



# **POWER PURCHASE AGREEMENT**

# **AMU POWER COMPANY LIMITED**

AND

# THE KENYA POWER AND LIGHTING COMPANY LIMITED

**POWER PURCHASE AGREEMENT** 

**FOR 981.5 MW COAL-FIRED POWER PLANT** 

4TH AUGUST 2017

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THIS AGREEMENT is made the 47H day of AUGUST 2017.

### **BETWEEN**

Amu Power Company Limited a limited liability company incorporated in the Republic of Kenya under the Companies Act, Chapter 486 of the Laws of Kenya with its registered office at 4<sup>th</sup> Floor Geminia Insurance Plaza, P.O. Box 61872-00200 Nairobi, Kenya (hereinafter referred to as "the Seller", which expression shall, where the context so admits, include its successors in title and assigns) of the one part;

### AND

The Kenya Power and Lighting Company Limited, a company incorporated under the Companies Act, CAP 486, of the Laws of Kenya in the Republic of Kenya with its registered office at Stima Plaza, P.O. Box 30099-00100 Nairobi, Kenya (hereinafter referred to as "KPLC" which expression shall, where the context so admits include its successors and assigns) of the other part

#### WHEREAS

- (A) KPLC is licensed to purchase electricity and to transmit and distribute electricity in the Republic of Kenya;
- (B) The Government of Kenya (hereinafter "GOK") through its Ministry of Energy and Petroleum (hereinafter "MOEP") has issued a Request for Proposals ("RFP") dated 27th January, 2014 for the design, financing, supply, construction, testing, commissioning, operation and maintenance of a 981.5 MW coal fired power plant on a Build, Own and Operate (BOO) arrangement (hereinafter the "Project");
- (C) In accordance with the RFP, the Seller is expected to enter into a power purchase agreement with KPLC for the implementation of the Project;
- (D) This Agreement is the power purchase agreement agreed between the Parties pursuant to the RFP.



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#### IT IS HEREBY AGREED as follows:

## Clause 1: Definitions and Interpretation

**1.1 Defined terms**: In this Agreement, unless the context requires otherwise, the following words and expressions shall have the following meanings:

"Abandonment" or "Abandoned": cessation of operation of the Plant, and the withdrawal of all, or substantially all, personnel by the Seller from the Site or the Plant for reasons other than an event of Force Majeure; provided, however, that the Seller shall not be deemed to have Abandoned the Plant so long as it is using all reasonable efforts to reinstate such operation;

"Agreement" or "PPA": this power purchase agreement together with all schedules hereto as the same may be supplemented or amended from time to time;

"Applicable Engineering and Environmental Standards": the codes, practices and standards specified in Part A of Schedule 1;

"Authorisation": any approval, consent, license, permit, authorisation or other permission to be granted by a Governmental Authority required for the enforcement of rights or performance of obligations under any Project Agreement, Financing Agreement and/or the Project, and including any approval required to be given by the Energy Regulatory Commission;

"Availability": the ability of the Plant or any Unit (as appropriate) at a particular instant or over a particular period of time, to deliver electricity to the KPLC System at the Delivery Point and the terms "Available" and "Unavailable" shall be construed accordingly;

"Available Capacity": the Capacity Available in any Settlement Period being the Declared Capacity unless there has been an Availability Failure in respect of the Plant in that Settlement Period in which event the Available Capacity shall be the Net



Electrical Output delivered in response to a Despatch Instruction(s) for that Settlement Period multiplied by two;

"Availability Failure": in respect of the Plant in any Settlement Period, a failure to deliver electricity in accordance with a valid Despatch Instruction other than as a result of a KPLC System Interruption;

"Average Availability": the average of the Available Capacity in any given period;

"Average Sea Water Temperature": the temperature determined in accordance with clause 4.1.4;

"Back-Up Metering Equipment": the equipment for check metering and monitoring the output of the Plant to be provided by and installed by the Seller and transferred to KPLC pursuant to Schedule 2;

"Bankruptcy Event": the occurrence of any of the following events in respect of a Party ("Affected Party"), unless such event is capable of being and is set aside and requisite proceedings to have it set aside are filed with the appropriate court within fourteen (14) days:

- (a) there is entered against the Affected Party a decree or order by a court adjudging the Affected Party bankrupt or insolvent, or approving, as properly filed by or on behalf of the Affected Party, a petition seeking reorganisation, arrangement, or reconstruction, or appointing a receiver, liquidator, trustee, sequestrator (or other similar official) of the Affected Party over a substantial part of its property or assets, or ordering the winding up or liquidation of its affairs; or
- (b) the institution by the Affected Party of proceedings to be adjudicated bankrupt or insolvent, or the consent by it to the institution of bankruptcy or insolvency proceedings against it, or the filing by it of a petition or consent



seeking relief from its creditors generally under any applicable law, or the consent by it to the filing of any such petition or for the appointment of a receiver, liquidator, trustee, sequestrator (or other similar official) of the Affected Party or of any substantial part of its property, or the admission by it in writing of its inability to pay its debts generally as they become due; or

(c) any other event shall have occurred which under any applicable law would have an effect analogous to any of the events referred to in (a) and/or (b) above;

"Bid Security": an on demand performance bond issued by Co-operative Bank of Kenya Limited dated 17<sup>th</sup> April 2014 in the amount of US Dollars Five Million (US\$ 5,000,000) provided to GOK by the Seller as part of the Proposal dated 23<sup>rd</sup> April 2014;

"Black Start Test": the test specified in Section 4(b)(vi) of Part A of Schedule 5;

"Capable": has the meaning ascribed to it in the definition of "Capacity";

"Capacity": the capacity of any Unit or the Plant expressed in MW to generate and deliver electricity and "Capable" and cognate expressions shall be construed accordingly;

"Capacity Demonstration Test": a test to demonstrate the Capacity of each Unit conducted in accordance with Section 2 of Part A of Schedule 5;

"Capacity Payments": the amounts payable by KPLC to the Seller in respect of the Contracted Capacity starting from the Full Commercial Operation Date in accordance with Clauses 9.1, 9.7 and 14.6 and calculated in accordance with Part D of Schedule 6;

"Change in Law": any of the events specified in paragraph (a) or (b) of this definition occurring after the Signature Date and which despite the exercise of Prudent



Operating Practice by the Seller or KPLC: (i) results in an increase in the operating costs or capital expenditure incurred by the Seller in performing its obligations under this Agreement or any other Project Agreement; or (ii) imposes requirements for the construction, operation or maintenance of the Plant or of the KPLC System that are more onerous than the requirements in effect as of the Signature Date and that affect the Seller's performance under this Agreement, the Lease or any other Project Agreement, or that affect KPLC's performance under this Agreement or LAPSSET performance under the Lease; or (iii) results in a decrease in the operating costs or capital expenditure incurred by the Seller in performing its obligations under this Agreement; or (iv) results in a reduction in the Capacity which the Seller may make available in compliance with all Legal Requirements; or (v) makes the Seller unable to make its Capacity Available, generate electricity and/or perform its obligations under this Agreement;

- (a) a change in, or in the interpretation (by any Governmental Authority in the Republic of Kenya), application or enforcement of, or enactment, or the enactment with retroactive application or adoption of, any Legal Requirement, or a Change in Tax;
- (b) any change in any Authorisation required in connection with this Agreement, the Lease, the Project Agreements, or the Project or any additional requirements or conditions imposed by any Governmental Authority in connection with the issuance, extension, replacement, variation or renewal of any Authorisation required in connection with this Agreement, the Lease, the Project Agreements, or the Project, provided that in respect of the issuance, extension, replacement, variation or renewal of any Authorisation required in connection with this Agreement, the Lease, the Project Agreements, or the Project, the party requiring the relevant Authorisation has first diligently attempted to obtain such Authorisation and if the processes required by such duty of diligence have not been exhausted, such processes have been and are still being diligently pursued by that Party;



"Change in Tax": the adoption, promulgation, bringing into effect, repeal, expiration, revocation, amendment, reinterpretation by a Governmental Authority, change in application from the provisions of the relevant legislation, change in interpretation or modification of any Legal Requirement, relating to any Taxes which differs from any Legal Requirement relating to any Taxes in effect on the Signature Date excluding any Taxes imposed in respect of the income of employees of the Seller;

"Coal Conveyor Belt System": the conveyor belt system to be constructed and operated by Seller for the purpose of conveying Fuel from the Coal Delivery Infrastructure to the Plant;

"Coal Delivery Infrastructure": the port and berth, including Fuel unloading equipment to be constructed and installed by LAPSSET at Lamu in the Republic of Kenya and operated by LAPSSET or a party nominated by LAPSSET and made available to the Seller in accordance with the Port Services Agreement;

"Coal Delivery Infrastructure Failure": any failure or inability of the Coal Delivery Infrastructure to receive Fuel from the Fuel Supplier, or transport such Fuel to the custody of the Seller howsoever arising, other than as a result of an event which is caused by the Seller;

"Commercial Operation Date": in respect of a Unit, the date notified as such by the Seller in accordance with Clause 6.9;

"Commissioning": the conduct of tests necessary (including those specified in Part A of Schedule 5) to put a Unit or the Plant (as the case may be) into operation;

"Confidential Information": has the meaning ascribed thereto in Clause 17.1;

"Construction Programme": the programme for the construction and installation of the Plant set out in Schedule 7, as from time to time adjusted by agreement of the Parties;

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"Construction Security": an on demand performance bond in the amount of US Dollars twenty million (US\$ 20,000,000) issued by an internationally recognised bank acceptable to KPLC in the form specified by KPLC;

"Construction Start Date": has the meaning ascribed to it in Clause 5.7;

"Consumer Prices Index" or "CPI": the index known as "The Consumer Prices Index for All Urban Consumers (CIP-U) for the US City Average for all Items 1982-84=100, not seasonally adjusted", as published by the United States Department of Labor, Bureau of Labor Statistics or such other index as may be agreed or determined pursuant to Part G of Schedule 6;

"Contracted Capacity": (i) at the Signature Date, 981.5 MW (hereinafter referred to as "Contracted Capacity at the Signature Date"); (ii) at the Full Commercial Operation Date, the Contracted Capacity certified by the Independent Engineer pursuant to Clause 6.10; and (iii) from and after the Full Commercial Operation Date, such revised amount as may apply following a Contracted Capacity Test or as may otherwise be determined pursuant to Clause 8.8 or Clause 8.11;

"Contracted Capacity Test": the test of the normal full load Capacity of the Plant carried out in accordance with Clause 6.10, Clause 8 and the requirements of Section 4 of Part A of Schedule 5 and Section 7, Part C, Schedule 6;

"Daily Liquidated Damages Sum": an amount of US Dollars forty-five thousand (US\$45,000);

"Declared Capacity": in respect of a Settlement Period, the Capacity declared, in accordance with the Operating and Despatch Procedures, by the Seller to be Available for that Settlement Period which shall not be higher than the Contracted Capacity;



"Default": any one or more of the events specified in Clauses 15.1 and 15.2;

"Default Rate": two (2) percentage points above LIBOR;

"Delivery Point": the point of common coupling at which the Net Electrical Output from the Plant (or, in the case of Clause 6.9, one or more Units) is delivered to the KPLC System being the point specified in Schedule 3;

"Despatch": the giving of a Despatch Instruction;

"Despatch Instruction": an instruction given by KPLC to the Seller in relation to the operation of the Plant in accordance with Clauses 7.3 and 7.4 and with Part C of Schedule 5;

"Direct Agreement": the agreement to be entered into between the Seller, KPLC and the Financing Parties relating to the Project;

"Dispute": has the meaning ascribed to it in Clause 18.1;

"Effective Date": has the meaning ascribed to it in Clause 3.1;

"Emergency": a condition or situation that, in the sole but reasonable opinion of KPLC, (i) does materially and adversely, or is likely materially and adversely to affect the ability of KPLC to maintain a safe, adequate and continuous electrical service to its customers, having regard to the then current standard of electrical service provided to its customers, or (ii) does or is likely to present a physical threat to persons or property or the security, integrity or reliability of the KPLC System;

"End Period": has the meaning ascribed to in Clause 6.12;

"Energy Charges": the amounts payable by KPLC to the Seller in respect of the Net Electrical Output in accordance with Clauses 9.3, 14.6 and Part A of Schedule 6



(without double counting under those Clauses);

"Energy Regulatory Commission": the Commission established pursuant to section 4 of the Energy Act 2006 or such successor body created under a Legal Requirement to regulate the electricity sector in the Republic of Kenya;

"Environmental Impact Assessment": all environmental reports prepared by the Seller in respect of the Seller's activities at the Site as approved by relevant Governmental Authorities;

"Environmental Performance Tests": the tests specified in Part A of Schedule 5;

"Environmental Standards": the environmental standards described in Part A of Schedule 1;

"Event of Default": has the meaning ascribed to it in Clause 15.4;

"Excess Starts": has the meaning ascribed to it in Part E of Schedule 6;

"Excess Start Charges": means the charge payable by KPLC to the Seller to account for the costs incurred by Seller undertaking Excess Starts as calculated in accordance with Part E of Schedule 6;

"Expert": a person appointed in accordance with the provisions of Clause 18.2;

"Financing Agreements": means any and all loan agreements, notes, bonds, indentures, security agreements, assignments and acknowledgements, guarantees, insurance policies, subordination agreements, mortgages, deeds of trust, credit agreements, intercreditor agreements, note or bond purchase agreements, hedging agreements, participation agreements, letters of credit, direct agreements and other documents entered into by the Seller with the Financing Parties to finance or refinance the Project;



"Financing Parties": any banks, other financial institutions and/or other lenders, together with any agent or trustee for any such persons and any hedging counterparty, from time to time providing financing, refinancing or financial support (including in the form of credit insurance, letters of credit or guarantees) to the Project;

"First Commissioning Date": has the meaning ascribed to it in Clause 6.2;

"Force Majeure" or "FM": has the meaning ascribed to it in Clause 14.1;

"Fuel": means coal;

"Fuel Charges": the amounts payable by KPLC to the Seller in respect of the Net Electrical Output in accordance with Clauses 6.11, 9.4, 14.6 and Part B of Schedule 6 (without double counting under those Clauses);

"Fuel Supplier": has the meaning ascribed to it in Clause 9.13.10;

"Fuel Supply Agreement": an agreement for the supply of fuel to the Plant entered into by the Seller and a fuel supplier from time to time;

"Full Commercial Operation Date": the date notified by the Seller in accordance with Clause 6.10;

"Functional Specification": the functional specifications for the Plant and each Unit as set out in Part A of Schedule 1;

"Generating Licence": has the meaning ascribed to it in the Energy Act, 2006 (or any similar licence or other Authorisation pursuant to a legislation replacing the Energy Act, 2006);

"GOK": the Government of the Republic of Kenya;

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"GOK Letter of Support": the letter of support, in form and substance acceptable to the Seller, issued by GOK to the Seller on or prior to the Effective Date;

"GOK Transfer Amount": payment made to the Seller pursuant to Clause 14.9;

"Governmental Authority": the Government of the Republic of Kenya, any ministry, county government, authority (including any regional and local authorities of Kenya and including any implementing executive organ or other branches of government) or division thereof, any agencies owned or controlled by the Government of the Republic of Kenya including the Energy Regulatory Commission, the Capital Markets Authority any legislative organ, any court, tribunal any other body in the Republic of Kenya having statutory competence to promulgate rules and regulations governing or touching and concerning matters, transactions and issues contained or relating to this Agreement or any of the other Project Agreements;

"Indemnity Agreement": the indemnity agreement to be entered into between GOK and the PRG Provider;

"Independent Engineer": the person appointed pursuant to Clause 6.13;

"Initial Fuel Supply Tender Documents": the fuel supply tender agreed pursuant to Clause 9.13;

"Insured Event": any event or circumstance giving rise to a claim by the Seller for insurance proceeds which proceeds the Seller is required to apply in accordance with Clause 12;

"Interim Capacity Payments": the amounts payable by KPLC to the Seller prior to the start of Plant Commercial Operations Tests in accordance with Clause 9.7A and calculated in accordance with Part C of Schedule 6;



"ISO": the International Organisation for Standardization;

"KETRACO": Kenya Electricity Transmission Company Limited of P.O. Box 34942-

00100, Nairobi, a company incorporated in Kenya and wholly owned by GOK on the

Signature Date.

"KETRACO Connection Facilities": has the meaning ascribed to it in paragraph 1 of

Part B of Schedule 1 as being installed by the Seller;

"KETRACO Transmission Interconnector": means the approximately 520 kilometre

400kV transmission line from Lamu to Nairobi to be constructed by KETRACO.

"KPLC Funding FM Event": the unavailability of funds and consequent failure of KPLC

to make any payment contemplated by this Agreement due to Force Majeure

affecting KPLC as notified by KPLC to the Seller pursuant to Clause 14.3 (b);

"KPLC Requested Starts": has the meaning ascribed to it in Part E of Schedule 6;

"KPLC System": means the high voltage transmission system operated by KPLC,

together with all the distribution system(s) and ancillary electrical plant and

equipment connected to such transmission and distribution systems including the

KETRACO Transmission Interconnector and the KETRACO Connection Facilities;

"KPLC System Interruption": any failure or inability of KPLC to receive delivery of

electrical energy from the Plant howsoever arising other than as a result of: (i) an

event which is caused by the Seller or (ii) Force Majeure affecting KPLC;

"kV": kilovolts;

"kW": kilowatts;

"kWh": kilowatt hours being three million six hundred thousand (3,600,000) Joules

as defined in ISO 1000.1992(E);

"LAPSSET": LAPSSET Corridor Development Authority, a legal entity established in the Republic of Kenya by Presidential Order to implement the Lamu Port South Sudan Ethiopia Transport Corridor project;

"Lease": the lease of the Site entered into between LAPSSET and the Seller on or before the Effective Date;

"Legal Opinions": (i) the legal opinion issued to the PRG Provider and the Financing Parties by the Attorney General of Kenya in respect of the Reimbursement and Credit Agreement, the Indemnity Agreement and the GOK Letter of Support in a form acceptable to the PRG Provider and the Financing Parties, confirming inter alia the validity of the agreements in accordance with the applicable laws of Kenya; (ii) the legal opinion issued to the Financing Parties by KPLC Legal Counsel in respect of the PPA and the Direct Agreement in a form acceptable to the Financing Parties confirming inter alia the validity of the agreements in accordance with the applicable laws of Kenya;

"Legal Requirement": any statute, law, regulation or other legislation, or any decree, order or directive of any Governmental Authority having jurisdiction in respect of (i) this Agreement, (ii) the Lease, (iii) any Project Agreement, (iv) the Project, or (v) any Financing Agreements made by the Seller pursuant to this Agreement, or in respect of any Party;

"Letter of Credit Bank": the financial institution providing the PRG Guaranteed LC under the Reimbursement and Credit Agreement;

"LIBOR": the British Bankers' Association ("BBA") interbank offered rates for deposits in US Dollars for any six month period which appear on the relevant page of the Reuters Screen (currently page LIBOR01) or, if not available, on the relevant pages of any other service (such as Bloomberg Financial Markets Service) that



displays such BBA rates; provided that if the said rate is not quoted on any day the rate last quoted shall be used;

"Local Fuel Supply Agreement" has the meaning ascribed to it in Clause 9.13.12;

"Long Stop Construction Start Date": the date falling one hundred and eighty (180) days after the Effective Date or any extension thereof agreed between the Parties or applicable pursuant to Clause 5.7 or Clause 14.4;

"Long Stop Dates": any of the Long Stop Effective Date, the Long Stop Construction Start Date and the Long Stop Full Commercial Operation Date;

"Long Stop Effective Date": the date falling six (6) months after the Target Effective Date or any extension thereof agreed between the Parties or applicable pursuant to Clause 14.4;

"Long Stop Full Commercial Operation Date": the date falling sixty (60) months after the Effective Date or any extension thereof agreed between the Parties or applicable pursuant to Clause 6.12 or Clause 14.4;

"Low Availability": has the meaning ascribed to it in Clause 8.16;

"Main Metering Equipment": equipment for metering and monitoring the operation and output of the Plant which equipment is owned, operated and maintained by the Seller in accordance with Schedule 2;

"Metering System": the Main Metering Equipment and the Back-Up Metering Equipment;

"Minimum Despatch Requirements": the Net Electrical Output with one Unit operated at 40% of the Unit Rated Output, as determined in Part A of Schedule 5 which shall in no event be more than 130MW;

"MW": megawatts being one thousand (1,000) kW;

"MWh": megawatt hours being one thousand (1,000) kWh;

"Net Electrical Output": electrical energy measured in kWh at the Delivery Point and which is generated by the Plant and delivered to KPLC in accordance with Despatch Instructions;

"Non-Default Rate": LIBOR;

"Operating Characteristics": the performance and operating characteristics of the Plant and each Unit for which values are specified in the Functional Specification;

"Operating and Despatch Procedures": the procedures set out in Part C of Schedule 5;

"Operating and Maintenance Agreement": the agreement(s), if any, between the Seller and the Operating and Maintenance Contractor for the operation and maintenance of the Plant, as may be amended or superseded from time to time;

"Operating Period": the period from the Full Commercial Operation Date until the end of the Term;

"Operating Year": (i) in the year in which the Full Commercial Operation Date occurs, the period beginning on that date until and including the last date of the twelfth (12<sup>th</sup>) month after the Full Commercial Operation Date; and thereafter (ii) successive periods of one (1) year beginning on the next day following the end of the previous Operating Year;

"Partial Load": any despatch of a Unit at less than 95% of one-third (1/3) of the Contracted Capacity;



"Parties": KPLC and the Seller, and "Party" mean either of them;

"Planned Maintenance": maintenance of the Plant or a Unit which has been planned in accordance with Clause 8.3, or where the context admits, the period allowed or the dates planned for such maintenance;

"Plant": the coal fired power station, capable of 981.5 MW of capacity (net, at Site Conditions) including the Seller's Connection Facilities, Coal Conveyor Belt System, the Metering System to be owned and constructed by the Seller on the Site and the coal receiving and handling facilities, as described in Part A of Schedule 1;

"Plant Commercial Operations Tests": the Reliability Run Test, the Contracted Capacity Test, the Unit Trip Test, the Environmental Performance Tests and the Black Start Test;

"Plant Transfer Notice": has the meaning given in Clause 15.5;

"Political Event" means any event or circumstance whether arising from an action or inaction of GOK or any Governmental Authority or otherwise relating to the foregoing which impairs the implementation or continuation of the Project and/or which adversely and materially affects the Seller, any party under a Project Agreement, any contractor, sub-contractor or supplier to the Seller, any Financing Party, KPLC or the Shareholders in the Seller (each a "Project Party"), including without limitation the following events and circumstances where such events have occurred in or are affecting the Republic of Kenya:

- (i) any blockade, embargo, insurrection, civil commotion or any act of sabotage;
- (ii) any riot, or public unrest or disorder, excluding those that arise solely as a result of labour disputes attributable to the action or inaction of the Seller;
- (iii) any Change in Law which has not been addressed and resolved within the provisions of the PPA;



- (iv) any expropriation, confiscation, cancellation, or compulsory acquisition of, or limitation to, any rights, or all or a portion of any property or assets of, or shares in (or rights pertaining to the shares in or properties or assets of), the Seller or any other Project Party or any restriction or limitation on the Seller's ability to conduct its business;
- (v) any termination, cancellation or repudiation of the Lease other than for breach by the lessee;
- (vi) war, act of foreign enemy, invasion, armed conflict or military action;
- (vii) any failure or refusal by a Governmental Authority to issue or renew Authorisations or the revocation, termination or suspension of existing Authorisations despite the Seller's compliance with requirements;
- (viii) a Change in Tax which has not been addressed and resolved within the provisions of the PPA;
- (ix) an event of Force Majeure affecting KPLC which has not been resolved under the PPA;
- (x) a KPLC Funding FM Event;
- (xi) a failure by GOK to make any payment or perform any other obligation under this the GOK Letter of Support; or
- (xii) any reduction to or restructuring of the Seller's tariff and/or any reduction to any other amounts payable under the PPA, unless such reduction or restructuring has been agreed in advance in writing by both the Seller and the Financing Parties.

"Port Services Agreement": means the agreement for port services between LAPSSET and the Seller;

"PRG Guaranteed LC": a stand-by letter of credit issued in favour of the Seller by the Letter of Credit Bank at the request of KPLC and the PRG Provider on or before the First Commissioning Date;

"PRG Project Agreement": the agreement to be entered into by the Seller and the PRG Provider governing the Seller's obligations in connection with the Project;





"PRG Provider": the financial institution, approved by KPLC and providing a partial risk guarantee to the GOK in connection with the Project;

"Project": the project consisting of the construction, operation and maintenance of the Plant in accordance with the terms and conditions of this Agreement;

"Project Agreements": this Agreement, the Operating and Maintenance Agreement, the Turnkey Construction Agreement, the Fuel Supply Agreement, the Lease, the Direct Agreement, the GOK Letter of Support and the Port Services Agreement;

"Prudent Operating Practice": in relation to either Party, standards of practice obtained by exercising that degree of skill, diligence, prudence and foresight which could reasonably be expected from (i) a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances including in respect of the construction, operation and maintenance of the Plant and/or (ii) a contractor constructing, operating and/or maintaining a plant or facility similar in size and Operating Characteristics;

"Reference Climatic Conditions" the climatic conditions of the Site as listed in Section 1.5, Part A, Schedule 1;

"Relevant Period": has the meaning ascribed to it in Clause 6.12;

"Reliability Run Test": the test carried out in accordance with the requirements of Section 4 of Part A of Schedule 5;

"Remedial Programme": has the meaning ascribed to it in Clause 15.4(c);

"Reimbursement and Credit Agreement": the reimbursement and credit agreement between KPLC and Letter of Credit Bank in relation to the provision of the PRG Guaranteed LC;

"Required Full Commercial Operation Date": the date falling forty-two (42) months



after the Effective Date or any extension thereof agreed between the Parties or applicable pursuant to Clause 6.12 or Clause 14.4;

"Security Stock": has the meaning ascribed to it in Clause 9.12;

"Seller's Connection Facilities": the connection facilities specified in Part C of Schedule 1 as being installed by the Seller;

"Settlement Period": a period of thirty (30) minutes beginning on the hour or the half-hour, as the case may be

"Signature Date": the date of this Agreement;

"Site": all that piece of land situate in Kwasasi, Hindi/Magogoni sub-county within Lamu County of the Republic of Kenya comprised in Title Number C.R. 68910 and leased to the Seller pursuant to the terms of the Lease, as well as the land on which the Coal Conveyor Belt System is located;

"System Characteristics": the characteristics of the KPLC System specified in Part B of Schedule 1;

"Target Availability": eighty-five per cent (85%) of the Contracted Capacity at the Signature Date, or as revised pursuant to Section 4 of Part A, Schedule 5;

"Target Effective Date": 31<sup>st</sup> December, 2017 or such other date as may be extended at the sole discretion of KPLC:

"Taxes": all forms of taxation, duties, imposts, levies and rates whenever imposed and applicable pursuant to the laws of Kenya;

"Temperature Measuring Devices": devices for continuous logging of water temperature at the proposed sea water intake point;



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"Tender Evaluation Report": the report produced by the Seller for KPLC's benefit pursuant to Clause 9.13.5 of this Agreement;

"Term": the period from the Signature Date until expiry of this Agreement in accordance with Clause 2.2 or earlier termination;

"Threshold Availability": Average Availability expressed as a percentage of the Contracted Capacity as at the Signature Date or as determined under Section 4 of Part A, Schedule 5 of not less than seventy-five per cent (75%);

"Turnkey Construction Agreement": the agreement or agreements for the construction of the Plant to be entered into between (1) the Seller; (2) Sichuan Electric Design & Consulting Limited and (3) Power Construction Corporation of China;

"Unit": a generating unit and related facilities as described in Part A of Schedule 1;

"Unit Commercial Operations Tests": the tests to be carried out in accordance with Part A of Schedule 5;

"Unit Rated Output": the demonstrated maximum capacity of each Unit at the generator terminals in accordance with the Capacity Demonstration tests specified in Part A of Schedule 5;

"Unit Tests": the tests to be carried out on each of the Units as specified in Part A of Schedule 5, including the Unit Commercial Operations Tests;

"Unit Trip Test": the test carried out in accordance with the requirements of Part A of Schedule 5; and

"US Dollar "or "US\$": the lawful currency of the United States of America.



## 1.2 Interpretation:

In this Agreement, unless the context otherwise requires:

- (a) Reference to a business day is a reference to any day which is not a Saturday, Sunday or recognised public holiday in the Republic of Kenya and is a day on which commercial banks are open for business in the Republic of Kenya;
- (b) Reference to a day, month or year is a reference to a calendar day, month or year;
- (c) References to Clauses, Schedules, Sections and Figures are references to clauses, schedules, sections and figures of, to or contained in, this Agreement;
- (d) Words in the singular shall be interpreted as including the plural and vice versa, and words denoting persons shall be interpreted as referring to natural and legal persons;
- (e) The term "including" shall be construed without limitation;
- (f) In the event of any conflict between the Clauses and the Schedules, the Clauses shall prevail;
- (g) Headings are for convenience only and shall not affect the construction of this Agreement; and
- (h) Where an obligation is required to be performed by a specified time and is not so performed, such obligation shall continue (until performed) notwithstanding that the time specified for its performance has elapsed.



## Clause 2: Scope and Duration

### 2.1 Scope:

In accordance with and subject to the terms and conditions of this Agreement:

- a. the Seller will enter into the Project Agreements, finance, design, procure, construct, install, test, commission, operate and maintain the Plant in accordance with Prudent Operating Practice, supply and install the Main Metering Equipment and the Back-Up Metering Equipment, supply and install KETRACO Connection Facilities, transfer to KPLC or KPLC's nominee the KETRACO Connection Facilities and the Back-Up Metering Equipment, purchase Fuel for the Plant pursuant to Clause 9.13 maintain the Security Stock, seek to make the Contracted Capacity Available in compliance with the Operating Characteristics and sell the Net Electrical Output to KPLC; and
- b. KPLC will take delivery of Net Electrical Output and pay Energy Charges and Fuel Charges for such Net Electrical Output and make Capacity Payments for the Contracted Capacity (adjusted for Availability), make Interim Capacity Payments (adjusted for the number of hours that a Unit is made available and despatched) and pay for Excess Starts.
- 2.2 Term of Agreement: Unless terminated in accordance with its terms, this Agreement shall come into force on the Signature Date and shall continue in force until the twenty fifth (25th) anniversary of the Full Commercial Operation Date.
- 2.3 **Extension**: The Term may be extended: (i) subject to agreement in writing by the Parties to such extension at the latest twelve (12) months prior to its expiry, and on such terms as the Parties shall agree (ii) pursuant to Clause 14.4 (b).



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#### Clause 3: Conditions Precedent and Effective Date

3.1 Conditions Precedent: The Parties' obligations hereunder shall commence on the date (the "Effective Date") on which:

> (i) this Agreement is approved by the Energy Regulatory Commission, and a commitment has been received from the Energy Regulatory Commission that the approved retail tariffs will be just and reasonable pursuant to the Energy Act, 2006; (ii) the Generating License is issued to the Seller; (iii) the Construction Security is lodged by the Seller with KPLC; (iv) the Seller has completed the Environmental Impact Assessment to the satisfaction of the relevant Governmental Authorities; (v) LAPSSET has been granted legal title to the Site, the Lease has been signed and the Seller has been given vacant possession; (vi) KPLC has approved the Initial Fuel Supply Tender Documents including a draft Fuel Supply Agreement; (vii) the Direct Agreement and this Agreement shall have been executed; (viii) the GOK Letter of Support shall have been issued by GOK in a form acceptable to the Seller; (ix) certified copies of the Legal Opinions shall have been issued to the Seller (at the Seller's cost) and the Financing Parties confirming the validity of the Project Agreements and this Agreement in accordance with the applicable laws of Kenya; and (x) the Site has been designated as a Protected Area under the Protected Areas Act Cap 204 of the Laws of Kenya.

Provided that the following clauses shall come into effect immediately on the Signature Date: Clause 3.6 (Non-Satisfaction); Clause 4 (Site); Clause 13 (Undertakings and Warranties of the Parties); Clause 14 (Force Majeure), Clause 15 (Termination and Default), Clause 17 (Confidentiality); Clause 18 (Dispute Resolution); Clause 21 (Miscellaneous); and Clause 22 (Governing Law).

3.2 Seller Conditions: The Seller shall use all reasonable endeavours to satisfy the Conditions Precedent in Clause 3.1 (iii) and (iv) and to facilitate satisfaction of the Conditions Precedent in Clause 3.1(i), (ii), (vi), (vii), (viii), (ix) and (x) on or prior to the Target Effective Date or such other date as the Parties may agree in writing.



- 3.3 **KPLC Conditions:** KPLC shall use all reasonable endeavours to facilitate satisfaction of the Conditions Precedent in Clauses 3.1(i), (vi), (vii) and (ix) on or prior to the Target Effective Date or such other date as the Parties may agree in writing.
- 3.4 **Progress Review**: The Parties shall jointly review the progress towards achieving satisfaction of the Conditions Precedent on a monthly basis and shall notify each other promptly of any anticipated delay in the Effective Date beyond the Target Effective Date.
- 3.5 **Delay:** If the Effective Date does not occur on or before the Long Stop Effective Date due to:
  - (a) the failure by any Governmental Authority to issue an Authorisation, the lack of which is the sole reason for the Seller being unable to satisfy the Conditions Precedent, provided that the Seller has first diligently attempted to obtain such Authorisation (which diligence shall include (i) full and timely compliance with all procedural requirements relating to the issue of such Authorisation, and with all Legal Requirements which relate to the activities of the Seller within the Republic of Kenya and (ii) pursuing all reasonably available procedures for appealing against or challenging the grounds upon which such Authorisation is not issued); or
  - (b) an event of Force Majeure or a failure by KPLC to use all reasonable endeavours to facilitate satisfaction of the Conditions Precedent in accordance with Clause 3.3;

the Long Stop Effective Date shall be revised as provided in Clause 14.4;

3.6 **Non-satisfaction**: If any of the Conditions Precedent has not been satisfied or waived by the Long Stop Effective Date (or such later date as the Parties may agree in writing) for any reason whatsoever, then this Agreement shall automatically



terminate with immediate effect on such date. The termination of this Agreement pursuant to this Clause 3.6 shall not affect: (a) a Party's accrued rights and obligations at the date of termination arising from the clauses under the proviso to Clause 3.1; or (b) the Parties' respective rights and obligations that are expressed to survive termination (including under Clause 3.7)

## 3.7 Bid Security:

- (a) The Seller has provided to GOK the Bid Security.
- (b) If the Effective Date does not occur on or before the Long Stop Effective Date due to a failure by the Seller:
  - to diligently attempt to obtain the Authorisation under Clause 3.5(a);
     or
  - then KPLC shall notify GOK of such failure and GOK may as its sole and exclusive remedy against the Seller for any direct or indirect loss, cost or expense GOK incurs as a result thereof take all steps necessary to obtain payment of the full amount of the Bid Security and KPLC may by notice terminate this Agreement and from the date of such notice this Agreement shall terminate save that the provisions of this Clause 3.7(b) and of Clause 17 shall apply.
- (c) If the Construction Security is lodged by the Seller with KPLC and the Effective Date is achieved on or before the Long Stop Effective Date, KPLC shall notify GOK to return the Bid Security to the Seller. If the Effective Date does not occur on or before the Long Stop Effective Date other than in accordance with Clause 3.7(b), KPLC shall notify GOK to return the Bid Security to the Seller. Any delay in achieving the Effective Date due to a delay in the granting of the Generating Licence to the Seller or the execution by the GOK of the GOK Letter of Support shall prevent any liability of the Seller under the Bid Security and KPLC shall notify GOK not to draw on the same.



(d) This Clause 3.7 shall survive the termination of this Agreement if this Agreement is terminated prior to the Effective Date.

### 3.8 Construction Security:

- (a) On or prior to the Effective Date and with effect therefrom the Seller shall provide to KPLC the Construction Security in a form mutually acceptable to the Seller and KPLC;
- (b) If the Seller fails to notify KPLC of the Construction Start Date in accordance with Clause 5.7 and fails to commence construction by the Long Stop Construction Start Date, or having notified KPLC of the Construction Start Date fails to commence construction by the Long Stop Construction Start Date, then unless such failure is due to a breach by KPLC of this Agreement or LAPSSET breach of the Lease and/or Force Majeure as set out in Clause 14, KPLC shall be entitled to claim the payment of the full amount of the Construction Security as its sole and exclusive remedy against the Seller for any direct or indirect loss, costs or expenses KPLC incurs as a result of either such failure;
  - (c) Unless payment thereunder is earlier demanded by KPLC under Clause 5.9 or Clause 6.15(b)(i), the Construction Security shall continue in force until the issue by the Independent Engineer of its certificate under Clause 6.10 or if the Seller is unable to achieve the Full Commercial Operation Date by the Required Full Commercial Operation Date due to a failure by KPLC under Clause 6.7 the Construction Security shall lapse and be returned to the Seller and KPLC shall make no demand thereon; and
- (d) In the event that KPLC exercises its rights pursuant to Clause 5.9 or Clause 6.15(b)(i), KPLC may take all steps necessary to obtain payment of the full amount of the Construction Security as its sole and exclusive remedy against the Seller for any direct or indirect loss, costs or expenses KPLC incurs as a result of either such failure.



## Clause 4: Site

### 4.1 Reference Climatic Conditions

- 4.1.1 In accordance with section 2.2.3.1 of the RfP, the Seller was required to assume the Reference Climatic Conditions in respect of the performance of the Seller's obligations under this Agreement.
- 4.1.2 The Parties shall within thirty (30) days after the Signature Date jointly appoint an independent third party to measure the sea water temperature using the Temperature Measuring Devices. The costs for the independent third party shall be borne by the Seller.
- 4.1.3 The independent third party shall from the appointment date under clause 4.1.2 above until six (6) months prior to the First Commissioning Date log the sea water temperature using the Temperature Measuring Devices and, on a monthly basis, submit the temperature data recorded by such devices to KPLC and the Seller.
- 4.1.4 The Parties agree that the Average Sea Water Temperature shall be the arithmetic average of the logged data provide by the independent third party under clause 4.1.2 rounded up to the nearest whole number.
- 4.1.5 The Average Sea Water Temperature determined under clause 4.1.4 shall be used in the specific fuel consumption determination as provided in Section 4(vii) of Part A, Schedule 5.



#### Clause 5: Construction

- 5.1 The Seller's Responsibility: The Seller shall design, finance, construct and install the Plant and shall ensure that it is consistent and compatible with the System Characteristics and otherwise in accordance with the Seller's obligations under this Agreement.
- 5.2 **KETRACO Connection Facilities**: The Seller, acting in accordance with Prudent Operating Practice shall construct the KETRACO Connection Facilities in accordance with the KETRACO Connection Facilities specifications, provided that:
  - (a) the cost of undertaking the design, construction, installation, testing and commissioning of the KETRACO Connection Facilities is deemed included in the Capacity Charge Rate (as defined in Part D of Schedule 6) at the Signature Date; and
  - (b) The Seller shall at all times, prior to the transfer of the KETRACO Connection Facilities in accordance with Clause 6.6, retain responsibility for ensuring the KETRACO Connection Facilities meet the KETRACO Connection Facilities specifications as provided in Part B, Schedule 1.
- Information: The Seller shall keep KPLC informed of the progress of the design, financing, supply, construction and installation of the facilities and equipment to be installed by it pursuant to Clauses 5.1 or 5.2, and every month shall provide a progress report in respect thereof which report shall itemise the extent to which each material task in the Construction Programme has been completed and the expected completion date for each outstanding task. The Seller covenants and agrees that any information provided to KPLC under this Clause 5.3 shall, to the Seller's reasonable knowledge be complete and accurate in all material respect.
- 5.4 **Local Contracts**: The Seller shall, where possible award contracts to contractors with existing operations in the Republic of Kenya and suppliers of materials and services with existing operations in the Republic of Kenya provided that the quality,



delivery times, warranties, guarantees, price and other terms are comparable to those offered by foreign manufacturers, contractors and/or suppliers. KPLC acknowledges that the foregoing shall not apply to the extent the foregoing is inconsistent with the Turnkey Construction Agreement or the Operating and Maintenance Agreement or the arrangements contemplated therein.

# 5.5 **Monitor Progress**: The Seller shall:

- (a) ensure that KPLC, and any representatives appointed by KPLC, are afforded reasonable access to the Site upon giving the Seller reasonable notice, provided that such access does not materially interfere with the construction works or expose any person on the Site to any danger;
- (b) make available for inspection at the Site copies of all plans and designs, other than any proprietary information of the Seller or any sub-contractor, in relation to the construction, or any part thereof; and
- (c) within six (6) months of the Full Commercial Operation Date, supply KPLC with one (1) set of reproducible copies and five (5) sets of white print copies (or equivalent) of all "as built" plans and designs relating to the operation or maintenance of the Plant as KPLC may reasonably require. The Seller shall also provide to KPLC two (2) copies of the operations and maintenance manuals.

#### 5.6 **Disclaimer**: The Seller:

(a) accepts that any information provided by the Seller under Clause 5.3, or any engineering review or inspection conducted by KPLC pursuant to Clause 5.5, is solely for KPLC's own information and accordingly, KPLC's review or failure to review or carry out any inspection under this Clause 5 shall not be construed as constituting any approval or acceptance of the KETRACO Connection Facilities (except as otherwise provided in Clause 6.6) or the Plant



and KPLC makes no representation as to the engineering soundness of the KETRACO Connection Facilities or the Plant nor shall it be treated as having accepted the KETRACO Connection Facilities (except as otherwise provided in Clause 6.6) or the Plant as fit to meet the terms of this Agreement;

- (b) shall in no way represent to any third party that, as a result of any review or inspection by KPLC, KPLC is responsible for the engineering soundness of the Plant; and
- (c) shall, subject to the other provisions of this Agreement, be solely responsible for the economic and technical feasibility, operational capacity and reliability of the Plant.
- 5.7 Construction Start Date: After the Effective Date, the Seller shall give to KPLC notice of the date of commencement of construction under the Turnkey Construction Agreement ("Construction Start Date") which shall be not later than the Long Stop Construction Start Date; provided, that if the Seller does not notify KPLC of the Construction Start Date or has not commenced construction by the Long Stop Construction Start Date, due to an event of Force Majeure or a default by KPLC under the terms of this Agreement or a default by LAPSSET under the terms of the Lease, then the Long Stop Construction Start Date shall be extended on a day for day basis for each day of delay or for such other period agreed by the Parties due to Force Majeure or KPLC Default or default by LAPSSET under the terms of the Lease. Where the Parties fail to agree on the period for extension, the matter shall be referred to an Expert pursuant to Clause 18.2.
- 5.8 If the maximum delay period specified in Clause 14.4 is utilised either Party may thereafter terminate this Agreement in which event this Agreement shall be deemed to be null and void *ab initio* save that the provisions of Clauses 5.9 and 17 shall apply. If the Seller fails to so give KPLC notice of the date of commencement of construction, the Construction Start Date shall be deemed to be the Long Stop Construction Start Date.



5.9 Right to Terminate: If the Seller does not notify a Construction Start Date to KPLC pursuant to Clause 5.7 so that the Construction Start Date is deemed to be the Long Stop Construction Start Date and the Seller does not then commence construction by the Long Stop Construction Start Date or having so notified KPLC of the Construction Start Date the Seller has not commenced construction by Long Stop Construction Start Date other than due to an event of Force Majeure, or due to a default by KPLC under the terms of this Agreement or due to a default by LAPSSET under the terms of the Lease, KPLC shall have the right by notice either to (i) terminate this Agreement (in which event, KPLC shall have the right to demand payment under the Construction Security, which shall be KPLC's sole and exclusive remedy against the Seller for any direct or indirect loss, cost or expense KPLC incurs as a result of the events described herein and the provisions of Clauses 3.8 and 15 shall apply); or (ii) to claim the Daily Liquidated Damages Sum for each day for which the Seller has not commenced construction (which shall be KPLC's sole and exclusive remedy against the Seller for any direct or indirect loss, cost or expense KPLC incurs as a result of the events described above in this Clause 5.9).



### Clause 6: Commissioning and Testing

- 6.1 The Seller's obligations: The Seller shall carry out Commissioning in accordance with Prudent Operating Practice and the procedures agreed or determined in writing pursuant to Clause 6.5.
- 6.2. The First Commissioning Date: The First Commissioning Date shall be the date specified in the Construction Programme (including any extension thereof) as the target date for the start of Commissioning of the first Unit, or such earlier date as the Seller may specify by notice given to KPLC not less than ninety (90) days before such earlier date subject to KPLC's agreement to such earlier date which agreement shall not be unreasonably withheld or delayed. Seller will require back-feed power from KPLC six (6) months prior to the First Commissioning Date.
- 6.3. **Notifications**: Subject to Seller's obligations under Clause 6.2 to notify KPLC of an earlier First Commissioning Date, the Seller shall give KPLC not less than thirty (30) days' notice of the date of commencement of Commissioning of each Unit (other than the first Unit), provided that the Seller may postpone any such date by giving KPLC notice of the postponed date in accordance with such detailed procedures agreed or determined in accordance with Clause 6.5.
- 6.4 **KPLC** attendance: KPLC shall have the right to be present at the Site on each occasion, on which a test is being conducted, and to inspect and witness the test, and to receive, within fifteen (15) days after the test, a written copy of the test reports.
- Commissioning Date provide to KPLC draft detailed procedures for the Commissioning and testing of the Units and the Plant which shall be procedures consistent with Prudent Operating Practice and with Part A of Schedule 5. The Parties shall meet in good faith to discuss and reach agreement on the said procedures no later than sixty (60) days prior to the First Commissioning Date. If the Parties fail to so meet or agree on the procedures within fifty (50) days prior to the First Commissioning Date, then the matter shall be referred immediately by the



Seller to an Expert for determination in accordance with Clause 18.2 except that, notwithstanding the provisions of Clause 18.2, the Expert shall be required to render its determination no later than thirty (30) days prior to the First Commissioning Date and such determination shall be consistent with Part A of Schedule 5.

- KETRACO Connection Facilities: The Seller shall complete the installation of the KETRACO Connection Facilities not later than six (6) months before the First Commissioning Date so as to enable the Seller to complete the testing and Commissioning of the KETRACO Connection Facilities before the First Commissioning Date. Upon the successful commissioning of the KETRACO Connection Facilities in accordance with Prudent Operating Practice, the Seller shall transfer to KPLC or to KPLC's nominee, as beneficial owner, all rights, title and interest therein (free of any encumbrances) together with all applicable warranties and guarantees in respect thereof and the Seller shall have no liability to KPLC or such KPLC nominee in respect of the KETRACO Connection Facilities from the date of such transfer.
- 6.7 KPLC Cooperation: KPLC shall, subject to any constraints on the KPLC System, cooperate with the Seller so as to enable the Seller to Commission each Unit in accordance with this Clause 6 and in particular will authorise connection to the KPLC System by the Seller and Despatch the Unit or Units to the extent reasonably required by the Seller for such purpose and in accordance with the procedures in Part A of Schedule 5 and agreed or determined under Clause 6.5. At the Seller's request KPLC will within seven (7) business days provide all technical information necessary to the Seller to enable the Seller undertake a connection to the KPLC System.
- 6.8 **Re-testing**: Where any Unit Commercial Operations Test is not completed satisfactorily, the Seller shall arrange an applicable further test by giving KPLC not less than seven (7) days' notice in accordance with the foregoing provisions of this Clause 6 or such shorter period as KPLC reasonably agrees to.
- 6.9 Completion of Commissioning and Commercial Operation Date: On the satisfactory completion of the Commissioning of a Unit the Seller shall procure the issue of a





certificate of the Independent Engineer addressed to KPLC and the Seller, certifying that the Unit's Commissioning has been so completed, that the Unit Commercial Operations Tests for such Unit have been successfully completed, and that the Unit is available for commercial operation and shall, upon issue of the certificate, notify KPLC of the Commercial Operation Date for that Unit being a date not later than twenty-one (21) days after the date of the notice. Nothing in this Clause shall require each Unit to be commissioned sequentially.

- Plant Commercial Operations Tests: Following satisfactory completion of the Unit Commercial Operations Tests for each Unit, the Seller shall conduct the Plant Commercial Operations Tests. Upon satisfactory completion of the Plant Commercial Operations Tests the Seller shall procure the issue of a certificate of the Independent Engineer addressed to KPLC and the Seller, certifying, without any material qualification, that the Seller has installed all plant and equipment specified in the Functional Specification, that the Plant's Commissioning has been completed, that the Plant is available for full commercial operation and certifying that the Contracted Capacity achieved by the Plant during the Contracted Capacity Test forming part of the Plant Commercial Operations Tests is not less than ninety-five per cent (95%) of the Contracted Capacity at the Signature Date. The Seller shall, upon issue of the certificate, give notice to KPLC of a date (the "Full Commercial Operation Date") being a date not later than twenty-one (21) days after the date of the notice.
- 6.11 **Commissioning and testing output:** KPLC shall pay Energy Charges and Fuel Charges to the Seller for all Net Electrical Output supplied after the First Commissioning Date.
- 6.12 KPLC failure to take electricity from the First Commissioning Date:
  - (a) If the Seller is delayed in achieving the Full Commercial Operation Date by the Required Full Commercial Operation Date by reason of a breach by KPLC of this Agreement or a KPLC System Interruption, or by reason of KPLC's failure, when reasonably requested by the Seller (A) to authorise connection to the KPLC System; or (B) to issue Despatch Instructions, (both (A) and (B) pursuant to Clause 6.7); or (C) to provide the requisite load (within the System Characteristics) for the purposes of conducting the Unit Tests or the



Plant Commercial Operations Tests (as the case may be) (the period of such delay being a "KPLC Commissioning Delay"), KPLC shall pay to the Seller from the Required Full Commercial Operation Date until such time as the Seller is able to conduct the Plant Commercial Operations Tests and achieve the Full Commercial Operation Date, an amount equal to the escalable and non-escalable component of the Capacity Payment based on the Contracted Capacity at the Signature Date, with such payment to be made monthly in arrears (pro-rated for any partial month), provided that KPLC's liability to pay any additional amount under this Clause 6.12(a) with respect to a KPLC Commissioning Delay shall cease upon the earlier of: (x) the actual Full Commercial Operation Date; or (y) the expiry of the period determined under Clause 6.12 (b) below.

- (b) Without limiting Clause 6.12(a), if and to the extent that the Seller is delayed in achieving the Full Commercial Operation Date by the Required Full Commercial Operation Date by reason of a breach by LAPSSET of the Lease, a breach by KPLC of this Agreement, a KPLC System Interruption, Force Majeure affecting KPLC, or by reason of KPLC's failure, when reasonably requested by the Seller (A) to authorise connection to the KPLC System; or (B) to issue Despatch Instructions, (both (A) and (B) pursuant to Clause 6.7);or (C) to provide the requisite load (within the System Characteristics) for the purposes of conducting the Unit Tests or the Plant Commercial Operations Tests (as the case may be), the Long Stop Full Commercial Operation Date and the Required Full Commercial Operation Date shall be extended day for day by the amount of such delay or such longer period as agreed by the Parties. Where the Parties fail to agree the matter shall be referred to an Expert pursuant to Clause 18.2.
- (c) If the Capacity determined during the Plant Commercial Operation Tests is demonstrated to be different from the Contracted Capacity at the Signature Date, then the Seller shall, using the Capacity determined during the Plant Commercial Operation Tests, calculate the non-escalable and the escalable



component of the Capacity Payment for the Relevant Period and appropriate adjustments shall be made to the next following invoice pay to KPLC the difference.

- (d) The period during which KPLC makes payment to the Seller pursuant to Clause 6.12(a) shall be the "Relevant Period". For a period equal to the Relevant Period immediately prior to the expiration of the Term, commencement of the Term being the Full Commercial Operation Date, ("End Period") (but not in any other circumstance of termination) notwithstanding any other provisions of this Agreement, KPLC shall be under no obligation to pay to the Seller (i) a sum equal to the Capacity Payment, calculated as the product of the non-escalable component of the Capacity Charge Rate and the Contracted Capacity at the Signature Date or (ii) if Clause 6.12(c) applies, then a sum equal to the Capacity Payment calculated as the product of the non-escalable component of the Capacity Charge Rate and the Contracted Capacity determined during the Unit Commercial Operation Tests or the Plant Commercial Operations Tests.
- (e) If the Seller fails to achieve the Full Commercial Operation Date by the Long Stop Full Commercial Operation Date, then the provisions of Clause 6.15 shall apply.

Provided that if such failure of KPLC to take electricity is occasioned by (i) a delay to the construction and operation of the KETRACO Transmission Interconnector or (ii) a Coal Delivery Infrastructure Failure, KPLC shall not be liable to pay to the Seller any amounts under this Clause 6.12 in which case the Seller shall seek redress under the GOK Letter of Support, however, for the avoidance of doubt, the extensions to the Long Stop Full Commercial Operation Date and the Required Full Commercial Operation Date referred to in Clause 6.12(b) shall apply Provided further that if the Seller receives payment from GOK under the GOK Letter of Support in respect of the failure of KPLC to take electricity occasioned by the events in this proviso then the provisions of Clause 6.12 (d) shall apply *mutatis mutandis*.



- 6.13 Appointment of Independent Engineer: For the purposes of Clauses 6.8, 6.9 and 6.10, the Seller shall not less than three (3) months prior to the commencement of the tests under Clause 6.8, Clause 6.9 and Clause 6.10 appoint an independent suitably qualified professional engineer approved by KPLC who shall, inter alia, witness the Commissioning and testing of the Plant pursuant to this Clause 6 ("Independent Engineer"). The Parties agree that they shall endeavour to appoint the Independent Engineer in consultation with the Financing Parties such that only one Independent Engineer is required for the development and financing of the Plant. If KPLC fails to approve such appointment, the Seller shall have the right to request the International Chamber of Commerce (ICC) International Centre for Expertise to make such appointment and such appointment shall be binding on the Seller and KPLC. All fees and costs payable in respect of the Independent Engineer (including those incurred in making such appointment) shall be borne by the Seller.
- Commercial Operation Date: If the Seller does not pursuant to Clause 6.10 notify KPLC of the Full Commercial Operation Date on or before the Required Full Commercial Operation Date then for each day occurring after the Required Full Commercial Operation Date and until such day as the Full Commercial Operation Date occurs, KPLC shall be entitled to draw from the Construction Security the Daily Liquidated Damages Sum (provided that the aggregate Daily Liquidated Damages Sum to which KPLC shall be entitled pursuant to this Section 6.14 shall in no event exceed the amount of the Construction Security). KPLC's sole and exclusive remedy against the Seller for any direct or indirect loss, cost or expense that KPLC incurs as a result of the events described herein shall be as provided in this Clause 6.14.
- 6.15 Failure to Achieve Full Commercial Operation Date by the Long Stop Full Commercial Operation Date: If the Full Commercial Operation Date has not occurred by the Long Stop Full Commercial Operation Date:
  - (a) the Seller shall repay to KPLC all amounts paid by KPLC to the Seller under



# (b) KPLC may:

- (i) demand payment in full under the Construction Security; and/or
- (ii) serve notice of termination of this Agreement, such notice to take immediate effect and such termination shall be subject to the provisions of Clause 17.

KPLC's sole and exclusive remedy against the Seller for any direct or indirect loss, cost or expense that KPLC incurs as a result of the events described herein shall be as provided in this Clause 6.15.



### Clause 7: Operating and Despatch Procedures

- 7.1 Operation: The Seller shall during the Operating Period operate the Plant in a manner consistent with Prudent Operating Practice and in compliance with Despatch Instructions with a view to making the Contracted Capacity Available to KPLC and the Seller shall operate the Plant in accordance with the Operating Characteristics.
- 7.2 **Notification**: In accordance with the Operating and Despatch Procedures and any procedures agreed or determined under Clause 7.4, the Seller shall keep KPLC informed by regular daily declarations, together with prompt declarations of any changes, of the Available Capacity and any impairment of the Plant's Operating Characteristics, provided that during Planned Maintenance of a Unit that Unit shall be deemed to be declared to be Unavailable unless the Seller makes a contrary declaration. If the Seller fails to give a declaration in respect of Available Capacity, then the Available Capacity shall be deemed to be equal to zero until such time as a declaration of Available Capacity is subsequently made.
- 7.3 Despatch Instructions: KPLC shall issue Despatch Instructions consistent with and within the Functional Specification, the prevailing declaration of Availability and any declared impairment of the Plant's Operating Characteristics, and any Despatch constraints and in accordance with the Operating and Despatch Procedures and any procedures agreed under Clause 7.4 and shall ensure that the KPLC System maintains and complies with and does not deviate from the System Characteristics. In addition, KPLC shall at any given time despatch the Plant at no less than the Minimum Despatch Requirement, provided that KPLC may, in accordance with Prudent Operating Practice, require the Unit or Plant to be shut down due to KPLC System Interruption or an event of Force Majeure.
- 7.4 Further procedures: The Parties shall, not later than the First Commissioning Date, agree (in accordance with and consistent with the Operating and Despatch Procedures, and all other terms of this Agreement, and any applicable Legal Requirements) such further procedures as shall be necessary in accordance with Prudent Operating Practice for the Despatch of the Plant and operational communications between the Parties. If the



Parties are unable to agree on any specific procedures by the First Commissioning Date, these shall be referred to an Expert for determination in accordance with Clause 18.2. While the Expert is adjudicating the matter, the Parties shall abide by existing KPLC procedures existing at the time. If circumstances arise subsequent to the First Commissioning Date, which either Party deems to require changes in procedures, the Parties shall work together in good faith to establish procedures satisfactory to both Parties, giving due consideration to issues of safety and any economic effect on the Parties which might result from such revised procedures. If the Parties are unable to agree on any such procedures relating to matters of safety, these shall be referred to an Expert for determination in accordance with Clause 18.2. While the Expert is adjudicating the matter, the Parties shall abide by existing procedures, or if there are none applicable, applicable KPLC procedures existing at the time.

- 7.5.1 Over-generation: In the event that the Seller over a period of four (4) or more consecutive Settlement Periods delivers to KPLC electricity in excess of the Despatch Instructions, KPLC may by notice require the Seller to comply with Despatch Instructions and if such excess delivery continues, the Seller shall not be entitled to receive the Energy and Fuel Charges in respect of any excess delivery notwithstanding any other provision in this Agreement to the contrary. However, in the event that no notice is given by KPLC, KPLC shall pay to the Seller the Energy and Fuel Charges in respect of any excess delivery.
- 7.5.2 Under-generation: In the event that the Seller over a period of two (2) or more consecutive Settlement Periods delivers to KPLC electricity which is less than the quantity required by the Despatch Instructions other than as a result of a KPLC System Interruption ("under-generation") the Seller's Declared Capacity shall be deemed to be equal to twice the Net Electrical Output for each Settlement Period in which there is an under-generation. For avoidance of doubt this Clause 7.5.2 shall only apply when the quantity required by the Despatch Instruction is less than the Declared Capacity.
- 7.5.3 **Notice**: Any notice given by KPLC under Clauses 7.5.1 shall be given through recorded telephone conversation or in writing and delivered to the Seller or by



facsimile to the Seller at the address, and marked for the attention of the person, specified in Schedule 8 or such other address or person from time to time designated by the Seller and such notice shall be deemed to be received upon confirmation of uninterrupted transmission by a transmission report provided that such notice shall be confirmed by letter sent by hand or post, but without prejudice to the original facsimile notice.





# Clause 8: Maintenance and Repair

- 8.1 The Seller's Obligation: The Seller shall operate, maintain and repair the Plant in accordance with Prudent Operating Practice the Applicable Engineering and Environmental Standards during the Operating Period. Notwithstanding any other provisions of this Agreement, any changes to the Applicable Engineering and Environmental Standards after the Signature Date shall not require the Seller to alter or amend the Plant, unless expressly requested to do so by KPLC and consented to by the Seller, or required pursuant to a Legal Requirement or consented to by KPLC on the request of the Seller.
- 8.2 **Planned Maintenance**: The Seller shall be entitled to withdraw each Unit from operation for Planned Maintenance and inspection in each Operating Year for periods not exceeding those specified in Schedule 4 or as may otherwise be agreed in accordance with Clause 8.3.
- 8.3 **Planned Maintenance Programme**: The programme of Planned Maintenance for each Operating Year shall be established as follows:
  - (a) The Seller shall not later than seventy (70) days before the start of each Operating Year submit to KPLC proposed dates for Planned Maintenance in that Operating Year;
  - (b) KPLC may within twenty (20) days after receiving the Seller's proposed dates notify the Seller of alternative dates which KPLC prefers, in which case the Parties shall consult and the Seller shall use reasonable endeavours to accommodate KPLC's proposal;
  - (c) not less than thirty (30) days before the start of the relevant Operating Year the Seller shall issue a final programme for Planned Maintenance in accordance with the agreement reached by consultation under Clause 8.3(b) provided that where no agreement was reached then KPLC's last notified



- 8.4 Changes to Programme: The Parties shall cooperate and use their reasonable endeavours to accommodate any reasonable request by either Party to reschedule any Planned Maintenance in any Operating Year.
- 8.5 Maintenance Outages: Without prejudice to Clause 8.1 and subject to applicable notification requirements under the Operating and Despatch Procedures, nothing in this Agreement shall oblige the Seller to take a Unit out of operation at the start of the relevant period specified in the programme for Planned Maintenance nor prevent the Seller from returning a Unit to operation before the end of such period.
- 8.6 Other Outages: Nothing in this Agreement shall prevent the Seller from carrying out maintenance or repair of the Plant (and taking a Unit out of operation for this purpose) at times other than during Planned Maintenance where such maintenance or repair cannot, in accordance with Prudent Operating Practice, be deferred to the next scheduled Planned Maintenance or upon the occurrence of any outage.
- 8.7 **KPLC Maintenance**: KPLC shall, in accordance with Prudent Operating Practice, maintain and repair KPLC System, and shall use reasonable endeavours to coordinate the timing of such maintenance and repair with the Seller's Planned Maintenance.
- 8.8 Revision to Contracted Capacity: Not less than once in every period of twelve (12) months the Seller shall conduct a Contracted Capacity Test. Following a Contracted Capacity Test the Contracted Capacity shall be revised in accordance with the results of such test provided that the Contracted Capacity may not be greater than one hundred per cent (100%) of the Contracted Capacity at the Signature Date or the Contracted Capacity determined pursuant to Clause 6.10.
- 8.9 Attendance at Contracted Capacity Test: The Seller shall give KPLC a notice of not less than three (3) business days of its intention to conduct a Contracted Capacity Test and KPLC shall be entitled to attend or send representatives to witness such test.
- 8.10 Additional Contracted Capacity Tests: In addition to the Contracted Capacity Tests





provided for in Clause 8.8 either Party may at any time and from time to time call for a Contracted Capacity Test and the provisions of Clauses 8.8 (other than the first sentence thereof) and 8.9 shall apply thereto, *mutatis mutandis*.

- 8.11 Availability Failure: If, within seventy-two (72) hours of an Availability Failure, KPLC calls for an additional Contracted Capacity Test (which shall be carried out within two (2) days after the notice in which KPLC calls for such test) then for the period beginning from the Settlement Period within which such Availability Failure occurred and ending when the Contracted Capacity has been agreed or determined pursuant to the results of the Contracted Capacity Test, the Contracted Capacity for such a period shall be equal to the Available Capacity of the Plant for the Settlement Period in which such Availability Failure occurred.
- 8.12 Failure to Conduct Test: If the Seller fails to conduct a Contracted Capacity Test called by KPLC pursuant to Clause 8.10 or Clause 8.11 (other than due to (i) Force Majeure affecting either the Seller or KPLC, (ii) a default by KPLC under this Agreement or (iii) a KPLC System Interruption which prevents the Seller from undertaking such Contracted Capacity Test), then the value of the Contracted Capacity (in MW) shall from the time the notice calling for such test was issued until a Contracted Capacity Test is conducted, be deemed to be equal to fifty per cent (50%) of the Net Electrical Output (in MWh) delivered by the Seller in the twentyfour (24) hours preceding KPLC's notice calling for such test divided by the number of hours during such twenty-four (24) hour period in which the Seller actually delivered energy to KPLC. Where the Seller fails to conduct a Contracted Capacity Test due to Force Majeure affecting the Seller, the Seller shall within four (4) Settlement Periods occurring after the Settlement Period during which the event of Force Majeure occurs notify KPLC of a reduction in the Declared Capacity and if the Seller fails to so do then the value of the Contracted Capacity (in MW) shall, from the time the notice calling for such Contracted Capacity Test was issued until a Contracted Capacity Test is conducted, be deemed to be equal to fifty per cent (50%) of the Net Electrical Output (in MWh) delivered by the Seller in the twenty-four (24) hours preceding KPLC's notice calling for such test divided by the number of hours during such twenty-four (24) hour period in which the Seller actually delivered energy to KPLC.



Where the Seller fails to conduct a Contracted Capacity Test due to Force Majeure affecting KPLC, a KPLC System Interruption or a default by KPLC which prevents the Seller from undertaking such Contracted Capacity Test, the Seller shall accordingly notify KPLC and the Contracted Capacity (in MW) shall, from the time the notice calling for such Contracted Capacity Test was issued and until the Force Majeure, the KPLC System Interruption or the default by KPLC is removed, be deemed to be equal to the Contracted Capacity prevailing before such notice calling for a Contracted Capacity Test was issued.

8.13 Disputes: Any Dispute as to the results of a Contracted Capacity Test shall be referred to an Expert for determination in accordance with Clause 18.2. During the period that such Dispute exists, the Contracted Capacity shall be that deemed by KPLC as prevailing prior to the notice calling for such test and Capacity Payments shall be calculated using such Contracted Capacity ("Deemed Payment"). If the Contracted Capacity determined by the Expert is different from that used while the Dispute existed, then the Seller shall, using the Contracted Capacity determined by the Expert, calculate the Capacity Payment for the period during which the Dispute existed ("Correct Payment") and appropriate adjustments shall be made to the next following invoice so to recover from KPLC or pay to KPLC (as the case may be) moneys equal to the difference between the Correct Payment and the Deemed Payment, including interest at the Default Rate on such difference.

# 8.14 Low Availability and Threshold Availability:

- 8.14.1 Availability Restoration: If in any period of four (4) consecutive months after the Full Commercial Operation Date, the Average Availability is less than eighty per cent (80%) of the Contracted Capacity at the Full Commercial Operation Date other than due to a Force Majeure event, then the Seller shall (without prejudice to the rights of KPLC under Clause 8.16 and Clause 15.1) within one (1) month provide and implement a programme to restore Availability to the Target Availability
- 8.14.2 Threshold Availability: If the Seller fails to achieve the Threshold Availability for four (4) months consecutively after the Full Commercial Operation Date





other than due to a Force Majeure event, the Seller shall be deemed not to have acted in accordance with Prudent Operating Practice and KPLC shall have the right to require the Seller to immediately give notice of termination of the Operating and Maintenance Agreement to the operations and maintenance contractor and require the Seller to enter into a new Operating and Maintenance Agreement with an operations and maintenance contractor of equal or more experience than the erstwhile, within six (6) months of the date of the Seller's receipt of KPLC's notice to such effect.

- 8.15 Operating & Maintenance Agreement: The Seller shall make available to KPLC a copy of the Operating and Maintenance Agreement within sixty (60) days from the Signature Date and shall thereafter submit to KPLC each subsequent Operating and Maintenance Agreement.
- 8.16 Low Availability Penalty: Notwithstanding the implementation by the Seller of the remedial programme pursuant to Clause 8.14.1 and 8.14.2, if in any period of six (6) consecutive months following the occurrence of the Full Commercial Operation Date the Average Availability is less than eighty per cent (80%) of the Contracted Capacity at the Full Commercial Operation Date (the "Low Availability") other than due to a Force Majeure event then the Capacity Payments shall be adjusted in accordance with Part D of Schedule 6.



### Clause 9: Sale and Purchase of Electricity and Fuel Procurement

- 9.1 Payments prior to the Full Commercial Operation Date: Prior to the Full Commercial Operation Date, KPLC shall pay to the Seller such sums as may be payable in accordance with Clauses 6.11, 6.12 and 9.7A.
- 9.2 Sale and Purchase: Except as provided for in Clause 9.1, the Seller shall sell and KPLC shall purchase in accordance with this Clause 9 all the Net Electrical Output delivered in accordance with Despatch Instructions.
- 9.3 Energy Charges: KPLC shall pay the Seller Energy Charges ascertained in accordance with Part A of Schedule 6 in respect of all Net Electrical Output delivered in accordance with Despatch Instructions.
- 9.4 **Fuel Charges**: KPLC shall pay the Seller Fuel Charges ascertained in accordance with Part B of Schedule 6 in respect of all Net Electrical Output delivered in accordance with Despatch Instructions.
- 9.5 **Delivery**: Electrical energy sold and purchased under this Agreement shall be delivered by the Seller at the Delivery Point.
- 9.6 **Metered Quantities**: The quantities of Net Electrical Output delivered to KPLC shall be metered and determined in accordance with the provisions of Clause 11.
- 9.7 Capacity Payments: KPLC shall in respect of the month in which the Full Commercial Operation Date occurs and for each month thereafter during the Term pay the Seller for the Contracted Capacity (with adjustments reflecting Availability), in accordance with Part D of Schedule 6 provided that if the Full Commercial Operation Date occurs other than on the first (1st) day of the month then in the month in which the Full Commercial Operation Date occurs, the Capacity Payment for that month shall be pro-rated for the number of days from the Full Commercial Operation Date until the last day of that month.
- 9.7A Interim Capacity Payments: KPLC shall pay the Seller for the capacity of each Unit that is made available by the Seller and despatched by KPLC (with adjustments reflecting the actual Unit running hours) in accordance with Part C of Schedule 6



starting from the month in which the Commercial Operations Tests of the first Unit are completed and for each month thereafter until the start of the Plant Commercial Operations tests ("Interim Capacity Payments").

- 9.8 Further Provisions: The further provisions of Schedule 6 shall take effect for the purposes of determining the amounts from time to time payable by KPLC by way of Energy Charges, Interim Capacity Payments, Capacity Payments and Excess Start Charges.
- 9.9 **Despatch**: KPLC intends to despatch the Plant according to economic merit order provided that it shall have no liability under this Agreement or otherwise due to its failure to do so save that KPLC's obligation to make Capacity Payments under Clause 9.7 shall continue and shall not be affected by this Clause.
- Change in Tax: In Schedule 10, the Seller has identified all the Taxes applicable at 9.10 the Signature Date to the Seller in respect of the Seller's activities hereunder. If there is a Change in Tax, either Party may within six (6) months of the change occurring by notice to the other seek an adjustment to the Energy Charges or Capacity Payments which will have the effect of placing the Seller in the same financial position as it would have been in had the change not occurred. If the Parties shall fail within thirty (30) days following a notice under this Clause 9.10 to agree upon such adjustment either Party may refer the matter to an Expert for determination in accordance with Clause 18.2. Where an adjustment has been agreed or determined by an Expert pursuant to this Clause 9.10 the Parties shall within thirty (30) days of such agreement submit the agreed adjustment to the Energy Regulatory Commission for approval of the adjustment to the Energy Charges or Capacity Payments agreed between the Parties. In the event that either: (a) the Energy Regulatory Commission does not approve the adjustment of the Energy Charges or Capacity Payments within ninety (90) days of the Energy Charges or Capacity Payments being agreed by the Parties or determined by the Expert; or (b) the Energy Regulatory Commission approves the adjustment of the Energy Charges or Capacity Payments and such adjustment results in KPLC having to make a payment to the Seller in relation to additional Energy Charges or Capacity Payments payable as a result of the Change in Tax which payment KPLC is unable to pass through to its customers, KPLC shall notify



the Seller of such inability within thirty (30) days of Energy Regulatory Commission's approval and shall not be liable to the Seller to make such payment and the Seller shall be entitled to demand for and receive payment from the GOK pursuant to the GOK Letter such that such payment would have the effect of placing the Seller in the same financial position as it would have been had the Change in Tax not occurred.

- 9.11 Change in Law: If there is a Change in Law, either Party may notify the other Party of such event. The Parties will meet to determine a course of action in mitigating the impact of such Change in Law including (i) providing all reasonable assistance in discussions with GOK and all other relevant parties, and (ii) both Parties shall make all applications as may be required to mitigate the impact of such Change in Law. The Parties shall use their respective best endeavours to obtain the approval of the Energy Regulatory Commission to the agreed course of action, including any adjustments to the tariffs or one-off payments as may be agreed between them. If within forty five (45) days of notification of the Change in Law, the Parties have not agreed an appropriate course of action or have failed to obtain the approval of the Energy Regulatory Commission to the agreed course of action, the Seller will be entitled to commence discussions with GOK and KPLC will provide reasonable assistance in such discussions with GOK. In the event that the Seller has not been fully reimbursed by GOK under the terms of the GOK Letter for the impact of a Political Event, the Seller may terminate this Agreement pursuant to Clause 15.5 or by written notice to KPLC, determine to continue to perform its obligations under this Agreement and in this case shall confirm that such Change in Law is no longer a Force Majeure event pursuant to Clause 14.1, subject to the Term being extended by such period to allow for the full recovery by the Seller or loss of revenue suffered by the Seller or projected to be lost over the remainder of the original Term. In the event of a dispute between the Parties as to the required period of extension of the Term the matter will be referred to an Expert pursuant to Clause 18.2.
- 9.12 Fuel Stock: The Seller shall at all times maintain, in accordance with Prudent Operating Practice, (at the Site) a stock of Fuel for the day to day operation of the Plant (such that the Seller can perform its obligations under this Agreement) and the Seller shall, in accordance with Prudent Operating Practice, also maintain a stock of



Fuel for the Plant (the "Security Stock") which stock shall not be less than the total amount of Fuel required to operate the Plant at full load capacity for a continuous period of twenty (20) days. If, in order to comply with a Despatch Instruction, the Seller has to use any part of the Security Stock it shall replace any such part of the Security Stock as it shall have used as soon as reasonably practicable and in any event not later than fourteen (14) days after use. The Seller shall provide to KPLC such evidence of quantities of Security Stock delivered and used as KPLC may reasonably request. If the Security Stock stored at the Plant in any period falls below 201,400 metric tons based on Fuel with a lower calorific value of 21,000kJ/kg (or such other quantity of Fuel agreed by the Parties which is required to run the Plant at full load for twenty (20) days based on the prevailing lower calorific value of the Fuel as set out in the Fuel Supply Agreement) other than due to a Force Majeure event affecting the Seller or the Fuel Supplier, then the payments due to Seller under this Agreement shall be adjusted in accordance with the provisions of Part B of Schedule 6.

#### 9.13 Fuel Procurement Process

- 9.13.1 Scope: The Seller shall procure Fuel for the Plant in accordance with this Clause 9.13. The Seller shall at its own cost call for tenders through a competitive bidding process, evaluate tenders, prepare and issue to KPLC the Tender Evaluation Report identifying the proposed fuel supplier and thereafter obtain KPLC's consent which shall not be unreasonably withheld or delayed, prior to entering into any Fuel Supply Agreement.
- 9.13.2 Tender Documents: The Seller shall prepare and provide to KPLC a copy of the proposed tender documents. The Seller shall ensure that the proposed tender documents require tenderers to confirm that any Fuel Supply Agreement that may be entered into between the Seller and the tenderers will contain provisions dealing with or setting forth, as applicable:
  - (a) quantity and quality control procedures including but not limited to the procurement of a quality certificate from an independent assessor



for each delivery of Fuel made to the Plant confirming compliance with the Fuel specifications and the procedure for the replacement of such independent assessor;

- (b) delivery and credit arrangements; and
- (c) pricing structure, including but not limited to proposed base price and escalation indices.

The key provisions of the Initial Fuel Supply Tender Documents approved by KPLC under Clause 3.1 and this Clause 9.13 shall not be varied for any subsequent tenders except with the written agreement of the Parties.

- 9.13.3 **KPLC Review of Tender Documents**: Within twenty one (21) days of receipt of the proposed tender documents, KPLC shall either:
  - (a) notify the Seller in writing that it does not have any comments on the proposed tender documents; or
  - (b) notify the Seller in writing of any comments which it may have on the content of the proposed tender documents and require the Seller to make reasonable modifications to the same.

The Seller shall have the right to issue the tender documents at any time following a notification by KPLC pursuant to Clause 9.13.3(a). In the event that KPLC notifies the Seller pursuant to Clause 9.13.3(b), and if the Seller agrees with KPLC's modifications, the Seller shall incorporate the modifications into the proposed tender documents and shall re-submit the proposed tender documents to KPLC. If KPLC does not raise any further objections within fourteen (14) days of receipt, the Seller shall have the right to issue the tender documents. In the event that the Seller and KPLC fail to agree on the terms of KPLC's recommended modifications to the fuel tender documents, the matter shall be referred to the Expert pursuant to Clause 18.2.

9.13.4 Opening of Tenders: The Seller shall give KPLC seven (7) days written



notice of the date on which the Seller proposes to open the fuel supply tenders received by the Seller. KPLC shall be entitled to attend and witness such tender opening. At the tender opening, the Seller shall prepare and thereafter make available to KPLC a report recording such tendered data and information as the Parties deem appropriate.

- 9.13.5 Tender Evaluation Report: Following the receipt by the Seller of tenders, the Seller shall prepare and provide to KPLC a detailed report ("Tender Evaluation Report") identifying:
  - (a) all bidders from whom tenders have been received;
  - (b) the Seller's selection of the proposed fuel supplier and
  - (c) the justification for the selection of the proposed fuel supplier.
- 9.13.6 **KPLC Review of Tender Evaluation Report**: Within fourteen (14) days of receipt of the Tender Evaluation Report, KPLC shall have the right either:
  - (a) to notify the Seller in writing that it does not object to the selection of a proposed fuel supplier; or
  - (b) to notify the Seller in writing of its objection of a proposed fuel supplier on any of the grounds in Clause 9.13.7. The Parties shall immediately thereafter meet in good faith and try to resolve the selection of such proposed fuel supplier. Any Disputes under this Clause 9.13.6 shall be referred to an Expert for determination pursuant to Clause 18.2,

provided that if KPLC fails to raise any objection within the fourteen (14) day period as required under this Clause 9.13.6 it will be deemed not to have any objection to the Tender Evaluation Report and the Seller shall be entitled to proceed to award the tender.

9.13.7 KPLC's Grounds for Objection: KPLC shall have the right to object to the Seller's selection of a proposed fuel supplier only on the following grounds:



- a) that the cost passed through to KPLC would not be the lowest cost which KPLC could be expected to pay in the light of compliant tenders received by the Seller;
- (b) that a proposed fuel supplier lacks the necessary financial or technical capability to perform its obligations under a proposed Fuel Supply Agreement;
- (c) that the terms in a proposed Fuel Supply Agreement are inconsistent with the terms of this Agreement;
- (d) that the performance of a proposed Fuel Supply Agreement is incompatible with any Legal Requirements;
- (e) that the Seller, in preparing the Tender Evaluation Report, has erred in its assessment of tenders, or acted fraudulently or negligently; and
- (f) any other ground agreeable to the Parties.
- 9.13.8 Fuel Supply Agreement: The Seller shall have the right to enter into a Fuel Supply Agreement with the proposed fuel supplier (the "Fuel Supplier") at any time following a notification by KPLC pursuant to Clause 9.13.6(a) or when KPLC is deemed to have no objection to the Tender Evaluation Report pursuant to Clause 9.13.7. In the event that KPLC notifies the Seller pursuant to Clause 9.13.6 (b), the Seller shall not enter into such Fuel Supply Agreement until the Parties have agreed the selection of the proposed fuel supplier or the selection of the Fuel Supplier has been determined by the Expert pursuant to Clause 18.2. In the event that any event or circumstance (including a default by the Fuel Supplier under the terms of the Fuel Supply Agreement or the failure by the Parties to agree upon the terms of the Fuel Supply Agreement, the tender documents or the selection of the Fuel Supplier) arises which threatens or may threaten the obtaining and continuity of Fuel supplies as required by this Agreement, the Seller may implement all reasonable and prudent measures, taking into account costs to be incurred, to ensure such



obtaining of and continuity in supply of Fuel, including temporary solutions (including purchasing Fuel from an alternate supplier) as the Seller in its discretion considers appropriate. For the avoidance of doubt, KPLC shall not object to the terms of the proposed Fuel Supply Agreement regarding the Fuel specifications which are agreed between the Parties in accordance with Clause 9.13.2 and Clause 9.13.3. The liability for KPLC in paying Fuel Charges for such a temporary solution shall be no more than that payable pursuant to the Fuel Supply Agreement (including the first Fuel Supply Agreement) that was in place immediately prior to the relevant event or circumstance giving rise to the need for a temporary solution.

- 9.13.9 Consultation: Prior to entering into any Fuel Supply Agreement, the Seller shall provide KPLC with a copy of the proposed Fuel Supply Agreement. No later than seven (7) days following receipt by KPLC of such proposed Fuel Supply Agreement, KPLC shall have the right to propose comments on the same. The Seller shall not enter into any Fuel Supply Agreement until after the expiry of such seven (7) day period. If KPLC proposes comments on the terms of the proposed Fuel Supply Agreement, the Seller shall use reasonable endeavours to incorporate such comments in the said Fuel Supply Agreement. If KPLC fails to notify the Seller within the requisite seven (7) day period KPLC shall be deemed to have no comments on the Fuel Supply Agreement and the Seller shall be free to enter into such Fuel Supply Agreement.
- 9.13.10 Copy of Fuel Supply Agreement: On entering into any Fuel Supply Agreement, the Seller shall provide one copy of the Fuel Supply Agreement to KPLC and no modification shall be made to any provision in such Fuel Supply Agreement without KPLC's prior written approval which shall not be unreasonably withheld or delayed.
- 9.13.11 Performance of Obligations: The Parties shall use reasonable endeavours



to ensure that the operation of this Clause 9.13.11 shall not unduly restrain either Party from performing its obligations under the Agreement. Any Dispute arising out of or in connection with Clause 9.13 shall be referred to an Expert in accordance with Clause 18.2, provided that in respect of any disputes referred pursuant to this Clause references to time periods in Clauses 18.2(d), (e) and (f) shall be adjusted as follows:

- (a) references to fourteen (14) days shall be reduced to seven (7) days;
- (b) references to twenty one (21) days shall be reduced to ten (10) days; and
- (c) references to forty two (42) days shall be reduced to twenty one (21) days.

# 9.13.12 Local Fuel Supplies:

- (a) The Parties acknowledge that the MOEP may, during the Term, undertake an analysis of the Fuel produced in Kenya (referred to as the "Ultimate and Proximate Analysis of Kenyan Coal"). Notwithstanding Clauses 9.13.1 to 9.13.11 (inclusive), KPLC may, upon reasonable notice, require the Seller to negotiate:
  - in good faith and in consultation with GOK, any transition issues including performance of local coal supplier, logistics of delivery and specifications of local fuel;
  - (ii) changes to the Power Purchase Agreement with respect to the matters on Fuel procurement process and payment; and
  - (iii) changes to the Fuel supply agreement for the supply of Fuel meeting the Fuel specifications (Local Fuel Supply Agreement) with GOK or Kenyan Fuel suppliers identified by GOK to replace the Fuel supply arrangements in place at such date.

The Seller shall use all commercially reasonable efforts to agree upon the terms and conditions of the Local Fuel Supply Agreement within





twelve (12) months after receipt of the notice from KPLC under this Clause 9.13.12.

(b) Any Dispute arising under Clause 9.13.12(a) shall be referred to an Expert for determination in accordance with Clause 18.2.

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# Clause 10: Invoicing and Payment

- 10.1 Invoices: The Seller shall prepare and issue to KPLC at the end of each month starting from the month in which the First Commissioning Date occurs, an invoice in respect of Interim Capacity Payments (as applicable), Capacity Payments, Energy Charges, Fuel Charges and Excess Start Charges (as applicable) due for such month and any value added tax with respect thereto.
- 10.2 Content of invoice: Each invoice prepared by the Seller shall contain the information specified in Part F of Schedule 6. If such invoice does not contain the information so specified or does not contain (otherwise than in an immaterial way) the supporting documentation specified in Part F of Schedule 6, KPLC shall be entitled, no later than five (5) business days after receipt, to notify the Seller that such invoice is not in the form of invoice attached to Part F of Schedule 6 or is not accompanied by all the supporting documentation specified in Part F of Schedule 6 and shall specify in such notice the nature of the non-conformity and/or what supporting documentation is missing. The Seller shall provide any missing supporting documents or information in response to this notice at least five (5) business days before the payment due date of the invoice. To the extent the Seller does not take such action, non-payment by KPLC of the part of the invoice that is affected by the deficiency in the invoice or the supporting documentation shall be deemed to be the subject of a bona fide dispute for the purposes of Clause 10.5. Any dispute under this Clause 10.2 shall be referred to an Expert for determination in accordance with Clause 18.2.
- 10.3 Payment due date: Energy Charges, Fuel Charges, Capacity Payments, Interim Capacity Payments, Excess Start Charges and any other amounts payable by KPLC hereunder shall be due and payable on the thirtieth (30th) day after the date of delivery of the invoice except where such thirtieth (30<sup>th</sup>) day is not a business day in which event the due date shall be the next following business day.
- 10.4 Late payment interest: Subject to the provisions of Clause 10.5 and 10.10, any amount properly due from KPLC to the Seller under this Agreement and remaining unpaid after the due date for payment shall bear interest at the Default Rate, from



and including the date when the amount in question was due until but excluding the date when it is received by the Seller, accruing from day to day and compounded quarterly.

- 10.5 **Disputed payments**: If any sum or part of any sum shown on an invoice rendered by the Seller is disputed in good faith by KPLC then payment of any undisputed sums or parts shall not be withheld and shall be paid to the Seller when due. KPLC shall be entitled to withhold payment of any disputed sums and interest at the Non-Default Rate shall be payable on any disputed sum subsequently agreed or determined by an Expert to be due in accordance with Clause 18.2, from and including the date when the sum in question was due until, but excluding, the date when it is received by the Seller accruing from day to day and compounded quarterly.
- 10.6 **Set-offs**: All payments under this Agreement shall be made free and clear from, and without set-off, deduction or withholding of any kind (including on account of any form of taxes) except:
  - (a) that KPLC shall be entitled to deduct and withhold any sum, to the extent that KPLC is duly appointed as an agent for the Seller in accordance with any Legal Requirements to pay any monies due and payable by the Seller;
  - (b) that KPLC shall be entitled from time to time, to the extent unpaid, to set-off, deduct and withhold from the payment of any invoice, amounts agreed to be due or determined to be due to it from the Seller in accordance with, Clause 6.14, Clause 8.13, Clause 8.16 and Clause 10.5.
- 10.7 The Seller's account: Payment of any sum payable under this Agreement (including pursuant to Clause 15.5) shall be made to the account of the Seller at such bank account as may be notified by the Seller to KPLC from time to time at the Seller's sole discretion (or at such other account as notified by the Financing Parties to KPLC pursuant to the Direct Agreement), provided that where such bank account is located outside of the Republic of Kenya the Seller shall reimburse KPLC for all banking charges payable by KPLC in effecting such payment which are solely



attributable to such bank account being outside the Republic of Kenya.

- 10.8 Currency for payments: Unless otherwise agreed by the Parties in writing, all Energy Charges, Fuel Charges, Capacity Payments, Interim Capacity Payments, Excess Start Charges and the Plant Transfer Amount (and any other sums stated to be payable in US Dollars) shall be invoiced and payable in US Dollars and the Seller shall not be obligated to accept payment in any other currency.
- 10.9. Security for overdue payments: As security for the payment of certain sums payable by KPLC under the PPA and GOK under the GOK Letter of Support, the PRG Guaranteed LC will be issued to the Seller. If, in accordance with the PRG Guaranteed LC, a demand is made by the Seller for all or part of the amount under the PRG Guaranteed LC, KPLC or GOK (as applicable) shall, as soon as practicable and in all events before the first anniversary of the date of drawing (or such other period agreed under the Reimbursement and Credit Agreement), repay to the Letter of Credit Bank the amounts drawn by the Seller so that the PRG Guaranteed LC shall be restated for the amount repaid by KPLC or GOK (as applicable).

Notwithstanding the foregoing, if any such draw causes the available amount of the PRG Guaranteed LC to be less than the Minimum Amount (as defined in the Reimbursement and Credit Agreement), KPLC or GOK (as applicable) shall immediately repay to the Letter of Credit Bank an amount sufficient to ensure that the available amount of the PRG Guaranteed LC is greater than or equal to the Minimum Amount.

10.10 Claim of overdue Payments: Upon the provision of a written notice of non-payment to KPLC in accordance with the Reimbursement and Credit Agreement, the Seller may draw on the PRG Guaranteed LC for the payment of any Energy Charges, Capacity Payments and Fuel Charges and/or taxes and duties on the foregoing amounts remaining unpaid after the due date for its payment (excluding interest). Notwithstanding the above, the Seller may draw under the PRG Guaranteed LC for the payment of any interest amounts payable on any sum which was disputed but was subsequently agreed or determined by an Expert to be due in accordance with



Clause 10.5.





## Clause 11: Metering

- 11.1 Obligations: The Seller shall, in accordance with Prudent Operating Practice, supply and install, test and commission the Metering System. Upon satisfactory completion of the commissioning and testing of the Metering System, the Seller shall procure the issue of a certificate of the Independent Engineer addressed to KPLC and the Seller, certifying, without any qualification, that the Metering System has been supplied, installed, tested and commissioned in accordance with Schedule 2. KPLC shall be entitled to attend and witness the testing and commissioning of the Main Metering Equipment provided, however, that if KPLC does not attend and witness such test (after having been given forty-eight (48) hours' notice by the Seller thereof) then KPLC shall be deemed to have attended and witnessed such test and KPLC shall not be entitled to raise any objection to such test or its results). Thereafter, the Seller shall transfer to KPLC as beneficial owner (and without any encumbrances) all rights, title and interest in the Back-Up Metering Equipment (together with all warranties and guarantees applicable thereto) and upon such transfer KPLC shall own the Back-Up Metering Equipment and in accordance with Prudent Operating Practice shall maintain and operate the same in accordance with the procedures contained in Part B of Schedule 5. The Seller shall own the Main Metering Equipment and in accordance with Prudent Operating Practice shall maintain and operate the same in accordance with the procedures contained in Part B of Schedule 5.
- 11.2 **Defective Metering Equipment**: Where it is agreed or determined that any part of the Metering System is defective (including operating outside the relevant limits of accuracy in Schedule 2), then such part shall be repaired, adjusted or replaced at the cost of the Party responsible for maintaining the same.
- 11.3 Meter Sealing: The Seller shall ensure that the Metering System shall comply with the specifications set out in Schedule 2 and shall be jointly sealed. Such seals shall be broken only by KPLC personnel. The Seller shall be given at least twenty-four (24) hours advance notice of the breaking of seals on any part of the Metering System provided however that no such notice will be necessary when the breaking of a seal



is necessitated by the occurrence of an Emergency.

- 11.4 Meter Tampering: Subject to Clause 11.3, KPLC and the Seller undertake not to tamper or otherwise interfere with any part of the Metering System in any way and shall ensure that the Metering System is not tampered with by any other person. Where it is established that the Main Metering Equipment has been tampered or interfered with, or is defective:
  - (a) the quantity measured or recorded shall be that measured or recorded by the Back-Up Metering Equipment or, failing that, any secondary metering installed by either Party; and
  - (b) if there is no Back-Up Metering Equipment or secondary metering, or it is also established to have been tampered with, interfered with or is defective, the quantity shall be determined by agreement between the Parties, or failing such agreement, as determined by an Expert in accordance with Clause 18.2.
- 11.5 **Metering Procedures**: The Parties shall adopt and implement the procedures and arrangements set out in Part B of Schedule 5 for reading, testing, adjusting and recalibrating the Metering System.
- Disputes: Any Dispute arising under this Clause 11, Schedule 2 or Part B of Schedule 5 shall be referred to an Expert for determination in accordance with Clause 18.2. During the period that such a Dispute exists, the procedures that existed immediately prior to such Dispute coming into existence shall prevail.



#### Clause 12: Insurance

#### The Seller shall:

- (i) at its sole cost and expense, obtain and maintain, in full force and effect, for the periods specified in Schedule 9, the insurance policies set forth in Schedule 9, in the amounts stipulated (provided that, having regard to the level of cover generally taken out by international independent power producers acting in accordance with Prudent Operating Practice, such insurances are available on commercially reasonable terms), with reputable insurance companies. Provided that the Parties agree that Schedule 9 sets forth minimum requirements and that the foregoing, therefore, shall not preclude the Seller from increasing the amount of coverage obtained under any type of insurance coverage referred to in Schedule 9 above the levels set forth in Schedule 9, adding insured's to such policies in addition to the insured's specifically referred to in Schedule 9 for such policies, effecting additional types of insurance coverage in addition to those specifically referred to in Schedule 9, or otherwise taking any other steps in connection with the insurance that is not in contravention of the requirements of Schedule 9 (and provided further that the costs, expenses, charges and fees of such insurance (whether incurred directly or indirectly) shall not be borne by or be payable by KPLC);
- (ii) Provide to KPLC copies of all policies effected by it and evidence that the premiums payable thereunder have been paid;
- (iii) Provide access to KPLC or its representatives to its offices during office hours to inspect the original policies;
- (iv) Apply the proceeds of claims under such policies, relating to damage to the Plant, in repairing and restoring the Plant whereupon, the Term shall be extended for such period of time required to put the Seller in the same financial position had the Insured Event not occurred; and
- (v) Obtain waivers of rights of subrogation against KPLC in a form and manner satisfactory to KPLC.





# Clause 13: Undertakings and Warranties of the Parties

- 13.1 Undertakings of the Seller: The Seller undertakes:
  - (a) to comply with all applicable Legal Requirements;
  - (b) to apply for and use reasonable endeavours to obtain, prior to the date that such Authorisations are required if the Seller is not to be in breach of any Legal Requirement in performing this Agreement, and to keep in force all such Authorisations required to be in the Seller's name for the operation of the Plant and any other of its obligations under this Agreement;
  - (c) to indemnify KPLC against all reasonable costs incurred by KPLC in the discharge of its obligations under Clause 13.3(b);
  - (d) to secure that the Plant is constructed in accordance with the Functional Specification, and taking account of the results of the soils investigation undertaken by the Seller, in all material respects and that the Plant is operated and maintained in all material respects in accordance with Prudent Operating Practice and the terms of this Agreement;
  - (e) at the times required by the Financing Agreements to issue such number of fully paid shares or other securities constituting shareholders' funds on its balance sheet as shall in aggregate at the First Commissioning Date amount to not less than twenty per cent (20%) of the total investment made by the Seller for the purposes of this Agreement as at such date;
  - (f) on the Signature Date, to provide to KPLC certified true copies of resolutions of its board of directors approving this Agreement, and as soon as practicable after any amendments to any of the foregoing agreements, provide to KPLC certified true copies of resolutions of its board of directors approving such amendments;



- (g) promptly after the signing thereof, to provide to KPLC certified true copies of resolutions of its board of directors approving the Project Agreements and as soon as practicable after any amendments to any of the foregoing agreements, provide to KPLC certified true copies of resolutions of its board of directors approving such amendments; and
- (h) shall use its best endeavours to avoid circumstances arising (which are within its power and control) which will lead to the exercise by the Financing Parties of their rights of step in and substitution under the terms of the Direct Agreement being forfeited.
- 13.2 **Representations and Warranties of the Seller**: The Seller represents and warrants that:
  - (a) the Seller is a limited liability company duly organised and validly existing under the laws of the Republic of Kenya and has all requisite legal power and authority to execute this Agreement and to carry out the terms, conditions and provisions hereof;
  - (b) this Agreement constitutes valid, legal and binding obligations of the Seller, enforceable in accordance with the terms thereof, except as the enforceability may be limited by applicable laws affecting creditors' rights generally;
  - (c) there are no actions, suits or proceedings pending or, to the Seller's knowledge, threatened, against or affecting the Seller before any court or administrative body or arbitral tribunal that might materially adversely affect the ability of the Seller to meet and carry out its obligations under this Agreement;
  - (d) the execution, delivery and performance by the Seller of this Agreement have been duly authorised by all requisite corporate action, and will not



contravene any provision of, or constitute a default under, any other agreement or instrument to which it is a party or by which it or its property may be bound;

- (e) all action required to authorise the execution, delivery and performance by the Seller of this Agreement, the Lease and the transactions contemplated hereby have been taken and are in full force and effect; and
- the audited accounts of the Seller shall be prepared in accordance with Applicable Accounting Standards (as defined below) consistently applied and shall fairly present, in accordance with Applicable Accounting Standards, the financial condition and results of operation of the Seller as at the dates on which they were drawn up and for the relevant period then ended. For the purposes of the foregoing, "Applicable Accounting Standards" means the International Financial Reporting Standards applicable to the accounts to be drawn up by the Seller. Within thirty (30) days of annual accounts of the Seller being audited, the Seller shall provide to KPLC a copy thereof.

## 13.3 Undertakings of KPLC: KPLC undertakes:

- (a) to comply with all applicable Legal Requirements and will keep in force all its Authorisations;
- (b) to use reasonable endeavours to assist the Seller, where possible, in obtaining on a timely basis and maintaining in force (as required under the Construction Programme) and to use reasonable endeavours to assist the Seller in renewing until the first anniversary of the Full Commercial Operation Date (to the extent that KPLC can so do) all Authorisations required in connection with this Agreement and the Project Agreements provided that in respect of any such failure it shall first be necessary for the Seller to demonstrate that it has first diligently attempted to obtain such Authorisation and if the processes required by such duty of diligence have not been exhausted; such processes have been and are still being diligently



pursued by the Seller;

- (c) to the extent there is a Change in Law affecting the Seller, to use reasonable endeavours to assist the Seller in obtaining all Authorisations necessary for the construction, continued operation or maintenance of the Plant;
- (d) on the Signature Date or on the Effective Date, as the case may be, provide to the Seller certified true copies of resolutions of its board of directors approving this Agreement and the Direct Agreement and, as soon as practicable after any amendments thereto, provide to the Seller certified true copies of resolutions of its board of directors approving such amendments; and
- (e) to neither prevent nor obstruct the Seller from performing its obligations under this Agreement or any other Project Document and in particular, the Seller's obligations to operate the Plant and make the Plant Available in accordance with this Agreement and the Seller's obligations to achieve any Long Stop Date.

# 13.4 Representations and Warranties of KPLC: KPLC represents and warrants that:

- (a) KPLC is a limited liability company duly organised and validly existing under the laws of the Republic of Kenya and it has all requisite legal power and authority to execute this Agreement and to carry out the terms, conditions and provisions hereof;
- (b) all action required to authorise the execution, delivery and performance by KPLC of this Agreement and the transactions contemplated hereby have been taken and are in full force and effect;
- (c) this Agreement constitute valid, legal and binding obligations of KPLC, enforceable in accordance with the terms thereof, except as the enforceability may be limited by applicable laws affecting creditors' rights





generally;

- (d) there are no actions, suits or proceedings pending or, to KPLC's knowledge, threatened, against or affecting KPLC before any court or administrative body or arbitral tribunal which might materially adversely affect the ability of KPLC to meet and carry out its obligations under this Agreement;
- (e) the execution, delivery and performance by KPLC of this Agreement has been duly authorised by all requisite corporate action, and will not contravene any provision of, or constitute a default under, any other agreement or instrument to which it is a party or by which it or its property may be bound; and
- the audited accounts of KPLC shall be prepared in accordance with Applicable Accounting Standards (as defined below) consistently applied and fairly present in accordance with Applicable Accounting Standards, the financial condition and results of operation of KPLC as at the dates on which they were drawn up and for the relevant period then ended. For the purposes of the foregoing, "Applicable Accounting Standards" means those accounting principles and policies which are, by virtue of Legal Requirements, applicable to KPLC. Within thirty (30) days of annual accounts of KPLC being published, KPLC shall provide to the Seller a copy thereof.



## Clause 14: Force Majeure

- 14.1 **Events of Force Majeure**: For the purposes of this Agreement, **"Force Majeure"**, subject to Clause 14.2, shall include each of the following events and circumstances:
  - (a) any event or circumstance which affects either Party or any of their contractors or sub-contractors under this Agreement, the Operating and Maintenance Agreement, the Port Services Agreement, a Fuel Supply Agreement and/or Turnkey Construction Agreement and is not within the reasonable control (directly or indirectly) of the Party affected, and such event or circumstance or its effects cannot be prevented, avoided or removed by such Party acting in accordance with Prudent Operating Practice and shall include:
    - (i) An act of God including but not limited to lightning, fire, earthquakes, volcanic activity, floods, storms, cyclones, typhoons, or tornadoes;
    - (ii) Epidemics or plagues;
    - (iii) Explosions or chemical contamination (other than resulting from an act of war); and
    - (iv) Labour disputes including strikes, works to rule or go-slows or lockouts that extend beyond the Plant or are widespread or nationwide.
  - (b) any Political Event;
  - (c) KPLC Funding FM Event;
  - (d) terrorism; and
  - (e) with respect to the Seller only, Coal Delivery Infrastructure Failure.
- 14.2 **Exclusions from Force Majeure**: The following events or circumstances shall not constitute Force Majeure:
  - (a) late delivery to the Seller of machinery, equipment, materials, spare parts or consumables save where such late delivery is due to the action or inaction of any Governmental Authority after the Seller has acted prudently and allowed



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- a reasonable time for all required processes or where the later delivery itself is due to Force Majeure;
- (b) A delay in the performance of any contractor (including any subcontractor) except where the delay itself is due to Force Majeure;
- (c) Normal wear and tear of, or random flaws in, materials and equipment or breakdowns of equipment;
- (d) subject to Clause 14.6(b), unavailability of funds, unless such unavailability of funds is due to a KPLC Funding FM Event; and
- (e) unavailability of Fuel after utilization of Security Stock, for reasons other than a Force Majeure event having a material effect on the ability of the Fuel Supplier to perform under the Fuel Supply Agreement.

# 14.3 Effect of Force Majeure:

- (a) If a Party is prevented from or delayed in performing an obligation hereunder by reason of Force Majeure, the affected Party shall:
  - (i) be relieved from the consequences of its failure to perform that obligation;
  - (ii) Subject to Clause 14.3(b), promptly notify the other Party of the occurrence of the event. Such notice shall contain full particulars of the Force Majeure, of its effects on the Party claiming relief and the remedial measures proposed; and
  - (iii) Use all reasonable endeavours to overcome the consequences of the event.
- (b) In the case of a KPLC Funding FM Event, KPLC shall promptly notify the Seller of its inability to make a payment due to the occurrence of the KPLC Funding FM Event and in any event, no later than the fifth (5th) business day after the



- payment due date of any unpaid invoice pursuant to Clause 10.3, such notification to be made substantially in the form attached as Schedule 11.
- (c) For the avoidance of doubt, other than in the event of a KPLC Funding FM Event, it is hereby specified that a failure by a Party to notify the other Party of the occurrence of a Force Majeure event shall not preclude the affected Party to rely on such Force Majeure event to the extent such failure (i) is not prejudicial to the other Party or (ii) is itself due to the Force Majeure event.
- 14.4 Extension of Long Stop Dates / Term: Where the Seller (or any contractor or subcontractor of the Seller of any tier) is as a result of an event of Force Majeure, a KPLC System Interruption, a breach by KPLC of this Agreement, a breach by LAPSSET of the Lease, a KPLC failure pursuant to Clause 6.12(b) which affects the Seller, is delayed in or prevented from performing any of its obligations:
  - (a) before the Long Stop Dates (or any of them) or before the Required Full Commercial Operation Date, and subject to any provision in this Agreement to the contrary, the Long Stop Dates which have not then occurred or the Required Full Commercial Operation Date shall be revised on a day for day basis or such longer period as agreed by the Parties to new dates which reasonably reflect the period of delay resulting from such Force Majeure, KPLC System Interruption (other than the Long Stop Dates occurring up to the Long Stop Construction Start Dates in the case of a KPLC System Interruption), breach by KPLC of this Agreement or, breach by LAPSSET of the Lease or a KPLC failure pursuant to Clause 6.12(b) which affects the Seller provided that no Long Stop Dates may be delayed by more than one hundred and eighty (180) days in aggregate. Where the Parties fail to agree the matter shall be referred to an Expert pursuant to Clause 18.2.
  - (b) if the Seller (or any contractor or subcontractor of the Seller of any tier) is delayed in or prevented from performing any of its obligations as a result of an event of Force Majeure affecting the Seller other than a Political Event after the Full Commercial Operation Date, the Term shall, at the option of the Seller, be extended (the "Extended Period") by a period equal to the period the Seller is affected by such event (the "Affected Period") or a period



of one hundred and eighty (180) days in the aggregate, whichever shall be shorter, provided that the Capacity Payments which are paid to the Seller during the Affected Period shall be deducted from Capacity Payments (if any) paid or payable to the Seller in the Extended Period from KPLC under this Agreement, GOK pursuant to the GOK Letter of Support, or from the insurers.

## 14.5 Force Majeure Termination:

- (a) Subject to Clause 14.5(b) and Clause 14.5(c), if a Force Majeure event continues beyond a period of one hundred and eighty (180) days, the Parties shall meet in good faith with a view to determining mutually acceptable terms for continuing this Agreement notwithstanding the effects of the event of Force Majeure. If the event of Force Majeure continues beyond a period of two hundred and seventy (270) days:
  - (i) if the Force Majeure event is affecting KPLC and no solution has been agreed, the Seller shall be entitled to exercise its rights under the GOK Letter of Support for a prolonged Political Force Majeure Event; and
  - (ii) if the Force Majeure event is affecting the Seller, the Seller shall be entitled to terminate this Agreement at any time thereafter by giving notice of not less than seven (7) days to KPLC.
- (b) If a Force Majeure event is as a result of a Political Event (other than a Change in Law), the Seller shall be entitled to exercise its rights under the GOK Letter Of Support for payment of the Capacity Payments which the Seller would have received had the Political Event not occurred, and for GOK to remedy the Political Event, reimburse the Seller directly for any costs incurred; or, the Seller may, in accordance with the terms of the GOK Letter of Support, require GOK to purchase the Plant in accordance with the principles set out in the GOK Letter of Support and may, by giving not less than seven (7) days' notice to KPLC, terminate this Agreement accordingly.
- (c) If a Force Majeure event is as a result of a Change in Law, the Seller may implement the terms of Clause 9.11.



# 14.6 Payments during Force Majeure:

- (a) Subject to Clause 14.6(b), upon the occurrence of any Force Majeure event after the Full Commercial Operation Date affecting KPLC, then, during the Force Majeure event, KPLC shall pay to the Seller Energy and Fuel Charges for the Net Electrical Output delivered in accordance with Despatch Instructions during such Force Majeure Event plus Capacity Payments computed in accordance with Paragraph 7 of Part D of Schedule 6 and the Seller shall be entitled to exercise its rights under the GOK Letter of Support for the payment of the Capacity Payments which the Seller would have received had the Force Majeure affecting KPLC not occurred.
- (b) Upon the occurrence of any KPLC Funding FM Event after the Full Commercial Operation Date, the Seller shall be entitled to exercise its rights under the GOK Letter for the payment that, but for the KPLC Funding FM Event, would have had to be paid by KPLC and as calculated and billed pursuant to the terms and conditions of this Agreement.
- (c) Upon the occurrence of a Force Majeure event that is a Political Event after the Full Commercial Operation Date affecting the Seller, then during the persistence of such Force Majeure, KPLC shall pay to the Seller (x) Energy Charges and Fuel Charges for the Net Electrical Output delivered in accordance with the Despatch Instructions during such Force Majeure and (y) Capacity Payments for the part of the Capacity that remains available in both cases ascertained and computed in accordance with the provisions of paragraph 7 of Part D of Schedule 6 and the Seller shall be entitled to exercise its rights under the GOK Letter of Support for the payment of the Capacity Payments which the Seller would have received had the Political Event not occurred.
- (d) Upon the occurrence of any Force Majeure event other than a Political Event after the Full Commercial Operation Date affecting the Seller, then during the persistence of such Force Majeure, KPLC shall pay to the Seller (x) Energy Charges and Fuel Charges for the Net Electrical Output delivered in



accordance with the Despatch Instructions during such Force Majeure and (y) Capacity Payments for the part of the Capacity that remains available in both cases ascertained and computed in accordance with the provisions of paragraph 7 of Part D of Schedule 6.

- (e) Without prejudice to the Seller's rights under (c) above, where a Coal Delivery Infrastructure Failure after the Full Commercial Operation Date results in the depletion of the Security Stock, KPLC shall, until such Coal Delivery Infrastructure Failure is rectified, be deemed, for purposes of this clause to be a KPLC System Interruption and KPLC shall pay to the Seller the Capacity Payments which the Seller would have received had the Coal Delivery Infrastructure Failure not occurred provided that if the period for rectification exceeds a total of thirty (30) days in an Operating Year, then KPLC shall not be liable to pay to the Seller any further amounts under this Clause 14.6 in which case the Seller shall seek redress under the GOK Letter of Support.
- 14.7 Insured Event: If the Seller is prevented from or delayed in performing an obligation hereunder by reason of an Insured Event which has required it to repair, replace or reinstate any part of the Plant, the Seller shall be relieved from the consequences of its failure to perform that obligation and the terms of Clause14.4 shall apply on the basis that such Insured Event is deemed to be an event of Force Majeure.
- 14.8 Survival of Lease: In the event that the term of the PPA is extended in accordance with Clause 9.11 or Clause 14.4(b), the Seller shall make arrangements to have the term of the Lease correspondingly extended for the same period as the PPA.

# 14.9 **GOK Letter of Support**

In the event of a failure by GOK to hold the Seller harmless pursuant to, or to make any payment due under, the GOK Letter of Support, the Seller may, through a notice of not less than seven (7) days to KPLC, terminate this Agreement.





Notwithstanding such termination, the Seller will be able to enforce its rights under the terms of the GOK Letter of Support (including, without limitation, pursuing the payment by GOK to the Seller of the "GOK Transfer Amount" (as defined in the GOK Letter of Support)) and KPLC will use all reasonable endeavours to assist the Seller in discussions with GOK and the Seller.



## Clause 15: Termination and Default

- 15.1 **The Seller's Default**: For the purposes of this Agreement, a Default by the Seller shall, subject to the provisions of Clause 15.4, be:
  - (a) The failure by the Seller to perform its material obligations pursuant to Clause 7.1, Clause 7.2 and Schedule 5;
  - (b) The breach by the Seller of any of its other material obligations under this Agreement;
  - (c) after the Full Commercial Operation Date, the Declared Capacity being less than sixty per cent (60%) of the Contracted Capacity at the Signature Date for a continuous period of three (3) months;
  - (d) The failure by the Seller to maintain the level of Security Stock for more than forty-five (45) consecutive days in accordance with Clause 9.12;
  - (e) Except for an assignment by way of security to the Financing Parties or as permitted under the terms of the Direct Agreement, (i) the assignment or transfer of the Seller's rights or obligations under this Agreement or (ii) the transfer, conveyance, loss or relinquishment to any person of the Seller's right to own and/or operate and/or maintain the Plant or to occupy the Site, in both cases without the prior written consent of KPLC;
  - (f) The occurrence of a Bankruptcy Event affecting the Seller;
  - (g) Any statement, representation or warranty made by the Seller herein proving to have been incorrect, in any material respect, when made or when deemed to have been made;
  - (h) Termination of the Lease due to Seller default under the terms of the Lease;



- (i) Any failure by the Seller to pay to KPLC any sum of money which is due and owing under this Agreement for thirty (30) business days or more from the date when such sum was first due and owing provided that the payment of such sum is not being disputed in good faith by the Seller; and
- (j) Abandonment by the Seller of the construction or operation of the Plant for more than thirty (30) consecutive days without the prior written consent of KPLC;

provided that no such event shall be deemed to be a Default by the Seller if it results from (i) a breach by KPLC of this Agreement, a breach by LAPSSET of the Lease or a breach by KPLC of any of the other Project Agreements, (ii) the occurrence of a Force Majeure event or (iii) a KPLC System Interruption.

- 15.2 **KPLC's Default**: For the purposes of this Agreement, a Default by KPLC shall, subject to the provisions of Clause 15.4, be:
  - (a) the breach by KPLC of any of its material obligations under this Agreement other than:
    - (i) The failure to make any payment under this Agreement when due and payable in which case Clause 15.2(c) below shall apply; and
    - (ii) The failure to maintain the PRG Guaranteed LC or the Minimum Amount (as defined in the Reimbursement and Credit Agreement) in accordance with Clause 10.9(b), in which case Clause 15.2(f) shall apply;
  - (b) The occurrence of a Bankruptcy Event affecting KPLC;
  - (c) Any failure by KPLC to pay any sum of money due and owing for thirty (30) business days or more from the date when such sum was first due and owing



where such sum is not subject to a bona fide Dispute, provided that the Seller has not received full payment for such sum under the PRG Guaranteed LC in accordance with its terms;

- (d) Repudiation of this Agreement by KPLC;
- (e) Any statement, representation or warranty made by KPLC herein and proving to have been incorrect in any material respect, when made or when deemed to have been made;
- (f) Failure by KPLC to maintain the PRG Guaranteed LC or where the available amount under the PRG Guaranteed LC is less than the Minimum Amount in accordance with the Reimbursement and Credit Agreement, provided that such failure under this Clause 15.2(f) shall not constitute a KPLC Default unless (i) KPLC has failed to pay any sum of money due to the Seller under this Agreement on the date when such sum is due and owing (where such sum is not subject to a bona fide Dispute); or (ii) KPLC has failed to repay to the Letter of Credit Bank amounts drawn by the Seller before the first anniversary of the date of drawing (or such other period agreed under the Reimbursement and Credit Agreement);

Provided further that, none of such events shall be deemed to be a Default by KPLC if it (i) results from a breach by the Seller of this Agreement or any of the other Project Agreements (as applicable), or in the case of the events described in Clause 15.2(f), if the PRG Guaranteed LC is terminated in accordance with its terms as a result of a representation made by the Seller being incorrect or misleading or (ii) results from the occurrence of a Force Majeure event

Defaulting Party: For the purposes of this Agreement, the Seller is the defaulting Party in relation to the events of Default specified in Clause 15.1 and KPLC is the defaulting Party in relation to the events of Default specified in Clause 15.2, and (in each case) the other Party is the non-defaulting Party.



- 15.4 **Default Notice**: Upon the occurrence of a Default, the non-defaulting Party may give notice to the defaulting Party of the occurrence of such Default. If:
  - (a) the Default is not capable of remedy; or
  - (b) the Default is capable of remedy and the defaulting Party does not, where such Default is capable of remedy within a thirty (30) day period, remedy the Default; or
  - (c) the Default is capable of remedy but not within a thirty (30) day period, the defaulting Party does not furnish to the non-defaulting Party a detailed programme ("Remedial Programme") for the remedy as promptly as is practicable of the Default and the defaulting Party fails to remedy the Default in accordance with the Remedial Programme;

then the non-defaulting Party may give notice to the defaulting Party that such Default is an "Event of Default". In the event that a Dispute arises as to whether a Default is capable of remedy, the Dispute may be referred to an Expert for determination in accordance with Clause 18.2. Any Remedial Programme pursuant to Clause 15.4(c) shall be agreed between the Parties (such agreement not to be unreasonably withheld or delayed) and in the event of a Dispute (including any Dispute in relation to the Remedial Programme), such Dispute may be referred to an Expert for determination in accordance with Clause 18.2. For the purposes of this Clause 15.4, any Default under Clause 15.1(i) shall be deemed to be a Default which is capable of remedy within thirty (30) days. For the avoidance of doubt, a Default by KPLC specified in Clause 15.2(c) shall not be a Default that is capable of remedy for the purposes of this Clause 15.4.

#### 15.5 Termination:

(a) Subject to the Seller's option to suspend deliveries of electricity to KPLC pursuant to Clause 15.8, upon the occurrence of an Event of Default the non-defaulting Party may upon not less than seven (7) days' notice (a "Plant Transfer Notice") to the defaulting Party terminate this Agreement. In the event that there is a termination of this Agreement due to a KPLC Default in terms of Clause 15.2, KPLC shall, subject to Clause 15.5(d), pay to the Seller by





way of liquidated damages and in one lump sum ("Plant Transfer Amount") within thirty (30) days the sum which after deducting any Tax which the Seller must pay on the lump sum received or which is withheld from such lump sum leaves a net amount equal to the sum of the amounts set out in sub-Paragraphs (i) through (vii) below:

- i. the total amount then outstanding and unpaid to each Financing Party under each Financing Agreement, including (without limitation) the principal amount of the Debt Amount, all accrued interest, break costs, hedging payments (including hedging termination amounts) and financing fees and charges payable to the Financing Parties;
- ii. all amounts then outstanding and payable to the Shareholders under the terms of any shareholder loan(s), including (without limitation) the principal amount of such loans and all accrued interest;
- iii. all amounts paid to the Seller by way of subscription of shares in the capital of the Seller less dividends and other distributions paid to the shareholders of the Seller together with a return on equity component as set out in the final audited financial model for the Project approved by the Financing Parties ("Audited Financial Model") which shall be calculated on the assumption that distributions to shareholders shall be limited in aggregate to an amount equal to the net present value calculated at ten per cent (10%) discount rate of the audited Profits of the Seller for the last complete five (5) year period prior to the date of the Plant Transfer Notice; provided that if the Plant has not been in operation for at least five (5) years from the Full Commercial Operation Date on the date of the Transfer Notice, then such sum shall be limited to an amount not exceeding the audited Profits of the Seller for the third (3<sup>rd</sup>), fourth (4<sup>th</sup>), fifth (5<sup>th</sup>), sixth (6<sup>th</sup>) and seventh (7<sup>th</sup>) years following the scheduled Full Commercial Operation Date of the Plant as reflected in the Audited Financial Model;

where, for purposes of this sub-clause:



'Profit' shall mean the total of income less expenses, excluding the components of other comprehensive income in accordance with IFAS1; and

"Comprehensive income" shall mean items of income and expense (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other IFRSs.

- iv. redundancy payments for employees of the Seller that have been or will be reasonably incurred by the Seller as a direct result of termination of the PPA and any other subcontractor breakage costs;
- value of construction works done up to such termination which have not been paid for but as certified by the Independent Engineer, together with any EPC breakage costs;
- vi. termination and/or breakage costs payable under any Project

  Agreement in connection with the early termination of this

  Agreement; and
- vii. any statutory liabilities which rank ahead of senior debt, to the extent such liabilities are not already covered by sub-clauses (i) to (vi) above.

The Seller shall provide GOK and Energy Regulatory Commission with the Audited Financial Model immediately upon the said model being approved by the Financing Parties.

(b) The Plant Transfer Amount shall be agreed by the GOK and the Seller within sixty (60) days of service of the Plant Transfer Notice by the Seller. Where the Transfer Amount is not agreed as aforesaid, it shall be determined by an Independent Expert appointed in accordance with the GOK Letter of Support on the basis of, without limitation, the then current Audited Financial Model, the relevant corporate documents and shareholder loan agreements, Financing Agreements, employment contracts, the Turnkey Construction Agreement, Operating, Maintenance Agreement and contractor invoices, the





Expert assuming in such a valuation that no Political Event has occurred or is continuing.

- (c) For the avoidance of doubt, upon the termination of this Agreement, KPLC shall pay to the Seller any outstanding Interim Capacity Payments, Energy Charges, Fuel Charges, Excess Start Charges and late payment interest pursuant to clause 10.4, as applicable, accrued prior to such termination.
- Within seven (7) days after the Plant Transfer Amount is agreed or (d) determined, KPLC shall confirm to the Seller (i) the proportion of the Plant Transfer Amount which KPLC shall pay; and (ii) the proportion of the Plant Transfer Amount which GOK shall pay (such confirmation to be given jointly with the GOK in accordance with [Clause 9] of the GOK Letter of Support), which amounts together shall be equal to the full Plant Transfer Amount. Upon receipt of such confirmation, the Seller shall invoice KPLC in respect of its notified proportion of the Plant Transfer Amount which shall be paid by KPLC to the Seller by payment to such account of the Seller as notified to KPLC pursuant to Clause 10.7 within one hundred twenty (120) days of determination or agreement of each such amount. Interest at the Default Rate shall accrue on the unpaid balance of the Plant Transfer Amount determined or agreed under sub-paragraph (a) for each day after one hundred twenty (120) days after determination or agreement of the Plant Transfer Amount under sub-paragraphs (a) above, as the case may be. If KPLC fails to provide to the Seller the confirmation referred to in this Clause 15.5(d) within fifteen (15) days of determination of the Plant Transfer Amount, then KPLC shall be deemed to have notified the Seller that the GOK will pay the entire Plant Transfer Amount to the Seller.
- 15.6 Transfer of the Plant: Upon receipt by the Seller of the Plant Transfer Amount in full and subject to Clause 15.8, this Agreement will terminate and the Seller shall promptly provide KPLC or any other transferee nominated by KPLC with all documents necessary to effect the transfer of legal title, free and clear of any liens



(except those arising by operation of law) and without any warranties to the Plant to effectuate the transfer of ownership of the Plant to KPLC. At the request of KPLC or any other transferee nominated by KPLC, the Seller will additionally give KPLC or such transferee reasonable assistance in ensuring the transfer or re-execution on substantially similar terms of any material contract relating to the Project to which it is party.

If the Parties are unable to agree on an amount payable pursuant to Clause 15.5 the matter shall be determined by an Expert in accordance with Clause 18.2.

## 15.7 Seller Default consequences:

- (a) In the event that there is a termination of this Agreement due to a Seller default in terms of Clause 15.1, the Seller shall pay to KPLC within thirty (30) days the sum in US\$ equivalent to:
- (b) The additional direct costs (if any) to KPLC of procuring capacity for the remainder of the Term equivalent to the Contracted Capacity at the date of such termination; and
- (c) All sums due and owing from KPLC to KPLC's customers for failure to deliver electricity directly resulting from the Seller Default giving rise to such termination, pursuant to KPLC's standard terms and conditions of supply or under such customer's statutory rights;

If the Parties are unable to agree on an amount payable pursuant to this Clause 15.7, the matter shall be determined by an Expert in accordance with Clause 18.2 provided that the maximum sum payable by the Seller to KPLC pursuant to this Clause shall be US\$750,000.

15.8 Suspension of the PPA: Where the Seller is entitled to terminate this Agreement due to a default by KPLC to meet its payment obligations in accordance with the terms of Clause 15.2(c), the Seller may at its discretion opt not to terminate this Agreement but to suspend deliveries of electricity to KPLC and performance of its





other obligations under this Agreement until KPLC has resumed full performance of its obligations under this Agreement. During the period that the PPA remains suspended, no Interim Capacity Payments or Capacity Payments shall arise, accrue and/or be due by KPLC and the Term of this Agreement shall, at the option of the Seller, be extended for a period equal to the period during which the Seller suspended deliveries of electricity to KPLC and the performance of its other obligations pursuant to this Clause.

15.9 **Survival of Rights**: The expiry or termination of this Agreement shall not affect any rights or obligations which may have accrued prior to such expiry or termination and shall not affect obligations of each of the Parties under this Agreement which is expressed to continue after such expiry or termination.

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# Clause 16: Indemnification and Liability

- 16.1 **Liability**: Subject to Clauses 14, 16.2 and 16.3, each Party shall be liable to the other Party for the loss directly and foreseeably resulting from any breach by the first Party of its obligations hereunder.
- Own loss: Notwithstanding Clause 16.1, each Party (the "Indemnifying Party") shall be responsible for, and shall indemnify the other Party (the "Indemnified Party") against claims in respect of, loss of or damage to persons or property incurred by the Indemnified Party and its contractors, employees and agents resulting from the act, omission or negligence of the Indemnifying Party in the performance of or otherwise in connection with this Agreement.
- 16.3 **Consequential losses**: Except as expressly provided herein, in no case shall either Party be liable to the other for any indirect or consequential losses or damages.





# Clause 17: Confidentiality

- 17.1 Confidential Information: Each Party agrees that it shall, and shall ensure that its employees, officers and directors shall, hold in confidence this Agreement and all information, documentation, data and know-how disclosed to it by the other Party and designated in writing as 'confidential' both before and after the Signature Date ("Confidential Information"), and shall not disclose to any third party or use Confidential Information other than in connection with the performance of this Agreement or any part thereof without the other Party's prior written approval, provided that:
  - (a) This Clause shall not apply to Confidential Information which is in the public domain other than by reason of a breach of this Clause 17.1, or was already in the rightful possession of the recipient Party, or was obtained by the recipient Party in good faith from a third party entitled to disclose it;
  - (b) A Party may disclose Confidential Information in accordance with any Legal Requirement to do so, or to consultants and contractors (subject to obtaining undertakings of confidentiality except where professional duties already impose an obligation of confidentiality) whose duties reasonably require such disclosure save that KPLC shall be entitled to disclose, such Confidential Information as it reasonably considers necessary, to its customers in connection with inquiries raised by customers in relation to KPLC tariffs or in circumstances where KPLC is obliged to disclose Confidential Information in connection with the determination of tariff values or establishment of KPLC tariffs applicable to its customers; and
  - (c) A Party may disclose Confidential Information, subject to obtaining an undertaking to keep the same confidential, to:
    - (i) Any prospective assignee of the Party and its advisers;



- (ii) To any bank or financial institution or investor from whom the Party is seeking finance, provided that shall not be required to give such undertaking but shall nevertheless be expected to keep such information confidential; and
- (iii) To any Expert or Arbitrator under this Agreement.
- 17.2 Survival: The provisions of this Clause 17 shall survive the termination or expiry of this Agreement.



# Clause 18: Dispute resolution

#### 18.1 Arbitration:

Subject to Clause 18.2, all disputes arising out of or in connection with this Agreement including but not limited to its, its validity and any purported breach or termination (a "Dispute") shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce which Rules are deemed to be incorporated by reference into this Clause 18.1. It is hereby agreed that:

- (a) The seat of the arbitration shall be London, England;
- (b) There shall be three (3) arbitrators;
- (c) The language of the arbitration shall be English;
- (d) The award rendered shall apportion the costs of the arbitration;
- (e) The award shall be in writing and shall set forth in reasonable detail the facts of the Dispute and the reasons for the tribunal's decision;
- (f) the award in such arbitration shall be final and binding upon the Parties and judgment thereon may be entered in any Court having jurisdiction for its enforcement; and the Parties renounce any right of appeal from the decision of the tribunal insofar as such renunciation can validly be made; and
- if any Dispute arising out of or in connection with this Agreement raises issues which are substantially the same as or in connection with the other Project Agreements or the Fuel Supply Agreement (a "Related Project Dispute") then, notwithstanding that arbitrators may have been agreed to appointed under this Agreement, either Party may, by written notice to the other Party and the arbitrators who have already been agreed or appointed hereunder, require the Dispute to be referred to and finally settled by the arbitral tribunal appointed under the other Project Agreements or the Fuel Supply Agreement provided that the arbitration in respect of the Related Project Dispute is an arbitration under the Rules of Arbitration of the International Chamber of Commerce (or any other rules reasonably satisfactory to KPLC) and Clauses 18.1(a) through 18.1(g) (both inclusive) apply and the arbitral tribunal appointed under the other Project Agreements or the Fuel Supply Agreement, has the necessary expertise and is otherwise



qualified to arbitrate the Dispute arising out of or in connection with this Agreement.

Each Party will appoint an arbitrator within thirty (30) days of the date of the request to initiate arbitration who will then jointly appoint a third arbitrator within thirty (30) Days of the date of the appointment of the second arbitrator, which third arbitrator shall not be a citizen of the Republic of Kenya, or the country of the Seller and no arbitrator shall have any existing or prior relationship with either Party, to act as Chairman of the tribunal. Arbitrators not appointed within the time limits set forth in the preceding sentence shall be appointed by the ICC Court of Arbitration (as defined in the ICC Rules).

If there is a conflict between this Agreement and the said Rules, this Agreement shall prevail.

- 18.2 **Expert**: Where the Agreement provides that any Dispute or other matter shall be referred to an Expert or the Parties otherwise so agree the following provisions shall apply:
  - (a) The Dispute shall be administered in accordance with the rules of procedure of the International Chamber of Commerce (provided that in the event of any inconsistency or contradiction between such rules and the terms of this Agreement, the latter shall prevail);
  - (b) Each Party shall act in a transparent manner and provide to the Expert all information in its possession requested by the Expert for the purposes of making its determination;
  - (c) The Expert shall be an independent person with relevant experience and willing to act, agreed between the Parties, or if not agreed within fourteen (14) days of a request in writing by either Party, appointed by the International Chamber of Commerce;
  - (d) Other than in the case of invoices disputed by KPLC in accordance with Clause 10.5, for a period of forty-two (42) days after the appointment of the Expert



or such other period as the Parties may agree, each Party may make such written submissions as it wishes to the Expert and shall simultaneously provide a copy to the other Party, and at the end of such forty-two (42) day period each Party shall have a period of twenty-one (21) days to make counter-submissions to the Expert (with a copy to the other Party) in reply to the other Party's written submissions made during the aforementioned forty-two (42) day period provided that neither Party shall during such twenty-one (21) day period make any written counter-submission which purports to reply to, raise or refer to, any new matters not raised or referred to in any submission made during the aforementioned forty-two (42) day period;

- (e) At the end of the twenty-one (21) day period referred to in paragraph (b) above, and no later than twenty-one (21) days thereafter, either Party may, with the consent of the Expert and at a time and place decided by the Expert, make an oral presentation to the Expert in the presence of the other Party commenting on or explaining matters previously submitted to the Expert in writing;
- (f) The Expert shall render his determination in writing within fourteen (14) days of the completion of the oral presentation given in accordance with Clause 18.2(c) and give reasonable details of the reasons for his determination;
- (g) The decision of the Expert shall be final and binding on the Parties save in the event of fraud or manifest error;
- (h) The Expert shall act as an expert and not as an arbitrator;
- (i) The costs of the Expert shall be borne as determined by the Expert or, in default of such determination, equally by the Parties;
- (j) in the case of invoices Disputed by KPLC in accordance with Clause 10.5, the periods in Clauses 18.2(d) and (e) shall be reduced respectively to ten (10)



business days instead of forty two (42) days and five (5) business days instead of twenty-one (21) days. In the case of Disputes referred to an Expert in accordance with Clauses 7.4, or 20.1(e), the periods in Clauses 18.2(d) and (e) shall be reduced to such extent as shall enable the Expert to render its determination in accordance with the provisions of Clauses 7.4, or 20.1(e); and

- (k) any Party that wishes to challenge a decision of the Expert must initiate arbitration in accordance with Clause 18.1 of this Agreement within thirty (30) days of its receipt of the decision and set forth one or more of the limited grounds set forth in Clause 18.2(g) as the basis of its challenge in its request for Arbitration, failing which the decision shall be final and binding.
- 18.3 **Exclusivity**: Neither Party shall have any right to commence or maintain any legal proceeding concerning a Dispute until the Dispute has been resolved in accordance with Clause 18.1 or 18.2, and then only to enforce or execute the award under such procedure.
- 18.4 **Confidentiality**: The Parties shall each secure that all Experts and arbitrators shall agree to be bound by the provisions of Clause 17 of this Agreement as a condition of appointment.
- 18.5 Continuance of Obligations: The Parties shall continue to perform their respective obligations under this Agreement during any Expert or arbitration proceeding, provided that the right to terminate pursuant to Clause 15 on grounds different to those referred to the Expert or arbitrator shall not be restricted by this Clause 18.5.





# Clause 19: Maintenance of Operating Records

- (a) Each Party shall keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this Agreement. Among other records and data required hereby or elsewhere in this Agreement, the Seller shall maintain an accurate and up-to-date operating log, in a format reasonably acceptable to KPLC, at the Plant with records of:
  - (i) Real and reactive power production for each clock hour and 400 kV bus voltage at all times;
  - (ii) Changes in operating status, scheduled outages, forced outages and partial forced outages, noting times and causes;
  - (iii) Any unusual conditions found during inspections; and all such records and data shall be maintained for a minimum of sixty (60) months after the creation of such records or data provided that each Party shall not dispose of or destroy any such records or data after such sixty (60) month period unless the Party desiring to dispose of or destroy such records or data gives thirty (30) days prior notice to the other Party, generally describing the records or data to be destroyed or disposed of, and the Party receiving such notice does not object thereto in writing within ten (10) days. If a written objection is received within such ten (10) day period, the objecting Party shall have a period of sixty (60) days after the date of such written objection within which to inspect and copy the records or data proposed to be disposed of or destroyed, which records and data shall be made available within such sixty (60) day period by KPLC or the Seller as the case may be, at such Party's registered office. After the expiration of such sixty (60) day period, the Party desiring to dispose of or destroy such records or data shall be permitted to do so.



(a) Either Party shall have the right, upon ten (10) days prior notice to the other Party, to examine the records and data of the other Party relating to this Agreement or the operation and Despatch of the Plant at any time during normal office hours during the period such records and data are required hereunder to be maintained.



## Clause 20: Project Agreements

#### 20.1 Project Agreements:

- (a) Prior to the Signature Date, the Seller has provided to KPLC a copy of the Memorandum and Articles of Association of the Seller, which copy has been initialled by the Seller for the purposes of identification.
- (b) As soon as possible after the Signature Date, the Seller shall, prior to the award of the Turnkey Construction Agreement and the Operating and Maintenance Agreement, provide KPLC with material technical contract terms affecting KPLC of each such contract. The Seller may proceed to sign any such contract unless there has been an objection by KPLC in accordance with Clause 20.1(e).
- (c) Forthwith upon execution of any of the documents referred to in Clause 20.1(b), the Seller shall provide to KPLC a copy thereof certified to be a true copy by the Seller.

## (d) The Seller shall not:

- (i) Terminate or permit the termination of any other Project Agreement to which it is a party;
- (ii) Make or agree to any material amendment of any other Project Agreement to which it is a party;
- (iii) In any material respect depart from, or waive or fail to enforce any rights it may have under, any other Project Agreement to which it is a party; or
- (i) Enter into any agreement which would materially affect the interpretation or application of any other Project Agreement,

unless the course of action proposed under such agreement has been notified in advance to KPLC and there has been no objection in writing by KPLC in accordance with Clause 20.1(e).



- (a) If within fourteen (14) days of receipt of a copy of a draft contract under Clause 20.1(b) or a notification under Clause 20.1(d), KPLC gives notice that it objects on the basis of one of the grounds set out in Clause 20.1(g) and such objection is accompanied by comments of KPLC explaining the reasons for such objection, the Parties shall thereafter meet (and in any event no later than seven (7) days from the date of such notice) and negotiate in good faith so as to address and remove the concerns of KPLC. If the concerns of KPLC are not so addressed and removed by the Seller either Party shall be entitled to refer the matter to an Expert in accordance with Clause 18.2, which Expert shall determine whether the other Project Agreements will or may reasonably be expected to give rise to the results set out in Clause 20.1(g). If the Expert so determines, the Seller shall use all reasonable endeavours to amend such other Project Agreements so as to remove the concerns of KPLC provided that if the Seller is unable to amend the other Project Agreements, then either Party shall be entitled to terminate this Agreement by giving not less than seven (7) days' notice. Following such termination, the provisions of Clause 17 shall apply.
- (f) In the absence of any objection by KPLC in accordance with Clause 20.1(e), KPLC shall be deemed to have approved the relevant contract or notification.
- (g) The sole grounds for objection are that the proposed other Project Agreements, or any change to the other Project Agreements, will or may reasonably be expected to give rise to the result that:
  - (i) The terms of such other Project Agreement shall be incompatible with or conflict with the provisions of this Agreement or materially impair its performance or implementation; or
  - (ii) Any costs which are passed through to or borne by KPLC under the terms of this Agreement are or may reasonably be expected to be



#### increased.

- (h) The objection, non-objection or deemed approval by KPLC of any amendment or variation of a provision or of the termination of any other Project Agreement or the creation of a new Project Agreement shall be without any liability whatsoever on the part of KPLC and shall not lessen, diminish or affect in any way the obligations of the Seller under this Agreement.
- (i) If at any time any other Project Agreement is terminated, or an amendment or variation is made to any other Project Agreement, or the Seller is granted a waiver or release of any of the obligations under any other Project Agreement, or any agreement is entered into which would affect the interpretation or application of any of the other Project Agreements then the Seller shall deliver to KPLC a conformed copy of each such document or (so far as it is not in writing) a true and complete record thereof within twenty one (21) days of the date of its execution or creation, certified as a true copy by an officer of the Seller.
- (j) This Clause 20 shall not apply to the Local Fuel Supply Agreement and any Fuel Supply Agreement.



#### Clause 21: Miscellaneous

# 21.1 Assignment:

- 21.1.1 Without prejudice to any of KPLC's rights under Clause 21.1 and Clause 21.2, any assignment by a Party of all (but not part only) of its rights and obligations under this Agreement is permitted but only with the prior written consent of the other Party, provided that:
  - (a) such consent shall not be unreasonably withheld or delayed if the Party wishing to assign can satisfy the other Party of such proposed assignee's financial, technical and legal status and ability to observe and perform this Agreement;
  - (b) the Party wishing to assign shall have given notice to that effect to the other Party and such notice shall have given sufficient information to show the status and ability of the proposed assignee to carry out the terms of this Agreement; and
  - (c) the Party wishing to assign shall obtain Energy Regulatory Commission approval.
- 21.1.2 No assignment pursuant to Clause 21.1.1 shall be effective unless and until the assigning Party has:
  - (a) procured the proposed assignee to covenant directly with other Party (in a form reasonably satisfactory to such Party) to observe and perform all the terms and conditions of this Agreement and if reasonably required by the other Party arrange for a guarantee or other equivalent security in favour of such other Party in respect of all obligations or liabilities to be assigned;
  - (b) provided to the other Party a certified copy of the assignment



(excluding the consideration paid or payable for such assignment); and

- (c) obtained the approval of the Energy Regulatory Commission.
- Notwithstanding the provisions of Clause 21.1.1, the Seller may assign its rights under this Agreement to Financing Parties or any agent or designee of Financing Parties for the purpose of providing security under the Financing Agreements.
- 21.3 **Sub-Contractors**: The Seller shall be entitled to engage third parties as contractors for the performance of its obligations hereunder provided that no such engagement shall relieve the Seller of its obligations under this Agreement.
- 21.4 **Variation**: This Agreement may not be varied nor any of its provisions waived except by an agreement in writing signed by the Parties.
- 21.5 Waivers of Rights: No delay or forbearance by either Party in exercising any right, power, privilege or remedy under this Agreement shall operate to impair or be construed as a waiver of such right, power, privilege or remedy.
- 21.6 **Notices**: Except for communications in accordance with the Operating and Despatch Procedures, any notice or other communication to be given by one Party to the other under or in connection with this Agreement shall be given in writing and may be delivered or sent by prepaid mail or facsimile to the recipient at the address, and marked for the attention of the person, specified in Schedule 8 or such other address or person from time to time designated by notice to the other in accordance with this Clause; and any such notice or communication shall be deemed to be received upon delivery, or five (5) days after posting, or when sent by facsimile upon confirmation of uninterrupted transmission by a transmission report provided that any notice given by facsimile shall be confirmed by letter sent by hand or post, but without prejudice to the original facsimile notice if received in accordance with this Clause 21.5.
- 21.7 Effect of Illegality, etc: If for any reason whatever any provision of this Agreement is or becomes or is declared by any court of competent jurisdiction to be invalid,



illegal or unenforceable, then in any such case the Parties will negotiate in good faith with a view to agreeing one or more provisions to be substituted therefor which are not invalid, illegal or unenforceable and produce as nearly as is practicable in all the circumstances the appropriate balance of the commercial interests of the Parties.

- 21.8 Entire Agreement: This Agreement contains and expressly refers to the entire agreement between the Parties with respect to its subject matter and expressly excludes any warranty, condition or other undertaking implied at law or by custom and supersedes all previous agreements and understandings between the Parties with respect to its subject matter and each of the Parties acknowledges and confirms that it does not enter into this Agreement in reliance on any representation, warranty or other undertaking by the other Party not fully reflected in the terms of this Agreement.
- 21.9 **Counterparts**: This Agreement may be executed in two counterparts and by each Party on a separate counterpart, each of which when executed and delivered shall constitute an original, but both counterparts shall together constitute but one and the same instrument.
- 21.10 Immunity: To the extent that KPLC may in the Republic of Kenya or any other relevant jurisdiction claim for itself or its assets or revenues immunity from suit, execution, attachment whether in aid of execution, before judgment or otherwise) or other legal process and to the extent that in any such jurisdiction there may be attributed to itself or its assets or revenues such immunity (whether or not claimed) KPLC agrees not to claim and irrevocably waives such immunity to the full extent permitted by the laws of such jurisdiction.





# Clause 22: Governing Law

This Agreement shall be governed by and construed in all respects in accordance with the laws of the Republic of Kenya.



AS WITNESS the hands of the duly authorised representatives of the Parties the day and year first above written.

| Signed and Sealed for and on behalf       | )           |
|---|-------------|
| of Amu Power Company Limited              | )           |
| Rmints-                                   | )<br>)<br>) |
| Director                                  | )           |
|   | )           |
|   | )           |
|   | )           |
| I hub.                                    | )           |
| Director/Company Secretary                | )           |
|   | )           |
|   | )           |
| Signed and sealed for and on behalf       | )           |
| of The Kenya Power & Lighting Company Ltd | )           |
|   | )           |
|   | )           |
|   | )           |
| Kanna                                     | )           |
| Managing Director                         | )           |
|   | )           |
| L .                                       | )           |
| 10-4                                      | )           |
| Company Secretary                         | )           |



#### SCHEDULE 1: FACILITIES TO BE INSTALLED BY THE SELLER

# Part A: Functional Specification of the Plant

#### 1. INTRODUCTION

The Functional Specification agreed between the Parties generally describes the Plant to be installed by the Seller.

## 1.1 Role of the Functional Specification

The technical requirements of the Plant are presented in this specification which defines the general functional requirements of KPLC including specifications for some of the types of equipment, systems, process and/or design philosophies to be adopted. It is not the intention of this Functional Specification to provide a detailed plant specification but to provide the outline performance requirements with the Seller being responsible for the provision of a complete working plant which meets these requirements, those of the agreed PPA and which is fully compliant with all Legal Requirements.

It is fundamental that where there is any conflict between any specified general or functional requirements and any particular specification as to how any requirement is achieved then the general or functional requirements shall prevail. It shall be the responsibility of the Seller to identify any such conflicts and report them to KPLC. The Seller shall carry out all necessary work, whether of design, construction or otherwise, arising as a result of such conflict.

In this Functional Specification any reference to "Plant" shall be understood to mean the Lamu Coal Power Plant unless it is expressly stated to the contrary.

No defect, error or omission in this document in relation to any design, data, specification or method shall relieve the Seller from its obligations under the agreed PPA.

#### 1.2 Project Description

The Seller shall design, finance, construct, commission, test, own, maintain and operate for the agreed term (Build-Own-Operate) a coal powered thermal Plant, at





Lamu in the Republic of Kenya. The Plant shall have an output of approximately 981.5 MW on the Full Commercial Operation Date.

The Plant will be despatched in a manner consistent with a least cost merit order basis (although KPLC shall not be obliged to do so). The plant should therefore be capable of running steadily over a wide range of output. Each unit should be able to operate at between 40% and 100% of rated output.

The Site for the Plant is in Manda Bay, Lamu County. The site map of the project and layout are shown in Figure Z-01 and Figure Z-02 respectively.

## 1.3 Scope of Work

This specification (the "Functional Specification") describes the general and functional requirements for the design, construction, commissioning, testing and putting to work of the Plant and its ancillary equipment and systems to be provided under the Agreement.

The permanent works at the Plant shall include those items listed below together with all other plant, equipment, building, civil and other works as necessary to provide a complete station in all respects whether listed below or not:

- Three steam turbine driven generator sets with a total installed capacity of around 1050 MW with all auxiliaries and silencing equipment
- a dedicated black-start diesel generator
- station cranes and lifting equipment
- three boilers with auxiliaries
- indoor switchgear at generator voltage
- 6.6 kV switchgear
- 400 kV cabling
- neutral earthing switchgear
- control, metering and protection equipment





- 6.6 kV/400kV step-up transformers
- 400 kV/ 6.6 kV station transformers
- 415 V switchgear and motor control centres
- 110V dc and 220V dc system including batteries, chargers and distribution equipment
- cabling and earthing
- lighting
- telephone system
- Coal Conveyor Belt System
- coal yard
- once-through cooling water system
- fire detection and protection system
- data acquisition/supervisory control equipment
- SCADA system
- Flue Gas Desulphurisation
- Sea water desalination and demineralisation water system
- Electrostatic precipitators
- Ash handling system
- Ash yard
- Heating Ventilation and Air Conditioning (HVAC)
- Water Treatment System
- Waste Water Treatment System
- Environmental Protection and Monitoring Facilities
- Instrumentation and Control (I&C) System



- incineration equipment (if required)
- all civil, building and building services works for all plant and equipment installations and for all operations, maintenance, site security and administrative requirements of the plant.

#### 1.4 General Information

All equipment installed on the Site shall be new plant of proven design, with a high level of reliability.

The design philosophy for the Plant shall be that no single item failure, other than that of a unit itself, shall result in the reduction in electrical output of a unit.

No plant shall be dependent upon the effects of air conditioning or ventilation equipment for its satisfactory operation. Failure of such equipment shall not adversely affect the operation of any plant. Site ratings of Plant shall not be dependent upon the effects of air conditioning or ventilation equipment.

Terminal points for the Plant are given in the terminal points schedule in Attachment A.

It shall be the responsibility of the Seller to liaise with KPLC to ensure that there is no disruption to KPLC's facilities during the construction of the Plant except as may be required to perform interconnection and testing and to ensure the safety of personnel and to avoid damage to the Seller's plant and equipment.

# 1.5 Site Ambient Conditions/Climate

The following data is provided for information only. For avoidance of of doubt, when determining the Contracted Capacity of the Plant, there shall be no adjustments made to take into acount any ambient or reference condition.

The climate at the Site is tropical with typical conditions as follows:-

| Highest Maximum Temperature (°C)         | [40 ]  |
|--|--------|
| Average Maximum Ambient Temperature (°C) | [30.4] |
| Average Minimum Ambient Temperature (°C) | [22.4] |
| Lowest Minimum Average Temperature (°C)  | [10]   |





| Basic Wind Speed as per ASCE 7 ( Average ) (metres per second) | [35 ]     |
|--|-----------|
| Average Annual Rainfall (mm)                                   | [ 1050 ]  |
| Heaviest Rainfall in 24 hours (mm)                             | [ 656 ]   |
| Average Relative Humidity Range (%)                            | [60-80]   |
| Approx. Site Altitude (m above sea level)                      | [6.1]     |
| Barometric Pressure  | 1.031 bar |
| Reference Sea Water Temperature                                | 27 °C     |

The Site is not seismically active.

# 1.6 Generally Applicable Codes and Standards

# (a) Legal Requirements

The Plant shall comply with all Legal Requirements including but not limited to:

- Health and safety in employment;
- Codes of practice for the design and safety, operation, maintenance and servicing of pressure vessels;
- Noise;
- Electricity regulations/codes of practice;
- Public works;
- Fire protection;
- Environmental protection

# (b) Internationally Applicable Codes and Standards

Where appropriate legislation is not available, the latest version of national or international standards will define the minimum requirements. The mixing of various national and international standards shall only be permitted with the prior approval of KPLC. This Functional Specification is based on the use of one set of standards for each discipline:



- Civil Works Kenyan Standards with supplementary requirements for seismic design as given in New Zealand Standard NZSI 4302:1992/BS/GB;
- Mechanical Works ASME/ANSI, API, ASHRAE, ISO, EN or DIN/GB;
- Electrical Control and Instrumentation IEC, IEEE/JEC/JEM;
- Quality Systems ISO 9001:2008;

Deviations from the referenced standards or substitution by equivalent ones shall be subject to the approval of the relevant Governmental Authority or its appointed representative.

The scope of the majority of the referenced standards is limited to the supply of equipment.

# 1.7 Environmental Aspects

All equipment shall be designed and constructed to minimise the environmental impact. The Seller shall give consideration to visual impact, wildlife and temporary disturbance during construction, maintenance and operation.

Other than as provided below, the project shall comply with the most stringent of (i) all Legal Requirements, and (ii) World Bank Environmental, Health and Safety Guidelines dated 2008 for Thermal Power Plants in force on the Signature Date ("World Bank Guidelines") (iii) AfDB Guidelines as further detailed in the Environmental and Social Impact Assessment to be prepared by the Seller.

## (a) Exhaust Emissions

Exhaust emissions shall be within the set NEMA Standards, the World Bank Guidelines or AfDB Guidelines, whichever is more stringent.

#### (b) Liquid and Solid Wastes

All oily water shall be treated in a separator such that all water discharged to the drainage system shall meet all Legal Requirements, AfDB Guidelines or World Bank Guidelines as defined above.

Handling of all sludge and oily waste shall be done by a licensed contractor.

## (c) Land Disturbance

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Earthworks shall be kept to a minimum and so managed as to avoid soil erosion and to achieve permanent restoration.

#### (d) Visual aspects

As far as practicable, visual changes to the landscape shall be minimised. Consistent with safety and other engineering needs, the Seller shall select locations, shapes and colours, which merge with the surroundings. The Seller shall liaise with KPLC with regard to landscaping.

#### (e) Noise

When the Plant is operating at full capacity the noise level at the site boundaries of the Plant and in the immediate vicinity of the Plant shall comply with the World Bank Environmental Guidelines (as defined above)as further detailed in the Environmental and Social Impact Assessment to be prepared by the Seller.

## 1.8 **Project Programming**

The Seller shall submit a detailed schedule showing key activities and the timetable necessary to achieve completion of the programme of work within two (2) months of the Effective Date. The programme of work shall include the design, manufacture, construction, commissioning and any Planned Maintenance for the complete development. The Seller will submit regular reports to KPLC or its appointed representative to give the best estimated time to completion and demonstrate that all reasonable measures are being taken to maintain that schedule.

Adequate notice shall be given by the Seller to KPLC or the relevant Governmental Authority of any planned activities which may require a special permit (e.g. the use of explosives, hazardous substances etc.).

## 1.9 Quality Assurance Requirements:

#### (a) Quality System

The Seller shall have a certified Quality System that meets the requirements of the ISO 9001:2008 series of standard or equivalent.



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Prior to Commissioning a plan containing the applicable procedures, design, verification, plans and inspection test plans shall be developed. KPLC reserves the right to examine any procedures referred to in the plan and to audit the Seller against the requirements of the plan at any time.

The Seller shall provide details of a programme to ensure that the Plant operates to the standards required by this Functional Specification before the Full Commercial Operation Date, which programme shall include details of measures to be taken to monitor adherence to such standards.

Three (3) copies of all appropriate quality records as required by applicable codes and standards shall be submitted to KPLC for review prior to or concurrent with the shipment of all materials and equipment required for the Project.

# (b) Inspection and Testing

The Plant shall undergo inspection and testing during manufacture, erection and on completion for verification that the components satisfy all the requirements as specified. All Plant inspection and testing shall be conducted in accordance with the applicable codes and standards. The Seller shall consider the provisions specified as minimum requirements and also use its own experience in determining requirements for additional inspection and testing that it considers necessary.

A twenty (20) day reliability performance test shall be carried out by the Seller as part of the Commercial Operation Tests.

## 2. CIVIL ENGINEERING AND CONSTRUCTION

#### 2.1 General

Where a building, detail, material or other item is not covered by this Functional Specification then it shall be based on accepted building practice with suitable high quality materials.

## 2.2 Site Preparation

The Seller will conduct a pre-construction survey of the Site. The survey shall demonstrate that all work for the Plant, including construction requirements,



lies within the Site. However, where the Seller requires additional land for temporary use during construction this shall be the responsibility of the Seller.

# 2.3 Soil Investigations

The Seller shall carry out site investigations at its own cost and fund other investigations as it deems necessary.

#### 2.4 Site Services

The Seller shall be responsible for arranging all its own service requirements at the Site including, water, electricity etc. for all construction, erection, Commissioning and operational needs.

# 2.5 Dwellings

The Seller shall provide all accommodation or dwellings required for the construction and operation phases.

KPLC will use reasonable best endeavours to the extent it has any ability to do so to assist the Seller procure land for the construction of accommodation and amenities during the construction and operation phases.

## 3. PLANT

## 3.1 General Requirements

## 3.1.1 General

The design and construction of the Plant shall meet the performance requirements set out herein. Adequate design margins shall be included to allow for normal deterioration of plant performance between overhauls and de-scaling. All equipment used shall be new plant of proven design suitable for operation under the environmental conditions found at the Site. The plant and all components shall be designed for a design life of thirty (30) years.

High availability shall be achieved by the use of standby equipment (redundancy) and design measures that give extended periods of operation between Planned Maintenance shutdowns.

## 3.2 Mechanical Equipment

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#### 3.2.1 Turbines

The Plant shall comprise steam turbine generators, with a total net capacity of about 981.5MW. The generator units shall be required to run in parallel with one another and with existing sets and with other plants to be developed from time to time. The existing plants as at Signature date are located at:

Uganda (Imports) Embakasi Gas Turbines Nairobi South Diesel (Iberafrica) Kipevu I Mumias Co-generation Kipevu II (IPP) Kipevu III Rabai Diesel Plant (IPP) Olkaria I Geothermal Station Olkaria II Geothermal Station Olkaria III Geothermal Station (IPP) Hydro Stations Thika Power Diesel Plant (IPP) Olkaria IV Geothermal Station Olkaria I Geothermal Station (Units 4 & 5) Gulf Power Diesel Plant (IPP) Triumph Power Diesel Plant (IPP)

The steam turbines shall be rated according to ISO 14661:2000 and shall be capable of producing the maximum continuous output under the most adverse combination of ambient conditions given in Clause 1.5 of this Functional Specification shall also be capable of producing one hundred and ten per cent (110%) of its maximum continuous output for a period of one hour in any twelve (12) hour period in accordance with ISO 3977-2.

# 3.2.2 Rotating Equipment

Pumps shall be designed, manufactured and tested to API 610, BS, ISO or DIN standards. For other rotational equipment required for the Plant, the Seller shall list the proposed national or international standards in the bid.

# 3.2.3 Pressure Vessels and Piping

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The following standards shall be used:

Pressure Vessel

ASME VIII, BS, ISO, EN or DIN standards;

**Piping** 

ANSI B31.1, BS, ISO, EN, GB or DIN standards;

Valves

ASME 16.4, BS, ISO, EN or DIN standards.

## 3.2.4 Heat Exchangers

The following standards shall be used:

**Tubular Heat Exchangers** 

Tubular Exchanger Manufacturers

Association (TEMA) Class C standard or British Standard BS 3274or ISO or EN or DIN

standards

## 3.2.5 Storage Facilities

Bulk coal storage facilities shall be silos/open yards. The storage capacity for the coal at the Site shall be sufficient to operate the Plant at one hundred per cent (100%) of the Contracted Capacity continuously for thirty (30) days.

## 3.3 Control, Instrumentation and Electrical Equipment

## 3.3.1 Outline of Electrical Requirements

The main generators shall be connected to the Seller's 400kV busbars via an appropriate step up transformer arrangement. Each transformer shall have an on-load tap changer.

Electrical output from the Plant into the KETRACO System will be via a 400kV switching station constructed by the Selected Bidder near the Plant to evacuate power. The substation shall have two fully equipped 400kV bays where two lines to evacuate power to the national grid will be evacuated.

The characteristics of the KETRACO 400kV system are as follows:

Nominal rated voltage 400kV;

Operating voltage range ± 10%;

Nominal frequency 50 Hz;



## 3.3.2 Generators and Associated Control Equipment

Each generator shall be rated on a continuous running duty basis, duty Type SI, for a design power factor of 0.8 lagging.

All generators shall be equipped with a continuously acting fast response automatic excitation system of either brushless or static type with a high initial response characteristic (excitation system voltage response time of 0.1 second or less).

The generator automatic voltage regulators shall be capable of maintaining terminal voltage to an accuracy of  $\pm$  0.5%, relative to a constant reference value, adjustable over the range  $\pm$ 10%, to ensure adequate steady state stability.

The generator short circuit ratio at rated MVA shall not be less than 0.5 at the Site rating.

Automatic synchronising equipment shall be provided for the generator circuit breakers. Manual synchronising, complete with check synchronising facilities shall be provided for the generators/generator transformers.

#### 3.3.3 Power Transformers

The generator step up transformers shall be rated at an appropriate level to match the MVA ratings of the respective generator/s. They shall be fitted with on load tap changers with a tapping range of +10% (8Taps) and -10% (8Taps).

#### 3.3.4 Emergency and Maintained Power Supplies

The Seller shall ensure that standby power supplies are available during loss of normal power supplies, such that all equipment, which may be required during such periods, may be used.

## 3.3.5 Earthing and Lighting Protection





The Seller shall include a complete and integrated earthing and lightning protection system, coordinated for the Site.

#### 3.3.6 Communications

Communications with KPLC shall be in accordance with its requirements. The Seller shall provide at least two (2) direct telephone lines (a landline and a mobile) and one (1) direct facsimile line to his control room for the purpose of Despatch Instructions. KPLC will provide two (2) PLC (Carrier) PABX telephone extensions at the Seller's control room for the purposes of Despatch Instructions.

Provision shall be made for data interconnections to KPLC's SCADA system. The Seller's SCADA system shall be equipped with a serial communication Port having IEC 60870-5-104/101 Protocol at the 400kV control room (In power Plant) for future acquisition of the following parameters to be integrated into KPLC's SCADA system:

Energy, MW, current, voltage for each interconnector and ON/OFF indication of the interconnector and generator circuit breakers and isolators.

KPLC will be responsible for the future integration of the above parameters into the SCADA system.

The Seller shall also make provision for KPLC to install a Two Way Trunking Radio Base station complete with Charger/Battery and antenna system.

## 3.4 Operating Characteristics

## 3.4.1 Station Starts

(a) The notice required by the Plant operator to start-up a single Unit and synchronise to the KPLC System will vary according to the length of time for which the Unit has been shut down. The length of notice required against various periods of shutdown are:

Length of Shutdown

Notice Required to Synchronize

(i) Not more than 1 hour

45 minutes





(ii) More than 1 hour but not more than 60 minutes eight hours More than 8 hours but not more than 48 150 minutes (iii) hours More than 48 hours but not more than (iv)300 minutes 72 hours More than 72 hours (v) 840 minutes (vi) Where Plant is coming on after annual 30 hours maintenance

(b) The station start-ups will be classified as follows:

"Extreme Hot Start" A start following a shutdown period not more than 1 hour

"Hot Start" A start following a shutdown period not more than 8 hours

"Warm Start" A start following a shutdown period of more than 8 hours but less than 48 hours

"Cold Start" A start following a shutdown period more than 48 hours

## 3.4.2 Loading Rates

- (a) The minimum continuous loading shall be forty per cent (40%) of the full load of one Unit.
- (b) The Plant load ramping rate is the steady rate at which the load can be raised. The maximum loading ramping rate over the full operating range of the Plant is the number of Units synchronized multiplied by the relevant Unit load ramping rate.
- (c) The Unit load ramping rate is the steady rate at which the load can be raised.

The required load ramping rates are:

Unit Load Range Start % MCR/Minute 0 - 50% [+/- 1%]



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## 3.4.3 Load Changes

Step load changes in despatch load up to ten per cent (10%) may be requested by KPLC but only when the Plant load is at least forty per cent (40%). After such a step change, the load must be held constant for ten (10) minutes for stabilisation purposes, or for a pro-rata period for lesser step changes.

#### 3.4.5 Power Factor

Each Unit shall be able to operate at one hundred per cent (100%) load with a generator power factor in the range 0.80 lagging to 0.90 leading.

## 3.4.6 Voltage Variations

The Plant can operate with voltage variations of ±10% of the voltage on the high voltage terminals of the generator transformers. The Plant will automatically trip if the voltage exceeds this range.

## ATTACHMENT A

## **TERMINAL POINTS SCHEDULE**

The Seller shall be responsible for provision of all connections between the Plant and off-site services/facilities at designated terminal points as follows:

1. For the 400kV export – at the points of connection between the 400kV substation at the plant and the proposed incoming KETRACO 400kV lines.





- 2. SCADA/PLC connection to the KPLC System shall be from OPGW equipment cubicles located in the relay/control room of the proposed 400kV substation at the power plant.
- 3. Protection interface shall be from relay panels and VT and CT circuits in the proposed 400kV substation at the power plant.
- 4. A separate telephone system shall be provided.

In all cases above the Seller shall be responsible for making all arrangements with the other party/parties involved in the tie-in to agree on the detailed location and other connection details, the planning of the installation of the connection and the acquisition of all necessary Authorisations.

#### Part B

#### **KETRACO Connection Facilities**

In accordance with Clause 6.6, the Seller shall install the following facilities:

#### 1. General

The Seller shall be required to construct the connection facilities required to enable the export of the Net Electrical Output into the KETRACO 400kV system. Such facilities shall include:

#### 1.1 At the new power plant substation

- 1.1.1 Provision and installation of a 400kV switching yard for KETRACO. The switching yard near the seller's step-up substation shall have the in-comers bays from the plants step-up substation, isolators, breakers, bus bar and two (2) fully equipped bays where two (2) outgoing 400kV lines shall be connected.
- 1.1.2 Provision and installation of current and voltage transformers for protection and metering. Main metering shall be connected to a class 0.2 current transformer on the tie-in link between the Plant's step-up substation and KETRACO's switching yard. A separate class 0.2 set of current and voltage transformers will be provided for back-up metering.



# 2. 400 kV Switchgear & Accessories

## 2.1 General

#### 2.2 Circuit Breaker Details

At the proposed 400 kV substation, one new 400 kV circuit breaker shall be installed. The circuit breaker will be of SF6 open terminal live tank design.

Circuit breaker will comply with the following:

| a) | Rated Voltage                              | - 420 kV   |
|----|--|------------|
| b) | Rated Normal Current                       | - 4000Amps |
| c) | Frequency                                  | - 50Hz     |
| d) | Symmetrical Short circuit breaking current | - 40 kA    |
| e) | Short time withstand current               | - 40kA     |
| f) | First pole to clear factor                 | - 1.3      |
| g) | Control Voltage (Closing/tripping)         | - 110V dc  |
| h) | Spring winding motor                       | - 110V dc  |
| i) | Heater                                     | - 240V ac  |

The switchgear shall comply with the following; IEC 62271-1, 62271-100, 62271-102, 60044-1, 60044-5, 60383, 60818

# 2.3 Isolators

400 kV isolators, including their operating devices and auxiliary equipment shall have the following specifications:

| a) | Rated Voltage                             | - 400kV                        |
|----|---|--------------------------------|
| b) | Rated Power frequency withstands voltage  | -610kV, r.m.s.                 |
| c) | Rated lightning Impulse withstand voltage | (across isolating distance) at |
|    | 1000m asl 1665 kV                         |                                |
| d) | Current Rating                            | - 4000Amps.                    |
| e) | Rated short time withstand current        | -40 kA.                        |
| f) | Minimum creepage distance of insulators   | - 31mm/kV                      |
| g) | Mounting                                  | - Horizontal                   |
| h) | Type                                      | -Two Column                    |

The isolator shall comply with the following:-IEC 62271-1, 62271-102



Center-Break

# 2.4 400kV Capacitive voltage transformers

400 kV voltage transformer shall have the following specifications:

| a) | Highest system voltage              | 420kV        |
|----|-------------------------------------|--------------|
| b) | Rated primary voltage               | 400kV        |
| c) | Rated secondary voltage             | 110V         |
| d) | Frequency                           | 50 Hz        |
| e) | Creepage distance of insulator      | 31mm/kV      |
| f) | Lightning impulse withstand voltage | 1665kV       |
| g) | Power frequencies withstand voltage | 610kV r.m.s. |
|    |                                     |              |

h) Rated voltage factor 1.5 for 30 seconds (1.2 continuous)

i) Rated burden and Class should be defined according to the Protection measuring and Metering Scheme

The voltage transformer shall comply with IEC 60044-5.

#### 2.5 400kV current transformers

400 kV current transformer shall have the following specifications:

| The short circuit rating of the current transformers shall be | 40kA.         |
|---|---------------|
| Max Service voltage   | 420KV         |
| Rated primary current   | 4000 Amps     |
| Maximum continuous current                                    | 1.2xIN Amps   |
| Rated secondary current                                       | 1 Amp         |
| Rated frequency   | 50 Hz         |
| Creepage distance of insulator                                | 31 mm/kV      |
| Lightning impulse withstand voltage                           | 1665kV        |
| Power frequency withstand voltage                             | 610kV, r.m.s. |
|   |               |

Rated short circuit withstand 40kA

Rated burden and accuracy class should be defined according to the Protection measuring and Metering Scheme

The current transformer shall comply with IEC 60044-1, 62271-1.

# 2.6 400kV surge arrestors

The surge arrester shall have the following specifications:-

Rated Voltage 420kV

Nominal discharge current 20kA

Long duration discharge class 4



Creepage distance of insulator 31mm/kV

Rated frequency 50 Hz

Insulation level of housing 1665 kV

#### 2.7 Protection & Control Equipment

#### 2.7.1 400 kV KPLC Side

The following equipment shall be provided and installed for the purposes of protection control and monitoring of the circuits.

# (i) PROTECTION PANEL FOR 400KV INCOMING(FROM GENERATOR TRANSFORMER)

- (a) Overcurrent and Earth Fault Protection
- (b) Line Differential Protection for the 400KV OHL interconnection.
- (c) Line distance protection.
- (d) Annunciator relay (with audible alarm)
- (e) Measuring Equipment (Current, Voltage, MW and MVAR)
- (f) Open /close control switch
- (g) Inter-trip receive relay (to be used in conjunction with the Seller's protection equipment)
- (h) Circuit Breaker ON/OFF indication

Note that the Line differential Protection will work in conjunction with equipment in the 400KV circuit breaker at the Power Plant.

#### (ii) 400KV CIRCUIT BREAKER PANELS

The following Protection Function for circuit breaker should be provided:

- a) Breaker fail protection
- b) Pole discrepancy
- c)Trip circuit supervision
- d) Tripping relay with visible flag

## 2.7.2 Protection For The Power Plant

Adequate protection will be provided for the power plant and associated equipment. Such protection will include reverse power protection for the generator(s).



# 2.8 Battery

A 110 V dc charger and battery shall be required.

# 2.9 Back-Up Metering

The Seller shall be required to install the Back-Up Metering Equipment, in accordance with Clause 11 of this PPA. The Back-Metering Equipment shall be connected to CTs and VTs forming part of KETRACO's Connection Facilities.





#### Part C

#### **Seller's Connection Facilities**

The Seller shall be responsible for provision, operation and maintenance of all connections between the Plant and off-site services/facilities up to points as follows:

- (a) 400kV export: tie-in to the incoming terminals of the incoming isolators of the circuit breakers assembly at the proposed 400 kV switching station.
- (b) SCADA/PLC connection to the KPLC System from the PLC equipment cubicles located in the relay/control room of the proposed 400kV switching station.

The Seller shall make the following Inputs/Outputs (I/Os) available for KPLC SCADA/PLC:

#### Measurements:

Unit MW;

Mvar; and

current at 400kV.

## Alarms:

tripping of 400kV circuit breakers; main 400kV protection relay(s) trip; engine protection operated; main 400kV protection relay operated; communication failure; and site fire alarm operated.

#### Indications:

close/open status of 400 kV circuit breakers; close/open status of 400 kV disconnecter/earthing switches; and generator Circuit Breaker on/off.

Plus five (5) spare connections.

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- (c) Protection interface shall be from relay panels and VT and CT circuits in the switchgear at the proposed 400kV substation.
- (d) A separate telephone system shall be provided.
- (e) On-site roads shall be connected to the access road subject to approval of the relevant local authority.

In all cases above the Seller shall be responsible for making all arrangements with the other party/parties involved in the tie-in to agree the detailed location and other connection details, the planning of the installation of the connection and the acquisition of all necessary permits and authorisations.





#### **SCHEDULE 2: METERING EQUIPMENT**

#### 1. Metering System

- (a) The Seller shall, at its expense, procure, install, test and commission the principal metering equipment (the "Main Metering Equipment") and the back-up metering equipment (the "Back-Up Metering Equipment"). The Back-Up Metering Equipment shall be installed in a secure cabinet or housing adjacent to the recording devices of the Main Metering Equipment. The Seller shall give KPLC reasonable notice of the date for the testing and commissioning of the Main Metering Equipment and KPLC shall attend and witness such testing and commissioning. If, having been given reasonable notice, KPLC does not attend and witness the testing and commissioning of the Main Metering Equipment then KPLC shall be deemed to have attended and witnessed such testing and commissioning and KPLC shall not be entitled to raise any objection to such testing or the results thereof or to the commissioning. Once the Seller has satisfactorily completed the testing and commissioning of the Back-Up Metering Equipment, including the procurement of the certificate of the Independent Engineer called for in Clause 11.1, then the Seller shall transfer to KPLC as beneficial owner (and without any encumbrances) all rights, title and interest in the Back-Up Metering Equipment and thereafter KPLC shall own and maintain it. The Seller shall retain the ownership of the Main Metering Equipment and shall maintain the Main Metering Equipment. The recording devices for the Back-up Metering Equipment shall be installed by the Seller in a secure cabinet adjacent to the recording devices of the Main Metering Equipment.
- (b) The Seller shall provide and install appropriate long term data storage equipment and shall make a continuous recording of the Net Electrical Output. Such Net Electrical Output shall be recorded on appropriate magnetic media or equivalent, which recording shall be used to compute adjustments to the Interim Capacity Payments or Capacity Payments as provided by Schedule 6. Upon installation, such data storage equipment shall constitute a part of the Metering System.
- (c) The metering points to record the active power (MWh) and reactive power (MVARh) exchange between the Seller and KPLC shall be as shown in an appropriate diagram to be provided by the Seller. The current and voltage



transformers will measure current and voltage on the outgoing 400 kV circuits at the Delivery Point and shall be located at the Delivery Point. Any photographic facilities will be provided by the Seller as part of the verification process for monthly meter readings.

(d) The Main Metering Equipment and the Back-Up Metering Equipment shall be to a mutually agreed international standard providing a measured accuracy of  $\pm$  0.2%.

# 2. Installation of Metering System and Protection Schemes

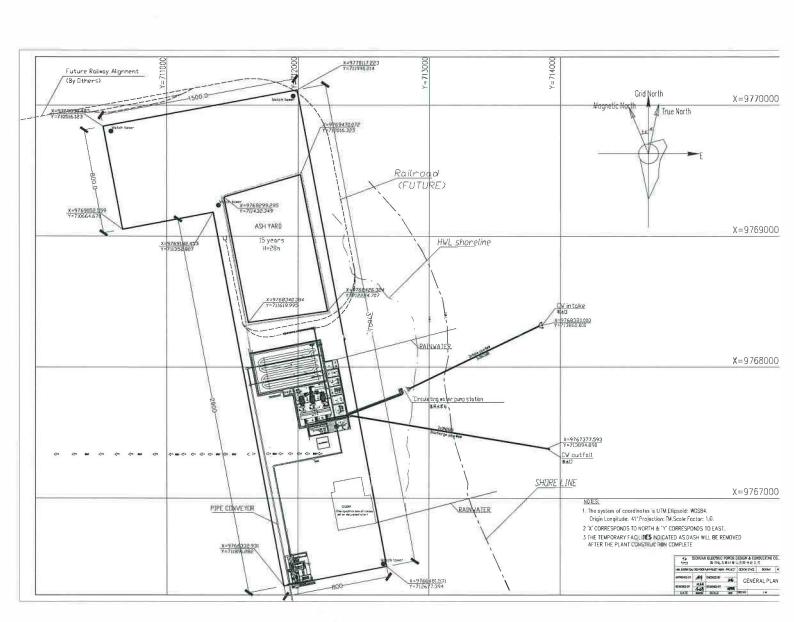
The Seller shall, at its expense, install the Metering System on the Site at a location to be agreed upon by the Parties, and upon completion convey to KPLC all right, title and interest in the Back-Up Metering Equipment free of all charges and encumbrances. Prior to the installation by the Seller of the Metering System, the Seller will deliver to KPLC the protection scheme and the metering plan for the Plant for KPLC's approval. KPLC will provide written comments on the protection scheme and the metering plan within fifteen (15) days of their receipt. The Seller will incorporate KPLC's comments received during such fifteen (15) day period into the protection scheme and the metering plan and deliver final copies to KPLC. KPLC will approve the final scheme and plan within seven (7) days or notify the Seller that it does not approve the scheme and plan, giving its reasons therefore. If KPLC does not give reasons for not approving the scheme and plan within such seven (7) day period, KPLC shall be deemed to have approved such scheme and plan. Upon approval by KPLC, the Seller will complete the design and commence construction of the Metering System. Such installation shall be completed not later than fifteen (15) days prior to the scheduled date to begin initial testing of the Plant. The Seller shall provide KPLC with thirty (30) days advance notice of, and KPLC shall have the right to observe and inspect the installation of the Metering System. KPLC shall be notified not less than fifteen (15) days prior to, and shall have the right to observe, the installation of the Back-Up Metering Equipment by the Seller.



## **SCHEDULE 3: DELIVERY POINT**

The point at which the Net Electrical Output passes from the Plant to the relevant KPLC System. This will be the point of common coupling to Power Purchaser's System, and is the tie-in to the incoming terminals of the incoming isolator of the circuit breaker assembly at the 400kV switching station at the Plant. There shall be two [2] Delivery Point(s) as shown in the drawing below (To be provided by the bidder) annexed as D-02 "Interconnection to National Grid"

ANNEX I

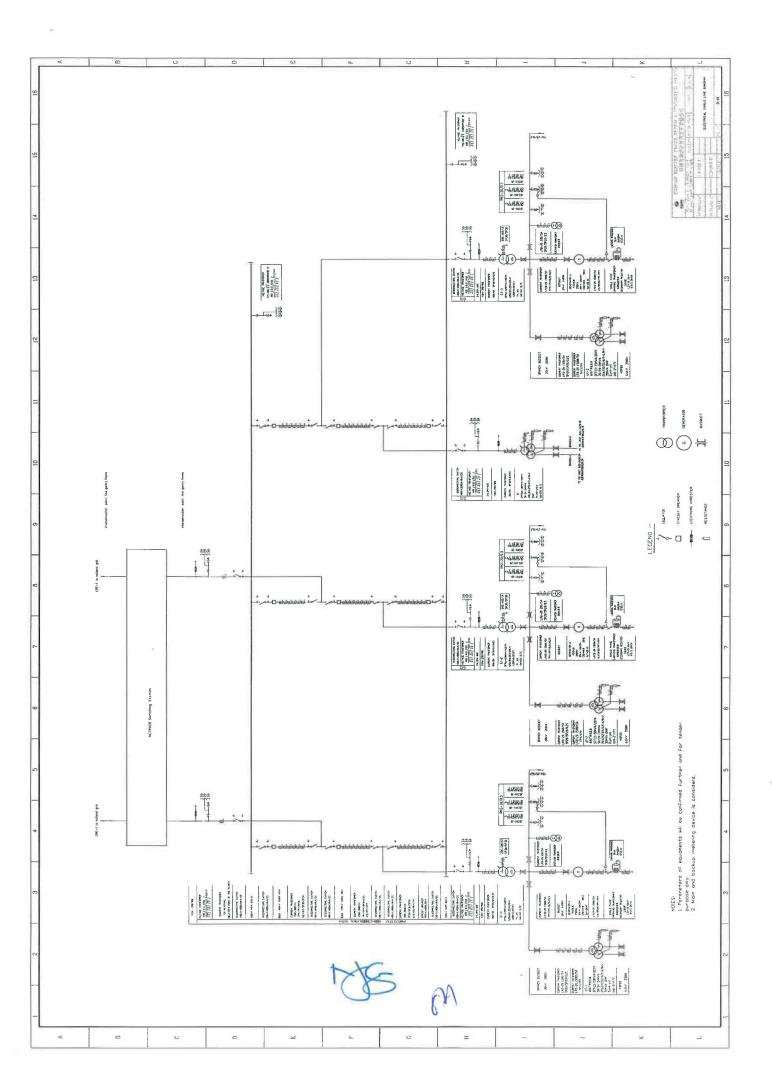






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National Grid 400kV transmission line from switching station to national grid by KPLC В С D E 400kV KETRACO switching station + 1 (Supply and construction by bidder) F 400kV transmission line from plant to  $\mathbf{s}$  witching station DELIVERY/INTERCONNECTION POINT OF THE PLANT G 400kV Substation ECHUM SECTION POSITE POSITE P COMMISSION CO. II

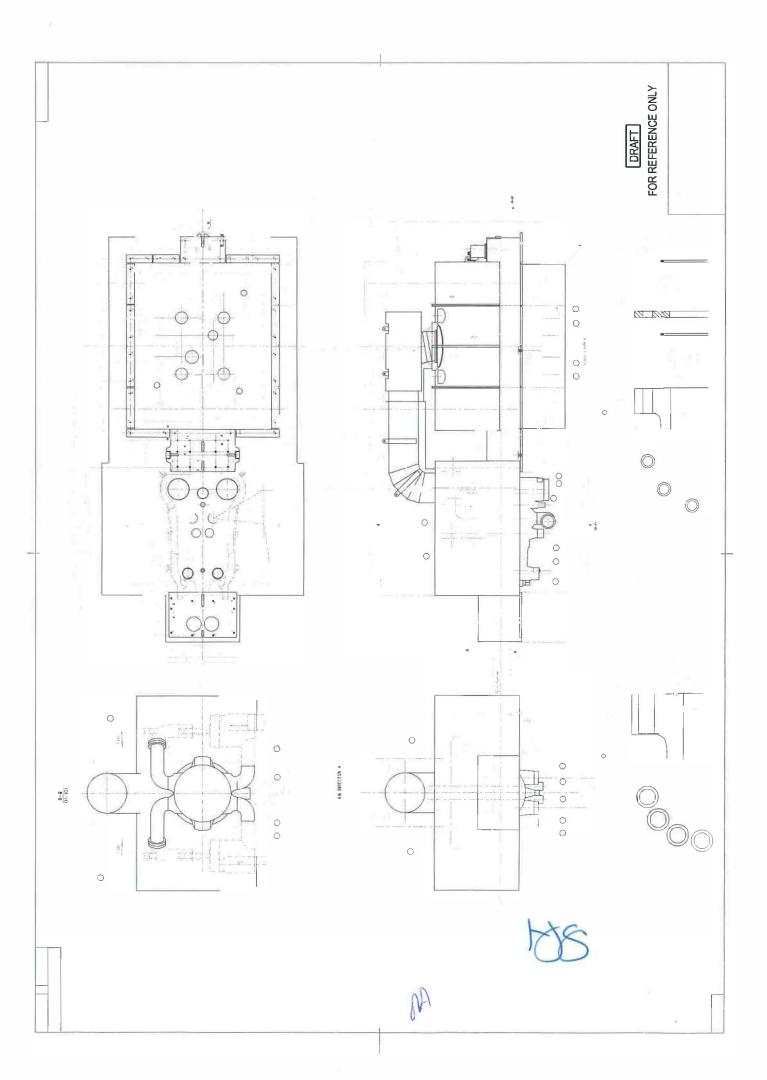
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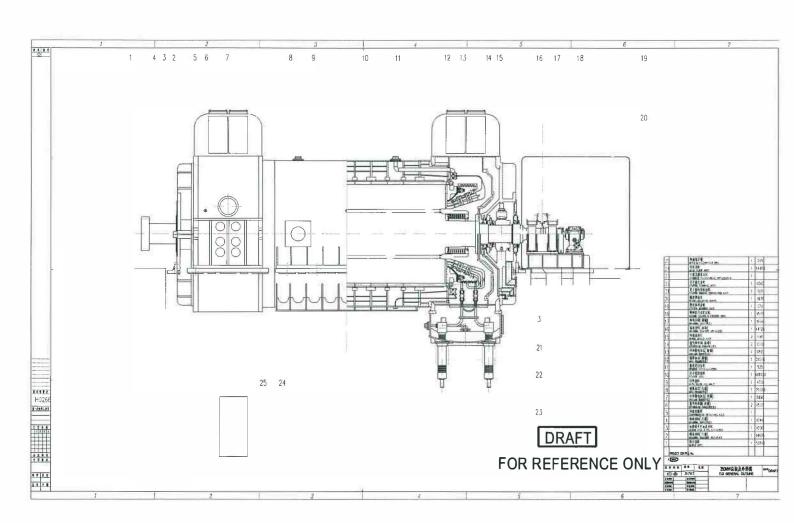


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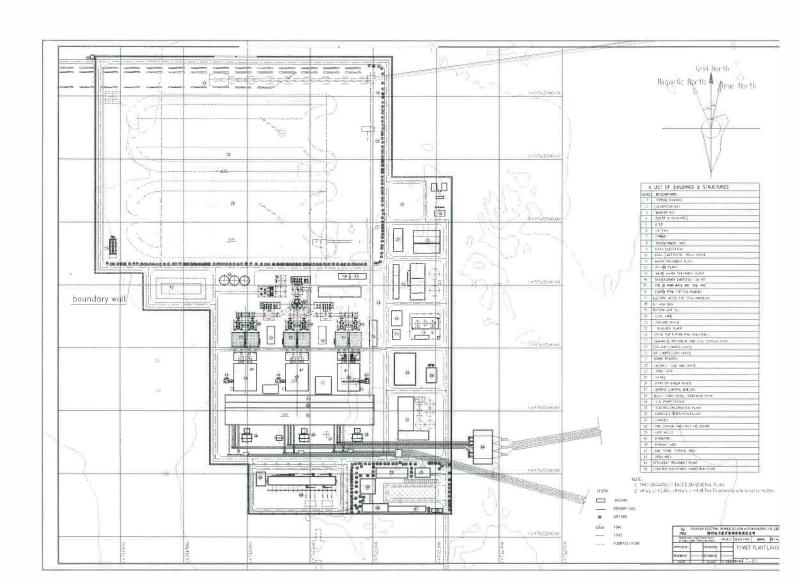


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# **DRAWINGS**



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## SCHEDULE 4: MAINTENANCE ALLOWANCES OF THE PLANT

All equipment and components will be repaired and maintained in accordance with a maintenance programme, prepared on the basis of the recommendations given by the respective manufacturers or suppliers and of good maintenance practice. In addition, while preparing the maintenance programme, the Seller shall take into consideration the Plant Target Availability requirements.

The maintenance programme shall be agreed between the Seller and KPLC in accordance with Clause 8.



#### **SCHEDULE 5: PROCEDURES**

## Part A: Commissioning and Testing Procedures

## 1. Tests Prior to Synchronisation of each Unit

Prior to the first synchronisation of each Unit, the Seller shall carry out the following tests:

- (a) Automatic voltage regulator setting and adjusting in stand-still condition and with the generator running at no load;
- (b) Turbine governor control checks, including a governor overspeed test;
- (c) Open and short circuit tests on each generator which may be performed at works or on Site. The Seller shall procure a certificate from an independent engineer, of satisfactory completion where the tests are conducted at works;
- (d) Functional testing and timing of high voltage switchgear in the switchyard of the Plant;
- (e) The Seller and KPLC shall verify that the protection level settings for the following are as agreed:
  - (i) Stator earth fault; and
  - (ii) Negative phase sequence.

### 2. Tests after Synchronisation of each Unit and Unit Commercial Operations Tests

- (a) After first synchronising each Unit, initial operational testing of each Unit shall be conducted by the Seller. Once the Seller is satisfied that each Unit is capable of continued reliable operation, the Seller shall so notify KPLC in accordance with Clause 6 and carry out the following tests (the "Unit Commercial Operations Tests"), which if the Unit satisfies the minimum performance criteria therefore, will result in the Unit having satisfied that test:
  - (i) Capacity Demonstration Test;
  - (ii) Automatic voltage regulator droop;





- (iii) Turbine governor operation;
- (iv) Reactive capability;
- (v) Minimum load capability;
- (vi) Response of plant to step load changes;
- (vii) Unit full load rejection tests;
- (viii) Unit start up and loading rate tests;
- (ix) Minimum despatch tests; and
- (x) Partial load adjustment coefficient for SFC
- (b) Minimum performance criteria for the Unit Commercial Operations Tests are set out below.

#### (i) Capacity Demonstration Test

During the period of the Capacity Demonstration Test, the capacity of the Unit will be demonstrated in the following manner:

- The Unit shall be in operation at full output with normal auxiliaries load.
- The Seller will declare to KPLC the commencement of the test and will record the reading of the Metering System and generator terminals.
- The test duration will be six (6) hours and at the end of this period the Seller will record the new reading of the Metering system and generator terminals. The Capacity as determined by such test shall be the difference between the reading taken at the end of the six (6) hour period and the reading taken at the beginning of such period, divided by six (6); provided, that the Capacity shall not be considered to have been established unless the result of such determination is equal to or greater than the minimum criteria for such test set out below.





The Unit will have satisfied this test if it is demonstrated that the Capacity of the Unit is greater than 300MW measured at the generator terminals in accordance with ISO 3997-2.

During Commissioning and the Operating Period the Capacity will be determined by measuring the output at the outgoing busbars of the Unit through the Metering System. Tests will be based on relevant ASME power test codes and IEC standards using plant instrumentation and the Metering System.

## (ii) Automatic Voltage Regulator (AVR) Droop

The AVR will be demonstrated to control the generator voltage over the range of  $\pm$  10 per cent of rated voltage with a droop characteristic of  $\pm$  0.5 per cent.

# (iii) Turbine Governor Operation

The operation of each turbine speed governor will be demonstrated over its range, by the droop being adjusted from 95 per cent to 105 per cent of the rated speed.

## (iv) Reactive Capacity

Tests will demonstrate the capability of the Units to operate at rated voltage and frequency at power factors and under reactive conditions as follows:

100% output 0.90 Leading Power Factor

100% output 0.80 Lagging Power Factor

## (v) Minimum Load Tests

Each Unit shall prove its capability to operate stably at forty per cent (40%) of the Capacity demonstrated in its Capacity Demonstration Test for a period of one (1) hour with all other Units shut down and all normal auxiliaries in operation.



## (vi) Step Load Change Tests

Each Unit shall undergo a test, which demonstrates its capability to change load in steps of up to ten per cent (10%) of operating load. At the start of each test the Unit shall be operated at approximately forty per cent (40%) of maximum output for a continuous period of five (5) minutes. The load shall be increased by up to ten per cent (10%) in one step. The unit shall have passed the test if it immediately responds to the change in load and maintains the increased load for a further five (5) minutes.

#### (vii) Full Load Rejection

Each Unit shall undergo a test to demonstrate that it will continue to operate safely following a sudden desynchronisation and be resynchronised within a period of one (1) hour. Immediately prior to the desynchronisation the Unit shall have been operating at maximum output.

## (viii) Start Up and Loading Rate Tests

Each Unit shall undergo a test which demonstrates its capability to perform a Cold Start and increase load at the minimum rate when the Unit has been shut down for a period greater than seventy two (72) hours as set forth in paragraphs 3.4.1 and 3.4.2 of Part A of Schedule 1.

#### (ix) Minimum despatch tests

The minimum despatch of the Unit will be demonstrated in the following manner:

- The Unit shall be in operation at 40% of the Unit Rated Output with normal auxiliaries load
- The Seller will declare to KPLC the commencement of the test and will record the reading of the Metering System and generator terminals
- The test duration will be six (6) hours and at the end of this period the Seller will record the new reading of the Metering system and generator terminals. The minimum despatch as determined by such test shall be the



difference between the reading taken at the end of the six (6) hour period and the reading taken at the beginning of such period, divided by six (6);.

## (x) Partial Load Adjustment Coefficient for SFC

Each Unit shall undergo a specific fuel consumption test at varying loads from 40% to 95% of the Capacity during the Capacity Demonstration Test (based on the readings from the Metering System) to determine the coefficients for adjustment for SFC at unit varying loads.

#### 4. Plant Commercial Operations Tests

- (a) Following satisfactory completion of the Unit Commercial Operations Tests for all Units, the Plant Commercial Operations Tests shall be carried out. The Seller shall notify KPLC of its intention to carry out such tests in accordance with Clause 6 which, if the Plant satisfies the minimum performance criteria thereof, will result in the Plant having satisfied that test. These tests are:
  - (a) Contracted Capacity Test;
  - (b) Reliability Run Test;
  - (c) Unit Trip Test;
  - (d) Environmental Performance Tests;
  - (e) Black Start Test;
  - (f) Heat Rate Test; and
  - (g) Partial Load Adjustment Test for SFC





(b) The minimum performance criteria for the Plant Commercial Operations tests are:

#### Reliability Run and Contracted Capacity

Upon completion of the Reliability Run Test prerequisites as included below the Seller shall declare to KPLC the commencement of the Reliability Run Test. During the period of the Reliability Run Test, the Contracted Capacity of the Plant will be determined in the following manner:

- The Plant shall be in operation at full output with normal auxiliaries load;
- the Seller will declare to KPLC the commencement of the test and will record the reading of the Metering System.
- The test duration will be six (6) hours and at the end of this period the Seller will record the new reading of the Metering System. The Contracted Capacity as determined by such test shall be the difference between the reading taken at the end of the six (6) hour period and the reading taken at the beginning of such period, divided by six (6); provided, that the Contracted Capacity shall not be considered to have been established unless the result of such determination is equal to or greater than the minimum criteria for such test set forth below.

#### (i) Contracted Capacity Test

During Commissioning and commercial operations the Contracted Capacity will be determined by measuring the output at the outgoing busbars of the Plant through the Metering System. Tests will be based on relevant ASME power test codes and IEC standards using plant instrumentation and the Metering System.

In the event the Contracted Capacity Test carried out during Commissioning to enable the Full Commercial Operation Date to occur demonstrates that the Capacity of the Plant is greater than ninety-five per cent (95%) but less than one hundred per cent (100%) of the Contracted Capacity at the Signature Date of this Agreement then the Contracted Capacity shall be adjusted to such lesser amount. Where the test shows the Contracted Capacity to



be below ninety-five per cent (95%) of the Contracted Capacity at the Signature Date, the test shall be deemed to have failed.

## (ii) Reliability Run Test

A reliability run test for the Plant will be carried out as part of the Commissioning tests. The run will be for a period of twenty (20) days and will include seventy-two (72) continuous hours at not less than ninety-five per cent (95%) maximum output (i.e. maximum continuous rating at the prevailing ambient temperatures). The output during the test will be as requested by KPLC.

The test shall comprise two (2) ten (10) day periods which shall run consecutively with no gaps between them. The tests shall have been satisfactorily completed only if the Plant reliability satisfies the conditions below:

Day 1 to 10 Not more than two (2) Availability Failures which cause a reduction in Available Capacity of greater than three hundred and ten (310) MW and have a duration of greater than four (4) hours. Total Availability Failures shall not exceed eleven thousand eight hundred (11,800) MWh. Failure of the test during this period requires the test to start again as at day one (1).

Day 11 to 20 Not more than two (2) Availability Failures which cause a reduction in Available Capacity of greater than three hundred and ten (310) MW and have a duration of greater than four (4) hours. Total Availability Failures shall not exceed eleven thousand eight hundred (11,800) MWh. Failure of the test during this period requires the test to start again as at day eleven (11) except where Total Availability Failures exceed twenty three thousand six hundred (23,600) MWh then the test shall restart at day one (1).





The total amount of Availability Failures (TAF) during the ten (10) day period shall be calculated using the following formula:

$$TAF = \sum_{y=1}^{480} (\underline{CC-0.001xACy})$$

where:

CC = Contracted Capacity (expressed in MW) as demonstrated in the Contracted Capacity Test.

ACy = Available Capacity in Settlement Period y (expressed in kW).

KPLC shall cooperate with the Seller so that the Plant is Despatched to Contracted Capacity so as to complete the seventy-two (72) hour full load run, taking into account system requirements and the desire of KPLC to Despatch the Plant to a varied operating pattern to ensure that the Plant will operate reliably under a wide range of operating regimes. If the Plant fails to operate at Contracted Capacity for uninterrupted period of seventy-two (72) hours for any reason then the Seller shall be entitled to request KPLC to Despatch the Plant for up to three (3) further attempts. If the Plant fails to operate at Contracted Capacity for uninterrupted period of seventy-two (72) hours by the time when the Plant would otherwise have satisfactorily passed the Reliability Run then the Seller shall be entitled to request KPLC to Despatch the Plant to Contracted Capacity until it has satisfactorily completed the seventy-two (72) hour run. If KPLC has not Despatched the Plant to Contracted Capacity for a continuous period of seventy-two (72) hours during the twenty (20) days Reliability Run then the seventy-two (72) hours continuous operation at Contracted Capacity shall be deemed to have been satisfactorily completed.

#### (iii) Unit Trip Test

Tests shall demonstrate the ability of the Plant to withstand the tripping of one (1) Unit and its ability to remain in a safe operating condition.

#### (iv) Environmental Performance Test

The Plant shall undergo environmental performance tests, which demonstrate that the Plant will comply with the environmental emission limits specified in Part A of Schedule 1.

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#### (v) Black Start Test

The Plant shall undergo a test which demonstrates its capability to synchronise one Unit installed within a time period of sixty (60) minutes following a Despatch Instruction from KPLC when the plant has been disconnected from the KPLC System for at least one (1) hour and not more than eight (8) hours prior to the Despatch Instruction.

#### (vi) Heat Rate Determination

The applicable specific fuel consumption ("SFC") will be determined from the applicable Sea Water Temperature Coefficient for the corresponding Average Sea Water Temperature in accordance with approaches widely used in other jurisdictions.

If the Parties fail to agree upon the SFC within a period of thirty (30) days from the date of notification of the Average Sea Water Temperature either Party may refer the matter to an Expert in accordance with Clause 18.2.

#### (vii) Partial Load Adjustment Coefficient for SFC

The Plant shall undergo a specific fuel consumption test at varying loads om 40% to 95% of the Contracted Capacity to determine the coefficients for adjustment for SFC at varying loads.

#### Part B: Meter Procedures

## 1. Testing of Metering System

(a) KPLC shall initially test the Metering System for accuracy in accordance with this Schedule 5 by the later of fifteen (15) days after it is installed by the Seller or five (5) days prior to the date scheduled for initial testing of the Plant to begin, and thereafter at intervals of not less than one hundred and eighty (180) days after giving the Seller no less than forty-eight (48) hours advance notice. The Seller may have a representative present during any such testing, as well as during any inspection of the Metering System or adjustment thereof.



- (b) KPLC shall also test the Metering System at any other time reasonably requested by the Seller, such additional testing to be at the Seller's expense unless the test indicates that the Metering System is inaccurate by more than one-fifth per cent (0.2%), in which case KPLC shall bear the cost of the additional test. The Seller may have a representative present during any such testing, as well as during any inspection of the Metering System or adjustment thereof.
- (c) When on the Site, KPLC shall comply with all reasonable instructions of the Seller and, notwithstanding any other provision in this Agreement to the contrary, shall indemnify and hold the Seller harmless from any loss or damage sustained by virtue of KPLC's negligence or wilful misconduct in the performance of its obligations but only to the extent that such loss or damage is not covered by insurance of the Seller.
- (d) The calibration of meters will be checked to ensure that the accuracy remains within the specified limits. The method of calibration and frequency of tests will be agreed between the Seller, and KPLC based on knowledge of the performance and the design of the installed meters and the manufacturers' recommendations.
- (e) Compensation will be made for the errors of current and voltage transformers in the meter calibration or during the computation of records. Current and voltage transformers will be tested for ratio and phase angle errors following manufacture at an accredited testing station in the presence of representatives from the Seller; and KPLC. Test certificates issued by the testing station will be issued independently to both parties.
- (f) Testing and calibration of the Back-Up Metering Equipment shall be carried out by KPLC after giving appropriate notice to the Seller, in line with the agreed frequency of testing or in the event of either Party having reasonable cause to believe the meters are outside specified limits. During such tests and calibration the Seller shall have the right to have a representative present at all times.
- (g) Testing and calibration of the Main Metering Equipment shall be carried out by the Seller as in paragraph (f) above. During such tests and calibration KPLC shall have the right to have a representative present at all times.

#### 2. Reading of Meters

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(a) Procedures: The Metering System shall be read monthly on the last day of each month (or such other day as may be agreed upon by the Parties) for the purpose of determining the Net Electrical Output of the Plant since the preceding reading. The Seller shall read the Metering System provided that the Seller shall give KPLC at least forty-eight (48) hours' notice of the time the Seller shall read the Metering System. In the event that a KPLC representative is present at such reading of the Metering System for the purpose of measuring Net Electrical Output, then such reading shall be jointly taken and recorded.

The Net Electrical Output of the Plant shall be determined using the Main Metering Equipment.

In the event that a KPLC representative is not present at a reading of Net Electrical Output, then the Seller's representative shall take and record such reading and make a photographic record thereof. The Seller shall maintain a log of all such meter readings. Measurements recorded shall be delivered by the recording Party to the non-recording Party by facsimile within forty-eight (48) hours after the readings are taken. In the event that the Main Metering Equipment is not in service as a result of maintenance, repairs or testing, then the best available information, which may include the Back-Up Metering Equipment, shall be used during the period that the Main Metering Equipment is not in service and the foregoing provisions of this Section shall apply to the reading of the Back-Up Metering Equipment.

- (b) Inaccuracies in Metering System: When, as a result of any test of the Main Metering Equipment, the Main Metering Equipment is found to be inaccurate by more than one-fifth per cent (0.2%) or is otherwise functioning improperly, then the correct amount of Net Electrical Output delivered to KPLC for the actual period during which inaccurate measurements were made, if any, shall be determined as follows:
  - (i) First, the readings of the Back-Up Metering Equipment, if any, shall be utilised to calculate the correct amount of Net Electrical Output, unless a test of such Back-Up Metering Equipment, as required by either Party, reveals that the Back-Up Metering Equipment is inaccurate by more than one-fifth per cent (0.2%) or is otherwise functioning improperly;



- (ii) If there is no Back-Up Metering Equipment or if the Back-Up Metering Equipment is found to be inaccurate by more than one-fifth per cent (0.2%) or is otherwise functioning improperly, then the Seller and KPLC shall jointly prepare an estimate of the correct reading on the basis of all available information and such guidelines as may have been agreed to between the Seller and KPLC;
- (iii) In the event that KPLC and the Seller fail to agree upon an estimate for the correct reading, KPLC shall make payments to the Seller based on KPLC's estimate of the correct reading and the matter may be referred by either party for determination by an Expert pursuant to Clause 18.2; and
- (iv) The difference between the previous payments by KPLC for the period of inaccuracy and the recalculated amount shall be offset against or added to the next payment to the Seller under this Agreement, as appropriate. If the period of inaccuracy cannot be accurately determined, it shall be deemed to have begun on the date which is midway between the date the meter was found to be inaccurate and the date of the last meter reading accepted by the Parties as accurate. In no event, however, shall any such adjustment be made for any period prior to the date on which the Main Metering Equipment was last tested and found to be accurate within plus or minus one-fifth per cent (0.2%) and not otherwise functioning improperly.



#### Part C: Operating and Despatch Procedures

## 1. Scheduling and Despatch

- (a) In order to assist with scheduling of the Plant to meet the requirements of KPLC, the Parties agree that the following procedures will be adhered to:
  - (i) Year Ahead Notification: Not less than ninety (90) days before the scheduled Commercial Operation Date of the last Unit, and thereafter not less than ninety (90) days before the beginning of each Operating Year, KPLC shall provide to the Seller estimated requirements on a monthly basis for Net Electrical Output for the remainder of the Operating Year in which the Full Commercial Operation Date is Schedule to occur, and thereafter for each subsequent Year, but KPLC shall not be bound by these figures.
  - (ii) Month Ahead Notification: Not less than fourteen (14) days before the beginning of the Month prior to the Schedule Commercial Operation Date of the last Unit and thereafter not less than fourteen (14) days before the beginning of each month, KPLC shall provide to the Seller estimated requirements, on a dayby-day basis, for Net Electrical Output during that Month and also, provisionally, for the following Month, but KPLC shall not be bound by these figures.
  - (iii) Week Ahead Notification: Not less than forty-eight (48) hours before the beginning of the Week prior to the Schedule Commercial Operation Date of the last Unit and thereafter not less than forty-eight (48) hours before the beginning of each week, KPLC shall provide to the Seller estimated requirements, on an hour-by-hour basis, for Net Electrical Output during that week



and also, provisionally, during the following week, but KPLC shall not be bound by these figures.

- (iv) Plant Availability Notification: To enable KPLC to give final Schedule of requirements as required by subsection (v) below, the Seller shall, by 1200 hours the day before the Schedule Commercial Operation Date of the last Unit and thereafter by 1200 hours each day, inform KPLC of the estimated Capacity Available during each hour of that Day commencing thirty-six (36) hours ahead and, provisionally, for the day immediately thereafter. Such estimated shall not be binding upon the Seller, the Seller shall advise KPLC as soon as possible of any changes in its Declared Capacity for such days.
- (v) Day Ahead Notification: Not less than seven (7) hours before the start of the day before the Schedule Commercial Operation Date of the last Unit and thereafter not less than seven (7) hours before the start of each day, KPLC shall provide to the Seller firm requirements, on an hour by hour basis, for Net Electrical Output; for the following day. The firm requirements shall not be binding upon KPLC and KPLC may subsequently alter its requirements.

Actual operation levels requested of the Seller will be determined by the requirements for operation in accordance with economic despatch and, if applicable, automatic generation control and may be substantially different from the information provided in accordance with this Part C; provided however, that actual operation levels requested by KPLC shall at all times be subject to compliance with the Operating Characteristics.

(b) **Notice of change of Operating Levels:** In connection with its rights to Despatch the Plant in accordance with this Agreement, KPLC will provide the Seller with at least five (5) minutes advance notice of changes in



operating levels to be achieved by the Plant (or such greater period as may be required by the Operating Characteristics) except that when the Plant is operated with automatic generation control, KPLC shall not be required to provide such notice but KPLC shall observe the Operating Characteristics in effecting the changes in operating levels.

## 2. Operation in Accordance with Despatch

The plant shall be operated by the Seller in accordance with Despatch Instructions within a despatch tolerance band of  $\pm$  3% provided that the Net Electrical Output in any given Settlement Period Shall not be less than that requested in the Despatch Instruction.

## 3. Recording of Telephoned Communications

Each Party hereby authorises the other Party to record all telephoned voice communications relating to Declared Capacity control and Despatch of the Plant received from the other Party pursuant to this Agreement and shall supply, at the request of the other Party, a copy or transcript of any such recording.



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#### **SCHEDULE 6: PAYMENT**

#### Part A: Energy Charges

## 1. Calculation of Energy Charges

For the purposes of Clause 9.3, KPLC shall pay to the Seller Energy Charges in respect of the Net Electrical Output of the Plant in each month calculated as follows:

$$MEC_p = NEO_p \times ECR_p$$

where:

 $\mathsf{MEC}_\mathsf{p}$  is the aggregate amount of Energy Charges (US\$) payable in respect of month p

 $\ensuremath{\mathsf{NEO_p}}$  is the aggregate Net Electrical Output (kWh) of the Plant in month  $\ensuremath{\mathsf{p}}$ 

ECR<sub>p</sub> is the Energy Charge Rate (expressed in US\$ /kWh) prevailing in accordance with paragraph 2 below on the last day of month p.

## 2. Energy Charge Rate

The Energy Charge Rate for the Plant during each month shall be calculated as follows:

$$ECR_p = \underbrace{ECR_bxCPI_{p-3}}_{CPI_b}$$

where

ECR<sub>p</sub> = the Energy Charge Rate for month p (expressed as US\$ /kWh)

ECR<sub>b</sub> = Base Energy Charge Rate

= 0.00125 US\$/kWh

CPI<sub>p-3</sub> = Consumer Prices Index for the month three months

prior to month p.

CPI<sub>b</sub> = Consumer Prices Index for January, 2014,

being 233.916

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#### Part B: Fuel Charges

## 1. Calculation of Fuel Charges

For the purposes of Clause 9.4, KPLC shall pay to the Seller Fuel Charges in respect of the Net Electrical Output of the Plant in each month calculated as follows:

$$FCp = NEOp \times Xp \times PLACp$$

Where:

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FC<sub>p</sub> = the aggregate amount of Fuel Charges (expressed in US\$) payable in respect month p;

NEO<sub>p</sub> = the aggregate Net Electrical Output (kWh) of the Plant in month p;

X<sub>p</sub> = the Fuel Charge Rate (expressed in US\$/kWh) applicable in month p; and

PLACp = weighted average Partial Load Adjustment Coefficient applicable in month p.

$$= SFC_1 x \frac{K}{1000} x \frac{J}{L}$$

SFC<sub>1</sub> = the Specific Fuel Consumption of the Plant being 0.4275kg/kWh;

J = the minimum Lower Calorific Value of the Fuel being 21,000kJ/kg;

K = the weighted average price (excluding Value Added Tax) of the Fuel consumed by the Plant during the month based on the accounting convention of first in/first out (FIFO) and the applicable Fuel prices pursuant to the Fuel Supply Agreement, expressed in US\$/MT; and

the weighted average Lower Calorific Value of the Fuel consumed by the Plant (determined in accordance with the Fuel Supply Agreement) during the month based on the accounting convention of first in/first out (FIFO) expressed in kJ/kg.

Note: On transition to Mui Basin coal or any other source of coal the Parties shall meet and negotiate in good faith in consultation with GOK on the changes to Fuel Charge Formula due to changes in Fuel grade.

## 2. Fuel Charges Adjustment for Partial Load due to KPLC despatch

For the duration of the Partial Load, the Fuel Charges for the duration that any Unit has operated at less than the Unit Rated Output, shall be adjusted for Partial Load in accordance with:

- (i) The coefficients determined following the Partial Load Adjustment Coefficient Tests for the Plant;
- (ii) Where the coefficients under (i) above are not available, then the coefficients determined following the Partial Load Adjustment Coefficient Tests for the Units; or
- (iii) Where the coefficients determined under (i) or (ii) are higher than those shown in the table below, then the coefficients in the table below shall be applicable.

| Plant Load (% of Contracted Capacity in<br>Total MW Output of all three Units) | Correction Factor<br>Fuel Charges |
|--|-----------------------------------|
| 100  | 1.0000                            |
| 90   | 1.0119                            |
| 80   | 1.0237                            |
| 70   | 1.0376                            |
| 60   | 1.0603                            |
| 50   | 1.0999                            |
| 40   | 1.148                             |

#### 3 Liquidated Damages for Low Fuel Stock at the Plant

If in any day of the month the coal stock stored at the Plant is below 201,400 MT, the Seller shall pay to KPLC daily liquidated damages calculated as follows:

$$P_p = (S_S - V_a) \times 0.5 \text{ US}/MT/day$$

Where:

S<sub>S</sub> = The Security Stock expressed in MT, being 201,400MT;

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 $V_a$  = The coal at the plant at the beginning of each day taken at 8 a.m. (expressed in MT); and

 $P_p$  = Daily Liquidated damages applicable to any day of month p (expressed in US\$).

The total liquidated damages for the month shall be the sum of the daily liquidated damages, calculated as above, and shall be deducted from the each monthly invoice.





#### Part C: Interim Capacity Payments

## 1. Interim Capacity Charge Rate

The Interim Capacity Charge Rate for the Plant during each month starting from when a Unit is made available by the Seller and despatched by KPLC prior to the start of Plant Commercial Operations Tests shall be calculated as follows:

$$CCR_{p1} = A_1 + B_1$$

where:

CCR<sub>p1</sub> = the Interim Capacity Charge Rate for month p, (expressed in US\$/kW/month)

$$A_1 = \frac{187.85}{12}$$

(the applicable non-escalable component of the Interim Capacity Charge Rate expressed in US\$/kW/month);

and

$$B_1 = \frac{80}{12} \times \frac{CPI_{p-3}}{CPI_b}$$

(the applicable escalable component of the Interim Capacity Charge Rate expressed in US\$ /kW/month)

where

CPI<sub>p-3</sub> =the Consumer Price Index for the month ended 3 months prior to the beginning of month p;

CPI<sub>b</sub> = the Consumer Price Index for January, 2014, being 233.916

#### 2. Calculation of Interim Capacity Payments

The Seller shall be paid Interim Capacity Payments in respect of Capacity in each month calculated as follows:

$$CP_{p\underline{1}} = \sum_{1}^{3} CCR_{p1} \times CC_{d1,2,3} \times \frac{H_{d2,2,5}}{H_{p}}$$





# where:

| CP <sub>p</sub> <u>1</u> = | the Interim Capacity Payment for month p (expressed in US\$);   |
|----------------------------|---|
| $CCR_{p\underline{1}} =$   | the Interim Capacity Charge Rate for month p (expressed in US\$/kW/month);  |
| CC <sub>d1,2,3</sub> =     | the capacity of each of the Units of the Plant demonstrated during Unit Commercial Operations Test expressed in kW; |
| $H_{d,1,2,3} =$            | the number of hours that each of the Units is made available and despatched during month p; and                     |
| H <sub>p</sub> =           | the number of hours in month p.   |



#### Part D: Capacity Payments

#### 1. Capacity Charge Rate

The Capacity Charge Rate for the Plant during each month starting from the Full Commercial Operation Date shall be calculated as follows:

$$CCR_{p2} = A_2 + B_2$$

where:

CCR<sub>p2</sub> = the Capacity Charge Rate for month p, (expressed in US\$/kW/month)

$$A_2 = \frac{289}{12}$$

(the applicable non-escalable component of the Capacity Charge Rate expressed in US\$/kW/month);

and

$$B_2 = \frac{80}{12} \times \frac{CPI_{p-3}}{CPI_b}$$

(the applicable escalable component of the Capacity Charge Rate expressed in US\$ /kW/month)

where

CPI<sub>p-3</sub> =the Consumer Price Index for the month ended 3 months prior to the beginning of month p;

CPI<sub>b</sub> = the Consumer Price Index for January, 2014, being 233.916

## 2. Calculation of Capacity Payments

The Seller shall be entitled to Capacity Payments in respect of Capacity in each month during the Operating Period calculated as follows:

$$CP_{p\underline{2}} = CCR_{p\underline{2}} \times CC$$

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where:

 $CP_{p2}$  = the Capacity Payment for month p (expressed in US\$);

 $CCR_{p2} =$  the Capacity Charge Rate for month p (expressed in

US\$/kW/month);

CC = the Contracted Capacity prevailing from time to time

(expressed in kW).

## 3. Monthly Availabilities

For each month in each Operating Year, starting with the month in which the Full Commercial Operation Date occurs there shall be calculated a Monthly Target Availability and an Actual Monthly Availability as follows:

### (i) Monthly Target Availability

 $MTA_p = (CC_0 \times H_p) - SMA_p - USMA_p$ 

where:

MTA<sub>p</sub> = Monthly Target Availability (expressed in kWh);

 $CC_0$  = Contracted Capacity at the Signature Date or as determined by the Independent Engineer pursuant to

Clause 6.10 (expressed in kW);

 $H_p$  = Hours in month p.

SMA<sub>p</sub> = Scheduled Maintenance Allowance in month p (expressed in kWh) representing the total energy not available for

in kWh) representing the total energy not available for delivery in month p due to scheduled maintenance outages computed assuming the Plant would otherwise have been despatched at its Contracted Capacity at the Signature Date or as adjusted in accordance with Section 3

of Part A, Schedule 5 (expressed in kW);.

 $USMA_p = Unscheduled Maintenance allowance in month p$ 

(expressed in kWh)

$$=\frac{\left(CC_o \times H_y \times \frac{OA}{100}\right) - \sum_{p=1}^{12} SMA_p}{12}$$

where:

 $H_y$  = Hours in a year, being set as 8760

OA = Annual Outage Allowance (100 – 85 =15)

(ii) Actual Monthly Availability

$$AMA_{p} = \sum_{s=1}^{2 \times H_{p}} \frac{AC_{s}}{2}$$

where:

 $\mathsf{AMA}_\mathsf{p} \ = \qquad \mathsf{Actual} \ \mathsf{Monthly} \ \mathsf{Availability} \ \mathsf{of} \ \mathsf{the} \ \mathsf{Plant} \ \mathsf{in} \ \mathsf{month} \ \mathsf{p}$ 

(expressed in kWh)

AC<sub>s</sub> = Available Capacity in Settlement Period s (expressed in kW)

4. Adjustment of Capacity Payments for Monthly Availability - First Month of Operating Year

If in the first month of an Operating Year, the Actual Monthly Availability is less than the Monthly Target Availability, the Capacity Payment for that month shall be multiplied by the factor:

- 5. Adjustment of Capacity Payments for Monthly Availability Subsequent Months of Operating Year
  - (i) If in any subsequent month m of an Operating Year, the sum of the individual Actual Monthly Availabilities in the Operating Year to date is less than the sum of the Individual Monthly Target Availabilities in the Operating Year to date, then the Capacity Payment for that month shall be adjusted such that

$$ACP_{tp} = \sum_{P=1}^{m} CP_{px} \frac{AMA_{p}}{MTA_{p}}$$

where;

 $ACP_{tp}$  = the sum of the Payments in the Operating Year for each month up to and including month m, but using  $CP_p$  for month m as calculated in Paragraph 2 of this Part D of Schedule 6.



(ii) If in any subsequent month m of an Operating Year, the sum of the individual Actual Monthly Availabilities in the Operating Year to date is greater than or equal to the sum of the Individual Monthly Target Availabilities in the Operating Year to date, then the Capacity Payment for that month shall be adjusted such that:

$$ACP_{tp} = \sum_{P=1}^{m} CP_{P}$$

The actual monthly capacity payment CPp for month m shall be calculated using the following formula:

$$CP_{pm} = ACP_{tp} - ACP_{tp(p-1)}$$

where:

 $ACP_{tp(p-1)}$  = the sum of the Capacity Payments in the Operating Year for each month up to and including the month which ended immediately prior to month m as calculated in Paragraph 2 to 5 of this Part D of Schedule 6; and

CP<sub>pm</sub> = the actual Capacity Payment for month p (expressed in US\$).

#### 6. Adjustment of Capacity Payments for Low Availability

Notwithstanding the implementation by the Seller of the remedial programme pursuant to Clause 8.16, if in any period of six (6) consecutive months the Average Availability is less than eighty (80) per cent ("the Low Availability") other than by reason of Force Majeure, then the adjustments of the Capacity Payments as described in Paragraphs 4 and 5 above will not be made and the Capacity Payments will be adjusted as follows:

the Capacity Payments in respect of each of the six(6) months as determined in Paragraph 2 will be multiplied by the factor  $X_1$  where:

$$X_1 = \frac{0.7}{85} \times C$$



C = the actual Average Availability in the six (6) months period, expressed as a percentage of the Average Availability based on the Contracted Capacity at the Signature Date (981.5 MW) or as may otherwise be determined pursuant to Paragraph 3 of Part A, Schedule 5.

Provided that this Paragraph 6 (i) shall only apply where (C) is greater than sixty five per cent (65%) and less than eighty per cent (80%); and

(v) the Capacity Payments in respect of each of the six(6) months as determined in Paragraph 2 will be multiplied by the factor X<sub>2</sub> where:

$$X_2 = \frac{0.5}{85} \times C$$

C = the actual Average Availability in the six (6) months period, expressed as a percentage of the Average Availability based on the Contracted Capacity at the Signature Date (981.5MW) or as may otherwise be determined pursuant to Paragraph 3 of Part A, Schedule 5

Provided that this Paragraph 6.1 (ii) shall only apply where (C) is less than sixty five per cent (65%).

(vi) For the month in which Low Availability is established, the Seller shall calculate the Capacity Payment for that month in accordance with the following formula:

$$Z = Y - [(X+Y) - W]$$

Where for the purposes of this Paragraph 6:

- Z = the Capacity Payment element of the invoice for the month in which Low Availability is established;
- Y = the Capacity Payment which would have been payable by KPLC for that month, calculated in accordance with Paragraphs 1 to 5 above;
- X = the Capacity Payment for the preceding four(4) months, calculated in accordance with Paragraphs 1 to 5 above; and
- W = the sum of the Capacity Payments for the six (6) months of Low Availability, calculated in accordance with this Paragraph 6.

The invoice submitted by the Seller pursuant to Clause 10.1 shall identify and contain numerical values for each of W, X, Y and Z.



In the event that the value of Z is negative and to the extent that the value of the invoice for that month is also negative, the Seller shall deduct the balance of such invoice from the next following invoice and the process shall be repeated until KPLC has recovered fully the value of Z.

(vii) Where Low Availability continues after such six (6) months period, then for each consecutive month, the Capacity Payments will be adjusted as described in Paragraphs 6 (i) or 6 (ii) above (as the case maybe), save that C will be the actual Availability in such consecutive month.

For avoidance of doubt Low Availability penalties shall not apply during Force Majeure

## 7. Capacity Payments during a Period of Force Majeure

For any month in which the ability of KPLC to take power is affected or part of the Capacity of the plant is unavailable as a result of Force Majeure, the Seller shall be entitled to Capacity Payments, which shall be determined as follows:

### (i) Force Majeure affecting the Seller

The Seller shall receive Capacity Payments for the part of the Plant that remains Available calculated as per Paragraphs 1 to 5 above. A Contracted Capacity Test shall be carried out at the earliest opportunity to determine the Capacity of the part of the Plant that is still Available, which Capacity shall be used to calculate the Target Availability and Capacity Payments for the period during which the Force Majeure persists.

## (ii) Force Majeure affecting the KPLC

The Seller shall receive Capacity Payments [for the Capacity that KPLC is capable of utilizing for any given period of Force Majeure affecting KPLC calculated as per Paragraphs 1 to 5. KPLC shall declare the Capacity it is capable of utilizing immediately after the occurrence of a Force Majeure event and this shall be used as the Contracted Capacity in computation of the Capacity Payments and Target Availability.

For the purpose of this Paragraph 7, The Target Availability of the Plant shall be based on the Contracted Capacity applicable in Paragraph 7 (i) and 7 (ii) of this Part D of Schedule 6.





## 8. Change of Contracted Capacity

In the event that the Contracted Capacity is altered under the provisions of this PPA during any month, calculation of Capacity Payments shall be adjusted prorata to reflect the differing proportions of the month for which differing Contracted Capacities were agreed.

#### Part E: Excess Start Charges

KPLC shall be entitled to, without incurring any additional costs, up to a total of twenty-six (26) Unit starts per Operating Year comprising: five(5) very hot starts; thirteen (13) hot starts; five (5) warm starts and three (3) cold starts, for reasons including load despatch, KPLC System maintenance, emergency or grid disturbance ("KPLC Requested Starts").

KPLC Requested Starts shall not include starts due to failure by the Seller (including, for these purposes, the tripping of any Unit which has not been caused by a failure of the KPLC System or otherwise by KPLC pursuant to this Agreement) or for the purposes of scheduled and unscheduled maintenance.

Any start requested by KPLC in excess of the allowable number of each type of start per (i) Operating Year or (ii) pro rated by type of start for any period of 12 months or part thereof for the period of Interim Capacity Payments shall be an "Excess Start".

KPLC shall pay to the Seller a charge for each Excess Start (to compensate the Seller for increased use of Coal, lubricants, wear and tear and fouling).

## Excess Start Charges per Unit

|  | Cold start | Warm start  | Hot start                            | Extreme hot start |
|--|------------|---|--------------------------------------|-------------------|
| Hours lapsed since Unit shutdown (h)                               | h>48       | 8 <h<48< td=""><td>1<h<8< td=""><td>h&lt;1</td></h<8<></td></h<48<> | 1 <h<8< td=""><td>h&lt;1</td></h<8<> | h<1               |
| ase Excess Start Charge per Unit (in USD per Unit per Excess Start | 391,422.11 | 91,009.78   | 45,041.22                            | 42,634.19         |

Total Number of Free Start Ups for Plant 3.00 5.00 13.00 5.00

The Base Excess Start Charge for each type of start shall be escalated based on the [CPI]. The payment for Excess Starts in any month, shall be calculated as follows:

$$\mathrm{ESP}_{p} = \sum_{1}^{4} ESP_{b,1,2,3,4} \times \frac{\mathrm{CPI}_{p-3}}{\mathrm{CPI}_{b}} \times \mathrm{NES}_{p,1,2,3,4}$$

where:

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| ESPp=                      | Excess Starts payment (expressed in USD\$) for month p;                            |
|----------------------------|--|
| ESP <sub>b,1,2,3,4</sub> = | Base Excess Start payment = USD\$ for each type of start;                          |
| CPI <sub>p-3</sub> =       | the Consumer Price Index for the month 3 months prior to the beginning of month p; |
| CPI <sub>b</sub> =         | is the Consumer Price Index for January 2014, being 233.916;                       |
| NES <sub>0.1.2.3.4</sub> = | the number of Excess Starts occurring in month p.                                  |

The Excess Starts payment shall be calculated on monthly basis, starting from the month when the total starts within the Operating Year exceeds each type of free KPLC Requested Starts.

## Pass Through of Excess Start Charges

The Excess Start Charges during each month calculated in accordance with Part D of this Schedule 6 shall be a pass through cost to consumers. This is for the KPLC's internal purposes only, and shall not affect the calculation of Excess Start Charges.





# Part F: Invoicing

| (i)   | Capacity and En                         | ergy Charges  |         |                               |                |   |   |
|---|---|---|---------|-------------------------------|----------------|---|---|
| Content: The invoice shall, subject to this Part E, be as detailed hereunder: |   |   |         |                               |                |   |   |
| [Draft Invoice to be typed on the letterhead of the Seller                    |   |   |         |                               |                |   |   |
|   |   |   |         | VAT Number [ ] PIN Number [ ] |                |   |   |
|   | aza, PO Box 3009                        | hting Company Lin<br>9 - 00100                      | nited   |                               |                |   |   |
| For the a   | attention of:                           |   | [       |                               | ]              |   |   |
| Invoice 1   | for (insert month                       | in respect of which                                 | h paym  | ent is d                      | ue]            |   |   |
| Invoice I   | Number [                                | ], Invoice Date                                     | e [     |                               | 1              |   |   |
| Invoice p   | period (insert per                      | iod in respect of w                                 | hich pa | yment                         | is due]        |   |   |
| Energy (  | Charges:                                |   |         | US\$ [                        |                | ] |   |
| Capacity  | Charges:                                |   |         | US\$[                         |                | J |   |
| Fuel Ch   | arges:                                  |   |         | US\$ [                        |                | ] |   |
|   |   |   |         |                               |                |   |   |
| -   | Target Availabili<br>Ionthly Availabili |   |         | ]                             | ] kWh<br>] kWh |   |   |
| VAT at [  | κ%]                                     |   |         | US\$[                         |                | ] |   |
| Other Cl  | narges: [to                             | [to include Liquidated damages for low coal stocks] |         |                               |                |   |   |
| Total An  | nount Payable:                          |   |         |                               | US\$[          |   | 1 |

([amount in words] US\$

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Attached to this invoice are Appendices 1 to 6 showing the details of the calculations and other necessary data/support documentation relating to each of the above charges.

Payment of this amount is due on [insert date by which payment should be made ] and should be made to the following account:

Account Name: seller Bank Name: Bank Address: Account Number: Sort Code:

Words and expressions defined in the Power Purchase Agreement dated [ ], 2015 between KPLC and seller have the same meaning used in this Invoice.

| Forse  | eller  |        |               |        |       |     |
|--------|--------|--------|---------------|--------|-------|-----|
|        | **     | •••••• | • • • • • • • | •••••• | ••••• | ••• |
| [detai | ils of | siani  | ng o          | f fice | rl    |     |





## **Energy Charges**

Details of the calculation of Energy Charges shown as Item 3 of this Invoice in accordance with the provisions of Part A of Schedule 6 and the formulae described therein

#### Input data:

CPI<sub>b</sub> - [State Consumer Price Index for January, 2014]

CPI<sub>p-3</sub> - [State Consumer Price Index for the month 3 months prior to the

month p (as described in Part A of Schedule 6)]

NEO<sub>p</sub> - [State Net Electrical Output for the month. Provide a duly signed data

capture sheet showing readings from the Metering System and the

aggregate delivery of the month]

## Calculations:

MEC<sub>p</sub> - [Calculate MEC<sub>p</sub>, the aggregate amount of Energy Charges payable by

KPLC in respect to the Net Electrical output using the formulae stated

in Part A of Schedule 6]

Backup Data: [where applicable, attach copies of documents verifying the input

parameters stated above]



## **Fuel Charges and Liquidated Damages**

Details of the calculation of Fuel Charges, and Liquidated Damages for Low Fuel Stock shown as Items 4, and 8 respectively of this Invoice in accordance with the provisions of Part B of Schedule 6.

Input data:

K and L , - [Provide a summary showing the quantities of different coal purchases (expressed in MT), the lower calorific value (expressed in kJ/kg) and the density of coal delivered as applicable to the month of invoice]

 $P_{p}$  - [Provide a table showing the Fuel Stock at the Plant at the start of each day during the month and the overdue Fuel and Energy Charges]

Calculations:

FC<sub>p</sub> - [Calculate FC<sub>P</sub>, the aggregate amount of Fuel Charges for the month using the formulae stated in Paragraph 1, Part B of Schedule 6]

P<sub>p</sub>- [Calculate the daily liquidated damages for Low Fuel Stock for during the month in accordance with Paragraph 2, Part B of Schedule 6]

Backup Data: attach copies of all suppliers' invoices and independently performed test certificates regarding each batch of Fuel delivered during the month.





#### **Capacity Payments**

Details of the calculation of the Capacity Charge Rate shown as Item 5 of this Invoice in accordance with the provisions of Part C of Schedule 6 including the relevant value of the Consumer Price Index.

Input data:

ACs - [State the average Available Capacity for the month. Provide a table

showing the actual Available Capacity for each Settlement Period

during the month and the calculated average]

CC - [State the Contracted Capacity of the Plant]

Calculations:

CCR - [Calculate the Capacity Charge Rate for the month]

CP<sub>p</sub> - [Calculate CP<sub>p</sub>, the Capacity Payment for the month in accordance with

Part C of Schedule 6.

 $\mathsf{MTA}_\mathsf{p}$  - [Calculate the Monthly Target Availability  $\mathsf{MTA}_\mathsf{p}$ , using the formulae

stated in Paragraph 3 of Part C of Schedule 6]

AMA<sub>p</sub> - [Calculate the Actual Monthly Availability AMA<sub>p</sub>, using the

formulae stated in Paragraph 3 of Part C of Schedule 6]

Backup Data:

Force Majeure [Where applicable, attach copies of documents verifying any Force Majeure claims or other factors affecting the above calculations]

Low Availability [Provide details as shall be necessary]

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# **VAT Calculations**

Provide full calculations of VAT to be paid by KPLC.

# APPENDIX 5

# Miscellaneous Charges

Provide details of the calculation of any such charges.





#### Part G: Consumer Prices Index

- 1. If in the opinion of either Party the CPI cannot be properly calculated as a result of any of the following circumstances (an "Event"):
  - (a) The non-availability or discontinuance of one or more of the figures, values or prices required to calculate the CPI (whether permanent or temporary);
  - (b) An error is contained in one or more of the published figures, values or prices required calculating the CPI;
  - (c) The basis upon which the CPI is calculated has been changed and thereby superseded so as materially to affect the validity of CPI comparison over time other than any change arising from changes in the respective consumption patterns upon which the CPI was based;

then the Parties shall meet and seek in good faith to agree upon the means whereby the CPI may be adjusted or to agree upon a replacement index and if the parties cannot agree upon such adjustment or replacement index within a period of thirty (30) days either Party may refer the matter to an Expert in accordance with Clause 18.2, which Expert shall determine such replacement index as most closely reflects the CPI prior to the Event and also the date from which such replacement index shall be applicable.

2. If an index other than the CPI shall be used, then the provisions of this Part E of this Schedule 6 shall apply to such index mutatis mutandis.



# SCHEDULE 7: CONSTRUCTION PROGRAMME



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## SCHEDULE 8: PARTIES' ADDRESSES AND NOTICE DETAILS

#### Seller

Postal Address

Amu Power Company Limited

P.O. Box 61872-00200

4<sup>th</sup> Floor Geminia Insurance Plaza, Kilimanjaro Avenue, Upperhill

Nairobi Kenya.

Fax Number: 254202725256

Telephone Number: 254202725334/5

Notices to be sent to: The Chief Executive Officer

#### **KPLC**

Postal Address:

The Kenya Power and Lighting Company Limited Stima Plaza

P.O. Box 30099-00100

Nairobi Kenya.

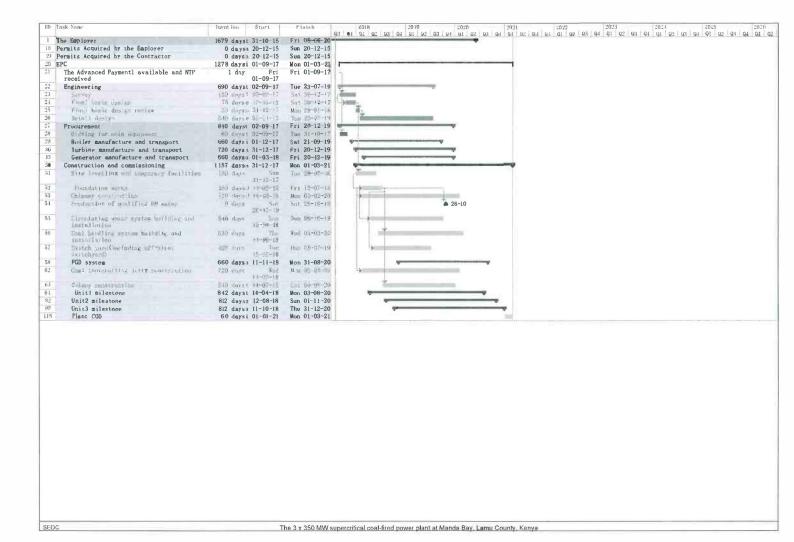
Fax Number: Nairobi, 254 20 3750240

Telephone Number: Nairobi, 254 20 32013201

Notices to be sent to: The Company Secretary











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#### **SCHEDULE 9: INSURANCE**

#### Part A: Construction Period

(The period from the Effective Date until the Full Commercial Operation Date)

1. Marine and Air Cargo:

Cover: All materials, equipment, machinery, spares and other items

for incorporation in the Plant against all risks of physical loss or damage while in transit by sea or air from country of origin anywhere in the world to the Site, or vice versa from the time of the insured items leaving warehouse or factory for shipment to the Site. Cover to institute Cargo Clauses (Air), institute War Clauses (Air), (Sending By Post), institute Strikes

Clause (Cargo, Air Cargo) or equivalent.

Sum insured: An amount equal to cost and freight of any shipment.

**Insured**: The Seller and its relevant contractors.

 Loss of Revenue Profits (following Marine incident)-"Marine Delay in Full Commercial Operation Date":

**Cover**: Against loss of revenue following delay in start of commercial

operations as a direct result or physical loss or damage to the materials, equipment, machinery and other items in transit by sea or air to the Site, to the extent covered under the Marine

Cargo insurance.

Sum insured: An amount equal to the estimated continuing expenses,

including debt service, during the indemnity period.

**Indemnity Period**: 12 months or the period required to repair or replace materials,

equipment or machinery, whichever is less.

**Insured**: The Seller.



#### 3. Contractors' All Risks:

**Cover**: The contract works executed and in the course of execution,

materials and temporary works, while on the Site, against all risks of physical loss or damage other than war and kindred risks, nuclear risks, unexplained shortage, cost of replacing or repairing items which are defective in workmanship, material or design; penalties; consequential Losses; cash; vehicles; vessels; aircraft and other standard exclusions contained in such policies. Cover shall provide the equivalent terms, conditions and perils/causes of loss provided under an

erection all risks insurance policy.

**Sum insured**: The Contract Price.

**Period of Cover:** Actual construction, testing and commissioning.

Insured: The Seller, its contractors and its lenders and all suppliers on

Site; KPLC shall be added as an additional insured as its

interests may appear.

4. Loss of Revenue "Delay in Full Commercial Operation Date":

Cover: Against loss of revenue following delay in start of commercial

operations as a direct result of physical loss of or damage to the works during construction or operational testing to the extent that such loss or damage is not covered under the

Contractors' All Risks policy.

Sum insured: An amount equal to the estimated continuing expenses,

including debt service, during the indemnity period.

Indemnity Period: Not less than 12 months.

**Insured**: The Seller and its lenders.

Period of Cover: Construction, testing and commissioning periods of the Plant

from mobilization of the Seller's contractors until the day

following the Full Commercial Operation Date.

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## 5. **Public Liability**:

Cover: Against legal liability to third parties for bodily injury or

damage to property arising out of the construction, testing

and commissioning of the Plant.

Sum insured: For any one claim: US\$ 5,000,000.

Insured: The Seller and its contractors and KPLC shall be added as an

additional insured as its interest may appear.

Period of Cover: The actual construction, testing and commissioning of the

Plant from mobilization of the Seller's contractors until the day

following Full Commercial Operation Date.

## 6. Miscellaneous:

Other insurance as is customary, desirable or necessary to comply with local or other requirements, such as Workmen Compensation Insurance in relation to all workmen employed in the construction of the Plant and Motor Insurance on a vehicle.





#### Part B: Operating Period

(The period from the Full Commercial Operation Date until the end of the Term)

#### All Risks Insurance - Fixed -Assets:

**Cover**: All building contents, machinery, stock, fixtures, fittings and all

other personal property forming part of the Plant against "All

Risks" of physical loss or damage, including (but not limited to)

those resulting from fire, lightning, explosion, spontaneous

combustion, storm, wind, tempest, flood, hurricane, water

damage, riot, strikes, malicious damage, earthquake, collapse

and/or loss of contents of tanks, subject to standard policy

exclusions.

**Sum insured**: Full replacement value of the Plant.

Insured: The Seller and its lenders; KPLC shall be added, as an

additional insured as its interests may appear.

## 2. Consequential loss Following All Risks:

Cover: Loss of revenue due to loss of capacity and/or loss of output as

a direct consequence of loss of or damage to the Plant and

caused by a peril insured under paragraph 1 above.

Sum insured: An amount equal to the estimated continuing expenses,

including debt service, during the indemnity period.

**Indemnity Period**: Not less than 12 months.

**Insured**: The Seller and its lenders.

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## 3. Machinery Breakdown:

Cover: All machinery, plant and ancillary equipment forming part of

the Plant against sudden and unforeseen physical loss or

damage resulting from mechanical and electrical breakdown

or derangement, explosion or collapse of pressure vessels,

electrical short circuits, vibration, misalignment, excessive

current or voltage, abnormal stresses, centrifugal forces,

failure of protective or regulating devices, overheating, entry

of foreign bodies, impact, collision and other similar causes.

Sum insured: Full replacement value of all machinery, plant, boilers, etc.

Insured: The Seller and its lenders; KPLC shall be named as an

additional insured as its interest may appear.

4. Consequential loss following Machinery Breakdown:

Cover: Loss of revenue due to loss of capacity and/or loss of output as

a direct consequence of loss or damage to the Plant caused by

a peril insured under paragraph 3 above.

Sum insured: An amount equal to the estimated continuing expenses,

including debt service, during the indemnity period.

**Indemnity Period**: Not less than 12 months.

Insured: The Seller and its lenders.

5. **Public Liability**:

Cover: Legal liability of the insured for damage to property of third

parties or bodily injury to third parties arising out of the

ownership, operation and maintenance of the Plant.

Sum insured: US

US\$ 5,000,000 for any occurrence.

Insured:

The Seller and its lenders; KPLC shall be named as an

additional insured as its interest may appear.

### 6. Miscellaneous:

Other insurance as is customary, desirable or necessary to comply with local or other requirements, such as Workmen's Compensation insurance in relation to all workmen employed in the Plant or in connection with its operation and Motor Insurance on any vehicle.

If KPLC is added as an additional insured on any of the insurances listed in this Schedule9, the Seller acknowledges and agrees that (a) KPLC may elect to be included as a loss payee on any insurance proceed payments relative to such insurance coverage, and (b) KPLC may elect not be involved in any claim negotiations, discussions or settlements.

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# **SCHEDULE 10: TAXES**





#### SCHEDULE 11: FORM OF KPLC FUNDING FM EVENT NOTICE

To: [address of the Seller]

## Re: Notice of a KPLC Funding FM Event

Dear Sir/Madam,

We refer to the Power Purchase Agreement between The Kenya Power and Lighting Company Limited (KPLC) and [•], dated [•] (the "PPA").

In accordance with Clause 14.3 (b) of the PPA, we hereby notify you that a KPLC Funding FM Event has occurred, and confirm that [insert currency and amount] invoiced by you in the invoice dated [ ](attached) is not the subject of a Dispute under Clause 10.5 and therefore constitutes for the purpose of the GOK Support Letter amount(s) that would have been payable under the PPA had such KPLC Funding FM Event not occurred.

Yours faithfully,

[Authorized signature for KPLC]
The Kenya Power and Lighting Company Limited





| G. |  | Withholding Taxes   |  |
|----|--|---------------------|--|
|    | On dividends paid by the Company on Ordinary Share Capital   | VAT Exempt          | Section 7, 35 of Income Tax Act Cap 470 (ITA) and Third Schedule Paragraph 3(d)  Dividends paid to a resident company owning more than 12.5% of share capital are exempt for tax purposes Dividend paid to resident individuals and companies owning less that 12.5% attract 5% withholding tax Dividends paid to non-residents attract 10% withholding tax  |
| 1  | On interest payments and fees payable to Foreign Lenders on loans used by the Company for industrial investment, capital projects and expansion projects | 15%-Withholding tax | Section 10 and 35 of ITA for Non-residents. Third Schedule - Rate of withholding tax Government bearer bonds of at least 2 years and other interest paid to non-resident companies other than interest paid by petroleum companies or discount or original issue discount attract 15% interest of the gross sum payable. First Schedule of ITA & Gazette Notices - Exempt institutions - Interest is exempt from withholding tax  Part II of the First Schedule of VAT Act |
| •  | 3  |                     | 2013 and VAT Public Notice 19<br>Services of a financial institution are<br>exempt from VAT  |
|    | On payment of principal on debt and on<br>redemption of any Redeemable Share<br>capital  |                     | Repayment of principal on debt and return of initial capital on preference shares does not trigger a tax liability.  Any premium paid higher than 5% on redemption of preference shares shall be deemed to be a dividend and will trigger a withholding tax liability under Section 7  |



|   | I |
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|   |  | and 35 of the ITA. This may also trigger a compensating tax liability should the company not have sufficient credit on the dividend tax account.  Part II of the First Schedule of VAT Act 2013 and VAT Public Notice 19  |
|---|--|---|
| On payments received under the Power Purchase Agreement from KPLC   | Withholding tax – NIL<br>VAT-16%   | Not subject to withholding tax. Supply of electricity does not fall within brackets of withholding tax in Kenya. In addition, supply of electrical energy is defined to be goods for VAT purposes and goods do not attract withholding tax.  VAT of 16% to be charged by Gulf Energy consortium to KPLC in connection with capacity charge and energy charge - Section 2 and 5 of the VAT Act |
| On payments to non-resident construction Contractors and their sub-contractors for the provision of design, supply of plant and machinery and construction services, where such services are only incidental to the supply of goods | withholding tax - 20% on contractual services  No VAT  Supply of plant and machinery under specific invoices - will not trigger withholding tax and VAT. However, goods will be subject to Import Duty (ID) and Import Declaration Form (IDF), where not exempted by law, based on classification and Railway Development Levy (RDL) | Paragraph 29 of the First Schedule in the VAT Act 2013 upon recommendation by Cabinet Secretary for Energy and  |
|   | Income Taxes   |   |
| On taxable income attributable to payments received under the Power Purchase Agreement from the KPLC  | Kenyan company - 30%   | Section 3 (2) (a), 15 and 16 of ITA & Third Schedule of ITA   |
| On interest income contributing to taxable profits, earned from deposits held in  | Same as above  | Section 3(2)(b) of ITA & Third Schedule of ITA  |

|   | Foreign Currency accounts outside of Kenya   |   |   |
|---|--|---|---|
|   |  |   |   |
|   |  | Import Duties   |   |
|   | On the value of goods imported by the Company and its Contractors prior to the Final Commercial Operation Date under the Power Purchase Agreement limited to:  | IDF - 2.25% subject to minimum fees of KShs 5,000/= RDL - 1.5%  | East African Customs Management Act<br>Paragraph 38A of Regulations to Customs<br>and Excise Act, Cap 472   |
|   | _  | depending on tariff classification. East<br>Africa subscribes to the Harmonised   | EAC Common External Tariff  |
|   |  | Commodity Description and Coding System (HS) of classification.  VAT- NIL.  | Paragraph 29 of the First Schedule in the VAT Act 2013 upon recommendation by Cabinet Secretary for Energy and Petroleum  |
|   |  |   | Petroleum   |
|   | ( ) 0 11 11 11 11  | Stamp Duty  | 1=-   |
|   | (a) On the registration of immovable property or vehicles  | Immovable property 4% within Municipality 2% outside a municipality. Non on motor vehicles. Only nominal statutory registration fees payable to Motor Vehicle Registrar.  | The Stamps Act Stamp Duty Act Schedule Paragraph 12A. This rate is applicable to all immovable property except any debt secured by mortgage or charge o n immovable property) |
|   | (b) On the registration of security documentation  | 0.1% of value of loans on the registration of security documentation  | Stamp Duty Act Schedule Paragraph 8   |
|   | (c) On increases in authorised share capital   | 1% of value on increase in authorised share capital i.e Kshs. 20 for every Kshs. 2,000.   | Stamp Duty Act Schedule Paragraph 24 and paragraph 30   |
|   |  | Tax Depreciation  |   |
| 7 | Allowance of tax depreciation on the deemed written down value of Plant & Machinery, assuming depreciation allowances at no less than normal (or ordinary) tax depreciation rates and indefinite carry forward of tax losses | Investment deduction -100%-for power generating plant and equipment including building housing the power generating plant (150% if outside the cities of Nairobi, Mombasa and Kisumu).  Other plant and equipment | Section 15 (2) (b) and Para 24, Para 7 and 31B of the Second Schedule of the ITA  |
|   | created by such tax depreciation   | Class 1-37.5%-heavy earth moving  |   |





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| Allowance of tax depreciation on the cost of Industrial Buildings, assuming depreciation allowances at no less than normal (or ordinary) tax depreciation rates and indefinite carry forward of tax losses created by such tax depreciation | equipment Class 2 - 30% - computers & computer peripherals Class 3 - 25% - Self propelling vehicles including aircrafts (KShs 2 million restriction for private vehicles) Class 4- 12.5%-other plant and equipment Computer software - 20% straight line | Section 15(2) (b) and Para 1(1)(cc) of Second Schedule of ITA                        |
|---|--|--|
| Allowance of tax depreciation on start-up costs, assuming depreciation allowances at no less than normal (or ordinary) tax depreciation rates and indefinite carry forward of tax losses created by such tax                                | No allowances for 'intangible capital' start up costs. Tangible capital start up costs may qualify for tax deductions as per the ITA  Revenue start up costs should be expensed  | Section 15 (2) (b) of ITA and Second<br>Schedule of ITA<br>Section 15 (2) (e) of ITA |
| depreciation Allowance of carry forward of tax losses for four succeeding years of income   | in the first year of income Allowable deduction for current year and four succeeding years of income.  | Section 15 (4) of the ITA  |



|  | Value Added Tax   |  |
|--|---|--|
| (a) VAT on goods and services purchased in Kenya during construction | Evennt  | Paragraph 29 of the First Schedule in the VAT Act 2013 upon recommendation by Cabinet Secretary for Energy and Petroleum |
| (b) VAT on PPA payments  | (00043569-13)   | 16%  |
| (c) VAT on land lease rentals  |   | Exempt   |
|  | Lubricants  |  |
| Import Declaration Fees Import Duty                                  | 2.25% of the Cost, Insurance & Freight (CIF) Value subject to minimum fees of KShs 5,000/= 0% - 25%   | Customs & Excise Act East African Customs Management Act   |
|  | 1.5% on the Cost, Insurance & Freight (CIF)   |  |
| Railway Development Levy   | Value of all imports for use in Kenya   | Customs and Excise Act Section 117A  |
| Excise Duty  | Nil   | Customs and Excise Act   |
| Value Added Tax  | 16%   | VAT Act 2013.  |
| Tax d  | eduction for financing costs (i.e. interest o   |  |
| Interest on Loan   | Interest on loans is tax deductible as long as it is incurred on a debt obligation that has been incurred in the production of its income  If thinly capitalised (that is it is under the control of a non-resident person and the loan finance exceeds three times the 'equity'), then tax deductible interest expense will be limited in proportion to the excess loan finance.  During the construction phase- If the loan is used for capital expenditure, the interest payable will be deemed to be capital in nature and therefore not tax deductible, but capitalised into the cost of the asset and capital allowances claimed accordingly. | Section 16 (2) (j) of ITA.   |





|  | During the normal operations stage, the   |   |
|--|---|---|
|  | interest will qualify as tax deductible.  |   |
|  | Financing structure and additional taxes  | T1: 11: 11: 00 11: 40 (4)   |
| Thin capitalisation  - Interest restrictions  - Deferral of realised exchange losses on shareholder loans until the company comes out the of the thin capitalisation position  Withholding taxes | For a foreign controlled company, a ratio of 1:3 (equity to debt) must be maintained at all times to avoid a thin capitalisation foreign shareholder investment perspective. (See below for details on thin capitalisation issues)  Dividend payments will suffer 10% withholding tax while interest expense will suffer 15% withholding tax. Additionally dividends do not qualify as tax deductible expenses. Interest will qualify as tax deductible subject to thin capitalisation rules.  Interest-free loans will attract deemed interest at rates pegged on treasury bill rates and subject to withholding tax at the rate of 15%. Deemed interest is not deductible for corporate tax purposes. | Thin capitalisation -Section 4A (1) Provision ii and Section 16 (2) (j) of ITA. Dividends - Section 7, 34 & 35 of ITA and |
|  | Foreign exchange loss arising from a loan advanced to the thinly capitalised company by the controlling non-resident person(s) would be deferred until the company ceases to be thinly capitalised.   |   |
|  | quity investor returns and Additional Taxe  | es .  |
| Compensating tax   | Under Kenyan tax laws there are safe guard measures to ensure dividends are not distributed from non-taxed gains (e.g. capital gains)  Compensating tax will apply on dividends distributed from non-taxed  |   |





|   |   | <ul> <li>income.</li> <li>The tax payable is currently at 30/70 of the non-taxed income. This is directly dependent on the corporate tax rate.</li> <li>For dividends paid out from dividends received, there will be no compensating tax issues.</li> <li>Dividend withholding tax covered above.</li> </ul>              |          |
|---|---|--|----------|
|   | Withholding taxes   | WATE C   |          |
|   |   | VAT Refund   |          |
|   | Schedule 6 assumes that VAT will not be paid in connection with the purchase of goods during construction or that it will be recovered in accordance with applicable legislation. | Paragraph 29 of the First Schedule in the VAT Act 2013 provides for VAT exemption during construction phase upon recommendation by Cabinet Secretary for Energy and Petroleum There would be no VAT refund therefore this does not need to be included in the financial model once recommendation is obtained as required. |          |
|   |   | Import Duty & VAT Generating Sets  |          |
|   |   | Import Duty  | VAT Rate |
|   | Steam or other vapour generating boilers :<br>Watertube boilers with a steam production<br>exceeding 45 t per<br>Hour   | 0%   | Exempt   |
| 7 | <ul> <li>Watertube boilers with a steam production<br/>not exceeding 45 t per hour</li> <li>Other vapour generating boilers, including<br/>hybrid boilers</li> </ul>              | 0%   | Exempt   |
|   | - Super-heated water boilers  | 0%   | Exempt   |





| Producer gas or water gas generators, with or without their purifiers; acetylene gas                       | 0%                                    | Exempt  |
|--|---------------------------------------|---|
| generators and similar water process gas<br>generators, with or without their purifiers                    |                                       |   |
| Steam turbines and other vapour turbines - Of an output exceeding 40 MW - Of an output not exceeding 40 MW | 0%                                    | Exempt  |
| Electric generating sets and rotary convertor of an output not exceeding 75                                | 0%                                    | Evennt  |
| KVA; of an output exceeding 75 KVA but not exceeding 375 KVA, and of output                                | 076                                   | Exempt  |
| exceeding 375 KVA; generating sets with spark-ignitions, internal combustion piston                        |                                       |   |
| engines; other generating sets, wind powered, other and electric rotary                                    |                                       |   |
| converters   |                                       |   |
| Electric motors and generators (excluding generating sets)   | 0%                                    | Exempt  |
| Parts suitable for use solely or principally with the above machines                                       | 0%                                    | 16% (Exempt can be applied)                             |
| Electrical transformers, static converters (e.g. rectifiers) and inductors; liquid dielectric transformers | 0%                                    | Exempt  |
| Other transformers:  Having a power handling capacity not exceeding 1 KVA                                  | 10%                                   | Exempt  |
| <ul> <li>Having a power handling capacity<br/>exceeding 1 KVA but not exceeding</li> </ul>                 | 10%                                   | Exempt  |
| 16 KVA  Having a power handling capacity   | 0%                                    | Exempt  |
| not exceeding 16 KVA  Static converters, other inductors, parts  | 0%                                    | Exempt but parts will be 16% (Exemption can be applied) |
| Other plant & equipment not listed above   | Generally 0% unless stated in the Act | VAT can be exempted where applicable                    |





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|  | Capital Gains Tax   |                              |
|--|---------------------|------------------------------|
| On the whole of a gain which accrues to a company or an  | 5% of the net gain. | The Income Tax Act (CAP.470) |
| individual on or after 1st January, 2015 on the transfer of property situated in Kenya, whether or not the property was acquired before 1st January, 2015. | N/A to Seller       | Schedule III                 |



