year 2007, determined pursuant to clause 17.1.1

$FFComp_{fc2007}$ = Fossil Fuel component of the Tariff for NEO associated with Firm Capacity for the year 2007, determined pursuant to clause 17.1.1

$BAAdj_{fc}$ = Tariff adjustment for the applicable year to biomass component of the Tariff for NEO associated with Firm Capacity for the applicable year

$FFAdj_{fc}$ = Tariff adjustment for the applicable year to fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year

The formulae and calculation of both the biomass and fossil fuel indices are stated in Part 3 of Exhibit 11.

For information and the purpose of clarity an indicative calculation is provided for the period to 31st December 2017 in Table 5 in Part 3 of Exhibit 11 and further clarification of the monthly application of the Fossil Fuel tariff adjustment $FFAdj_{fc}$ is provided in Table 6 in Part 3 of Exhibit 11.

17.1.3 From 1st January 2018 onwards.

T_{fc} shall be determined by the application of tariff adjustment formulae as stated in Part 4 of Exhibit 11 to the components of T_{fc2017} being the Tariff for NEO associated with Firm Capacity for the year 2017 determined pursuant to clause 17.1.2

The biomass component of T_{fc} is:

$$BComp_{fc} = 0.6 \times BComp_{fc2017} + 0.4 \times (BComp_{fc2017} \times BAdj_{fc})$$

where

$BComp_{fc}$ = Biomass component of the Tariff for NEO associated with the Firm Capacity applicable for the year

$BComp_{fc2017}$ = Biomass component of the Tariff for NEO associated with the firm capacity for the year 2017, determined pursuant to clause 17.1.2

$BAdj_{fc}$ = Tariff adjustment for the applicable year to biomass component of the Tariff for NEO associated with Firm Capacity for the applicable year as calculated according to the formulae stated in Part 4 of Exhibit 11

The fossil fuel component of T_{fc} is:

$$FFComp_{fc} = FFComp_{fc2017} \times FFAdj_{fc}$$

where

$FFComp_{fc}$ = The fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year

$FFComp_{fc2017}$ = Fossil Fuel component of the Tariff for NEO associated with Firm Capacity for the year 2017, determined pursuant to clause 17.1.2

$FFAdj_{fc}$ = Tariff adjustment for the applicable year to fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year as calculated according to the formulae stated in Part 4 of Exhibit 11

For information and the purpose of clarity an indicative calculation is provided for the period from 1st January 2018 onwards in Table 7 in Part 4 of Exhibit 11 including further clarification of the monthly application of the Fossil Fuel tariff adjustment $FFAdj_{fc}$ and the percentage of the Biomass tariff component that is subject to adjustment.

17.2 Payment for Net Energy Output. From and after the Commercial Operation Date, in accordance with Article 15.1 (*Delivery and Form of Invoice*), the Purchaser shall, in respect of the Billing Period most recently ended, make payment to the Seller for each kWh of Net Energy Output associated with Firm Capacity and As-Available Capacity delivered by the Facility to the Delivery Point during that Billing Period (each monthly payment, a "Variable Energy Payment") *less* the amount payable by the Seller to the Purchaser for Imported

Energy Consumed by the Facility during that Billing Period. The Variable Payment shall be in accordance with the following formula:

17.2.1 Variable Energy Payment for NEO associated with Firm Capacity

$$VEP_{mfc} = T_{fc} \times [NEO_{mfc} - IECF_m]$$

Where:

VEP_{mfc} = Variable Energy Payment for the month for NEO associated with Firm Capacity;

T_{fc} = Tariff for NEO associated with Firm Capacity applicable for the year calculated pursuant to clause 17.1;

NEO_{mfc} = Net Energy Output in kWh of the Facility associated with Firm Capacity for the Billing Period, being the sum from the first hour of the Billing Period to the last hour of the Billing Period of the Net Energy Output in each hour being less than or equal to the Firm Capacity multiplied by one hour;

IECF_m = Imported Energy Consumed by the Facility for the Billing Period, as determined in accordance with Article 13.5 (*Metering of Imported Electrical Energy to the Facility*).

17.2.2 Variable Energy Payment for NEO associated with As-Available Capacity

$$VEP_{mavc} = \sum_1^{Hy} T_{fcli} \times NEO_{mavci}$$

Where:

VEP_{mavc} = Variable Energy Payment for the month for NEO associated with As-Available Capacity;

T_{fcli} = Tariff for NEO associated with As-Available Capacity applicable for the hour in which the As-Available Energy was supplied, where such Tariff shall be agreed on a merchant basis for each trade in accordance with Article 2.4 (*Declared As-Available Capacity*);

NEO_{mavci} = Net Energy Output of the Facility associated with the As-Available Capacity for each hour of the Billing Period such electrical energy is supplied (kWh).

18. True Availability Factor

The Seller acknowledges and agrees that the dependable operation of the Facility is essential to the Purchaser. Accordingly, for each Contract Year, an availability factor (the "**True Availability Factor**") shall be calculated in accordance with the following formula:

$$\text{TAF}_y = \left(\frac{\left[\sum_1^{HY-(FMh+OLh)} (FC_i \times AH_i) \right] + [FC \times (FMh + OLh)]}{[FC \times HY]} \right)$$

Where:

TAF_y = True Availability Factor for the applicable Contract Year "y";

i = each hour in the applicable Contract Year "y";

FC = Firm Capacity in kW;

AH_i = each hour of the Contract Year that the Facility is available to supply all or part of the Firm Capacity;

FC_i = Declared Firm Capacity in kW available for the hour in the applicable Contract Year, which shall be no more than the Firm Capacity FC plus 5%. For the purpose of calculating TAF_y, FC_i for any particular hour shall not be greater than FC;

FMh = Total number of hours in the applicable Contract Year that the Facility has been off line or not able to supply the Firm Capacity due to Force Majeure;

OLh = Total number of hours in the applicable Contract Year that the Facility has not been available to supply the Firm Capacity due to actions or instructions of the Purchaser.

HY = number of hours in the applicable Contract Year "y".

In the evaluation of this formula the term "hours" shall include fractions of an hour.

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19. **The Purchaser's Energy Purchase Guarantee**

19.1 Notwithstanding any other provisions in this Agreement, after the Commercial Operation Date the Purchaser shall use its best efforts to accept delivery of all Declared Available Capacity from the Facility.

19.2 The Purchaser agrees to pay the Seller for a minimum amount of electrical energy in each Contract Year calculated at the end of each Contract Year as set out below and, for the avoidance of doubt, if the Purchaser does not accept such minimum amount of electrical energy in any Contract Year, it shall nevertheless pay the Seller therefor.

$$NEOymin = \left(\left[\sum_1^{HY} (FC \times AHi) \right] + [FC \times OLh] \right)$$

Where:

NEOymin = Minimum Energy for the applicable Contract Year "y";

i = Each hour in the applicable Contract Year "y" other than hours or fractions of an hour when the Facility is not available or the Purchaser is unable to dispatch due to Force Majeure;

FC = Firm Capacity in kW;

AHi = each complete or fraction of an hour of the Contract Year that the Facility is available to supply all or part of the Firm Capacity;

OLh = Total number of hours in the applicable Contract Year that the Facility has not been available to supply all of the Firm Capacity due to actions or instructions of the Purchaser, including lack of availability of the Interconnection Facilities or the Transmission Grid;

HY = number of hours in the applicable Contract Year "y".

In the evaluation of this formula the term hours shall include fractions of an hour.

Provided however that the Minimum Energy shall not exceed NEOyminmax defined as follows:

$$NEOyminmax = \text{the lesser of } (0.9 \times FC \times 8760) \text{ or } \left(\left[\sum_1^{HY} (FCi \times AHi) \right] \right) \text{ (kWh)}$$

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19.3 Payment Adjustment to allow for payment of the minimum amount of electrical energy for each Contract Year payable by the Purchaser to the Seller, shall be calculated as follows:

$$VEPymin = T_{fc} \times (NEOymin - NEOyfc)$$

Where:

VEPymin = Positive payment adjustment in respect of Minimum Energy Payment for the applicable Contract Year (\$); if VEPymin is negative the payment adjustment is zero;

T_{fc} = Tariff for NEO associated with Firm Capacity applicable for the year calculated pursuant to clause 17.1 (*Tariff for Payment for Net Energy Output Associated with Firm Capacity*);

NEOymin = As defined in 19.2 (*The Purchaser's Energy Purchase Guarantee*) above;

NEOyfc = Net Energy Output of the Facility associated with Firm Capacity for the Contract Year (kWh), being the sum from the first hour of the Contract Year to the last hour of the Contract Year of the Net Energy Output in each hour being less than or equal to the Firm Capacity (in kW) multiplied by one hour.

Such Payment Adjustment if due shall be invoiced by the Seller to the Purchaser in accordance with Article 15 (*Payment and Billing*).

19.4 Quarterly Interim Payment Adjustment. Interim payment adjustments in respect of the energy purchase guarantee shall be made on a Quarterly basis. In the event that the Net Energy Output of the Facility associated with Firm Capacity in any Quarter, NEOqfc, is less than 90 percent of Firm Capacity multiplied by the number of hours or fractions of an hour in the Quarter during which the Facility is available to supply all of the Firm Capacity, an interim payment adjustment shall be made. At the end of the Contract Year a reconciliation shall be undertaken in accordance with Articles 19.2 and 19.3, and any over-payment or under-payment corrected in the following invoice. The Quarterly interim payment adjustment shall be determined as follows:

$$VERqmin = T_{fc} \times (0.9 \times FC \times Hi - NEOqfc)$$

Where:

VERqmin = Positive interim payment adjustment in respect of Minimum Energy Payment for the Quarter; if VEPqmin is negative the payment adjustment is zero.

T_{fc} = Tariff for NEO associated with Firm Capacity applicable for the year calculated pursuant to clause 17.1;

H_i = number of hours or fractions of an hour in the Quarter during which the station is available to provide all of the Firm Capacity;

NEO_{qfc} = Net Energy Output in kWh of the Facility associated with Firm Capacity for the Quarter, being the sum from the first hour of the Quarter to the last hour of the Quarter of the Net Energy Output in each hour being less than or equal to the Firm Capacity multiplied by one hour.

Such Quarterly Interim Payment Adjustment if due shall be invoiced by the Seller to the Purchaser in the month following the end of the Quarter in accordance with Article 15 (*Payment and Billing*).

19.5 Exclusive Remedy. The payment adjustment as per article 19.3 above is the Seller's exclusive remedy and the Purchaser's exclusive liability for the Purchaser's failure after the Commercial Operation Date to accept electrical energy from the Facility.

20. **Tariff Adjustment.**

20.1 If during the Term of the Agreement there are material unanticipated changes in:

- (a) capital cost of the project (for the purpose of this clause, the cost of the project shall be limited to the cost of construction and of financing the Facility-);
- (b) operating costs of the project (for the purpose of this clause, the cost of operating and maintaining the Facility shall be limited to the cost of staffing, spares, consumables, supplementary fuels, insurances and debt service-; or
- (c) financing terms and conditions of the project (for the purpose of this clause the terms and conditions of financing shall be limited to the loan tenor, rate, ratio requirements and conditions precedent),

due to circumstances which could not be reasonably foreseen or controlled by the Seller, then the Seller may apply to the PUC for an increase in the Base Tariff to restore the viability and financial return of the project subject to any laws or byelaws which may apply.

20.2 For the purpose of clause 20.1 (a) above material unanticipated changes to the capital cost that will be endorsed by the Purchaser shall be limited to US\$2.5 million from the base project cost estimate, of which the first US\$1 million movement shall not result in either an increase or decrease in the Base Tariff.

21. **Representations and Warranties**

21.1 Representations and Warranties of the Seller. The Seller represents and warrants to the Purchaser as of the Agreement Date as follows:

21.1.1 The Seller is a corporation duly organized, validly existing and in good standing under the Laws of Belize and the Seller has all requisite power and has (or, at the appropriate time therefor, will have) the authority to conduct its business, to own its properties and to execute, deliver and perform its obligations under this Agreement.

21.1.2 The execution, delivery, and performance of its obligations under this Agreement by the Seller have been duly authorised by all necessary corporate action, and do not and shall not:

- (a) require any consent or approval of the Seller's shareholders which has not been obtained and each such consent and approval that has been obtained is in full force and effect;
- (b) violate any provision of any applicable Law, the violation of which could reasonably be expected to have a material adverse effect on the ability of the Seller to perform its obligations under this Agreement;
- (c) result in a breach of, or constitute a default under, any provision of the articles of incorporation of the Seller;
- (d) result in a breach of, or constitute a default under, any agreement relating to the management or affairs of the Seller, any indenture, loan or credit agreement or any other agreement, lease or instrument to which the Seller is a party or by which the Seller or its properties or assets may be bound, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of the Seller to perform its obligations under this Agreement; or
- (e) result in, or require the creation or imposition of any mortgage, trust, pledge, lien, charge or other encumbrance of any nature (other than as may be contemplated by this Agreement) upon or with respect to any of the assets or properties of the Seller now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a material adverse effect on the ability of the Seller to perform its obligations under this Agreement.

21.1.3 This Agreement constitutes legal, valid, binding and enforceable obligations of the Seller, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar Laws applying to companies whose business is comparable to that of the Seller or affecting the rights of creditors of such companies generally and subject to the application of general principles of equity (regardless of whether considered in a proceeding in equity or at law), including (i) the possible unavailability of specific performance, injunctive relief or any other equitable remedy and (ii) concepts of materiality, reasonableness, good faith and fair dealing.

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21.1.4 There is no pending or, to the best of the Seller's knowledge, threatened action or proceeding against the Seller before any court, Government Authority or arbitrator that could reasonably be expected materially and adversely to affect the financial condition or operations of the Seller or the ability of the Seller to perform its obligations hereunder, or that purports to affect the legality, validity or enforceability of this Agreement.

21.2 Representations and Warranties of the Purchaser. The Purchaser represents and warrants to the Seller as of the Agreement Date as follows:

21.2.1 The Purchaser is a corporation, duly organized, validly existing and in good standing under the Laws of Belize and the Purchaser has the full legal right, power and authority to conduct its business, to own its properties and to execute, deliver and perform its obligations under this Agreement.

21.2.2 The execution, delivery, and performance of its obligations under this Agreement by the Purchaser have been duly authorised by all necessary corporate action, and do not and shall not:

- (a) require any consent or approval of the Purchaser's board of directors or any of the Purchaser member which has not been obtained and each such consent and approval that has been obtained is in full force and effect;
- (b) violate any provision of any Law, rule, regulation, order, writ, judgment, injunction, decree, determination, Governmental Approval, or award having applicability to the Purchaser, the violation of which could reasonably be expected to have a material adverse effect on the ability of the Purchaser to perform its obligations under this Agreement;
- (c) result in a breach of, or constitute a default under, any provision of the articles of incorporation or by-laws of the Purchaser;
- (d) result in a breach of, or constitute a default under, any agreement relating to the management or affairs of the Purchaser or any indenture or loan or credit agreement or any other agreement, lease, or instrument to which the Purchaser is a party or by which the Purchaser or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of the Purchaser to perform its obligations under this Agreement; or
- (e) result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this Agreement) upon or with respect to any of the assets or properties of the Purchaser now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to

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have a material adverse effect on the ability of the Purchaser to perform its obligations under this Agreement.

21.2.3 This Agreement constitutes a legal, valid, binding and enforceable obligation of the Purchaser, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar Laws applying to companies whose business is comparable to that of the Purchaser relating to or affecting the rights of creditors of such companies generally and except as the enforceability of this Agreement is subject to the application of general principles of equity (regardless of whether considered in a proceeding in equity or at law), including (i) the possible unavailability of specific performance, injunctive relief or any other equitable remedy and (ii) concepts of materiality, reasonableness, good faith and fair dealing.

21.2.4 There is no pending or, to the best of the Purchaser's knowledge, threatened action or proceeding affecting the Purchaser before any court, Government Authority or arbitrator that could reasonably be expected materially and adversely to affect the financial condition or operations of the Purchaser or the ability of the Purchaser to perform its obligations hereunder, or that purports to affect the legality, validity or enforceability of this Agreement.

22. Insurance

22.1 At the Seller's own cost and expense, the Seller shall purchase and maintain a policy or policies of liability insurance in amounts that are (in the opinion of the Seller) reasonable given the size of the Facility and the availability of insurance covering the Seller's ownership, occupation, and running of the Facility, which policy or policies shall name BSI and the Purchaser as co-assured parties. If required by the Lenders, the Seller shall have the right to name the Lenders as additional co-assured parties and as sole loss payees.

23. Indemnification and Liability

23.1 Indemnification.

23.1.1 Each Party (the "Indemnifying Party") shall indemnify, defend and hold the other Party (the "**Indemnified Party**") and its officers, directors, partners, Affiliates, agents, employees, contractors and subcontractors harmless from and against any and all Claims, to the extent caused by any negligent act or omission or willful misconduct of the Indemnifying Party or the Indemnifying Party's own officers, directors, partners, Affiliates, agents, employees, contractors or subcontractors or to the extent such Claims arise out of, or are in any manner connected with, any breach of this Agreement by such Indemnifying Party.

23.1.2 The Indemnified Party shall notify the Indemnifying Party as soon as reasonably practicable of any such Claims in respect of which it is or may be entitled to indemnification. The Indemnifying Party shall be entitled, at its option and expense and with counsel of its selection, to assume and control the defense of any such Claims in respect of, resulting from, relating to, or arising out of, any matter for which it is obligated to indemnify the Indemnified Party hereunder **provided that** if the defendants in respect of any such Claim include both the Indemnifying Party and the Indemnified Party, and the Indemnified Party

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reasonably concludes that there may be defenses available to it and/or other indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Party or other indemnified Persons shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on behalf of such Indemnified Party or other indemnified Persons. The Indemnified Party shall be entitled to settle or compromise any such Claim without the prior written consent of the Indemnifying Party **provided that** if the Indemnifying Party agrees in writing to indemnify the Indemnified Party, the Indemnified Party may not settle or compromise any such Claim without the consent of the Indemnifying Party. If an Indemnified Party settles or compromises any such Claim in respect of which it would otherwise be entitled to be indemnified by the Indemnifying Party without the prior written consent of the Indemnifying Party when such consent is required by this Agreement, the Indemnifying Party shall be excused from any obligation to indemnify the Indemnified Party making such settlement or compromise.

23.2 Joint Negligence. In the event injury or damage results from the joint or concurrent negligent or intentional acts or omissions of the Parties, each Party shall be liable under this indemnification in proportion to its relative degree of fault.

23.3 Limitations of Liability, Remedies and Damages. Except to the extent of the Security provided by the Seller pursuant to Article 5.1 (*Penalty*), each Party acknowledges and agrees that in no event shall any partner, shareholder, owner, officer, director, employee, or Affiliate of either Party be personally liable to the other Party for any payments, obligations, or performance due under this Agreement or any breach or failure of performance of either Party, and, except to the extent of the Security provided by the Seller pursuant to Article 5.1 (*Penalty*), the sole recourse for payment or performance of the obligations under this Agreement shall be against the Seller or the Purchaser and each of their respective assets and not against any other Person (except for such liability as is expressly assumed by an assignee pursuant to an assignment of this Agreement in accordance with the terms hereof).

24. Defaults and Termination

24.1 Event of Default.

24.1.1 The occurrence of any one of the following events or circumstances shall constitute an Event of Default by the Purchaser, unless it is caused by (i) a material breach of this Agreement by the Seller or (ii) a Force Majeure Event which is continuing **provided that** any failure by the Purchaser to make a payment hereunder at the time and in the place specified therefor shall constitute a material breach of this Agreement notwithstanding that a Force Majeure Event is continuing:

- (a) the Purchaser fails to make payments for amounts due under this Agreement to the Seller at the time and in the place specified therefor unless such payment is received by the Seller within thirty (30) Business Days after delivery of written demand for such payment from the Seller;

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- (b) the Purchaser fails to comply with any material provision of this Agreement (other than the obligation to pay money when due in accordance with paragraph (a) above), and such failure is continuing for one hundred twenty (120) days after the day on which the Seller has delivered written notice thereof to Buyer ;
- (c) the Purchaser: (i) admits in writing its inability to pay its debts as such debts become due; (ii) makes a general assignment or an arrangement or composition with or for the benefit of its creditors; or (iii) fails to controvert in a timely and appropriate manner, or acquiesce in writing to, any petition filed against it under any bankruptcy or similar Law;
- (d) any proceeding or case is commenced, without the application or consent of the Purchaser, in any court of competent jurisdiction, seeking: (i) the Purchaser's liquidation, reorganization of its debts, dissolution or winding-up, or the composition or readjustment of its debts; (ii) the appointment of a receiver, custodian, liquidator or the like of the Purchaser or of all or any substantial part of its assets; or (iii) similar relief in respect of the Purchaser under any Law relating to bankruptcy, insolvency, reorganization of its debts, winding-up, composition or adjustment of debt provided that it shall not constitute an event of default if such proceeding or case is based on a frivolous and vexatious claim or any other claim in circumstances where such claim is being contested in good faith and by appropriate action and the same, if capable of remedy, is remedied within ninety (90) days from commencement;
- (e) the Purchaser makes an assignment in violation of Article 27 (*Assignment*);
- (f) any representation made by the Purchaser under Article 21.2 (*Representations and Warranties of the Purchaser*) is untrue in any material respect when made.

24.1.2 The occurrence of any one of the following events or circumstances shall constitute an Event of Default by the Seller, unless it is caused by (i) a material breach of this Agreement by the Purchaser or (ii) a Force Majeure Event which is continuing **provided that** any failure by the Seller to make a payment hereunder at the time and in the place specified therefor shall constitute a material breach of this Agreement notwithstanding that a Force Majeure Event is continuing:

- (a) the Seller fails to achieve a True Availability Factor of at least 0.6 in any Contract Year; **provided that** it shall not constitute an Event of Default if such failure is cured within twelve (12) Months from its occurrence;

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- (b) the Seller fails to make payments for amounts due under this Agreement to the Purchaser at the time and in the place specified therefor unless such payment is received by the Seller within thirty (30) Business Days after delivery of written demand for such payment from the Purchaser;
- (c) the Seller fails to comply with any material provision of this Agreement (other than the obligation to pay money when due in accordance with paragraph (b) above and those specific breaches for which damages are otherwise specified herein), and such failure is continuing for one hundred twenty (120) days after the day on which the Purchaser has delivered written notice thereof to the Seller;
- (d) the Seller: (i) admits in writing its inability to pay its debts as such debts become due; (ii) makes a general assignment or an arrangement or composition with or for the benefit of its creditors; or (iii) fails to controvert in a timely and appropriate manner, or acquiesce in writing to, any petition filed against it under any bankruptcy or similar Law
- (e) any proceeding or case is commenced, without the application or consent of the Seller, in any court of competent jurisdiction, seeking: (i) the Seller's liquidation, reorganization of its debts, dissolution or winding-up, or the composition or readjustment of its debts; (ii) the appointment of a receiver, custodian, liquidator or the like of the Seller or of all or any substantial part of its assets; or (iii) similar relief in respect of the Seller under any Law relating to bankruptcy, insolvency, reorganization of its debts, winding-up, composition or adjustment of debt provided that it shall not constitute an event of default if such proceeding or case is based on a frivolous and vexatious claim or any other claim in circumstances where such claim is being contested in good faith and by appropriate action and the same, if capable of remedy, is remedied within ninety (90) days from commencement;
- (f) the Seller shall make an assignment in violation of Article 27 (*Assignment*);
- (g) any representation made by the Seller under Article 21.1 (*Representations and Warranties of the Seller*) shall be false in any material respect when made.

24.1.3 Remedies for Default Without prejudice to the non-defaulting Party's rights under Clause 24.2 (*Termination*), upon the occurrence and during the continuation of an Event of Default, the non-defaulting Party, at its election and in addition to such other rights or remedies as the non-defaulting Party may have hereunder, at law or in

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equity, may (but shall not be obliged to) serve notice requiring the defaulting Party to demonstrate, to the satisfaction of the non-defaulting Party, that reasonable measures have been planned or implemented to remedy such Event of Default.

24.1.4 At all times during the continuance of an Event of Default where the Seller is the defaulting Party and maintains actual possession and control of the Facility, the Seller shall use its reasonable efforts to operate and maintain the Facility otherwise in compliance with this Agreement.

24.1.5 Subject to the prior written consent of the Financing Parties and the PUC, if, during the continuance of an Event of Default, amounts are owed by the Seller to the Financing Parties under the Loan Documents, the Purchaser or its designee shall, if required to do so by the Financing Parties and in consultation with the Seller, temporarily undertake the operation and maintenance of the Facility at any time after the day which falls one hundred and eighty (180) days after the Purchaser has delivered a notice of Event of Default to the Seller or such earlier day as may be agreed between the Financing Parties, the Seller and the Purchaser. The Seller and the Purchaser shall jointly develop a procedure, including, without limitation, evaluation of the qualifications of the Purchaser's designee, to fulfill this requirement.

24.2 Termination. Upon the occurrence of an Event of Default which is continuing, the non-defaulting Party may serve notice establishing a date (the "**Early Termination Date**") on which this Agreement shall terminate, which date shall be no earlier than thirty (30) Business Days after the non-defaulting Party delivers a notice of termination to the defaulting Party.

24.3 Upon establishing the Early Termination Date, the non-defaulting Party shall, in good faith, calculate its damages and direct termination costs resulting from the termination of this Agreement and aggregate these damages and direct termination costs into a single amount (the "**Termination Payment**"). The non-defaulting Party shall notify the defaulting Party of the amount of the Termination Payment and, if the defaulting Party agrees with that amount, the defaulting Party shall pay such Termination Payment, together with any Default Interest that shall accrue from the Early Termination Date until the date the Termination Payment is made, within fifteen (15) Business Days after receipt of such notice. If the defaulting Party disputes the non-defaulting Party's calculation of the Termination Payment, the issue shall be decided according to Article 25 (*Resolution of Disputes*), and any Termination Payment determined thereby shall be due and payable within fifteen (15) Business Days after such determination.

24.4 Obligations Upon Termination. Upon expiration or termination of this Agreement, the Parties shall have no further obligations or liabilities hereunder except for those obligations and liabilities that (a) arose prior to such termination, or (b) expressly survive such termination pursuant to Article 29.11 (*Survival*).

24.5 Continuing Obligations. During the continuance of an Event of Default neither Party shall be relieved of any of its obligations or liabilities under this Agreement, including without limitation the Purchaser's obligations to take or pay for Net Energy Output

associated with Firm Capacity until this Agreement is terminated in accordance with Article 24.2 (*Termination*).

25. Resolution of Disputes

25.1 Mutual Discussion. All disputes including, without limitation, any dispute in relation to a failure by the Committee of Operation to reach agreement on any issue shall, to the extent possible, be settled in the first instance by good faith discussions between designated senior officers of the Parties. If a dispute cannot be settled by discussions between designated representatives of the Parties within thirty (30) days from the commencement of such dispute (which commencement shall be deemed to occur upon delivery of notice from one Party to the other of the dispute), the dispute resolution procedure set forth in Article 25.2 (*Arbitration Generally*) of this Agreement shall be used to settle the matter.

25.2 Arbitration Generally. If a dispute cannot be settled in accordance with Article 25.1 (*Mutual Discussion*), then either Party may refer the dispute to arbitration under the Arbitration Laws of Belize as in effect on the date of such referral.

25.3 Selection of Arbitrators and Arbitral Award. The selection of Arbitrators and Arbitral Award shall be made in accordance with the Arbitration Laws of Belize

25.4 Enforcement of Award. By execution and delivery of this Agreement, each Party hereby (a) accepts and consents to the jurisdiction of the Arbitration Laws of Belize and, solely for purposes of the enforcement of an arbitral award under this Article 25.4, to the jurisdiction of any court of competent jurisdiction, for itself and in respect of its property, and (b) waives, solely for purposes of the enforcement of an arbitral award under this Article 20.4, for itself and in respect of its property, all defenses it may have as to or based on jurisdiction, improper venue or *forum non conveniens*. Each Party hereby irrevocably consents to the service of process or other papers by the use of any of the methods and to the addresses set out for the giving of notices in Article 22 (*Insurance*) hereof. Nothing herein shall affect the right of each Party to serve such process or papers in any other manner permitted by Law.

25.5 Performance during Arbitration. During the pendency of an arbitration, each Party shall continue to perform its obligations hereunder (unless such Party is otherwise entitled to suspend its performance hereunder or terminate this Agreement in accordance with the terms hereof), and neither Party shall refer or attempt to refer the matter in dispute to a court or other tribunal in any jurisdiction, except as provided in this Article 25.

25.6 Final and Binding. Subject to Article 25.7 awards made by the arbitral tribunal shall be final and binding on the Parties.

25.7 Notwithstanding Article 25.6 either party may appeal to the Supreme Court of Belize against the arbitration award (the "Award") within 21 days of the delivery of thereof upon the grounds of either "Error of Law" or "Serious Irregularity" as defined below:

"Error of Law" means an erroneous interpretation or application of a point of law (or points of law) which caused the decision to be wrong to the prejudice of the appealing party;

“Serious Irregularity” means an irregularity of one or more of the following kinds which the Court considers has caused or will cause substantial injustice to the appellant:

- (a) The tribunal exceeded its powers
- (b) The tribunal failed to conduct the proceedings in accordance with the procedure agreed by the parties
- (c) The tribunal failed to deal with all the issues that were put to it
- (d) The Award is ambiguous or uncertain
- (e) The Award was obtained by fraud or the way in which it was procured being contrary to public policy
- (f) An irregularity in the conduct of the proceedings or in the Award which is admitted by the tribunal

25.8 Save as set out above, the Parties expressly agree to waive the applicability of all Laws which would otherwise give the right to appeal or challenge a decision of the arbitral tribunal. The cost of arbitration shall be borne by the Party that loses the arbitration. The Laws of Belize shall govern the validity, interpretation, construction, performance and enforcement of the arbitration agreement contained in this Article 25.

25.9 Alternative Resolution. In the event that the provisions of Article 25 are unenforceable and a judicial proceeding is necessary under applicable Law to resolve a dispute, the Parties hereby submit to the jurisdiction of the courts of Belize.

26. **Transfer of Purchaser’s Obligations to its Successor**

26.1 Expiration of BEL’s License. In the event that BEL’s License shall expire and not be renewed or shall be revoked and a Successor Company takes over responsibility for operation of the Transmission Grid and supply of electrical energy, whether or not such an event shall constitute a Force Majeure Event, the Purchaser shall:

- (a) at the request of the PUC, facilitate the transfer to the Successor Company of the rights and obligations of the Purchaser under this Agreement with the exception of any outstanding payment obligations;
- (b) at the request of the PUC as part of the transfer of the Transmission Grid assets, transfer the ownership to the Successor Company of the Interconnection Facilities, Energy Metering Facilities and any other equipment installed by the Purchaser either at the Facility or elsewhere to allow electrical energy to be dispatched and transmitted from the Facility to the Transmission Grid;

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- (c) in the event that a temporary operator is nominated to operate the Transmission Grid prior to the appointment of a Successor Company, allow such temporary operator access to and use of the Interconnection Facilities, Energy Metering Facilities and any other equipment installed by the Purchaser either at the Facility or elsewhere to allow electrical energy to be Dispatched by the Facility to the Transmission Grid;
- (d) in the event that a Government Authority shall take control or ownership of the assets prior to appointment of a Successor Company, allow access to and use by the Government Authority or transfer ownership to the Government Authority as part of the Transmission Grid assets, the Interconnection Facilities, Energy Metering Facilities and any other equipment installed by the Purchaser either at the Facility or elsewhere to allow electrical energy to be dispatched and transmitted from the Facility to the Transmission Grid.

27. Assignment

27.1 Right to Assign and Transfer.

27.1.1 The Seller may not assign its rights nor transfer its rights and obligations under this Agreement without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld or delayed.

27.1.2 The Purchaser shall not assign its rights nor transfer its rights and obligations under this Agreement without the prior written consent of the Seller, which consent shall not be unreasonably withheld or delayed.

27.1.3 Notwithstanding the foregoing provisions of this Article, each Party's rights under this Agreement may be assigned by that Party without the prior consent of the other Party (but with advance notice to the other Party in writing) (i) to an Affiliate or (ii) to the Financing Parties as provided in Article 27.2 (*Creation of Security*) below.

27.1.4 Any transferee must be least as creditworthy as the transferor (or have its obligations guaranteed or otherwise supported by a creditworthy entity of at least the same standing as the transferor) and (in the sole and absolute discretion of the non-transferring Party) be otherwise capable of performing all of the transferor's obligations under this Agreement.

27.2 Creation of Security.

27.2.1 The Seller may assign or otherwise create security over this Agreement in favour of the Financing Parties as security for the obligations of the Seller under the Loan Documents.

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27.2.2 The Purchaser shall use all reasonable efforts to execute, acknowledge and deliver any and all further documents and instruments, and to take any other actions which may be necessary to satisfy the requests of any Lenders or prospective Lenders (in each case, acting reasonably) in connection with any Loan Document including, without limitation, acknowledgements of assignment. The foregoing sentence shall not be construed to require the Purchaser to execute, acknowledge and deliver any further documents and instruments or to take any actions which are inconsistent with its rights under this Agreement or which are expressly subject to its consent or approval under this Agreement.

28. **Notices**

28.1 Communications in writing.

Any communication to be made under or in connection with this Agreement shall (unless otherwise stated) be made in writing or other mutually acceptable means and (unless otherwise stated) may be made by fax or letter.

28.2 Addresses

The address and fax number (and the department or officer, if any, for whose attention the communication is to be made) of each Party for any communication or document to be made or delivered under or in connection with this Agreement is:

28.2.1 in the case of the Seller:

Chairman
Belize Co-generation Energy Ltd
c/o Belize Sugar Industries Ltd
Tower Hill Factory
PO Box 29
Orange Walk Town
Belize; and

28.2.2 in the case of the Purchaser:

President and Chief Executive Officer
Belize Electricity Limited
2½ Miles Northern Highway
Belize City



Belize

or any substitute address, fax number or department or officer as the Seller may notify to the Purchaser (or the Purchaser may notify to the Seller, if a change is made by the Purchaser) by not less than five (5) Business Days' notice.

28.3 Delivery

28.3.1 Any communication or document made or delivered by one person to another under or in connection with this Agreement will only be effective:

- (a) if by way of fax, when received in legible form; or
- (b) if by way of letter, when it has been left at the relevant address or two (2) Business Days after being deposited in the post postage prepaid and registered in an envelope addressed to it at that address,

and, if a particular department or officer is specified as part of its address details provided under Article 28.2 (*Addresses*), if addressed to that department or officer.

29. **Miscellaneous Provisions**

29.1 Variations in Writing. All additions, amendments or variations to this Agreement shall be binding only if in writing and signed by duly authorised representatives of both Parties.

29.2 Entire Agreement. This Agreement and all Exhibits thereto together represent the entire agreement between the Parties in relation to the subject matter thereof and supersede any and all previous agreements or arrangements between the Parties (whether oral or written).

29.3 Severability. If any term or provision of this Agreement or the application thereof to any Person or circumstance is held in a final, non-appealable judgment to be illegal, invalid or unenforceable under any present or future applicable Law, (a) such term or provision shall be fully severable, (b) this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part hereof, and (c) the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance herefrom.

29.4 Waivers.

29.4.1 No waiver by either Party of any default by the other in the performance of any of the provisions of this Agreement shall (a) operate or be construed as a waiver of any other or further default whether of a like or different character or (b) be effective unless in writing duly executed by an authorised representative of such Party.

29.4.2 The failure by either Party to insist on any occasion upon the strict performance of the terms, conditions or provisions of this Agreement or any time or other indulgence being granted by one Party to the other shall not be construed as a waiver thereof.

29.5 Confidentiality.

29.5.1 All information (whether written, oral or from visual inspection), hereinafter referred to as the "**Information**," furnished (whether before or after the Agreement Date) by a director, officer, partner, employee, affiliate, controlling person, representative (including financial advisors, attorneys and accountants) or agent of either Party, hereinafter referred to as "**Protected Persons**," to a director, officer, partner, employee, affiliate, controlling person, representative (including financial advisors, attorneys and accountants) or agent of the other Party pursuant to this Agreement, shall not be disclosed in any manner by the receiving Party to any third party without the prior written consent of the other Party and shall be utilised by the receiving Party solely in connection with the purposes of this Agreement.

29.5.2 Information shall not include information which (i) is or becomes publicly available other than as a result of disclosure by the receiving Party, (ii) is or becomes available to the receiving Party from another source which is not prohibited from disclosing such information to the receiving Party by a legal, contractual, or fiduciary obligation of a Protected Person and becomes available to the receiving Party on a non-confidential basis, (iii) is currently in the possession of the receiving Party and is not subject to a confidentiality obligation, or (iv) is required by applicable Law, Regulation or Governmental Approval to be publicly disclosed by the receiving Party **provided that**, to the extent reasonably possible, the disclosing Party shall give prior notice to the other Party of such disclosure and, if so requested by such other Party, shall use all reasonable efforts to oppose or resist the required disclosure, as appropriate under the circumstances, or otherwise to make such disclosure pursuant to a protective order or other similar arrangement for confidentiality.

29.5.3 Notwithstanding the above, either Party may reveal Information to actual and prospective Financing Parties, actual and prospective equity investors, suppliers and potential suppliers of equipment to the Facility, advisers (including, without limitation, legal advisers), mediators, arbitrators, Judges and other third parties if, in the sole opinion of the relevant Party, such disclosure may be necessary or desirable in order for that Party duly to perform its obligations under this Agreement and/or the Loan Documents so long as such Persons (a) need to know the Information for purposes of evaluating the Agreement or the transactions contemplated thereby, (b) are informed of the confidential nature of the Information and (c) agree to act in accordance with the terms of this Article 29.5. If the Information provided to the receiving Party is no longer necessary for purposes of the Agreement, the receiving Party will, upon request from the other Party, promptly destroy all copies of written Information in the receiving Party's possession and confirm such destruction in writing to the other Party, or return, at the receiving Party's expense, all copies of the written Information in the receiving Party's possession to the other Party.

29.6 Successors and Assigns. This Agreement shall inure to the benefit of, and be binding upon, the Parties hereto and their respective successors and permitted assigns.

29.7 No Liability for Review. No review or approval by the Purchaser of any agreement, document, instrument, drawing, specifications or design proposed by the Seller shall relieve the Seller from any liability that it would otherwise have had for its negligence in the preparation of any such agreement, document, instrument, drawing, specifications or design or from failure to comply with the applicable Laws with respect thereto. Furthermore, the Purchaser shall not be liable to the Seller by reason only of its observation or inspection of the construction, testing, operation or maintenance of the Facility or any suggestions it may make relating thereto.

29.8 Limitation of Liability by a Party.

29.8.1 Notwithstanding any other provision of this Agreement and for the avoidance of any doubt, for breach of any provision of this Agreement for which an express remedy or liquidated damages are provided, such express remedy or liquidated damages shall be the sole and exclusive remedy of the non-breaching Party in respect of that breach under this Agreement, at law or in equity and the breaching Party's liability shall be limited as set forth in such provision and all other remedies and damages at law or in equity are hereby waived by the non-breaching party.

29.8.2 If no remedy or measure of damages is expressly provided herein, the breaching Party's liability shall be limited to direct actual damages. Such direct actual damages shall be the sole and exclusive remedy of the non-breaching Party and all other remedies and damages at law or in equity are hereby waived by the non-breaching party. Unless expressly provided otherwise herein, neither Party shall be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise.

29.8.3 The Parties agree that any express remedies and liquidated damages shall be without regard to the cause or causes of any breaches related thereto, including the negligence of any Party, whether such negligence be sole, joint or concurrent, active or passive. To the extent liquidated damages are required to be paid hereunder, the Parties acknowledge that actual damages are difficult, inconvenient or impossible to determine.

29.9 Third Parties. This Agreement is intended solely for the benefit of the Parties. Nothing in this Agreement shall be construed to create any right, duty or liability in favour of, or standard of care with reference to, any other Person (other than an assignee of any Party).

29.10 Headings. The headings contained in this Agreement are solely for the convenience of the Parties and should not be used or relied upon in any manner in the construction or interpretation of this Agreement.

29.11 Survival. The expiration or termination of this Agreement shall be without prejudice to all rights and obligations of the Parties accrued under this Agreement prior to the date of such expiration or termination. For the avoidance of doubt and notwithstanding any other provision of this Agreement, the rights and obligations set forth in Articles 1 (*definitions and interpretation*), 4.2 (*Termination*), 23 (*Indemnification and Liability*), 24

(*Defaults and Termination*), 25 (*Resolution of Disputes*), 26 (*Transfer of Purchasers Obligations to its Successor*), 28 (*Notices*), 29.12 (*Governing Law*), 29.5 (*Confidentiality*) shall survive the termination of this Agreement.

29.12 Governing Law. This Agreement and the rights and obligations of the Parties under or pursuant to this Agreement shall be governed by and construed in accordance with the Laws of Belize. The language of this Agreement is the English language.

29.13 Relationship of the Parties. This Agreement shall not make either of the Parties partners or joint venturers one with the other, nor make either the agent of the other. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

29.14 Good Faith. Under this Agreement, each Party shall have the duty to act in good faith.

29.15 Taxes and Change in Law.

29.15.1 In the event that any change in Law following the Agreement Date shall increase the costs of construction, financing, operation or maintenance of the Facility to the Seller or reduce the revenue to the Seller, the Seller may apply to the PUC or other agency of Government responsible for regulation of the electricity tariffs for an upwards revision of the price paid by the Purchaser to the Seller for electrical energy. Such application shall be accompanied by a fully detailed justification, detailing the impacts of the changes in Law. Both parties shall with reasonable notice be given the opportunity to be heard on the issue. Any determination by PUC shall be binding on both Parties.

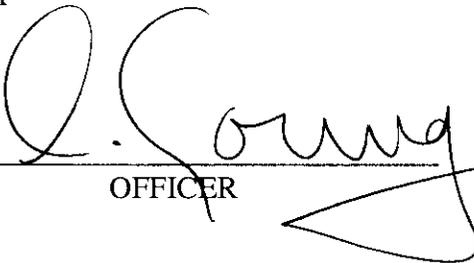
29.15.2 Variations to the level of personal or corporate taxation implemented by the Government as part of its normal fiscal policy shall not constitute a change in Law. However changes to the application of taxes and duties, introduction of new taxes and duties or changes to the level or application of concessions granted in respect of tax and duty exemptions and other fiscal incentives shall constitute a change in Law pursuant to Article 29.15.1.

29.16 Announcements. Except as otherwise required by law, for so long as this Agreement is in effect, neither the Seller nor the Purchaser shall, nor shall they permit any of their affiliates to, issue or cause the publication of any press release or other public announcement with respect to the transactions contemplated by this Agreement without the prior written consent of the other Party, which consent may be withheld in such Party's sole discretion.

IN WITNESS WHEREOF, the Purchaser and the Seller have caused their respective Common Seals to be hereto affixed on the day and the year first above written.

THE COMMON SEAL of
BELIZE ELECTRICITY LIMITED

was hereunto affixed and this
instrument was delivered
in the presence of



OFFICER



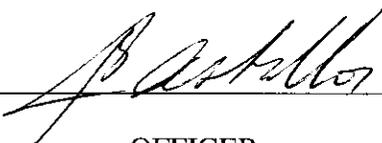
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THE COMMON SEAL of
BELIZE CO-GENERATION ENERGY LIMITED

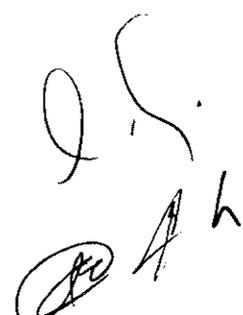
was hereunto affixed and this
instrument was delivered
in the presence of



OFFICER



OFFICER



POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 1

GOVERNMENT APPROVALS

J.S.
ROAH

Exhibit 1 (Government Approvals)

The following are the four Government Approvals required

1. Orange Walk Town Council building permission
2. Central Bank approval to enter loans
3. The PUC approval of this Power Purchase Agreement
4. An Environmental Compliance Plan approved by the Department of the Environment – included as Exhibit 10

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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 2

TRANSMISSION GRID CODE

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Belize Electricity Limited



A Fortis Company

Transmission Grid Code

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Abbreviations:

GCR	Grid Code Requirement
IPP	Independent Power Producer
IPS	Interconnected Power System
MCR	Maximum continuous Rating
TS	Transmission System

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1. Connection Conditions

This section on connection conditions specifies both the minimum technical, design and operational criteria which must be complied with by any Independent Power Producers (IPP).

The objective of the connection conditions is to ensure that by specifying minimum technical, design and operational criteria, the basic rules for *connection to the TS* are similar for all *IPPs* of an equivalent category and will enable the *Utility* to comply with its statutory and licence obligations. Since quality of supply and grid integrity are the shared responsibilities the *Utility* and the *IPPs* these conditions furthermore ensures adherence to sound engineering practice and codes by all the *participants*.

1.1 *Generator connection conditions*

This section defines minimum requirements for *generator* connections. Note that some of the sections below refer to a *Grid Code Requirement (GCR)* for brevity and later reference.

Compliance with the *GCR* shall be read in conjunction with the *unit* characteristics and sizes as specified in Table 1.1(a) below.

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Grid Code Requirement		All Units including Hydro (MVA rating)					
		<3	3 to 10	10 to 15	15 to 20	20 - 25	>25
GCR1	Plant availability	Depends on System Requirements	Yes	Yes	Yes	Yes	Yes
GCR2	Plant reliability	Depends on System Requirements	Yes	Yes	Yes	Yes	Yes
GCR3	Protection						
	Backup Impedance	-	-	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Yes
	Loss of Field	-	Depends on System Requirements	Yes	Yes	Yes	Yes
	Pole Slipping	-	Depends on System Requirements	Depends on System Requirements	Yes	Yes	Yes
	Gen trfr backup earth fault	Yes	Yes	Yes	Yes	Yes	Yes
	HV Breaker Fail	-	-	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements
	HV Breaker Pole Disagreement	-	-	-	-	-	Yes
	Unit Switch-onto-standstill Protection	Yes	Yes	Yes	Yes	Yes	Yes
	Under/Over voltage Protection	Yes	Yes	Yes	Yes	Yes	Yes
	Under/Over Frequency Protection	Yes	Yes	Yes	Yes	Yes	Yes
	Main Protection only	Yes	Yes	Yes	Depends on System Requirements	Depends on System Requirements	-
	Main and Backup protection	-	-	-	Depends on System Requirements	Depends on System Requirements	Yes
GCR4	Ability To Island	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements
GCR5	Excitation system requirements	Depends on System Requirements	Depends on System Requirements	Yes	Yes	Yes	Yes
	Power System Stabilizer	-	-	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Yes
	Limiters	-	Depends on System Requirements	Yes	Yes	Yes	Yes
GCR6	Reactive Capabilities	Depends on System Requirements	Depends on System Requirements	Yes	Yes	Yes	Yes
GCR7	Multiple Unit tripping	-	Depends on System Requirements	If the total station output is greater than the single largest contingency as defined for instantaneous reserve			If more than 1 unit at station
GCR8	Governing	Depends on System Requirements	Yes	Yes	Yes	Yes	Yes
GCR9	Restart after Station Blackout	Depends on System Requirements	Depends on System Requirements	If the total station output is greater than the single largest contingency as defined for instantaneous reserve			If more than 1 unit at station
GCR10	Black Starting	If agreed	If agreed	If agreed	If agreed	If agreed	If agreed
GCR11	External Supply Disturbance Withstand Capability	Depends on System Requirements	If more than 5 units at station	If the total station output is greater than the single largest contingency as defined for instantaneous reserve			If more than 1 unit at station
GCR12	On load tap Changer for generating Unit step up transformers	-	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements	Depends on System Requirements
GRC13	Emergency unit capabilities	Depends on System Requirements	Depends on System Requirements	Yes	Yes	Yes	Yes

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GCR14	Independent action for control in system island	-	Depends on System Requirements	Depends on System Requirements	Yes	Yes	Yes
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Table 1.1(a) - Summary of the requirements applicable to specific classes of units

The Utility shall offer to connect and, subject to the signing of the necessary agreements, make available a point of connection to any requesting IPP licensed to generate electricity.

1.1.1 Protection (GCR3)

A generating *unit's*, *unit* step-up transformer, *unit* auxiliary transformer, associated busbar ducts and switchgear shall be equipped with well maintained protection functions, in line with international best practices, to rapidly disconnect appropriate plant sections should a fault occur within the relevant protection zones which fault may reflect into the *TS*.

The following protection functions shall be provided as defined to protect the *Interconnected Power System (IPS)*:

Backup Impedance

An impedance scheme with a large reach shall be used. This shall operate for phase faults in the *unit*, in the *HV* yard or in the adjacent *transmission* lines, with a suitable delay, for cases when the corresponding main protection fails to operate. The impedance facility shall have fuse fail interlocking.

Loss of Field

All generating *units* shall be fitted with a loss of field facility that matches the system requirements. The type of facility to be implemented shall be agreed with the *Utility*.

Pole Slipping Facility

Generating *units* shall be fitted with a pole slipping facility that matches the system requirements, where the *Utility* determines that it is required.

Unit Transformer HV back-up Earth Fault Protection

This is an IDMT facility that shall monitor the current in the *unit* transformer neutral. It can detect faults in the transformer *HV* side or in the adjacent network. The back-up earth fault facility shall trip the *HV* circuit-breaker.

HV Breaker Fail Protection

The “breaker fail” protection shall monitor the *HV* circuit breaker's operation for protection trip signals, i.e. fault conditions. If a circuit breaker fails to open and the fault is still present after a specific time delay (120 ms), it shall trip the necessary adjacent circuit breakers.

HV Pole disagreement protection

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The pole disagreement protection shall cover the cases where one or two poles of a circuit breaker fail to operate after a trip or close signal.

Unit Switch onto Standstill protection

This protection shall be installed in the HV yard *substation* or in the *unit* protection panels. If this protection is installed in the *unit* protection panels then the *DC* supply for this protection and that used for the circuit-breaker closing circuit shall be the same. This protection safeguards the *generator* against an unintended connection to the *TS* (back energisation) when at standstill or at low speed.

In addition, should system conditions dictate, other protection requirements shall be determined by the *Utility* in consultation with the *IPP* and these should be provided and maintained by the relevant *IPP* at its own cost.

All protection interfaces with the *Utility* shall be co-ordinated between the *participants*.

The settings of all the protection tripping functions on the *unit* protection system of a *unit*, relevant to *IPS* performance and as agreed with each *IPP* in writing, shall be co-ordinated with the *transmission* protection settings. These settings shall be agreed between the *Utility* and each *IPP*, and shall be documented and maintained by the *IPP*, with the reference copy, which reflects the actual plant status at all time, held by the *Utility*. The *IPP* shall control all other copies.

For system abnormal conditions, a *unit* is to be disconnected from the *TS* in response to conditions at the *point of connection*, only when the system conditions are outside the plant capability where damage will occur. Protection setting documents shall illustrate plant capabilities and the relevant protection operations.

Competent persons shall carry out testing, commissioning and configuration of protection systems. Prototype and routine testing shall be carried out as defined in Appendix A

Any work on the protection circuits interfacing with *transmission* protection systems (e.g. bus zone) must be communicated to the *Utility* before commencing with the works. This includes work done during a *unit* outage.

1.1.2 Ability of units to island (GCR4)

Every unit that does not have black start capabilities of less than one hour without power from the *TS* shall be capable of unit islanding.

The procedure for testing is given in Table A.4.2

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1.1.3 Excitation system requirements (GCR5)

A continuously-acting automatic excitation control system (AVR) shall be installed to provide constant terminal voltage control of the unit, without instability, over the entire operating range of the unit. (Note that this does not include the possible influence of a power system stabiliser.)

Excitation systems shall comply with the requirements specified in IEEE 421.

The excitation control system shall be equipped with an under-excitation limiter, load angle limiter and flux limiter as described in IEE 421.

The excitation system shall have a minimum excitation ceiling limit of 1.6 pu rotor current, where 1 pu is the rotor current required to operate the unit at rated load and at rated power factor.

The settings of the excitation system shall be agreed between the Utility and each IPP, and shall be documented, with the master copy held by the Utility. The IPPs shall control all other copies. The procedure for this is shown Appendix A, Table A.4.3.

In addition, the unit shall be capable of operating in the full range as indicated in the capability diagram supplied by the IPP for the Unit. Test procedures are shown in Appendix A, Table A.4.3.

The active power output under steady state conditions of any unit shall not be affected by voltage changes in the normal operating range.

Routine and prototype response tests shall be carried out on excitation systems as indicated in Appendix A, Table A.4.3 and in accordance with IEE 421.

1.1.4 Reactive capabilities (GCR6)

All new units shall be capable of supplying rated power output (MW) at any point between the limits 0.85 power factor lagging and 0.90 power factor leading at the unit terminals. Under lagging reactive power facility condition, the Producer is responsible for ensuring that self-excitation of the inductor generator does not occur, including under the various outage combinations that might occur in the BEL system.

Reactive output shall be fully variable between these limits under AVR, manual or other control.

Routine and prototype response tests shall be carried out to demonstrate reactive capabilities as indicated in Appendix A, Table A.4.4

1.1.5 Multiple unit tripping (MUT) risks (GCR7)

A power station and its units shall be designed, maintained and operated to minimise the risk of more than one unit being tripped from one common cause within a short time.

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The larger the amount of generation lost from the IPS, or the smaller the time window in which the generation loss occurs, the greater the impact to the IPS. If a reasonable amount of generation is lost but in a short duration (more than one generating unit tripping simultaneously) the impact to the IPS is severe. The impact would be far less if the trips were staggered in time, namely over 5 to 10 minutes.

No unreasonable MUT risks shall exist. For the purpose of this code, examples of unreasonable MUT risks are:

- Relaying and other equipment powered from a common DC supply that is sensitive to disturbances to the supply such as AC onto DC, that causes the tripping of unit/s.
- Relaying or other equipment supplied from a common DC supply that will malfunction and trip a unit/s in the event of a loss of DC supply.
- The loss of AC supply for up to two hours to un-interruptible power supply (UPS), leading to the malfunction of the UPS or its associated load equipment leading to the trip of unit/s
- An earth mat with insufficient capacity or capability to successfully direct lightning or switching surges away from sensitive equipment leading to the trip of unit/s
- The use of mercury type buchholz facilities which is sensitive to earth tremors leading to the tripping of units.
- DC systems common to generating units without proper earth fault location equipment
- Common compressed air plant without proper provision of isolation, storage and non return valve systems.

Routine and prototype response tests shall be carried out to demonstrate MUT withstand capabilities as indicated in Appendix A, Table A.4.5.

1.1.6 Governing (GCR8)

1.1.6.1 Design requirements

All units shall have an operational governor that shall be capable of responding according to the minimum requirements set out in this document

1.1.6.2 System Frequency Variations

The nominal frequency of the TS is 60Hz and is normally controlled within the limits of 59.4 – 60.6Hz unless exceptional circumstances prevail. The system frequency could rise or fall in exceptional circumstances and units must be capable of continuous normal operation for the frequency range from 58.2 Hz to 61.8 Hz.

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Design of turbo alternator units must enable continuous operation, at up to 100% active power output, within this range.

Hydro-alternator units must be capable of continuous normal operation for high frequency conditions described in section 1.1.6.4 and low frequency conditions as described in section 1.1.6.6.

1.1.6.3 High Frequency Requirements for Turbo-alternators

All synchronised units shall respond by reducing active power to frequencies above 60 Hz plus allowable dead band described in section 1.1.6.7. Speed governors shall be set to give a 5 % droop characteristic. The response shall be fully achieved within 10 seconds and must be sustained for the duration of the frequency excursion. The unit shall respond to the full designed minimum operational capability of the unit at the time of the occurrence.

Over-frequency Conditions in the Range 61.8 to 62.4 Hz (Stage H1)

When the frequency goes above 61.8 Hz but less than 62.4 Hz the requirement is that the turbo-alternator units shall be able to operate for at least 5 minutes continuously without tripping in this range.

Exceeding this limit shall prompt the IPP to take all reasonable efforts to reduce the system frequency below 61.8 Hz. Such actions can include manual tripping of the running unit. Tripping shall be staggered in time and be initiated once the frequency has been greater than 61.8 Hz for 5 minutes. The IPP will trip a unit, and if the system frequency does not fall below 61.8 Hz, the other units shall be tripped in staggered format over the next five minutes or until the system frequency is below 61.8 Hz. The Utility shall approve this tripping philosophy and the settings.

Over-frequency Conditions in the above 62.4 Hz (Stage H2)

When the frequency goes above 62.4 Hz the requirement is that the turbo-alternator units shall be able to operate at least 30 seconds continuously without tripping in this range.

When the system frequency exceeds 62.4 Hz, the IPP can start tripping units sequentially. Tripping shall be spread over a 30-second window. If an IPP chooses to implement automatic tripping, the tripping shall be staggered. The Utility shall approve this tripping philosophy and the settings. As an example, the first unit will trip in 5 seconds, the second unit trip in 10 seconds, etc.

1.1.6.4 High Frequency Requirements for Hydro Alternators

All synchronised hydro units shall respond by reducing active power to frequencies above 60 Hz plus allowable dead band described in section 1.1.6.7. Speed governors shall be set to give a 5 % droop characteristic. The response shall be fully achieved within 10 seconds and must be

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sustained for the duration of the frequency excursion. The unit shall respond to the full load capability range of the unit.

When the frequency goes above 64.8 Hz but less than 66 Hz the requirement is that the hydro-alternator units shall be able to operate at least 30 seconds in this range.

When the system frequency increases to 64.8 Hz but less than 66 Hz for longer than 30 seconds, the IPP shall start staggered tripping of units as per the procedure for turbo-alternators. Settings shall be agreed with the Utility.

If the system frequency rises above 66 Hz for more than 1 second, independent action may be taken by an IPP to protect the unit. Such action includes automatic tripping.

1.1.6.5 Low Frequency Requirements for Turbo-alternator Units

Low frequency response is to be used for instantaneous reserve. However all units shall be designed to be capable of having a 5 % droop characteristic with a minimum response of 3% of MCR within 10 seconds of a frequency incident. The response must be sustained for at least 10 minutes.

Low frequency in the Range 58.2 to 57.6 Hz (Stage L1)

When the frequency goes below 58.2 Hz but greater than 57.6 Hz the requirement is that the unit shall be able to operate at least 5 minutes continuously without tripping while the frequency is in this range.

If the system frequency is in this range for more than 5 minutes, independent action may be taken by the IPP to protect the unit.

Low frequency in the Range 57.6 to 57 Hz (Stage L2)

When the frequency goes below 57.6 Hz but greater than 57 Hz the requirement is that the unit shall be able to operate at least 30 seconds continuously without tripping while the frequency is below 57.6 Hz but greater than 57 Hz.

If the system frequency is in this range for more than 30 seconds, independent action may be taken by an IPP to protect the unit.

Low frequency below 57 Hz (Stage L3)

If the system frequency falls below 57 Hz for longer than 6 seconds, independent action may be taken by an IPP to protect the unit.

1.1.6.6 Low Frequency Requirements for Hydro-alternator Units

All reasonable efforts shall be made by the IPP to avoid tripping of the hydro-alternator for under frequency conditions provided that the system frequency is above 55.2 Hz.

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If the system frequency falls below 55.2 Hz for more than 1 second, independent action may be taken by an IPP to protect the unit. Such action includes automatic tripping.

1.1.6.7 *Dead band*

The maximum allowable dead band shall be 0.18 Hz for governing. That is no response is required from the unit while the frequency is greater than 59.82 to and less than 60.18 Hz.

Routine and prototype response tests shall be carried out on the governing systems as indicated in Appendix A, Table A.4.6.

1.1.7 Restart after power station black-out (GCR9)

A power station and a unit is to be capable of being restarted and synchronised to the IPS following restoration of external auxiliary AC supply without unreasonable delay resulting directly from the loss of external auxiliary AC supply.

For the purposes of this code, examples of unreasonable delay in the restart of a power station are:

- Restart of the first unit that takes longer than 15 minutes after restart initiation
- Restart of the second unit that takes longer than 15 minutes after the synchronising of the first unit.
- Restarting of all other units that take longer than 15 minutes each after the synchronising of the second unit.
- Delays not inherent in the design of the relevant start up facilities and which could reasonably be minimised by the relevant IPP
- The start up facilities for a new unit not being designed to minimise start up time delays for the unit following loss of external auxiliary AC supplies for two hours or less.

Routine and prototype response tests shall be carried out to demonstrate capabilities as indicated in Appendix A, Table A.4.7

1.1.8 Black Starting (GCR10)

Power stations that have declared that they have a station black start capability shall demonstrate this facility by test as described in Appendix A, Table A.4.8.

Back start capable power stations may be called from time to time not to carry out a full station back start but a unit black start as described in Appendix A, Section A.4.8.

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1.1.9 External supply disturbance withstand capability (GCR11)

Any unit and any power station equipment shall be designed with anticipation of the following voltage conditions at the point of connection:

A voltage deviation in the range of 90% to 110% for protracted periods.

A voltage drop to zero for up to 0.2s, to 75% for 2s, or to 85% for 60 s provided that during the 3 minute period immediately following the end of that 0.2s, 2s, or 60s periods the actual voltage remains in the range 90-110% of the nominal voltage.

Unbalance between phase voltages of not more than 3 % negative phase sequence and or the magnitude of one phase not lower than 5 % than any of the other two for 6 hours.

A Volt/Hz requirement of 1.1 p.u.

A requirement to withstand the ARC cycle for faults on the transmission lines connected to the power station, being three single faults, each of 150 ms duration, within 31 seconds.

Routine and prototype response tests shall be carried out to demonstrate capabilities as indicated in Appendix A, Section A.4.9

1.1.10 On load tap changing for generating unit step-up transformers (GCR12)

Generating unit step-up transformers shall have on-load tap changing where necessary. The range shall be agreed between the Utility and the IPP.

1.1.11 Emergency unit capabilities (GCR13)

All IPPs shall specify their units' capabilities for providing emergency support under abnormal power system conditions.

1.1.12 Facility for independent generator action. (GCR14)

Power Stations shall be used for frequency control under system island conditions where necessary, and units and associated plant(s) shall be equipped to handle such situations. The required control range is from 58.8 to 61.2 Hz.

1.1.13 Voltage disturbances

The interconnection of a Producer's generating equipment with BEL System shall not cause any reduction in the quality of service on the BEL System. No abnormal voltages, frequencies, or interruptions will be permitted. If high or low voltage complaints, transient voltage complaints, and/or harmonic (voltage distortion) complaints result from operation of a Producer's generation, Producer's such generating equipment shall be disconnected from the BEL System until the Producer resolves the problem. The Producer is responsible for the expense of keeping the generator(s) in good working order so that the voltage, harmonics, power factor (PF), and VAr requirements are always met. Variable output

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machines (wind), with fluctuations in plant MW output, may cause fluctuation in power system voltage. To achieve adequate speed of response to such variations, and plants relying on switched shunt capacitors to control such variations must have the capacitor banks equipped with "rapid discharge" circuits capable of rendering the capacitors available for re-insertion within 5 seconds of de-energization.

The Producer should expect a normal transmission operating voltage range of +/- 5% from nominal. The plant should be capable of start-up whenever the voltage at the point of interconnection is within this range. If the auxiliary equipment within the Generator cannot operate within the above range, the Generator will need to provide regulation equipment to limit the station service voltage-level excursions. During system contingency or emergency operation, operating voltages may vary up to +/- 10% from nominal.

Flicker. Any voltage flicker at the Point of Connection caused by the Generating Facility should not exceed the limits defined by the "Maximum Borderline of Irritation Curve" identified in IEEE 519. This requirement is necessary to minimize the adverse voltage effects to other customers on the Power System.

1.1.14 Harmonics

The equipment of the Producer must include protective equipment so the Producer does not introduce excessive distortion to BEL's System voltage and current waveforms as defined by IEEE 519. Total harmonic distortion (THD) from the facility will be measured at Point of Interconnection. The measured results must be within the limits specified in IEEE 519. The Producer is encouraged to ensure that the facility as designed will comply with these requirements early in the design process. The Producer is responsible for the elimination of any objectionable interference (whether conducted, induced, or radiated) to communication or signalling circuits or systems, or any miss-operation, failure, or overloading of power system devices or equipment (protective relays, capacitor banks, metering, etc.) arising from non-fundamental current injections into the BEL's System from the Producer's facilities.

1.1.15 Interrupting device

Circuit breakers or other interrupting devices at the Point of Common Connection must be Certified or "listed" (as defined in Article 100, the Definitions Section of the National Electrical Code) as suitable for the application. This includes being capable of interrupting maximum available fault current.

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Required *HV* breaker tripping, fault clearance times, including breaker operating times depend on system conditions and shall be defined by the *Utility*. Guidelines for operating times are:

120 ms where the point of connection is 115 kV and below

Further downstream breaker tripping (away from the system), fault clearing times, including breaker operating time, shall not exceed the following:

120 ms plus additional 30 ms for DC offset decay or

100 ms plus additional 40 ms for DC offset decay.

Where system conditions dictate, these times may be reduced. Where so designed, earth fault clearing times for high resistance earthed systems may exceed the above tripping times.

1.1.16 Disconnect Facility

The Electricity Producer will furnish and install a manual disconnect device that has a visual break and line side ground switch to isolate the Generating Facility from the Power System. The device must be accessible to the Utility’s personnel and be capable of being locked in the open position.

1.1.17 Testing and compliance monitoring

An IPP shall keep records relating to the compliance by each of its units with each section of this code applicable to that unit, setting out such information that the Utility reasonably requires for assessing power system performance (including actual unit performance during abnormal conditions).

Within one month after the end of June and December, a IPP shall review, and confirm to the Utility, compliance by each of that IPP’s units with every GCR during the past 6 month period.

An IPP shall conduct tests or studies to demonstrate that each power station and each generating unit complies with each of the requirements of this code. Tests shall be carried out on new units, after every outage where the integrity of any GCR may have been compromised, to demonstrate the compliance of the unit with the relevant GCR(s). The IPP shall continuously monitor its compliance with all the connection conditions of the Grid Code.

Each IPP shall submit to the Utility a detailed test procedure, emphasising system impact, for each relevant part of this code prior to every test.

If an IPP determines, from tests or otherwise, that one of its units or power stations is not complying with one or more sections of this code, then the IPP shall:

- promptly notify the Utility of that fact;

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- promptly advise the Utility of the remedial steps it proposes to take to ensure that the relevant unit or power station (as applicable) can comply with this code and the proposed timetable for implementing those steps;
- diligently take such remedial action as will ensure that the relevant unit or power station (as applicable) can comply with this code. The IPP shall regularly report in writing to the Utility on its progress in implementing the remedial action;
- and after taking remedial action as described above, demonstrate to the reasonable satisfaction of the Utility that the relevant unit or power station (as applicable) is then complying with this code.

1.1.18 Non-compliance suspected by the Utility

If at any time the Utility believes that a unit or power station is not complying with this code, then the Utility may notify the relevant IPP of such non-compliance specifying the code section concerned and the basis for the Utility’s belief.

If the relevant IPP believes that the unit or power station (as applicable) is complying with the code, then the Utility and the IPP must promptly meet to resolve their difference.

1.1.19 Unit modifications

Modification proposals

If an IPP proposes to change or modify any of its units in a manner that could reasonably be expected to either adversely affect that unit’s ability to comply with this code, or changes the performance, information supplied, settings, etc, then that IPP shall submit a proposal notice to the Utility which shall:

1. contain detailed plans of the proposed change or modification;
2. state when the IPP intends to make the proposed change or modification; and
3. set out the proposed tests to confirm that the relevant unit as changed or modified operates in the manner contemplated in the proposal, can comply with this code.

If the Utility disagrees with the proposal submitted, it may notify the relevant IPP, and the Utility and the relevant IPP shall promptly meet and discuss the matter in good faith in an endeavour to resolve the disagreement.

Implementing modifications

The IPP shall ensure that an approved change or modification to a unit or to a subsystem of a unit is implemented in accordance with the relevant proposal approved by the Utility.

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The IPP shall notify the Utility promptly after an approved change or modification to a unit has been implemented.

Testing of modifications

The Utility shall confirm that a change or modification to any of its units as described above, conforms with the relevant proposal by conducting the relevant tests, in relation to the connection conditions, promptly after the proposal has been implemented.

Within 20 business days after any such test has been conducted, the relevant IPP shall provide the Utility with a report in relation to that test (including test results of that test, where appropriate).

1.1.20 Equipment requirements

Where the IPP needs to install equipment that connects directly with Utility’s equipment, for example in the high voltage yard of the Utility, such equipment shall adhere to the Utility’s design requirements.

The Utility may require customers to provide documentary proof that their connection equipment complies with all relevant standards, both by design and by testing.

1.1.21 Effective Grounding

IEEE 142 requires: The positive sequence reactance is greater than the zero sequence resistance ($R_0 < X_1$); and the zero sequence reactance is less than or equal to three times the positive sequence reactance ($X_0 \leq 3X_1$).

All Producer facilities connected to the BEL System must contribute to maintaining an effectively grounded transmission system. The generator step-up transformer is usually connected such that it isolates the zero sequence circuit of the Producer’s generator from the zero sequence circuit of the BEL System.

1.1.22 Utility Grade Relay

Utility grade protective and control relays are required for all generation facilities interconnected to the BEL System. The relays must:

1. Meet or exceed ANSI/IEEE Standards for protective relays (i.e., C37.90, C37.90.1, and C37.90.2).
2. Have documentation covering application, testing, maintenance, and service.
3. Give positive indication of what caused a trip (Targets).
4. Have a means of testing that does not require extensive unwiring (e.g. a draw-out case, test-blocks, FT-1 switches, etc.).

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The Producer is strongly encouraged to use microprocessor based protective relays. The self-diagnostic abilities, the sequence of events capabilities, and increased flexibility of application are highly desirable.

2. Technical Information Requirements

2.1 *Technical Information Exchange*

2.1.1 Technical Information Requirements from IPPs

All IPPs shall provide all pertinent technical information to the Utility concerning their power plant, and specifically information on for each generating unit, circuit breaker, transformer and any other important equipment which is considered essential within the plant to allow for the generation of power. Appendix B provides a listing of the information requirements for the equipment specified. Information to be provided for other equipment will be specified by the Utility upon being identified by the IPP. This information must be presented to the Utility at least 6 months prior to start-up of the power station, unit or electrical plant. Delays in providing the information listed herein, could result in the Utility requiring the IPP to delay the commissioning of the power plant and/or generating unit(s).

2.1.2 Technical Information Requirements from the Utility

IPPs shall request technical information from the Utility as required to allow them to do planning and other technical studies. The Utility shall use its best efforts to supply such information if available within a reasonable time.

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A. Appendix A - Surveying, monitoring and testing for generators

A.1. Introduction

This section specifies the procedures to be followed in carrying out the surveying, monitoring or testing:

- of compliance by power stations with the Grid Code
- Provision by power stations of services which are required or they have agreed to provide.

A.2. Request for surveying, monitoring or testing

The Utility may at any time (although it may not do so more than twice in any calendar year in respect of any particular power station except to the extent that it can on reasonable grounds justify the necessity for further tests or unless the further test is a re-test) issue an instruction requiring a power station to carry out a test, at a time no sooner than 48 hours from the time that the instruction was issued, to demonstrate that the relevant power station complies with the Grid Code requirements.

A.3. Ongoing Monitoring of a Unit's Performance

An IPP shall monitor each of its units during normal service to confirm ongoing compliance with the applicable parts of this code. Any deviations detected must be reported to the Utility within 5 working days.

An IPP shall keep records relating to the compliance by each of its units with each section of this code applicable to that unit, setting out such information that the Utility reasonably requires for assessing power system performance (including actual unit performance during abnormal conditions).

Within one month after the end of June and December, an IPP shall provide to the Utility a report detailing the compliance by each of that IPP's units with every code section during the past 6 month period.

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A.4. Procedures

A.4.1 Unit Protection System <i>Grid Code Requirement GCR3</i>		
Parameter	Reference	
Protection Function and Setting Integrity Study		<p>APPLICABILITY AND FREQUENCY <i>Prototype study:</i> All new power stations coming on line or power stations where major refurbishment or upgrade of protection systems have taken place.</p> <p><i>Routine review:</i> All power stations every 6 years.</p> <p>PURPOSE To ensure that the relevant protection functions in the power station is co-ordinated with the power system requirements.</p> <p>PROCEDURE <i>Prototype:</i></p> <ol style="list-style-type: none"> 1. Obtain the required power system protection functions and associated trip level requirements from the Utility. 2. Derive protection functions and settings that match the power station plant, transmission plant and system requirements. 3. Confirm the stability of each protection function for all relevant system conditions. 4. Document the details of the trip levels, stability calculations for each protection function. 5. Convert protection tripping levels for each protection function into per unit base. 6. Consolidate all settings in per unit base for all protection functions in one document 7. Derive actual relay dial setting details and document the relay setting sheet for all protection functions. 8. Document the position of each protection function on one single line diagram of the generating unit and associated connections. 9. Document the tripping functions for each tripping function on one tripping logic diagram. 10. Consolidate detail setting calculations, per unit setting sheets, relay setting sheets, plant base information the settings are based on, tripping logic diagram, protection function single line diagram and relevant protection relay manufacturers information into one document. 11. Submit to the Utility for their acceptance and update. 12. Provide the Utility with one original reference copy and one working copy. <p><i>Routine review:</i></p> <ol style="list-style-type: none"> 1. Review Items 1 to 10 above. 2. Submit to the Utility for their acceptance and update. 3. Provide the Utility with one original reference copy and one working copy. <p>ACCEPTANCE CRITERIA All protection functions are set to meet the necessary protection requirements of the transmission and power station plant with minimal margin. Optimal fault clearing times and plant availability Targets are achieved.</p> <p>Submit a report to the Utility one month after the test</p>

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Protection Integrity Tests		<p>APPLICABILITY <i>Prototype test:</i> All new power stations coming on line and all other power stations after major modifications or refurbishment of protection or related plant.</p> <p><i>Routine test:</i> All Power Stations every 6 years or after major overhaul of plant.</p> <p>PURPOSE To confirm that the protection has been wired and function according to that specified.</p> <p>PROCEDURE</p> <ol style="list-style-type: none"> 1. Apply final settings as per agreed documentation to all protection functions. 2. With the generator unit off load and de-energized, inject appropriate signals into every protection function and confirm correct operation and correct calibration. Document all protection function operations. 3. Carry out trip testing of all protection functions, from origin (e.g. Buchholz relay) to all tripping output devices (e.g. HV Breaker). Document all trip test responses. 4. Apply short circuits at all relevant protection zones and with generator at nominal speed excite generator slowly, record currents at all relevant protection functions, and confirm correct operation of all relevant protection functions. Document all readings and responses. Remove all short circuits. 5. With the generator at nominal speed, excite generator slowly recording voltages on all relevant protection functions. Confirm correct operation and correct calibration of all protection functions. Document all readings and responses. <p>ACCEPTANCE CRITERIA All protection functions fully operational and operate to required levels within the relay OEM allowable tolerances.</p> <p>Measuring instrumentation used shall be sufficiently accurate and calibrated to traceable standard. Submit a report to the Utility one month after the test.</p>
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A.4.1. Unit Protection System *Grid Code Requirement GCR3*

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A.4.2 Unit Islanding Capability Grid Code Requirement GCR4	
Parameter	Reference
Islanding	<p>APPLICABILITY</p> <p><i>Prototype test:</i> All new power stations coming on line and all other power stations after major modifications or refurbishment of protection or related plant.</p> <p><i>Routine test:</i> All Power Stations every 6 years or after major overhaul of plant which may affect islanding capability</p> <p><i>Continuous monitoring:</i> Where in the day to day running of the plant, a real condition arises where a Generating Unit is required to Island, and the Islanding takes place successfully, and the Islanding condition is sustained as specified under acceptance criteria below or the unit is called to synchronize and completes synchronizing successful, it shall be considered as a successful Islanding test.</p> <p>PURPOSE</p> <p>To confirm that Generating Units that have been specified to provide Islanding service, complies. Islanding is the ability of a Generating Unit to suddenly disconnect from the TS by the opening the HV breaker, and automatically control all the necessary critical parameters sufficiently to maintain the turbine-generator at speed and excited and supplying its own auxiliary load. This Islanded mode must be sustained for at least 20 minutes without tripping of the turbine, boiler, excitation system, or other systems critical to sustain an Islanding condition.</p> <p>PROCEDURE</p> <ul style="list-style-type: none"> • Generating Unit running at steady state conditions above 60% full load conditions. • All protection and control systems in normal operating conditions. • No special modifications to the plant for the purpose of the test, accept installation of monitoring equipment, is allowed. • The Unit supplies all its own auxiliary load during the test • No operating is allowed for the first 5 minutes following the initiation of the Islanding. • Equipment is connected to the Generating unit that records critical parameters. The following minimum parameters is recorded: <ul style="list-style-type: none"> (a) Turbine speed (b) Alternator load (c) Alternator voltage and current (d) Exciter voltage and current (e) Unit busbar voltage (f) System frequency • Initiation of the Islanding is done by opening the HV Breaker/ <p>ACCEPTANCE CRITERIA</p> <p>The turbine must settle at or close to its nominal speed, the excitation system must remain in automatic mode, supplying all the unit's auxiliary load. The Islanding condition must be sustained for at least 20 minutes.</p>

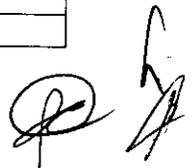
A.4.2. Unit Islanding Capability Grid Code Requirement GCR4

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A.4.3 Excitation System Grid Code Requirement GCR5		
Parameter	Reference	
Excitation and Setting Integrity Study		<p>APPLICABILITY AND FREQUENCY <i>Prototype study:</i> All new power stations coming on line or power stations where major refurbishment or upgrade of protection systems have taken place.</p> <p><i>Routine review:</i> All power stations every 6 years.</p> <p>PURPOSE To ensure that the Excitation systems in the power station is co-ordinated with the power system requirements.</p> <p>PROCEDURE <i>Prototype:</i></p> <ol style="list-style-type: none"> 1. Obtain the excitation system performance requirements from the Utility. 2. Derive a suitable model for the excitation system according to IEEE421. Where necessary, non standard models (non IEEE) shall be created. This may require frequency response and bode plot tests on the excitation system as described in IEEE 421. 3. Submit the model to the Utility for their acceptance. 4. Derive excitation system settings that match the power station plant, transmission plant and system requirements. This includes the settings of all parts of the excitation system such as the chop-over limits and levels, limiters, protection devices, alarms. 5. Confirm the stability of the excitation system for relevant excitation system operating conditions. 6. Document the details of the trip levels, stability calculations for each setting and function. 7. Convert settings for each function into per unit base and produce a high level dynamic performance model with actual settings in p.u. values. 8. Derive actual card setting details and document the relay setting sheet for all setting functions. 9. Produce a single line diagram / block diagram of all the functions in the excitation system and indicate signal source. 10. Document the tripping functions for each tripping on one tripping logic diagram. 11. Consolidate detail setting calculations, model, per unit setting sheets, relay setting sheets, plant base information the settings are based on, tripping logic diagram, protection function single line diagram and relevant protection relay manufacturers information into one document. 12. Submit to the Utility for their acceptance and update. 13. Provide the Utility with one original master copy and one working copy. <p><i>Routine Review:</i> Review Items 1 to 10 above. Submit to the Utility for their acceptance and update. Provide the Utility with one original master copy and one working copy update if applicable.</p> <p>ACCEPTANCE CRITERIA Excitation system is set to meet the necessary control requirements in an optimized manner for the performance of the transmission and power station plant. Excitation system operates stable both internally and on the network.</p> <p>Submit a report to the Utility one month after tests are completed.</p>



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<p>Excitation Response Tests</p>		<p>APPLICABILITY <i>Prototype test:</i> All new power stations coming on line and all other power stations after major modifications or refurbishment of protection or related plant. <i>Routine test:</i> All Power Stations every 6 years or after major overhaul of plant.</p> <p>PURPOSE On confirm that the excitation system performs as per the specified.</p> <p>PROCEDURE With the generator off line, carry out frequency scan / bode plot tests on all circuits in the excitation system critical to the performance of the excitation system. With the generator in the open circuit mode, carry out the Large signal performance testing as described in IEEE 421. Determine Time response, Ceiling voltage, voltage response, • With the generator connected to the network and loaded, carry out the small signal performance tests according to IEEE 421. Also carry out power system stabiliser tests and determine damping with and without Power System stabiliser where applicable. Document all responses.</p> <p>ACCEPTANCE CRITERIA Excitation system meets the necessary control requirements in an optimised manner for the performance of the transmission and power station plant as specified. Excitation system operates stable both internally and on the network. Power System stabilisers set for optimised damping.</p> <p>Submit a report to the Utility one month after tests are completed.</p>
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A.4.3. Excitation System Grid Code Requirement GCR5

A.4.4 Unit Reactive Power Capability Grid Code Requirement GCR6		
Parameter	Reference	
<p>Reactive Power Capability</p>		<p>APPLICABILITY <i>Prototype test:</i> All new power stations coming on line and all other power stations after major modifications or refurbishment of protection or related plant.</p> <p>PURPOSE To confirm that the reactive Power Capability specified are met.</p> <p>PROCEDURE The duration of the test will be for a period of up to 60 minutes during which period the System voltage at the Grid Entry Point for the relevant Generating Unit will be maintained by the Generator at the voltage specified by adjustment of Reactive Power on the remaining Generating Units , if necessary.</p> <p>ACCEPTANCE CRITERIA Generating Unit will pass the test if it is within $\pm 5\%$ of the capability registered with the Utility</p> <p>Submit a report to the Utility one month after the test is completed</p>

A.4.4. Unit Reactive Power Capability Grid Code Requirement GCR6

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A.4.5 - Power Station Multiple Unit Trip Grid Code Requirement GCR7.		
Parameter	Reference	
Multiple Unit Tripping (MUT) Tests, Study and Survey		<p>APPLICABILITY</p> <p><i>Prototype tests / study / survey:</i></p> <ul style="list-style-type: none"> • New power stations coming on line, items 1 to 3 below or • Power stations where major modifications or changes have been implemented on plant critical to Multiple Unit Tripping. Applicable item/s listed 1 to 3 below. <p><i>Routine assessment:</i> All power stations. Item 3 below. Annually</p> <p><i>Routine testing:</i> All Power Stations. Every 6 years or after a major overhaul. Items 1 and 2 below.</p> <p>PURPOSE</p> <p>To confirm that a power station is not subjected to unreasonable risk of MUT as defined in Section 1.1.5.</p> <p>PROCEDURE AND ACCEPTANCE CRITERIA</p> <p>1. Emergency supply isolation test: On all emergency supplies (e.g DC supplies) common to more than one generating unit, isolate supply for at least one second, with the unit running at full load under normal operating conditions. Tests are carried out on one unit at the time. Where two supplies feed one common load, isolation of one supply at a time would be sufficient. Confirm that that the unit or part of the unit plant does not trip. No change in the unit output shall take place. Document results.</p> <p>2. Uninterruptible power supplies (UPS) integrity testing: On all UPS's supplying critical loads that can cause tripping of more than one generating unit isolate the AC supply to the UPS for a period of at least 1 minute. Where two UPS's supply one common load, one UPS at a time can be isolated. Load equipment must resume normal operation. Document results.</p> <p>3. Earth mat integrity inspection and testing: Carry out an inspection and tests on all parts of the power station earth mat that is exposed to lightning surge entry and in close proximity to circuits vulnerable to damage that will result in tripping of more than one generating unit. Confirm that all the earthing and bonding is in place, and measure resistances to earth at bonding points. Document findings and results.</p> <p>Report to be submitted to the Utility one month after testing.</p>

A.4.5. Power Station Multiple Unit Trip Grid Code Requirement GCR7

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A.4.6 - Governing System Grid Code Requirements GCR8.		
Parameter	Reference	
Governing Response Tests		<p>APPLICABILITY <i>Prototype test:</i> All new power stations coming on line and all other power stations after major modifications or refurbishment of protection or related plant.</p> <p><i>Routine test:</i> All Units to be monitored continuously, additional tests may be requested by the Utility</p> <p>PURPOSE Prove the unit is capable of the minimum requirements required for Governing</p> <p>PROCEDURE 1. Frequency or speed deviation to be injected on the Unit for 10 minutes. 2. Real Power Output of the Unit is to be measured and recorded.</p> <p>ACCEPTANCE CRITERIA Minimum requirements of the Grid Code are met</p>

A.4.6. Governing System Grid Code Requirements GCR8

A.4.7 - Unit Restart after Station Blackout Capability Grid Code Requirement GCR9		
Parameter	Reference	
Restart after Station Blackout Survey.		<p>APPLICABILITY <i>Prototype survey:</i> Item 1 for new power stations or Power Stations where modifications have been carried out on plant critical to multiple unit restarting.</p> <p><i>Routine survey:</i> All power stations. Item 2 very 3 months.</p> <p>PURPOSE To confirm that a power station can restart unit simultaneously to the criteria outlined in section 1.1.7 after a station blackout condition.</p> <p>PROCEDURE 1. Plant capacity survey: <ul style="list-style-type: none"> • Identify all supply systems common to two or more systems (e.g. Power supplies, crude oil, air, demineralised water) • Determine the quantity and supply rate required to simultaneously restart the number of units specified in section 1.1.7 • Document list of critical systems, required stock, study details and findings. 2. Survey of available stock: <ul style="list-style-type: none"> • For each of the applicable critical systems identified, document the average stock for the year, minimum stock and duration below critical stock levels. • </p> <p>ACCEPTANCE CRITERIA More than 95% of the time of the year, all stocks above critical levels. Report to be submitted to the Utility one month after commissioning or surveys.</p>

A.4.7. Unit Restart after Station Blackout Capability Grid Code Requirement GCR9

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A.4.8 - Power Station Black Start Capability Grid Code Requirement GCR10		
Parameter	Reference	
Unit Black Starting		<p>APPLICABILITY <i>Routine Test:</i> Power stations that have an arrangement with the Utility to supply Unit Black start services. When called for by the Utility but not more than once every 2 years</p> <p>PURPOSE Demonstrate that a Black Start Unit has a Black Start Capability</p> <p>PROCEDURE</p> <ul style="list-style-type: none"> • The relevant Generating Unit shall be Synchronised and Loaded; • All the Auxiliary Gas Turbines and/or Auxiliary Diesel Engines in the Black Start Station in which that Generating Unit is situated, shall be Shutdown. • The Generating Unit shall be De-Loaded and De-Synchronised and all alternating current electrical supplies to its Auxiliaries shall be disconnected. • The Auxiliary Gas Turbine(s) or Auxiliary Diesel Engine(s) to the relevant Generating Unit shall be started, and shall re-energise the busbar of the relevant Generating Unit. • The Auxiliaries of the relevant Generating Unit shall be fed by the Auxiliary Gas Turbine(s) or Auxiliary Diesel Engine(s), via the Unit's busbar, to enable the relevant Generating Unit to return to Synchronous Speed. • The relevant Generating Unit shall be Synchronised to the System but not Loaded, unless the appropriate instruction has been given by the Utility. <p>All Black Start Tests shall be carried out at the time specified by the Utility in the notice given under section 1.1.8 and shall be undertaken in the presence of a reasonable number of representatives appointed and authorised by the Utility, who shall be given access to all information relevant to the Black Start Test.</p> <p>ACCEPTANCE CRITERIA A Black Start Station shall fail a Black Start Test if the Black Start Test shows That it does not have a Black Start Capability (ie. if the relevant Generating Unit Fails to be Synchronised to the System within 15 minutes of the Auxiliary Gas Turbine(s) or Auxiliary Diesel Engine(s) being required to start).</p> <p>Submit a report to the Utility one month after test.</p>

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<p>Station Black Starting</p>	<p>APPLICABILITY <i>Routine test:</i> Power stations that have an arrangement with the Utility to supply Unit Black start services. When called for by the Utility but not more than once every 2 years</p> <p>PURPOSE Demonstrate that a Black Start Station has a Black Start Capability</p> <p>PROCEDURE</p> <ul style="list-style-type: none"> • All Generating Units at the Black Start Station, other than the Generating Unit on which the Black Start Test is to be carried out, and all the Auxiliary Gas Turbines and/or Auxiliary Diesel Engines at the Black Start Station, shall be Shutdown. • The relevant Generating Unit shall be Synchronised and Loaded. • The relevant Generating Unit shall be De-Loaded and De-Synchronised. • All external alternating current electrical supplies to the busbar of the relevant Generating Unit, and to the station auxiliary busbar of the relevant Black Start Station, shall be disconnected. • An Auxiliary Gas Turbine or Auxiliary Diesel Engine at the Black Start Station shall be started, and shall re-energise either directly, or via the station auxiliary busbar, the busbar of the relevant Generating Unit. • The Auxiliaries of the relevant Generating Unit shall be fed by the Auxiliary Gas Turbine(s) or Auxiliary Diesel Engine(s), via the Unit's busbar, to enable the relevant Generating Unit to return to Synchronous Speed. • The relevant Generating Unit shall be synchronised to the System but not Loaded, unless the appropriate instruction has been given by the Utility. <p>All Black Start Tests shall be carried out at a time specified by the Utility in the and shall be undertaken in the presence of a reasonable number of representatives appointed and authorised by the Utility, who shall be given access to all information relevant to the Black Start Test.</p> <p>ACCEPTANCE CRITERIA A Black Start Station shall fail a Black Start Test if the Black Start Test shows that it does not have a Black Start Capability (ie. if the relevant Generating Unit fails to be Synchronised to the System within 15 minutes of the Auxiliary Gas Turbine(s) or Auxiliary Diesel Engine(s) being required to start).</p> <p>Submit a report to the Utility one month after test.</p>
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A.4.8. Power Station Black Start Capability Grid Code Requirement GCR10

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A.4.9 - External Supply Disturbance Withstand Capability Grid Code Requirement GCR11		
Parameter	Reference	
Voltage and Frequency Deviation		<p>APPLICABILITY <i>Prototype survey / test:</i> New power stations coming on line or power stations where major modifications to plant that may be critical to system supply frequency or voltage magnitude deviations.</p> <p><i>Routine testing and survey:</i> All power stations. Review every 6 years.</p> <p>PURPOSE To confirm that the power station and its auxiliary supply loads conforms to the requirements of supply frequency and voltage magnitude deviations as specified in Section 1.1.9.</p> <p>SCOPE OF PLANT OR SYSTEMS <i>Critical plant:</i> Equipment or systems that is likely to cause tripping of a unit, or parts of a unit that is likely to cause a Multiple Unit trip (MUT)</p> <p>PROCEDURE AND ACCEPTANCE CRITERIA</p> <p>1. <i>Frequency deviation survey:</i> Carry out a survey on the capability of critical plant confirming that it will resume normal operation for frequency deviations as required under Section 1.1.6. Document Findings.</p> <p>2. <i>Voltage magnitude deviation survey:</i> Carry out a survey on the capability of critical plant confirming that it will resume normal operation for voltage deviations as defined in Section 1.1.9. Document Findings. Also consider protection and other tripping functions on critical plant. Document all findings.</p> <p>A generating unit or power station must not trip or unduly reduce load for system voltage changes in the range specified in Section 1.1.9.</p> <p>Document all results.</p> <p>Report to be submitted to the Utility one month after testing.</p>

A.4.9. External Supply Disturbance Withstand Capability Grid Code Requirement GCR11

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A.4.10 - Emergency Unit capabilities GCR13		
Parameter	Grid Code Reference	
Intermediate Load Capability		<p>APPLICABILITY <i>Prototype study:</i> All new power stations coming on line or power stations where major refurbishment or upgrade of the Unit have taken place.</p> <p><i>Routine test:</i> All Units to be monitored continuously, additional tests may be requested by the Utility</p> <p>PURPOSE Prove Unit can meet the minimum requirements of the Grid Code</p> <p>PROCEDURE</p> <ol style="list-style-type: none"> 1. A section of the Unit is to be tripped that will cause a 15% of MCR reduction of the output of the Unit. Should nothing be found to induce this reduction a sudden reduction of the Unit output shall be done manually. 2. The plant is to be monitored and recorded to ensure the plant continues to operate in a stable and controlled mode after the reduction. <p>ACCEPTANCE CRITERIA The Unit shall be in a stable and controlled mode after the trip or reduction in the Unit output.</p>
Loading and De-loading Rates		<p>TYPE <i>Prototype study:</i> All new power stations coming on line or power stations where major refurbishment or upgrade of the Unit have taken place.</p> <p><i>Routine test:</i> All Units to be monitored continuously, additional tests may be requested by the System Operator</p> <p>PURPOSE Prove Unit can meet the minimum requirements of the Grid Code</p> <p>PROCEDURE</p> <ol style="list-style-type: none"> 1. The Unit is to be ramped up and down. 2. The Unit is to be monitored and recorded to ensure the plant continues to operate in a stable and controlled mode during and after the ramps. <p>ACCEPTANCE CRITERIA The Unit shall be ramped up and down in a stable and controlled mode and shall meet the minimum requirements of the Grid Code.</p>

A.4.10. Emergency Unit capabilities GCR13

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B. Technical Information Requirements from IPPs

(a) Power station data

IPP name	
Power station name	
Number of units	
Primary fuel type / prime mover	For example diesel gas, hydro, biomass
Secondary fuel type	For example oil
"Restart after station blackout" capacity	Provide a document containing the following: Start-up time for the first unit (time from restart initiation to synchronize) and each of the following units assuming that restarting of units will be staggered.
Black starting capacity	A document stating the number of units that can be black started at the same time, preparation time for the first unit black starting restarting time for the first unit, and restating time for the rest of the units.
Partial load rejection capability	A description of the amount of load the unit can automatically govern back, without any restrictions, as a function of the load at the point of governing initiation.
Multiple unit tripping (MUT) Risks	A document outlining all systems common to more than one unit that is likely to cause a MUT. Discuss the measures taken to reduce the risk of MUT.

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(b) Unit data

Unit number	
Capacity	Unit capacity (MW)
Manufacturer	
Model Number	
	Units
Normal maximum continuous generation capacity:	MW
Normal maximum continuous sentout capacity	MW
Unit auxiliary active load	MW
Unit auxiliary reactive load	MVAr
Maximum emergency generating capacity	MW
Maximum emergency sentout capacity	MW
Normal minimum continuous generating capacity	MW
Normal minimum continuous sentout capacity	MW
Generator rating (Mbase)	MVA
Normal maximum lagging power factor	MVAr
Normal maximum leading power factor	MVAr
Governor droop	
Forbidden loading zones	MW
Terminal voltage adjustment range	kV
Short circuit ratio	
Rated stator current	Amp
Time to synchronise from warm	Hour
Time to synchronise from cold	Hour
Minimum up-time	Hour
Minimum down-time	Hour
Normal loading rate	MW/min
Normal deloading rate	MW/min
Can the generator start on each fuel?	
Ability to change fuels on-load	
Partial load rejection capability	% MW name plate rating
Minimum time unit operates in island mode	Hour
Maximum time unit operates in island mode	Hour
Description	Data
Capability chart showing full range of operating capability of the generator, including thermal and excitation limits	Diagram
Systems that are common and can cause a multiple unit trip	Description
Open circuit magnetisation curves	Graph
Short circuit characteristic	Graph
Zero power factor curve	Graph
V curves	Diagram

Documents	Description
Protection setting document	<p>A document containing the following:</p> <ul style="list-style-type: none"> - A section defining the base values and per unit values to be used - A single line diagram showing all the protection functions and sources of current and voltage signals - A protection tripping diagram(s) showing all the protection functions and associated tripping logic and tripping functions - A detailed description of setting calculation for each protection setting, discussion on protection function stability calculations, and detailed dial settings on the protection relay in order to achieve the required setting - A section containing a summary of all protection settings on a per unit basis - A section containing a summary for each of the protection relay dial settings/programming details - An annex containing equipment information data (e.g. OEM data) on which the settings are based - An annex containing OEM information sheets or documents describing the protection relays functions
Excitation setting document	<p>A document containing the following:</p> <ul style="list-style-type: none"> - A section defining the base values and per unit values to be used - A single line diagram showing all the excitation system functions and all the related protection functions - An excitation system transfer function block diagram in accordance with IEEE or IEC standard models - A detailed description of setting calculation for each of the excitation system functions, discussion on function stability calculations, and detailed dial settings on the excitation system in order to achieve the required setting - A section containing a summary of all settings on a per unit basis - A section containing a summary for each of the excitation system dial settings/programming details. - An annex containing equipment information data (e.g. OEM data) on which the settings are based - An annex containing OEM information sheets or documents describing the performance of the overall excitation system and each excitation function for which a setting is derived

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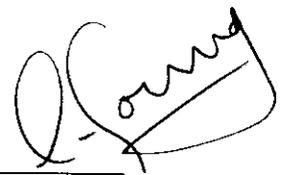



Governor setting document	<p>A document containing the following:</p> <ul style="list-style-type: none"> - A section defining the base values and per unit values to be used - A single line diagram showing all the governor system functions and all the related protection functions - A governor system transfer function block diagram in accordance with IEEE standard models - A detailed description of setting calculation for each of the governor system functions, discussion on function stability calculations, and detailed dial settings on the governor system in order to achieve the required setting - A section containing a summary of all settings on a per unit basis - A section containing a summary for each of the governor system dial settings/programming details - An annex containing equipment information data (e.g. OEM data) on which the settings are based - An annex containing OEM information sheets or documents describing the performance of the overall governor system and each governor function for which a setting is derived
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(c) Unit parameters

	Symbol	Units
Direct axis synchronous reactance	X_d	% on rating
Direct axis transient reactance saturated	$X'_{d_{sat}}$	% on rating
Direct axis transient reactance unsaturated	$X'_{d_{unsat}}$	% on rating
Sub-transient reactance unsaturated	$X''_d = X''_q$	% on rating
Quad axis synchronous reactance	X_q	% on rating
Quad axis transient reactance unsaturated	$X'_{q_{unsat}}$	% on rating
Negative phase sequence synchronous reactance	X_2	% on rating

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Zero phase sequence reactance	X_{0q}	% on rating
Turbine generator inertia constant for entire rotating mass	H	MW s/MVA
Stator resistance	R_a	% on rating
Stator leakage reactance	X_L	% on rating
Poiter reactance	X_P	% on rating
Generator time constants:		
Direct axis open-circuit transient	Tdo'	sec
Direct axis open-circuit sub-transient	Tdo''	sec
Quad axis open-circuit transient	Tqo'	sec
Quad axis open-circuit sub-transient	Tqo''	sec
Direct axis short-circuit transient	Td'	sec
Direct axis short-circuit sub-transient	Td''	sec
Quad axis short-circuit transient	Tq'	sec
Quad axis short-circuit sub-transient	Tq''	sec
Speed damping	D	
Saturation ratio at 1 pu terminal voltage	S(1.0)	
Saturation ratio at 1.2 pu terminal voltage	S(1.2)	

(d) Excitation system

The IPP shall fill in the following parameters or supply a Laplace-domain control block diagram in accordance with IEEE or IEC standard excitation models (or as otherwise agreed with the Utility) completely specifying all time constants and gains to fully explain the transfer function from the compensator or unit terminal voltage and field current to unit field voltage. The IPP shall perform, or cause to be performed, small signal dynamic studies to ensure that the proposed excitation system and turbine governor do not cause dynamic instability. Where applicable, a PSS (power system stabiliser) shall be included in the excitation system to ensure proper tuning of the excitation system for stability purposes.

	Symbol	Units
Excitation system type (AC or DC)		Text
Excitation feeding arrangement (solid or shunt)		Text
Excitation system filter time constant	T_r	sec
Excitation system lead time constant	T_c	sec
Excitation system lag time constant	T_b	sec
Excitation system controller gain	K_a	
Excitation system controller lag time constant	T_a	sec
Excitation system maximum controller output	V_{max}	p.u.
Excitation system minimum controller output	V_{min}	p.u.
Excitation system regulation factor	K_c	
Excitation system rate feedback gain	K_f	
Excitation system rate feedback time constant	T_f	sec

(e) Speed governor system, turbine and boiler models

The IPP shall supply a Laplace domain control block diagram in accordance with IEEE standard prime mover models for thermal and hydro units (or as otherwise agreed with the Utility), fully specifying all time constants and gains to fully explain the transfer function for the governor, turbine, penstocks and control systems in relation to frequency deviations and setpoint operation.

(f) Control devices and protection relays

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The IPP shall supply any additional Laplace domain control diagrams for any outstanding control devices (including power system stabilisers) or special protection relays in the unit that automatically impinge on its operating characteristics within 30 seconds following a system disturbance and that have a minimum time constant of at least 0,02 seconds.

(g) Unit step-up transformer

	Symbol	Units
Manufacturer		
Model Number		
Number of windings		
Vector group		
Rated current of each winding		Amps
Transformer rating		MVA _{Trans}
Transformer nominal LV voltage		kV
Transformer nominal HV voltage		kV
Tapped winding		
Transformer ratio at all transformer taps		
Transformer impedance at all taps (For three winding transformers the HV/LV1, HV/LV2 and LV1/LV2 impedances together with associated bases shall be provided)		% on rating MVA _{Trans}
Transformer zero sequence impedance at nominal tap	Z_0	Ohm
Earthing arrangement, including neutral earthing resistance and reactance		
Core construction (number of limbs, shell or core type)		
Open circuit characteristic		Graph

(h) Circuit Breaker

	Symbol	Units
Manufacturer		
Model Number		
Type		
Rated voltage		kV
Rated maximum voltage		kV
Rated continuous current at 40 deg C		Amps
Rated breaking capacity		MVA
Rated Interrupting time		sec
Trip initiation to arc extinction vs. percent rated		graph
Reclosing time		sec
Peak value of switching overvoltage		kV/pu
Rate of rise restriking voltage at 100% breaking capacity		kV/ μ sec
Rated lightning impulse withstand voltage		kV
Rated frequency		Hz
Rated Operating Sequence		
Rated transient recovery voltage		kV
Rated short circuit making current		kA
Rated out-of phase breaking current		kA
Rated duration of short circuit		sec
Maximum pole spread		ms

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J. Long

[Signature]

[Signature]

POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 3
DESCRIPTION OF THE BIOMASS FIRED (BAGASSE) PROJECT
INCLUDING
DESIGN AND OPERATING LIMITS AND SITE DESCRIPTION

Q.S.
APh

BELCOGEN LTD

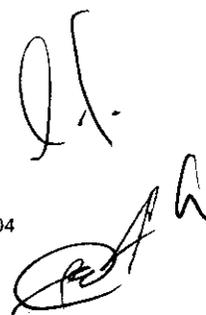
Description of biomass fired (bagasse) project including design and operating limits and site description

1 INTRODUCTION

- 1.1 The Project is defined as the development, construction and operation of a 31.5 MW (27.5MW thermal and 4MW HFO generator) co-generation power plant facility adjacent to the Belize Sugar Industries Limited (BSI) Tower Hill sugar factory in Orange Walk district of Belize. The facility will burn cane bagasse as its primary fuel (to be provided under contract by BSI) to generate:
- a) Base-load electricity for the BEL national grid under a signed PPA, and
 - b) electrical power and steam for the BSI Tower Hill sugar factory under an Energy & Steam Purchase Agreement
- 1.2 The Tower Hill sugar factory is located about 55 miles north of Belize City alongside the main Northern highway running to the Mexico border. The Project is sponsored by BSI, which established Belize Cogeneration Energy Limited (Belcogen), a special purpose subsidiary (100% owned) to develop, own and operate the facility.

2 SUPPLY PARAMETERS

- 2.1 The main objective the BEL PPA is for the Belcogen facility to provide a base load and reliable supply of export power to BEL of 13.5 MW equating to approximately 106GWh.
- 2.2 Under a separate Energy and Steam Purchase Agreement (ESPA) with BSI, Belcogen will meet the present energy requirements of the sugar factory. During the crop period, the sugar factory would be operating at an average throughput of approximately 300 tonnes cane per hour and will have a maximum estimated power demand of 9 MW, and 135 t/h of low pressure steam demand.
- 2.3 From time to time (such as during the annual Belcogen plant maintenance, BSI may have to purchase additional electrical supply to that indicated above, which would be supplied by Belcogen from the Grid as per Exhibit 7 of the PPA.
- 2.4 The Project is based on BSI processing 1.275 million tonnes of cane annually through its factory. The bagasse yield, at 50% moisture, is calculated at approximately 33.7% of cane milled. The power plant will initially burn approximately 420,000 tonnes of bagasse in the steam boilers of pressure of up to 64 bar. In order to allow generation on bagasse during the out-of-crop period, Belcogen will also consume up to 7,000 tonnes of heavy fuel oil (HFO) in its engine generators. A small amount of this HFO will be fired in the boilers during short interruptions to the bagasse supply.

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3 TECHNICAL DESCRIPTION

- 3.1 **Summary of Plant** The following table summarises the key items of plant to be installed at the Belcogen plant

Plant item	Specification
Boilers	2 x 90t/hr bagasse & HFO (64 bar and 485 °C_
Turbo-alternators	1 x 12.5MW back pressure 1 X 15 MW extraction/condensing
Engine generators	2 x 2MW with medium speed HFO engines

- 3.2 **Boiler plant** comprises two 90t/h boilers which efficiently convert the energy in the bagasse into high pressure steam for the generation of electricity and the provision of low pressure steam to the sugar factory. The plant is sized to burn all the annual bagasse production to create high pressure steam in such a way as to maximise the conversion of the energy in bagasse into electricity. The boilers have the following design features:

- a) Membrane wall furnace
- b) Single pass convection bank
- c) Two drums
- d) Economiser
- e) Air heater
- f) Electrostatic precipitator

- 3.3 **Turbo-Alternators** The energy in the boiler steam will be converted efficiently into electricity through modern robust steam turbine driven alternators comprising a back pressure turbo-alternator of 12.5 MW and an extraction condensing turbo-alternator of 15 MW. During the in-crop period both turbo-alternators will operate and supply low pressure steam to the BSI factory. During the out-of-crop period only the extraction/condensing unit will operate in condensing mode. The vapour will be condensed by a closed circuit wet evaporative cooling system.

- 3.4 **Engine generators** The plant comprises two 2MW HFO engine generators, capable of base-load generation with black start facility. The engines will be medium speed units capable of operation on distillate and residual fuel oils.

- 3.5 **Power distribution** Power shall be generated at a nominal 13 800 V, 60Hz and the alternators electrically connected to the main distribution switch-board via a circuit breaker. Power shall be distributed from the main distribution switchboard via circuit breakers for export to BEL, BSI and to the Belcogen power house auxiliary plant switch boards.

- 3.6 **Power distribution to BEL** For export to BEL the export feeder is connected via a circuit breaker to a 13 800/115 000 V step-up transformer (to be supplied by BEL) for transmission to the grid. This supply feeder is fitted with a back-up metering system capable of measuring power in both export and import directions. A relay protection system is included in the design of the plant to the extent that the protected zone is overlapped by that of BEL.

- 3.7 **Interconnection** BEL has responsibility for the financing, construction and operation of the facility's interconnection to the grid, from the low voltage terminals of the site transformer. This will involve the installation of sub-station and a 115 kV single-circuit line (approximately 3.2 km).
- 3.8 **Control system** The Belcogen facility will be operated and controlled from a single central control room through an integrated DCS.
- 3.9 **Bagasse management** Bagasse management will comprise a short term covered and weather proof bagasse store which contains sufficient bagasse for use in a 24 hour period and a long term bagasse store where bagasse shall be stored for use in the out of crop period. The handling system is based on the use of belt conveyors.
- 3.10 The short term bagasse system separates the boiler fuel supply from the operations of the fuel supplier's (BSI) operations, allowing independent operation.
- 3.11 Approximately 80 000 tonnes of bagasse will be stored for use in the out of crop period. Effective management of the longer term storage of bagasse for use in the out of crop period, is fundamental to the operation of the co-generation plant. The handling system comprises belt conveyors and mobile plant. The approach is to store and form compacted bagasse piles either side of a belt conveyor system, to facilitate both storage and retrieval of the bagasse.
- 3.12 **Belcogen project investment in BSI factory** The Belcogen project also involves integrated investment in the BSI factory to improve the thermal cycle efficiency of the sugar process.
- 3.13 **Layout** Figure 1 provides an indicative final layout for the project site.

4 TECHNICAL PERFORMANCE

- 4.1 **Belcogen operations** Under the terms of the PPA a Committee of Operation shall be formed to manage the technical interface between Belcogen and BEL. A similar committee will be established for the Belcogen and BSIL technical interface.
- 4.2 There is a close symbiotic relationship between the sugar factory and the co-generation plant in terms of the exchange of both electrical power and process steam against the supply of bagasse. The control system and the management philosophy will ensure this relationship.
- 4.3 **Plant availability** The co-generation plant is designed to achieve an annual average availability of 90% as per the time account summary below

Co-generation Plant Time Account Summary

	Units	In Crop	Out of Crop	Total
Gross Period	Days	210	155	365
	Hours	5030	3 730	8 760
Annual Maintenance shut down	Days		21	21
Other stoppages	Days	12	5	17
Net period	Hours	4742	3118	7860
Capacity utilisation	%	94	84	90

- **In crop** – is defined as that part of the year when the sugar factory is operational and which may fall in any year between November and June

- **Out of crop** – is defined as that part of the year when the sugar factory is not processing sugar can and which falls outside the in crop period

4.4 **Time account** The summary time account for the sugar factory is provided below.

BSI Factory Time Account Summary

	Units	In Crop	Out of Crop	Total
Gross Period	Days	210	155	365
	Hours	5 030	3 730	8 760
Actual milling	Days	177		
	Hours	4 239		
Stoppages	Hours	791		
Factory Time Efficiency	%	91		
Overall Time Utilisation	%	84		

- 4.5 The time accounts above are the basis for the financial and energy modelling of the project. In any one year, the actual time account will vary owing to the sugar factory operation.
- 4.6 **Operating regimes** The co-generation facility is designed to operate under a range of operating regimes reflecting the various operating conditions of the BEL grid and the BSI sugar factory. There are two principal regimes: Normal continuous running – in crop and Normal continuous running - out of crop.
- a) Normal continuous running - in crop
 - i) 13.5 MW base-load export supply to the grid
 - ii) 9 MW supply to the sugar factory
 - b) Normal continuous running - out of crop
 - iii) 13.5 MW base load export supply to the grid
 - iv) 1 MW supply to the factory
- 4.7 These two operating regimes represent projected conditions during 82% of the year. The other operating regimes reflect various transient conditions that may occur during planned and unplanned stoppages or interruptions to the grid or BSI factory.

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- 4.8 **Environmental parameters** The Belcogen facility has been specified to meet the appropriate international environmental standards as generally specified in World Bank Group Pollution Prevention and Abatement Handbook - new thermal plant (July 1, 1998). During the two main operating regimes the plant is capable of achieving the key environmental performance parameters set out below.

	Value	Unit
Boiler operation on bagasse		
Boiler stack particulate emission	≤ 100	mg/Nm ³ , dry at 11% O ₂
Boiler stack NO _x	≤ 750	mg/Nm ³ , dry at 11% O ₂
Boiler Stack SO _x	n/a	
Boiler operation on HFO		
Boiler stack particulate emission	≤ 100	mg/Nm ³ , dry at 3% O ₂
Boiler stack NO _x	≤ 750	mg/Nm ³ , dry at 3% O ₂
Boiler Stack SO _x	≤ 2000	mg/Nm ³ , dry at 3% O ₂
HFO engine generation		
Exhaust stack – particulate emission	≤ 100	mg/Nm ³ , dry at 15% O ₂
Exhaust stack – NO _x	≤ 2000	mg/Nm ³ , dry at 15% O ₂
Exhaust stack SO _x	≤ 2000	mg/Nm ³ , dry at 15% O ₂
Co-generation facility		
Noise	≤ 70	dBa

- 4.9 **Fossil Fuel** As its primary source of fuel, the plant will fully utilise the sugar cane bagasse created at the adjacent BSI sugar factory. In addition to bagasse, imported heavy fuel oil of the following target specification will be used.

Target specification for Heavy Fuel Oil (IFO 380, ISO RMG35)

Property	Units	Limit
Density @ 15°C	kg/m ³	≤ 991
Kinematic viscosity		
@ 100°C	cSt	≤ 55
@ 50°C	cSt	≤ 380
Flash point	°C	> 60
Pour point	°C	≤ 30
Condradsen Carbon Residue	% (m/m)	≤ 22
Ash	% (m/m)	≤ 0.2
Water	% (v/v)	≤ 1.0
Sediment after settlement	% (m/m)	≤ 0.10
Sulphur	% (m/m)	≤ 3
Vanadium	mg/kg	≤ 600
Aluminium + Silicon	mg/kg	≤ 80
Asphaltenes ³	nr	≤ 14
Calculated Carbon Aromaticity Index (CCAI) ³	nr	max 840 – 870

咬瞳EAC馱U??鼠?魚磁E長?體U1/2酸票A1/4
 The General Layout of BSIL Belize
 Co-Generation Plant

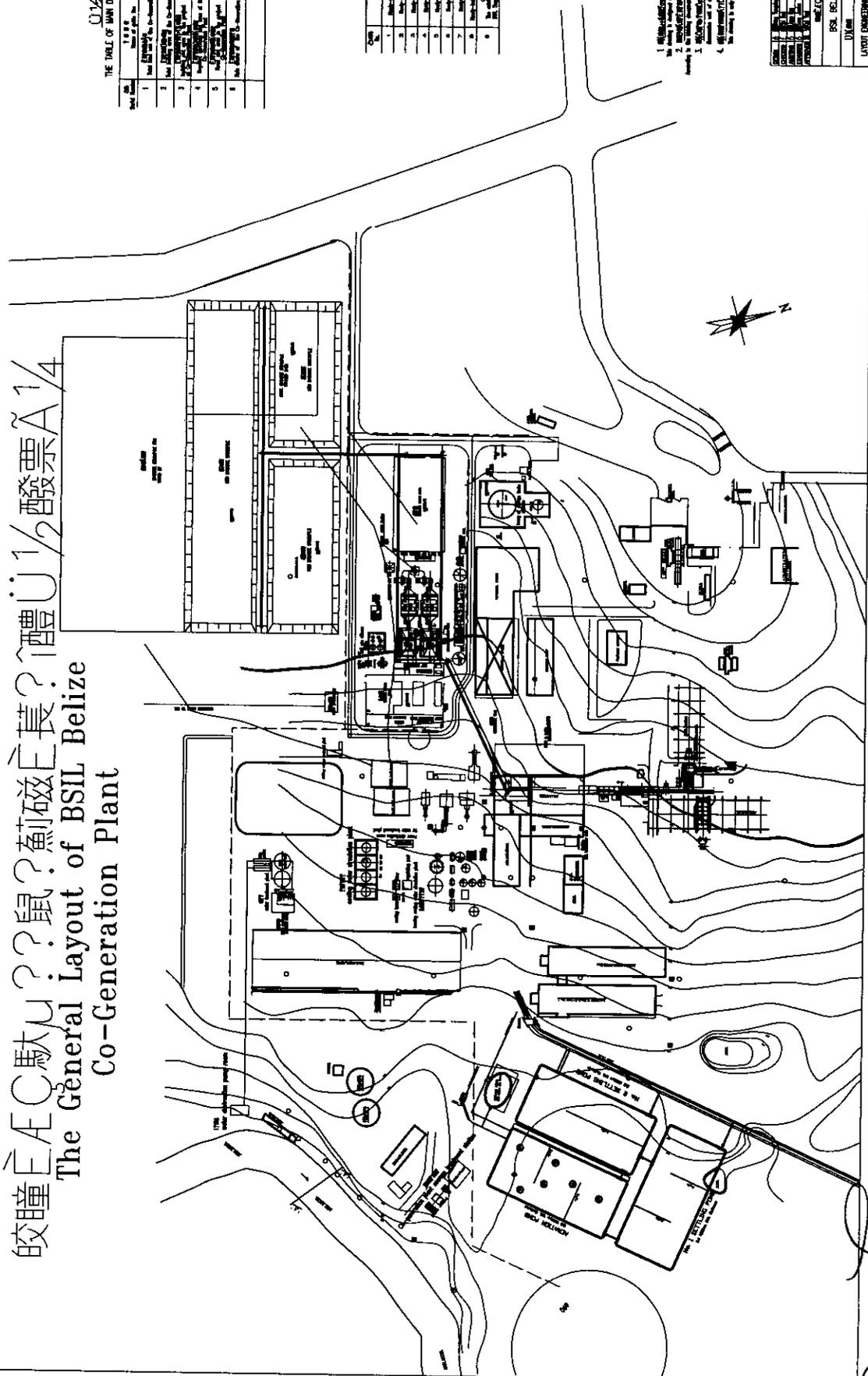
U1/2酸票A1/4
 THE TABLE OF MAIN DESIGNED DAZE LINE IN GENERAL LAYOUT

Item No.	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.
1	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.
2	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.
3	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.
4	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.
5	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.
6	1. S. S. S. S. S.	2. S. S. S. S. S.	3. S. S. S. S. S.	4. S. S. S. S. S.	5. S. S. S. S. S.	6. S. S. S. S. S.

LEGEND
 1/4

Item No.	Symbol	Description
1	[Symbol]	1. S. S. S. S. S.
2	[Symbol]	2. S. S. S. S. S.
3	[Symbol]	3. S. S. S. S. S.
4	[Symbol]	4. S. S. S. S. S.
5	[Symbol]	5. S. S. S. S. S.
6	[Symbol]	6. S. S. S. S. S.
7	[Symbol]	7. S. S. S. S. S.
8	[Symbol]	8. S. S. S. S. S.
9	[Symbol]	9. S. S. S. S. S.

1. S. S. S. S. S.
2. S. S. S. S. S.
3. S. S. S. S. S.
4. S. S. S. S. S.



BSIL BELIZE CO-GENERATION PLANT
 GENERAL LAYOUT
 SHEET NO. 1/4
 DATE: 1998-08-01
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 APPROVED BY: [Name]

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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 4

TESTING REQUIREMENTS FOR THE BIOMASS FIRED (BAGASSE) PROJECT

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Exhibit 4 (Testing Requirements for the Biomass Fired (Bagasse) Project)

For the purpose of this Exhibit, the following definitions apply:

Purchaser: BEL
Seller: Belcogen
Contractor: EPC contractor
Contract: EPC contract between Seller and EPC contractor
Engineer: Party appointed by Seller to administer the EPC contract.

1. The Seller's facility shall be subject to a number of tests to demonstrate its performance. The majority of these tests shall be carried out under the terms of the EPC contract for the facility and are categorised as Tests on Completion and Tests after Completion.
2. The **Tests on Completion** shall include such tests that are required, during manufacture and on Completion of the Facility, in order to establish that the Facility has been manufactured and installed in accordance with the specification and is fit for commercial use by the Seller. The Tests shall be in accordance with good engineering practice and shall be approved by the Engineer to the EPC contract who is acting on behalf of the Seller. Unless otherwise stated, testing shall be carried out in accordance with the appropriate conditions of the EPC contract.
3. All testing shall be carried out in accordance with BS, DIN, ANSI or other internationally recognised standards and codes of practice agreed with the Engineer. The Contractor may propose the use of Chinese national (GB) standards for various tests carried out as part of the Tests on Completion subject to the following requirements:
 - a) Not less than 120 days prior to the commencement of the Tests on Completion, the Contractor shall prepare and submit to the Engineer the proposal to substitute GB standards for the specified international standards specified herein;
 - b) The Contractor shall submit with his proposal a full translation in English of any GB standards proposed;
4. Tests associated with the steam generating boilers and environmental emissions shall conform to all the relevant standards and codes of practice of one of the British Standards and/or ASME. There shall be no exception to this.
5. Any standards and codes of practice required for tests specified by the local Grid Code will be complied with.
6. The use of any alternative GB Standards and Codes of Practice will be subject to the approval of the Engineer that shall not be unreasonably withheld provided the above conditions are complied with.
7. The **Tests after Completion** are performed some time after taking-over of the facility by the Seller and are primarily to demonstrate that the facility meets the performance parameters stated in the EPC contract.

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8. The performance parameters for these tests shall be those stated in the EPC contract. Where individual Facility parameters are not specified in these sections, the Engineer shall agree with the Contractor performance parameters based on the equipment specifications as supplied by the original equipment manufacturers or the Contractor and consistent with the Facility Performance parameters stated in the Contract.
9. For the purposes of this Power Purchase Agreement, the following relevant tests, selected from those to be carried out under Tests on Completion and Tests after Completion, shall be performed as the "**Commissioning Tests**".

Commissioning Tests

10. **Overspeed test** shall be made on the turbo-alternators to demonstrate that the unit can be tripped by an electrically operated system should the turbine reach a speed of 5% greater than the specified nominal speed and by a mechanically operated device should the turbine reach a speed of 10% more than nominal speed.
11. **Safety valve testing** As soon as operating steam pressure is available the safety valves setting shall be tested. The settings shall be stated and adjusted where necessary. Each valve shall be tested to give three consecutive identical operating pressures. The pressure gauge or gauges used to monitor the test pressure shall be calibrated immediately prior to the tests by means of certified deadweight testing apparatus.
12. **Auxiliary fuel oil firing** The Contractor shall demonstrate that the auxiliary fuel system can be operated satisfactorily from the boiler control console and that a boiler output of 65% MCR can be sustained for a minimum period of two hours.
13. **Substation tests** shall be carried out as detailed in relevant Industry standards and to the satisfaction of the Engineer who shall take account of any regulatory requirements of the Purchaser.
14. **Alternator heat run** The generators shall be operated at full rated load and power factor for a period of at least six hours (or until the temperature rises are steady for four hours) to demonstrate that the temperature rises in the generator are within the limits of the specification.
15. **Load rejection tests** The Facility shall undergo a test to demonstrate that it will continue to operate safely following a sudden de-synchronisation and be re-synchronised within a period of one hour. Immediately prior to the de-synchronisation the Facility shall have been operating at maximum output. It shall be demonstrated that instantaneous rejection of full load from the turbo-alternator set will not cause the overspeed trip or over-temperature trips to operate nor should the machine shut down for any reason arising as a consequence of the load rejection.
16. The Contractor must demonstrate that the Facility can accommodate a load rejection incident caused by the simultaneous loss of both the power being exported to BEL and to the sugar factory. This shall be demonstrated by the fact that all remaining items of Facility shall remain running in a stable fashion (without interruption) during this period. As soon as conditions allow the rejected load shall be re-instated.

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17. **Start up and load acceptance test** The Facility shall undergo a test which demonstrates its capability to perform a cold start and increase load at the minimum rate when the Facility has been shut down for a period greater than 16 hours but less than 32 hours.
18. **Minimum load test** Facility shall prove its capability to operate in a stable condition with each boiler operating (separately and together) at 40% of its capacity at MCR for a period of two hours.
19. **Automatic voltage regulator tests** The Contractor shall demonstrate the performance of the AVR with particular emphasis on:
- a) the ability to control the generator voltage over the range $\pm 10\%$ of rated voltage to an accuracy of $\pm .2\%$ relative to the steady state voltage.
 - b) the ability to maintain the machine voltage in a stable manner during load changes
 - c) the ability to operate in "hand" mode
 - d) smooth change over from "hand" to "auto" and "auto" to "hand" in a seamless manner
 - e) demonstrating the ability of the alternator to perform across the full stable operating range as provide by the manufacturer. However this must not be less than the power factor range of 0.8 lagging to unity.
20. Subject to agreement with Purchaser on the acceptance of active and reactive power and within the safe operating limits of the Facility, tests will be carried out to demonstrate the capability of the Facility to operate at rated voltage and frequency at power factors and under reactive conditions as follows:

Output	Power factor
100%	0.85 lagging
100%	0.95 lagging
100%	Unity PF
100%	0.9 leading

21. **Protective relaying system** The Contractor shall demonstrate the operation of all protective relay devices by injection of power and simulation, where necessary, to confirm that the performance complies with the equipment specification. The Contractor shall demonstrate the operation, and repeatability of, the settings of time, overload current, earth fault current, voltage, frequency and discrimination as identified in the protection drawings formally approved under the conditions of the Contract.
22. **Connecting switchgear** The Contractor shall demonstrate that the switchgear is rated at a voltage equal to the generating voltage and has been installed and is operating as specified. The demonstration shall include, but may not be limited to, insulation testing and speed of contact operation.

23. **Trial operation** When the Contractor is satisfied that the Facility is fully erected and has successfully completed the specific commissioning tests he shall demonstrate its availability for operational use by operating the Facility for a minimum period of 72 hours at each of the two main operating regimes.
24. **Capacity demonstration test** This test determines the Facility capacity by measuring the output at the relevant points in the Facility. Tests will be based on relevant ISO power test codes, IEC and IEEE standards using Facility instrumentation and any independently certified commissioning metering system connected to the Facility for the purposes of the test. The Contractor may propose the use of GB standards in accordance with procedure defined in the EPC contract. Test results shall be corrected to the specification conditions in accordance with ISO 3046-1:1986.
25. During the period of the Capacity Demonstration Test, the capacity of the Facility shall be demonstrated in the following manner:
- a) the Facility shall operate on both main operating regimes with normal auxiliary loads;
 - b) the Seller will advise Purchaser of the commencement of the test and will record the reading of the independently certified commissioning metering system;
 - c) the test duration will be 6 hours and at the end of this period the Seller will record the new reading of the independently certified commissioning metering system. The capacity as determined by such test shall be the difference between the reading taken at the end of the 6-hour period and the reading taken at the beginning of such period, divided by the test duration in hours.

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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 5

DESCRIPTION OF THE INTERCONNECTION FACILITIES

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Exhibit 5
Description of the Interconnection Facilities

The Purchaser's transmission line and equipment to be installed to interconnect the Purchaser's Grid to the Facility shall include but not be limited to the following.

Transmission Line Interface

115 kV Switches
115 kV Load Interrupter or Circuit Switcher
Associated Buswork to Tap from Existing Line
Associated Line Traps for Communication Purposes

Transmission Line

Approximately 3.4 km of 115 kV transmission line consisting of Wooden Structures of either H-Frame or Single Pole construction. Transmission Line to commence at UTM coordinate 338112.32, 1994817.41 at the Purchaser's Existing Transmission Line to 337074.75, 1994856.26 to 335856.37, 1994927.30 to 335485.62, 1994930.33 to 335108.31, 1994991.94 and then to 335167.78, 1995346.74 at the Seller's Generating Station Facility.

Substation (including Communications Equipment)

115 kV Breaker
115 kV Disconnect Switches
Power Transformer
Surge Arresters Intermediate Class
Line Traps for Communication
Substation Steel Structures
Grounding System
BusWork
Chain Link Fence and Gates
Power & Control Wiring systems
EarthWorks
Civil Works
Tower & Antenna - Communications¹

Control & Relay Panels
Primary Metering Cabinet
Radio or PLC Equipment w/ Mux
RTU
Battery Charger & Batteries (Com)

The Seller shall provide all power supply including AC and DC sources. It should be in the best interest of the Seller to provide the Purchaser with information on what will be their (DC-AC) voltage levels to allow the Purchaser to match the power supply of their equipment at the time of ordering. Should the Purchaser's equipment voltage requirement be different from the Facilities, provision shall be made by the Seller to provide space for battery chargers, batteries, and supply and control cabling.

¹ Communication Equipment shall be either Power Line Carrier <OR> MDS Radio system.

POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 6

PART I
AVAILABLE CAPACITY DECLARATION

PART II
DISPATCH INSTRUCTION

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Belize Co-generation Energy Limited
 Power Purchase Agreement with BEL
 Exhibit 6 Part 1A

Monthly Projected Available Capacity Declaration
 MW

Submitted by BelcoGen for Month _____
 Year _____

Day	Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Day Totals MWh
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
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29																										
30																										
31																										

Originated on behalf of BelcoGen

Received on behalf of BEL

Month total MWh
 cc. BelcoGen control room
 BelcoGen accounts dept.

Name _____
 Signature _____
 Date _____

Name _____
 Signature _____
 Date _____

Belize Co-generation Energy Limited
Power Purchase Agreement with BEL
Exhibit 6 Part 1B

Daily Declared Available Capacity Form
MW

Submitted by Belcogen for

Month _____
Year _____

Dispatch Day _____

Originated on behalf of belcogen

Received on behalf of BEL

Hour	Capacity MW
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	

Name

Name

Signature

Signature

Time

Time

Date

Date

cc: Belcogen control room
 Belcogen Accounts dept

Belize Co-generation Energy Limited
 Power Purchase Agreement with BEL
 Exhibit 6 Part II

BEL Daily Dispatch Instruction Form

Initial or Amendment No.

Dispatch Day

Hour	Capacity MW
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	

Total MW

Originated on behalf of BEL

Received on behalf of Belcogen

Name _____

Name _____

Signature _____

Signature _____

Time _____

Time _____

Date _____

Date _____

cc. Belcogen control room
 Belcogen Accounts dept

POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 7

**PROVISION FOR ELECTRICAL ENERGY SUPPLIED BY THE PURCHASER
THROUGH THE SELLER TO THE FACTORY**

L.S.
PAH

PROVISION FOR ELECTRICAL ENERGY SUPPLIED BY THE PURCHASER THROUGH THE SELLER TO THE FACTORY

General description

1. All electrical energy for the operation and maintenance of the Belize Sugar Industries Ltd (BSIL) Sugar Factory will be supplied from Belcogen's 13.8 kV main switchboard via a single interconnecting circuit. The supply circuit to the BSIL factory will be controlled by a circuit breaker in the main Belcogen 13.8 kV switchboard.
2. Cables, routed above- and under-ground to suit the site conditions, will connect the circuit breaker in the switchboard directly to the HV terminals on the step-down transformer which will be located proximate to the existing BSIL 4 160 V main power house switchboard. The low voltage 4 160 V terminals of the transformer will be connected by cables to incoming circuit breaker in the existing BSIL main switchboard.
3. Protective relays and intertripping arrangements will be included in both the Belcogen and BSIL switchboards to protect both systems in the event of overloads or faults occurring. Energy metering and recording facilities will be included in the 13.8 kV circuit breaker panels in the Belcogen switchboard to record all energy supplied from Belcogen to BSIL.
4. The power factor of the BSIL factory load will be monitored and recorded in the 4 160 V circuit breaker panels in the BSIL switchboard. Power factor correction equipment will be provided by BSIL to ensure that the overall power factor shall be not less than 0.9 lagging.

BEL supply to BSIL

5. From time to time during the operations of BSIL there will be periods of abnormal operation when the electrical supply, either from Belcogen or BSIL generating capacity, is inadequate. During these periods supply from BEL will be imported by Belcogen and passed through to BSIL via the interconnector described above..

Energy metering

6. All energy imported from BEL by Belcogen will be metered on the export/import metering facilities included in the switchgear controlling the circuit supplying the BEL step-up transformer to BEL's 115 kV transmission system. All of the imported energy will be charged to Belcogen's account by BEL.
7. Belcogen will include an energy metering system that can identify and measure when energy from BEL is being passed through the Belcogen switchboard and onto BSIL's switchboard. Belcogen will agree with BSIL an internal charging arrangement for this energy.



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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 8
DESCRIPTION AND PROVISIONS
FOR THE
PURCHASER'S EQUIPMENT INSTALLED AT THE FACILITY

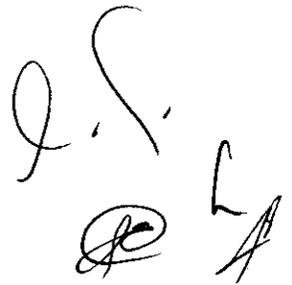
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Exhibit 8
Description and Provisions
For the
Purchaser's Equipment Installed at the Facility

The Purchaser's equipment to be installed in the Facility shall include but not be limited to the following:

Metering Equipment

(Space provisions should be made for placement of this in the Relay Panel or its own panel)

One switch board T.O.U. meter ABB Alpha+ or equivalent
One test block (Not required on the front panel but just behind the meter)
One kWh only, socket type meter as a backup to the TOU meter.

Substation Equipment

Relay Panel or Panels
(Approximate Dimension of 4' (width) X 7' (height) X 4'(depth))
Transformer Protection: SEL-587 : Transformer Differential Protection , SEL-321: Phase and Ground Distance Protection and the SEL-351 : Dual Overcurrent Backup Protection.

Two Lockout Relays.

115kV Circuit Breaker: Control switch with the associated indicating lamps

PQM Meter,

An Annunciator Panel

Several auxiliary relays and secondary auxiliary switches.

One "Square D" : AC Distribution Wall-mounted Cabinet

One "Square D" DC Distribution Wall-mounted Cabinet

(Approximate Dimension of 3'(width) X 1/2' (depth) and 4' (height) each).

Battery charger and battery bank.

Communication Equipment

One Remote Terminal Unit (RTU) with accessories to interconnect equipment for status, control, and tele-metering. Size 2'(width) x 7' (height) x 2' (depth), working space 4 feet back and front; ventilation 1 foot all around sides.

Power Line Carrier <OR> MDS Radio system (preferred).

Multiplexer and associated communication equipment, including telephone, termination block, etc.

The Seller shall provide all power supply including AC and DC sources. It should be in the best interest of the Seller to provide the Purchaser with information on what will be their (DC-AC) voltage levels to allow the Purchaser to match the power supply of their equipment at the time of ordering.

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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 9
OPERATING CODE

J.S.
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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 10
ENVIRONMENTAL COMPLIANCE PLAN

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E4E2p30/15/06(21)



ENVIRONMENTAL COMPLIANCE PLAN

WRITTEN BY:

THE DEPARTMENT OF THE ENVIRONMENT

FOR:

Belize Co-Generation Energy Limited (Belcogen)
For a 25 MW Electrical Plant

LOCATED AT
Tower Hill Sugar Factory
Orange Walk District

August 2004

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The following are the terms and conditions of the Compliance Plan entered into between Belize Co-generation Energy Ltd. (Belcogen), hereinafter referred to as THE DEVELOPER, and the DEPARTMENT OF THE ENVIRONMENT (DOE) in respect to a co-generation power project adjacent to and a separate legal entity from Tower Hill Sugarcane Factory, Belize Sugar Industries Limited.

It is agreed by the developer that the terms and conditions of this compliance plan will be binding upon Belcogen, its servants or agents, successors, or assigns. The terms and conditions embodied in this compliance plan are made pursuant to section 20 (7) of the Environmental Protection Act, Chapter 328 of the Laws of Belize, Revised Edition 2000, and all other relevant provisions of the Act. Environmental Clearance is being granted under these conditions. All operations will be compliant with extant Belize Environmental Regulations at the time of issue of this certificate.

PURPOSE

The purpose of this document is to officially institute best practice measures that would prevent, control and mitigate the environmental degradation that may arise from the project. The specific actions proposed have been made only after careful analysis by the National Environmental Appraisal Committee (NEAC) of the information contained in the Environmental Impact Assessment and its addendum, and identification of potential negative environmental impacts associated with such co-generation project. It must be borne in mind that this Environmental Compliance Plan was prepared based on the best available information on the project contained in the Environmental Impact Assessment and the addendum prepared for this project. Therefore, the Department of the Environment (DOE) reserves the right to make modifications to this compliance plan, with prior discussion and notification to the Developer, as the project develops and more information becomes available.

The Developer agrees to strictly adhere to this document during all stages of the development of the project. The Department of the Environment and other relevant agencies will conduct compliance monitoring. Disregard of the terms and conditions of the compliance plan specified herein may result in the Developer's permits being revoked.

This compliance plan is a dynamic one and may be reviewed and revised from time to time in discussion with the Developer as the project develops and more information becomes available.

1.0 ENVIRONMENTAL IMPACTS

The following are the major potential negative environmental impacts identified. These along with other issues constituted the main area of focus during the preparation of the EIA. This Environmental Compliance Plan (ECP) was then developed based on the findings and recommendation contained in the EIA and those resulting from the EIA review process by the NEAC.

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POTENTIAL ENVIRONMENTAL IMPACTS DURING DEVELOPMENT AND IMPLEMENTATION OF THE PROJECT:

- Degradation of air quality due to stack emissions.
- Potential health impacts of air and noise emissions on nearby communities.
- Contamination of ground water and the New River from effluent discharges, oil and fly-ash.
- Potential habitat alteration and subsequent impacts to wildlife due to installation of transmission line and other related activities.
- Potential negative impacts associated with increase of water abstraction from the New River

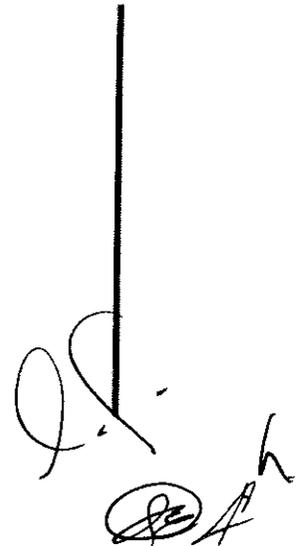
This list is by no means an exhaustive list of potential environmental impacts that could arise from the said proposed project.

2.0 SPECIFIC ACTIVITIES FOR WHICH CLEARANCE IS BEING GRANTED

Clearance is being granted for the following activities contained within the development plan included in the Environmental Impact Assessment.

Construction and operation of a 25 megawatts stand-alone bagasse co-generation facility with a Diesel cold start facility and secondary generation export capability located adjacent to the existing Belize Sugar Industries Limited factory at Tower Hill, inclusive of the following:

- (i) A generator house,
- (ii) A boiler plant and stack,
- (iii) A Fuel Oil Station,
- (iv) Set of Cooling Towers
- (v) Water treatment facilities,
- (vi) Bagasse handling area and treatment plant
- (vii) Fly-ash handling plant and equipment
- (viii) Ash Effluent treatment plant
- (ix) Storm water runoff drainage system
- (x) Installation of power transmission lines to inter connect with the national grid, east of the project site (approximately 1.6 kilometers)
- (xi) Decommissioning of existing steam boilers and two existing diesel generators and associated stacks,

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- (xii) Temporary accommodation and offices at site for the EPC Contractor

No further development whatsoever will take place outside of what has been agreed to and described in this compliance plan, without the prior written permission of the Department of the Environment.

3.0 ENVIRONMENTAL COMPLIANCE PLAN

The implementation of this project will be carried out only for those activities described in this Environmental Compliance Plan. No further development will take place outside of what has been proposed in the above-mentioned document without the prior written permission of the Department of the Environment. *Environmental Clearance* will need to be obtained from the Department of the Environment for all new activities outside of what is agreed upon in this Environmental Compliance Plan.

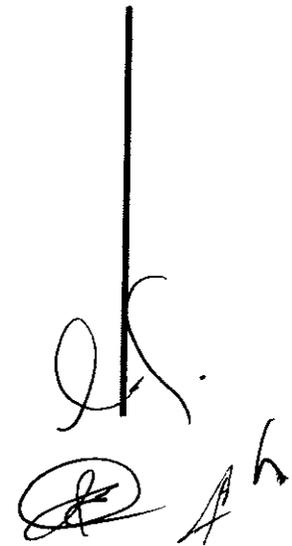
Recognizing that the project could have significant negative environmental impacts, the developer hereby agrees to take the necessary measures described in the following actions to mitigate these impacts.

3.01 POLLUTION CONTROL

A) AIR POLLUTION

To attenuate the impacts associated with the impacts of air emissions affecting air quality, the following measures shall be taken:

- 3.01.1 The existing steam boilers and two diesel generator and associated stacks shall be decommissioned.
- 3.01.2 To mitigate against the degradation of the ambient air quality from PM10 emissions from the Cogen Plant as a result of utilizing Biomass as the main source of fuel, the new stack will be equipped with Electrostatic Precipitators and/or a low-energy type (impingement) wet scrubber with a minimum efficiency of 150 mg/Nm³ suspended particulate matter removal.
- 3.01.3 If Belcogen intends to operate using Heavy Fuel Oil (HFO) as a main and/or supplementary source of fuel, Belcogen shall satisfy the requirements of the Department of the Environment with respect to NO_x, SO_x, CO.
- 3.01.4 In the event that the monitoring results indicates non-conformity with DOE emission standards, additional mitigation measures shall be implemented, which could include the installation of appropriate technologies aimed at reducing emission to conform to the established standards. The unit shall be designed to facilitate any future installation of additional mitigation measures.
- 3.01.5 Emissions and ambient air quality monitoring will be conducted on a regular basis. The information shall be maintained on a ledger readily available for inspection(s). A report

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shall be submitted to the Department of the Environment on a monthly and quarterly basis, respectively.

- 3.01.6 To reduce the possible dispersion of loose friable material to the local environment from the bagasse stockpile, loading and unloading of this area will be by means of covered conveyor systems. In addition to this, planting schemes shall be implemented around the stockpile to provide for the development of a tree screen.
- 3.01.7 Dust emissions arising from construction of the Cogen Plant and decommissioning of the existing steam boiler and diesel generator sets shall be controlled so as not to affect health, safety, or well-being of personnel or damage to the environment.
- 3.01.8 All vehicles transporting cement and other loose materials shall be properly covered during transport to avoid dust and other debris from becoming a nuisance and a potential traffic hazard.

B) NOISE POLLUTION

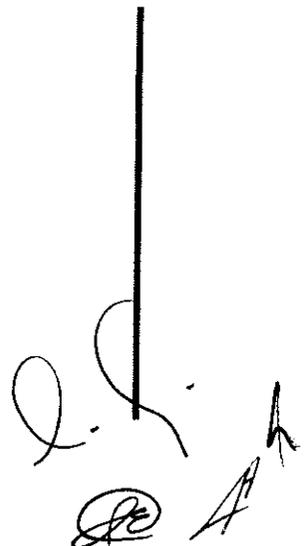
Belcogen will take the following mitigating measures to minimize the negative impacts associated with noise from the use of equipment during construction, decommissioning and operation of the facilities:

- 3.01.9 All heavy machinery will be kept in good operational condition to mitigate against excessive generation of noise.
- 3.01.10 The turbo-alternator plant must be in a facility designed to abate noise pollution. In addition the unit shall also be properly sited within the project area for the well being of the surrounding community.
- 3.01.11 All construction equipment and vehicles must have adequate, well-maintained mufflers to reduce noise emissions.
- 3.01.12 During construction, decommissioning and operation phase, noise level must comply with the Second Schedule of the Pollution Regulations, 1996.
- 3.01.13 Personal protective equipment to guard against noise will be provided to all Belcogen employees and its use strictly enforced.

C) WATER POLLUTION

In an effort to control reduce and prevent the pollution of the New River and ground water, the developer will take the following measures:

- 3.01.14 Belcogen shall establish separate and independent wastewater treatment systems from those of the existing sugar factory. This system shall be equipped with oil separators and

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clarifiers.

- 3.01.15 All process wastewater (effluent) from the plant will be treated to meet Effluent Limitation Standards prior to discharge into the environment. The specifications of treatment facility shall be submitted to the Department of the Environment for approval prior to installation. The developer shall monitor these facilities to ensure effective treatment.
- 3.01.16 To control temperatures of discharge effluent and to conserve water, the cogeneration plant shall be equipped with its own, closed circuit, water cooling system to achieve a cooled water temperature no greater than 3° C above that of the river.
- 3.01.17 Chemical dosing to achieve the required boiler feed water quality will be closely monitored to ensure that excess usage is kept to a minimum and discharges are within those prescribed in the Effluent Limitation Regulations.
- 3.01.18 Prior to any discharge, the developer shall obtain an Effluent Discharge Licence.
- 3.01.19 All effluent shall be monitored frequently and the results maintained in a ledger readily available for inspection. At the onset and at a minimum of once yearly a complete characterization of the effluent shall be conducted by an independent laboratory. Thereafter the effluent will be monitored on a regular basis for pH, suspended solids, temperature, COD and other parameters of concern identified following the complete characterization of the effluent.
- 3.01.20 Ash, in a suitable form, depending on the type of ash handling plant and flue gas cleaning equipment being utilized, shall be temporarily stored in an area where containment measures will be put in place to prevent runoff into drains and the New River. The ash will be removed from this site on a regular basis. No more than one month of fly-ash generated during operations shall be stored on this site.
- 3.01.21 Disposal of the fly-ash as fill or as a soil enhancer for farms shall be permissible provided these lands are not bordered by any creek, stream, river or other water body.
- 3.01.22 To minimize the impacts on river flows and to reduce effluent discharge, Belcogen will seek to maximize the recycling of water within the Cogen Plant. In addition, where possible, the Cogen Plant and the sugar factory will integrate their water/steam circuits.
- 3.01.23 All chemicals utilized to improve the quality of boiler feed water will be stored in a contained area, suitably sized for the volumes of such chemicals stored.
- 3.01.24 The storage of heavy fuel oil will be as per specifications outlined in the EIA, in a containment area with appropriate oil-water separators and other safety measures specified in the EIA.

Q.S.A
P.A

- 3.01.25 Water Quality Monitoring of the New River shall there after be conducted on a monthly basis with a minimum of five sampling points, being those listed in the EIA, and including the discharge point. The parameters to be tested include, but not limited to the following: Temperature, pH, Dissolved Oxygen, BOD₅ at 20°C, COD, Sulphate, Iron, Zinc, Total Metal, Chlorine, Phosphate, Nitrate.

D) WATER ABSTRACTION

- 3.01.26 To minimize the impacts on river flows and to reduce effluent discharge, the recycling of water within the Cogen Plant will be maximized. In addition, where possible, the Cogen Plant and the sugar factory will integrate their water/steam circuits.
- 3.01.27 To control temperatures of discharge effluent and to conserve water, the cogeneration plant shall be equipped with its own, closed circuit, water cooling system to achieve a cooled water temperature no greater than 3° C above that of the river.

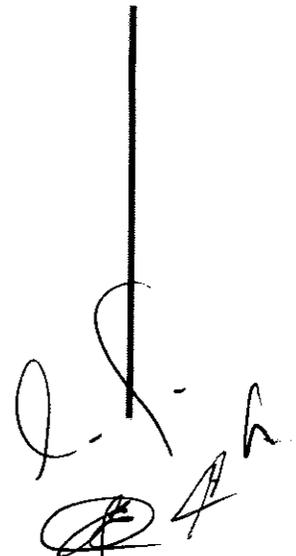
E) HAZARDOUS SUBSTANCE

- 3.01.28 All waste oils, batteries and any other hazardous waste generated at the project site will be managed in an environmentally sound manner and properly stored in water tight containers or in a sheltered area.
- 3.01.29 All chemicals utilized to improve the quality of boiler feed water will be stored in a properly designed storage facility with in a containment area to contain any spillage. This area must be appropriately sited.
- 3.01.30 All tanks, pipework, gauges and structures should be constructed to recognized engineering standards and the specifications outlined in the EIA.

F) SOLID WASTE MANAGEMENT

In order to address the issue of solid waste management and disposal, Belcogen will ensure compliance with the following:

- 3.01.31 Services are provided on a regular basis for the collection, transportation, and disposal of solid wastes (other than baggase, filter press, fly ash) at an officially designated landfill site. Belcogen must make the necessary arrangements for the provision of these services with an authorized solid waste collector, or may provide these services on its own.
- 3.01.32 No garbage will be allowed to be removed from the site and disposed of or burnt at any location outside the officially designated landfill site or a site approved by the DOE.
- 3.01.33 Belcogen shall place garbage receptacles and appropriate signs at strategic locations at the

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project site to minimize the potential for littering. Garbage receptacles must be located where they would not be a nuisance to workers or visitors.

- 3.01.34 Garbage receptacles should have tamperproof devices to prevent opening other than by persons putting garbage into or by the sanitation workers taking it out.

The location of these storage containers must take into consideration such factors as air pollution, odour, aesthetic values, access/safety and waste flow reduction

3.02 CLEARING OF LAND AND EFFECTS ON WILDLIFE

In an effort to mitigate the negative impacts associated with the installation of power transmission lines resulting in clearance of vegetation and habitat alteration, the Developer agrees to take the following measures:

Forest and Brushland

- 3.02.1 The right-of-way boundaries will be clearly identified by staking.
- 3.02.2 The right-of-way will be restricted to a width of 70 feet and 41 feet for broadleaf and other forested areas respectively, except for danger trees outside of this area.
- 3.02.3 To prevent bank erosions along the river, total vegetation clearance will not extend to the waters edge.
- 3.02.4 Vegetation clearance and the transmission line construction shall only be conducted during the dry season.
- 3.02.5 Construction vehicles will be restricted to the transmission line right-of-way and/or designated access roads.
- 3.02.6 All trees and brush on the right-of-way will be cleared by either hand or machine. The use of any heavy machinery will require the prior approval of the Forest Department. Snags and leaners will be hand cut and removed from standing timber immediately after cutting.
- 3.02.7 Trees and debris will not be felled into or pushed across running water bodies.
- 3.02.8 All slash debris will be burnt or salvaged for fuel wood as per landowners' instructions. Burning will take place within the right-of-way in a controlled manner.
- 3.02.9 No burning will be undertaken on the flood plain or bank of any watercourse or on any slopes greater than fifteen percent (15%).

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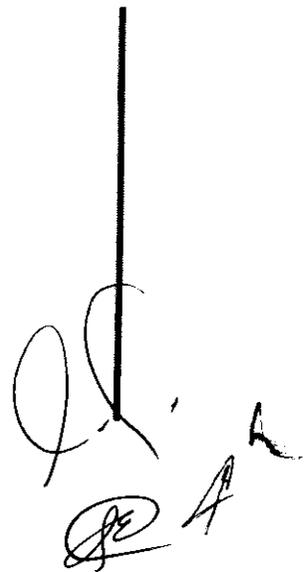
- 3.02.10 All temporary roads will be restored to pre-construction conditions as near as is practical.
- 3.02.11 Following clean-up, all areas of previous brush cover will be broadcast seeded, harrowed and fertilized unless the landowner wishes to cultivate the area in which case no re-vegetation will take place.
- 3.02.12 Grading will be undertaken as required to return the pre-construction contours and leave a roughened surface to enhance re-vegetation.

Agricultural Land

- 3.02.13 Every effort will be made to minimize interference with agricultural duties of the landowner(s.)
- 3.02.14 Private landowners will be informed of construction schedules and consulted as to points of entry onto their land.
- 3.02.15 The right-of-way will be staked on private land and construction activities will remain within these boundaries.
- 3.02.16 Clearing and disruption of agricultural productivity will be limited to the extent required but, more critically, longer poles will be used through cane fields. Compensation for any loss in agriculture productivity will be negotiated with the individual land owner.
- 3.02.17 The transmission line right-of-way will be kept clear of waste materials, stored in appropriate containers and subsequently disposed at approved disposal sites.
- 3.02.18 In cultivated areas, the traffic portion of the right-of-way and access roads will be cultivated following construction to alleviate compaction of soils and produce a rough friable surface for planting.
- 3.02.19 Drainage and erosion control measures will be constructed as required, to ensure soil stability in agricultural areas.
- 3.02.20 Any fencing removed will be replaced following construction.

Waterway Crossing

- 3.02.21 Debris and soil will not be deposited in the river as these may impede potential flow.
- 3.02.22 Material such as lubricants, fuels and domestic waste will not be discharged into any waterway regardless of whether or not water is present.

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- 3.02.23 Banks and approach slopes will be seeded with a grass-legume species to ensure soil stabilization.
- 3.02.24 Seeding of erodible areas will be done by hand.

3.3 DISASTER AND EMERGENCY PREPAREDNESS

Measures are being incorporated to address disaster and emergency preparedness issues in regards to fire prevention and oil/chemical spills. Belcogen will submit to the Department of the Environment, within twelve months of the signing of the ECP, a draft Emergency Response Plan, which shall incorporate the following:

A. Fire Prevention

- 3.03.1 A fire contingency plan shall be in place and all workers trained in its implementation and fire fighting.
- 3.03.2 Flammable or explosive items that could pose a significant fire risk will be stored in a secure area away from any source of ignition.
- 3.03.3 Sufficient fire fighting equipment shall be maintained on site, and it must be maintained in proper working condition. A minimum of at least one fire cart will be maintained on site at any given time. Fire extinguishers shall be properly sited and maintained on a regular basis.
- 3.03.4 Fire hydrants shall be installed under the direct supervision of the National Fire Service.
- 3.03.5 The storage of any fuel (diesel, gasoline, heavy oil etc) will comply with the guidelines of the Department of the Environment and the National Fire Service and must have containment bonds of at least 110% of the total capacity of the largest tank.
- 3.03.6 Fuel storage area shall have a minimum setback of 50 feet from any source of ignition and from any workers quarters.

B. Oil/Chemical Spill

- 3.03.7 All storage areas shall be provided with appropriate control and containment system to ensure the risk of spillage is minimized.
- 3.03.8 The handling, transport and use of all oils and chemicals will be conducted using appropriate methods and equipment.
- 3.03.9 All spills shall be immediately reported to the Department of the Environment and all necessary measures taken to immediately contain them.



- 3.03.10 Oil spill(s) equipment (absorbent pads) shall be maintained in sufficient quantities.
- 3.03.11 Prior to the disposal of used absorbent materials, approval shall be obtained from the Department.

C.) HURRICANE AND FLOODING

- 3.03.12 The Emergency Response Plan shall incorporate concerns associate with hurricanes and flooding.

A final version of the Emergency Response Plan will be submitted at least one month prior to commissioning of the Power Plant.

3.04 CULTURAL AND SOCIAL ISSUES

It is important that cultural and social issues be addressed so as to assist decision-makers in achieving sustainable development.

- 3.04.1 If mounds, clayworks or other artifact of possible historical importance are found during clearing or construction, the articles will be left and work in the immediate area will be halted immediately and the Institute of Archaeology will be contacted to determine the potential importance and the recommended action.
- 3.04.2 As long as there are qualified and available Belizean workers, no labor force will be imported. If this labour force is not sufficient, then only resident aliens with a valid Belize work permit will be employed.
- 3.04.3 All safety and health measures will be observed for all workers. Potable water, rest-room facilities and adequate accommodations will be provided during the construction phase.

4.0 ENFORCEMENT AND MONITORING

The implementation of this Environmental Compliance Plan shall be the direct responsibility of Belcogen and/or its successors. The Department of the Environment in conjunction with other relevant agencies, in particular members of the NEAC, shall carry out compliance monitoring to ensure that this Compliance Plan is being adhered to. During development, measures taken to mitigate negative environmental impacts shall be reviewed to assure compliance with the objectives of the plan. As development continues, the adequacy of mitigation measures shall be assessed and where necessary revised in consultation with Belcogen.

- 4.01 Environmental protection measures shall be incorporated at the detailed engineering stage to ensure the implementation of the protection measures; mitigation measures and work methods contained in this Environmental Compliance Plan are reflected and incorporated into plans, specifications and tender documents.

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- 4.02 The Developer shall ensure that other requirements which are contained as conditions of local permits or environmental legislation are stipulated in tender documents.
- 4.03 The Developer shall analyze all plans and specifications to make sure that specifications for any given component are in line with requirements and conditions of performance contained in the ECP, local sector permits, Belize laws, standards and regulations with regard to environmental protection and conservation.
- 4.04 All employees shall adhere to a comprehensive code of conduct. Repeated intentional failure to respect it shall be a contractual cause for immediate dismissal.
- 4.05 Belcogen shall appoint an on-site liaison (person) responsible for environmental protection in work areas for distributing information pertaining to environmental protection to contractors and employees and for reporting to DOE on environmental activities.

REPORTING REQUIREMENTS

- 4.06 The Developer shall comply with any and all of the reporting requirements specified in this Compliance Plan.
- 4.07 Before commencing work on a separate area, phase or feature of the project, all environmental concerns relating to the activities contemplated, shall be reviewed by Belcogen, its agents or assigns. Periodic meetings shall be held with all supervisors regarding the implementation of ongoing environmental considerations.

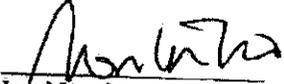
POST DEVELOPMENT REVIEW

- 4.08 After the construction period, the exercising of sound environmental ethics shall not end, but rather provisions shall be made for the monitoring of all facilities in the post-construction period. A system shall be put in place for reporting negative impacts as well as a means of co-opting project proponents to implement corrective mitigation measures where the need arises.
- 4.09 Additional monitoring shall be carried out to ensure that the various pollution control features and facilities installed are functioning and maintained properly.
- 4.10 As previously mentioned, wanton disregard for the conditions agreed upon in this document may result in the revocation of all permits and licenses issued for the implementation of this project and in the imposition of administrative and/or legal penalties.

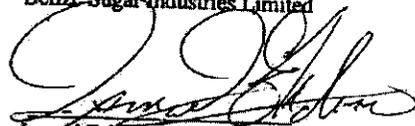
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Belcogen herein agrees to comply with this Environmental Compliance Plan (ECP).

SIGNED on behalf of
Belize Co-Generation Limited

)
)
) 
) **Jose Montalvo**
) **Managing Director**
) **Belize Sugar Industries Limited**

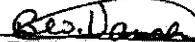
SIGNED on behalf of the
Department of the Environment

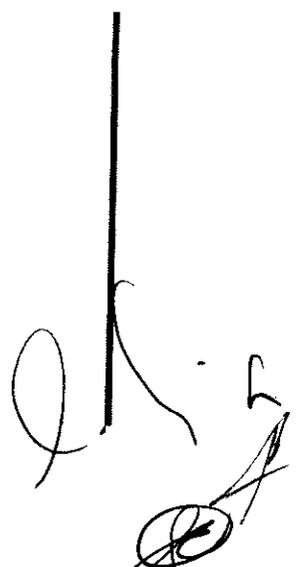
)
) 
) **Ismael Fabro**
) **Chief Environmental Officer**

I Beverly Jansen am the attesting witness to the due execution of the said instrument and the signature hereto subscribed as that of such attesting witness is in proper handwriting of the said deponent.

Sworn at the Department of the Environment, Belmopan,

the 23 day of November, 2004.


WITNESS



POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 11

TARIFF CALCULATION AND ADJUSTMENT

J.S.
PAh

Exhibit 11(Tariff Calculation and Adjustment)

Definitions

T_b is the Tariff for NEO associated with Firm Capacity for the base year 2001

T_b consists of a bagasse component $BComp_b$ and a fossil fuel component $FFComp_b$

$$T_b = BComp_b + FFComp_b$$

$BComp_b$ is the Bagasse component of the tariff as stated in clause 17.1.1.

$FFComp_b$ is the Fossil Fuel component of the tariff

$FFComp_b$ is determined by use of the Fuel oil No6 cost for 2001 (US\$19.6/barrel), as stated in the "Request for Proposal (RfP) document for Baseload Generation to the Belize National Grid", jointly issued by Belize Electricity Limited (BEL) and the Public Utilities Commission (PUC) in February 2002

Exhibit 11 Part (1)

$$T_b = \text{US\$}0.0728 / \text{kWh}$$

The calculation of T_b is provided in Table 1 below

Calculation of Base Tariff	Annual cost estimate for base year (T_b)	Projected notional total energy sales	Table 1 Tariff (T_b)
	US\$000/yr	GWh	US\$/kWh
Corp, Operations & Maintenance	2776	126	0.0220
Fossil fuel	845	126	0.0067
Capital	3731	126	0.0296
Finance & Investment	1824	126	0.0145
Total	9176	126	0.0728

For information and the purpose of clarity the calculation of the original quoted T_b representing a 2003 tariff of US\$0.075 / kWh is provided in Table 2 below and clearly demonstrates the assumptions that link the 2001 tariff to the original 2003 Tariff which is now superseded.

<i>Calculation of superceded 2003 tariff</i>			<i>Table 2</i>	
	<i>Annual cost estimate for base year (T_b)</i>	<i>Adjust 1.5% per/yr</i>	<i>Annual cost est. (T₂₀₀₃)</i>	<i>Tariff (T₂₀₀₃)</i>
	<i>US\$000/yr</i>		<i>US\$000/yr</i>	<i>US\$/kWh</i>
<i>Corp. Operations & Maintenance</i>	2776	(1.015) ²	2860	0.0227
<i>Fossil fuel</i>	845	(1.015) ²	870	0.0069
<i>Capital</i>	3731	(1.015) ²	3844	0.0305
<i>Finance & Investment</i>	1824	(1.015) ²	1879	0.0149
<i>Total</i>	9176		9885	0.075

Exhibit 11 Part (2)

For the period up to 31st December 2007,

T_{fc} = Tariff for NEO associated with Firm Capacity applicable for the relevant year

T_{fc} comprises two tariff components a biomass component BComp_{fc} and a fossil fuel component FFComp_{fc}

The components of T_{fc} will be subject to the application of separate Tariff adjustment indices. The biomass component BComp_{fc} shall be adjusted according to a biomass adjustment index (BAdj_{fc}) and the Fossil Fuel component FFComp_{fc} shall be adjusted according to a fossil fuel index FFAdj_{fc}

T_{fc} for the relevant year shall be calculated in accordance with the formulae as set-out below

$$T_{fc} = (BComp_b \times BAdj_{fc}) + (FFComp_b \times FFAdj_{fc})$$

Where

BComp_b = The biomass component of the Tariff for NEO associated with Firm capacity for 2001

FFComp_b = The fossil fuel component of the Tariff for NEO associated with Firm Capacity for 2001

BAdj_{fc} = Tariff adjustment for the applicable year to biomass component of the Tariff for NEO associated with Firm Capacity for the applicable year

FFAdj_{fc} = Tariff adjustment for the applicable year to fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year

BAdj_{fc} for the period 2001 to 2007 shall be calculated assuming an annual adjustment of 1.5% per year. The Biomass adjustment for the six year period will therefore be (1.015)⁶ = 1.09344

FFAdj_{fc} is based on an index linked to the 2001 No6 fossil fuel price quoted in the Request for Proposal document issued by the Belize Public Utilities Commission and Belize Electricity limited.

The index proposed to be used for the purpose of calculating $FFAdj_{fc}$ is based on the end of calendar month price quoted for Platts No.6 fuel oil ($P6_{mm/yy}$) when compared to a base price ($P6_b$)

Revisions to the applicable $FFComp_{fc}$ will be recalculated and charged on a monthly basis

$$FFAdj = P6_{mm/yy} / P6_b$$

The base price for use in the index ($P6_b$) is assumed to be $P6_{12/01}$ and a price of US\$19.6 / barrel

With the separation of the fossil fuel component adjustment from biomass component adjustment the revised calculation of T_{fc2003} is provided below in Table 3.

$$FFAdj_{fc2003} = P6_{12/03} / P6_b$$

$$FFAdj_{fc2003} = P6_{12/03} / 19.6$$

Indicative Tariff calculation for 2003	Table 3			
	Annual cost estimate for base year (T_b)	Adjust	Annual cost est. (T_{fc2003})	Tariff (T_{fc2003})
	US\$000/yr		US\$000/yr	US\$/kWh
Corp, Operations & Maintenance	2776	$(1.015)^2$	2860	0.0227
Fossil fuel (<i>assume $P6_{12/03} = 35$</i>)	845	$35/19.6$	1509	0.0120
Capital	3731	$(1.015)^2$	3844	0.0305
Finance & Investment	1824	$(1.015)^2$	1879	0.0149
Total	9176		10092	0.0801

For the period 2003 to 2007 the same formulae are used as above. For illustrative purposes, assuming $P6_{12/06} = 35$

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Indicative Tariff calculation for 2007	Table 4			
	Annual cost estimate for base year (T_{fc2003})	Adjust	Annual cost est. (T_{fc2007})	Tariff (T_{fc2007})
	US\$000/yr		US\$000/yr	US\$/kWh
Corp. Operations & Maintenance	2860	(1.015) ⁴	3035	0.0241
Fossil fuel (<i>assume P6_{12/03} = 35</i>) (<i>assume P6_{12/07} = 35</i>)	1509	35/35	1509	0.0120
Capital	3844	(1.015) ⁴	4081	0.0324
Finance & Investment	1879	(1.015) ⁴	1994	0.0158
Total	10092		10619	0.0843

Exhibit 11 Part (3)

For the period 1 January 2008 to 31 December 2017

T_{fc} shall be determined by the application of adjustment formulae to the components of T_{fc2007} as stated in Exhibit 11 Part (2) such that for each applicable year:

$$T_{fc} = (BComp_{fc2007} \times BAdj_{fc}) + (FFComp_{fc2007} \times FFAdj_{fc})$$

Where:

$BComp_{fc2007}$ = Biomass component of the Tariff for NEO associated with Firm Capacity for the year 2007, determined pursuant to clause 17.1.1

$FFComp_{fc2007}$ = Fossil Fuel component of the Tariff for NEO associated with Firm Capacity for the year 2007, determined pursuant to Exhibit 11 Part (2)

$BAdj_{fc}$ = Tariff adjustment for the applicable year to biomass component of the Tariff for NEO associated with Firm Capacity for the applicable year

From 1st January 2008 $BAdj_{fc} = (CPAI_y / CPAI_0)$

$CPAI_y$ = Contract Price Adjustment Index for the latest quarter prior to the commencement of the year for which the Tariff is being computed:

$CPAI_0$ = Contract Price Adjustment Index for the latest quarter prior to the commencement of 2008 (i.e. October to December 2007)

$FFAdj_{fc}$ = Tariff adjustment for the applicable year to fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year

$FFAdj_{fc}$ is based on an index linked to the December 2007 Platts No6 fossil fuel price as derived in Part (3).

$FFAdj_{fc}$ is calculated monthly and applied to the same months invoiced energy sales.

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The index proposed to be used for the purpose of calculating $FFAdj_{fc}$ is based on the end of calendar month price quoted for Platts No.6 fuel per barrel ($P6_{mm/yy}$) (or a similar international source) when compared to a price ($P6_{12/07}$)

$$FFAdj = P6_{mm/yy} / P6_{12/07}$$

In summary the calculation is based on Table 5 below

Indicative calculation	Tariff (T_{fc2007})	Adj Index	Table 5
	US\$/kWh		Tariff (T_{fc2008})
			US\$/kWh
Corp, Operations & Maintenance	0.0241	$BAdj_{fc2008}$	
Fossil fuel	0.0120	$FFAdj_{fc2008}$	
Capital	0.0324	$BAdj_{fc2008}$	
Finance & Investment	0.0158	$BAdj_{fc2008}$	
Total	0.0843		

For information and the purpose of clarity as to the application of the monthly fossil fuel adjustment $FFAdj_{mm/yy}$ an indicative calculation template based on the formulae

$$T_{fc2008} = BComp_{fc2007} \times (CPAI_1/CPAI_0) + FFComp_{fc2007} \times (P6_{mm/yy}/P6_{12/07})$$

is provided below for a period of a year in Table 6 below. For simplicity, and to isolate the effect of the fossil fuel adjustment, the table assumes $BAdj_{2008} = 1$

Indicative calculation	Table 6												
	12/07	Jan _{01/08}	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec _{12/07}
Est. $P6_{mm/yy}$	35	38	40	40	39	42	45	45	43	41	45	40	40
$FFAdj_{2007}$		1.086	1.143	1.143	1.114	1.2	1.286	1.286	1.229	1.171	1.286	1.143	1.143
$B Adj_{2007}$	Est. 1												1
C.O.M	0.0241												0.0241
Fossil Fuel	0.012	0.0130	0.0137	0.0137	0.0134	0.0144	0.0154	0.0154	0.0147	0.014	0.0154	0.0137	0.0137
Capital	0.0324												0.0324
Fin & Inv	0.0158												0.0158
Tariff	0.0843	.0843	0.0849	0.0849	0.0846	0.0856	0.0866	0.0866	0.0859	0.0852	0.0866	0.0849	0.086
GWh	106	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8

Exhibit 11 Part (4)

From 1st January 2018

T_{fc} shall be determined by the application of tariff adjustment formulae as stated in Exhibit 11 part (3) to the components of T_{fc2017} being the Tariff for NEO associated with Firm Capacity for the year 2017 determined pursuant to clause 17.1.2

The biomass component of T_{fc} is:

$$BComp_{fc} = 0.6 \times BComp_{fc2017} + 0.4 \times (BComp_{fc2016} \times BAdj_{fc})$$

Where

$BComp_{fc}$ = Biomass component of the Tariff for NEO associated with the Firm Capacity applicable for the year

$BComp_{fc2017}$ = Biomass component of the Tariff for NEO associated with the firm capacity for the year 2017, determined pursuant to clause 17.1.2

$BAdj_{fc}$ = Tariff adjustment for the applicable year to biomass component of the Tariff for NEO associated with Firm Capacity for the applicable year as calculated according to the following formulae

From 1st January 2018 $BAdj_{fc} = (CPAI_y/CPAI_0)$

$CPAI_y$ = Contract Price Adjustment Index for the latest quarter prior to the commencement of the year for which the Tariff is being computed:

$CPAI_0$ = Contract Price Adjustment Index for the latest quarter prior to the commencement of 2018 (i.e. October to December 2017)

The fossil fuel component of T_{fc} is:

$$FFComp_{fc} = FFComp_{fc2017} \times FFAdj_{fc}$$

Where

$FFComp_{fc}$ = The fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year

$FFComp_{fc2017}$ = Fossil Fuel component of the Tariff for NEO associated with Firm Capacity for the year 2017, determined pursuant to clause 17.1.2

$FFAdj_{fc}$ = Tariff adjustment for the applicable year to fossil fuel component of the Tariff for NEO associated with Firm Capacity for the applicable year as calculated according to the following formulae:

The index proposed to be used for the purpose of calculating $FFAdj_{fc}$ is based on the end of calendar month price quoted for PLATTS No6 fuel per barrel ($P6_{mm/yy}$) (or a similar international source) when compared to a price ($P6_{12/17}$)

$$FFAdj = P6_{mm/yy} / P6_{12/17}$$

For information and the purpose of clarity an indicative calculation template based on the formulae

$$T_{fc2018} = BComp_{fc2017} \times (CPAI_1/CPAI_0) + FFComp_{fc2017} \times (P6_{mm/yy}/P6_{12/17})$$

is provided below for a period of a year in Table 7 below

Indicative calculation											Table 7		
	12/17	Jan _{01/18}	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec _{12/18}

Est. P6 _{mm/yy}	35	38	40	40	39	42	45	45	43	41	45	40	40
FFAdj ₂₀₁₈		1.086	1.143	1.143	1.114	1.2	1.286	1.286	1.229	1.171	1.286	1.143	1.143
B Adj ₂₀₁₈	Est. 1.5	1.5%											
% BComp ₂₀₁₈		0.4											
C.O.M	0.0241	0.0238											0.0238
Fossil Fuel	0.012	0.0130	0.0137	0.0137	0.0134	0.0144	0.0154	0.0154	0.0147	0.014	0.0154	0.0137	0.0137
Capital	0.0324	0.032											0.0320
Fin & Inv	0.0158	0.0157											0.0157
Tariff	0.0843	0.0845											0.0852
GWh	106	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8

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POWER PURCHASE AGREEMENT
BETWEEN
BELIZE ELECTRICITY LIMITED
AND
BELIZE CO-GENERATION ENERGY LIMITED
Dated as of February 2, 2007

EXHIBIT 12

DELETED BY AGREEMENT

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