



Independent Power Producer (IPP) Framework for Malawi

8th March, 2017

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Glossary¹

Arbitration - a dispute resolution mechanism where the matter in dispute is referred for determination by an arbitral panel in accordance with a pre-agreed set of rules.

Assignment - a legal term describing the act of transferring the rights, but not obligations, of a party under an agreement to another party. The right of a party to assign its rights under an agreement will be subjected to restrictions and limitations set out in the relevant agreement and may require the prior consent of other parties to the agreement.

Back to Back - mirrored contract provisions in different contracts to pass risk to another party. More precisely, in relation to an obligation, means the ability of the obligor to pass on the risk of such obligation to another party. This is normally achieved through third party contracts.

Base load Power or Capacity - generating capacity within a national or regional grid network that the off taker or grid operator in tends to dispatch or utilise on a continuous basis.

Capacity Payment - a payment for capacity by the off taker which is based on the ability of the power plant to generate a certain amount. The payment is designed to allow the producer to recover their fixed costs (capital costs and fixed operating costs) and agreed-upon profit. These charges are paid so long as the power plant is made available or deemed available for dispatch, regardless of whether the power plant is actually dispatched.

Carry Forward - an amount of entitlement that is not immediately utilised by the party so entitled, which is added to the entitlement of the party in the next period of entitlement.

Collateral - property, contract rights, or other assets in which a borrower grants a security interest to a lender in order to secure the repayment of a loan.

Commercial Operations Date or COD - a key milestone date defined in the PPA when the power plant commences commercial operation.

Concentrated Solar Power or CSP - a form of solar power generation whereby a circular arrangement of solar panels is focused onto a water tower to create steam to enable generation of electricity through a steam turbine.

Concession - the right granted by the host government to build and operate the power plant and sell electricity in the host country for a number of years. A concession agreement is the agreement by which the concession is granted to the project company. An implementation agreement serves a similar purpose.

Conditions Precedent - a set of conditions that must be fulfilled before a contract or parts of it become effective.

Consequential Loss - please refer to the definition of Direct Loss.

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Contingent Liability - a liability that has not yet materialised but which may materialise in the future.

Corporate Finance - used to distinguish Project Finance (see below). Corporate finance implies that the lender has recourse to the shareholders of the relevant borrower and/or to assets over and above the asset being financed.

Cure Period - the time period during which a defaulting party has a chance to correct a breach which would otherwise lead to an event of default.

Curtailement - an instruction by the off taker or grid operator to the power producer of a non-dispatchable power plant to reduce generation. This may be motivated by end-user demand, the availability of alternative generation resources, transmission network capacity and/or grid stability.

Debt Service Reserve Account or DSRA - in the context of the loan agreement, a special debt reserve account denominated in the currency of the loan, which the project borrower funds with available project cash flow, up to an amount that is sufficient to cover the scheduled debt service obligations of the project borrower over an agreed period of time.

Decommissioning - the obligation of the project company to dismantle and clean up the project site upon the expiry of the term of the concession.

Deemed Capacity - the capacity that a power plant would have been able to make available, but for the occurrence of an event or circumstance for which the off taker bears the risk.

Deemed Completion - the date on which a power plant would, but for the occurrence of an event for which the off taker bears the risk, have achieved the COD.

Deemed energy will be the energy that would have been available if not for the breach caused by the buyer.

Deemed Generation- the electricity that a power plant would have been able to generate, but for the occurrence of an event or circumstance for which the off taker bears the risk.

Delivery Point - the point to which a producer is responsible for delivering electricity generated by on the high voltage side of the step-up transformers. The electricity that is generated by a power plant is measured at the delivery point.

Developer - see **Sponsor**.

Development Finance Institutions - financial institutions with a mandate to finance projects that achieve development outcomes. Examples include the World Bank, AfDB, OPIC, FMO, DEG, CDC, DBSA and Proparco.

Direct Agreements - contracts or agreements between lenders and counterparties of the project company (including the off taker and, where relevant, the host government), under which the relevant project counterparty acknowledge the security interests granted by the project company to the lenders, and allows lenders the opportunity to step in to remedy breaches by the project company. Direct Agreements may also be used to clarify/amend the underlying project contract.

Direct Loss - a loss arising directly as a result of a defaulting party's failure to perform its obligations under the agreement.

Dispatch - an instruction by the off taker or grid operator to the power plant to produce electricity.

Dispatchable Plant - a power plant that is capable of responding to the instructions of the transmission company on demand to vary its output on short notice. Plants that fall within this category include coal-fired plants, gas-fired plants, and renewable plants with a relatively constant or storable source of energy such as a hydro plant with reservoir and/or a biomass plant.

Draw down - in the context of a loan, means the advance of funds from the lender to the borrower.

Effective Date - the date on which the PPA comes into effect. The conditions to the effective date will vary from project to project, but will often include financial close.

Energy Payment - a payment for electricity by the off taker which is based on the actual amount of power generated and dispatched. The payment is designed to allow the producer to recover fuel costs and variable operating costs.

Engineering, Procurement and Construction Contract or EPC Contract - one or more contracts to be entered into between the EPC contractor and the project company for the purpose of setting out terms and conditions for the design, engineering, procurement of materials and equipment, the construction and commissioning of the power plant.

Equator Principles - risk management framework adopted by financial institutions for determining, assessing and managing environmental and social risk in projects, primarily intended to provide a minimum standard for due diligence to support responsible risk decision making.

Equity - money invested by the sponsors in the project that is not borrowed by the project company. The term "Equity" may sometimes be used to include shareholder subordinated debt (which is finance made available to the project company by the sponsors or shareholders of the project company, which is subordinated to debt made available by the lenders).

Equity Contribution Agreement - obliges the owners of the power plant to make equity or subordinated of the power plant not being financed by third party lenders.

Event of Default - a default that the parties to a contract agree is a material default. The occurrence of an Event of Default usually grants the non-defaulting party the right to terminate the contract if such default is not cured within any applicable cure period.

Feasibility Study – a technical and financial study of the viability of the proposed power project.

Financial Closing - either (i) the execution of the Financing Documents, or (ii) the execution of the Financing Documents and the satisfaction of all of the conditions for disbursement of the project loans.

Financing Documents - the set of contracts and agreements the project documents (including the Loan Agreements Direct Agreements and Security Agreements), that define the rights and obligations of the lenders and the project company in relation to the financing of the power plant.

Force Majeure Event - an event beyond the control of the affected party that prevents it from performing one or more of its obligations under relevant contract. Events constituting force majeure are generally further classified into Political Force Majeure Events and Non-Political Force Majeure Events, with different financial and contractual consequences to the contracting parties. Natural Force Majeure falls within the latter category.

Fuel Supplier - a supplier of fuel used to generate electricity.

Fuel Supply Agreement - the agreement between the project company and the fuel supplier (in the case of a conventional PPA), or between the off taker and the fuel supplier (in the case of a tolling agreement or energy conversion agreement), under which the fuel supplier supplies fuel to the project company.

Fuel Transportation Agreement - an agreement providing for the transportation of fuel from the fuel supplier to the project company.
Generator - see **Seller**.

Grid - a system of high tension cables by which electrical power is distributed throughout a region.

Grid Code – a systematic, consistent and regulated formulation of the standards, rules and requirements applicable to all participants in the electricity industry. The Grid Code will be promulgated by the regulator, and given the force of government regulation through gazetting. Grid Code compliance will be a condition of any relevant licence and parties cannot contract out of its requirements (but may mutually agree to impose additional or stricter requirements).

Heat Rate - a measurement of the efficiency of a power plant in converting a unit of fuel into a unit of energy. Heat rates are typically described in terms of MMBtu (LHV) per kWh or GJ (LHV)/kWh.

Host Government - the government of the country in which the power plant is located.

IFC Performance Standards - a set of standards developed by the IFC that are designed to help identify, avoid, mitigate, and manage any adverse social or environmental impacts that may be created by a power project.

Implementation Agreement- Provides for direct contractual obligations and undertakings between the Government and the supplier or project company.

Independent Power Producer - a privately-owned producer of electric power.

Insolvency - the inability of an entity to pay its debts when or as they become due.

Interconnection - the point at which the transmission system and the power plant interconnect.

Interconnection Agreement - an agreement between the project company and the transmission system operator providing for the connecting of the power plant to the transmission system.

Internal Rate of Return or **IRR** – the annualised effective compounded rate of return earned on an investment over a period of time.

Investor - see **Sponsor**.

Kilowatt Hour - a measurement of energy which is equal to 1,000 watts of electricity being generated or consumed continuously for a period of one hour.

Lenders - the providers of loan financing to the project company.

Liquidated Damages - a contractually agreed, fixed amount of damages to compensate one party to a contract for a breach by the other party.

Liquidity - the availability of cash and cash equivalents to cover a party's short-term financial obligations.

Loan Agreement - creates the commitment of the lender to make a loan to the producer to finance the power project, and the obligations of the producer/borrower to repay the loan with interest and to comply with various covenants set forth in the loan agreement.

Long-Stop Date - the final dead line for the achievement of a significant mile stone in a contract, such as the fulfilment of the conditions precedent to the parties' obligations under the agreement, the achievement of financial closing, or the achievement of the commercial operations date.

Long Term Service Agreement or **LTSA** – an agreement under which the equipment supplier will provide certain maintenance services on a power plant at regular intervals during the term of a PPA and/or will provide certain spare parts that are necessary in order to operate and maintain the power plant.

Make-whole - the act of putting a party in the same position as if the event that caused a loss or reduction of benefit has not occurred.

Material Breach - a serious breach by a party of its obligations under an agreement.

Megawatt - a measurement of power meaning 1,000,000 watts.

Merchant Power Plant - a power plant that sells electricity to a competitive wholesale market instead of under a PPA. The off taker of electricity from a merchant power plant is governed by market forces, thereby exposing the project company to market risk.

Misrepresentation - a statement or representation made by one party to another which is proved to be untrue.

Net Electrical Output - the net electrical energy, typically expressed in MWh, that is generated by a power plant and delivered to the delivery point, as measured by the metering system located at the delivery point.

Non-dispatchable Plant - a power plant that is not capable of responding to instructions from a transmission system operator to vary its output.

Non-Political Force Majeure Events - a force majeure event that is not a Political Force Majeure Event.

Non-Recourse Financing - financing that will be repaid solely from an identified source of revenues. Non-recourse financing is usually provided to a special-purpose vehicle. The obligations of the shareholders in the special-purpose vehicle are usually limited to their obligation to contribute capital and, in some cases, to provide other limited and well-defined support to the special-purpose vehicle.

Novation - a legal mechanism by which the rights and obligations of a party under a contract are transferred to third party.

Offtaker - the party to a PPA whose obligation is to purchase the capacity made available and the electricity generated by the power plant, subject to the terms and conditions of the PPA. Also referred to as the Buyer.

Operating and Maintenance Agreement or **O&M Agreement** – the agreement between the project company and the operator under which the operator operates and maintains the power plant.

Pass Through - in relation to a cost, a mechanism under which the producer passes such cost on to the off taker by operation of the tariff.

Political Force Majeure Event - a force majeure event that is political in nature. Typically these would include any act of war, conflict, act of foreign enemy, blockade, embargo, or revolution, strikes of a nationwide or politically motivated character, changes in law, and the revocation or non-issuance of concessions or other authorizations.

Power Purchase Agreement or **PPA** - a contract between two parties, one of which produces or generates power for sale (the seller/producer) and one of which purchases power (the buyer/off taker). This contract is sometimes referred to as an "off taker" agreement.

Producer - see **Seller**.

Project Company - See **Seller**.

Project Documents - the contracts or agreements required for the construction, operation and maintenance of the power plant. Typically this will include the Power Purchase Agreement, EPC Contract, Fuel Supply Agreement, Operations and Maintenance Agreement, and the Interconnection Agreement.

Project Finance - see Non-Recourse Financing.

Project Loan - a loan from one or more lenders to the project company, made for the purpose of financing a power project.

Project Works - the civil works and electro-mechanical equipment that will, once completed, constitute a power plant.

Public Private Partnerships - arrangements between the public and private sectors whereby a service or piece of infrastructure that is ordinarily provided by the public sector is provided by the private sector, with clear agreement on the allocation of associated risks and responsibilities.

Regulator - competent authority of the host government having the statutory right to regulate the Project and the project company.

Request For Proposal - an invitation from the host government, the off taker, or in some markets, the Regulator, to potential investors to submit a proposal to develop a power project.

Run of the River - in the context of a hydro-electric plant, a hydro-electric plant without a reservoir of any significant size.

Security Documents - the documents that grant the security interests, mortgages, pledges and other security rights that secure the repayment of the project loans in favour of the lenders.

Seller - The entity which is selling power under the PPA. Also referred to as the **Project Company, Power Producer or Generator**.

Several Liability - means that each party is separately responsible for its own performance and the consequences of its failure to perform.

Site - the land upon which the power plant is located.

Sovereign Support Agreements - can include sovereign guarantees, comfort letters, put and call option agreements and other forms of sovereign support that enhance the credit worthiness of the off taker and other government entities involved in the project.

Special-Purpose Vehicle - a corporate entity established specifically for the purpose of pursuing a specific project which is prohibited from undertaking any activity beyond the project in question. Often called the project company for the **Sponsor** - a shareholder or other parties affiliated with the shareholders of the project company, also known as the **Investor or Developer**.

Spot Market - in the context of the supply of electricity, the wholesale electricity market into which the project company can sell electricity other than under a long-term PPA. In the context the market from which the project company can acquire fuel without entering into long-term fuel purchase obligations.

Step-in Rights - the rights granted to the lenders under a Direct Agreement to step-in and cure a default by the project company, under a project agreement, before the counterparty to the project company may take any action to contract.

Take and Pay - in the context of a PPA, the obligation of the off taker to accept delivery of and pay for electricity actually generated by the power plant.

Take or Pay - in the context of a PPA, the obligation of the off taker to pay for electricity made available by the power plant regardless of whether electricity is actually generated, but excluding electricity that is dispatched by the transmission system operator but not delivered by the producer.

Term - the period of time during which a contract will remain in force, unless terminated earlier by either party in accordance with the terms and conditions of the contract. The term of a PPA is usually expressed to run until a date falling a fixed number of years after COD.

Tolling Agreement - in the context of power projects, an agreement under which a party, usually the off taker, agrees to provide fuel to the power producer that will be converted into electricity for the benefit of the off taker.

Volts - a derived unit for electrical potential.

Acronyms²

AfDB	African Development Bank
CE mark	Conformité Européenne conformity marking
COD	Commercial Operations Date
CSP	Concentrated Solar Power
DEA	Director of Environmental Affairs
DSRA	Debt Service Reserve Account
ECA	Export Credit Agency
EIA	Environmental Impact Assessment
EOI	Expression of Interest
EPC	Engineering, Procurement and Construction (contract)
FM	Force Majeure
FSA	Fuel Supply Agreement
GoM	The Government of the Republic of Malawi
GJ	Giga joule
ICA	Infrastructure Consortium for Africa
IE	Independent Engineer
IFC	International Finance Corporation
IPP	Independent Power Producer/Project
kW	Kilowatt
kWh	kilowatt hour
LCOE	Levelised cost of energy
LD	Liquidated Damages
LHV	lower heating value
LC	Letter of Credit
LLA	Land Lease Agreement
LTSA	Long Term Service Agreement
MERA	Malawi Energy Regulatory Authority
MLHUD	Ministry of Land, Housing and Urban Development
MMBtu	Million British Thermal Units
MNREM	The Malawian Ministry of Natural Resources Energy and Mining

² Based on list in Understanding Power Purchase Agreements – Version 1.3 Published Under the Creative Commons, Attribution-Non-commercial-Share Alike 4.0, International License (cc by no sa)

MoF	Ministry of Finance
MW	Megawatt
MWh	Megawatt hour
O&M	Operations and Maintenance
OPIC	Overseas Private Investment Corporation
PPA	Power Purchase Agreement
PRI	Political Risk Insurance
RFT	Request for Tender
SB	ESCOM Single Buyer office
SCADA	Supervisory Control and Data Acquisition system operated by ESCOM
SIPP	Solicited IPP
Tx	Transmission
UIPP	Unsolicited IPP
USD	United States dollar
VAT	Value Added Tax

Executive Summary

The IPP Framework covers an IPP Framework summary, the IPP Framework Structures and Processes, covering IPP Roles, Responsibilities and Rules of Engagement. It also covers IPP Framework Solicitation Processes covering General IPP procurement processes, Solicited IPP (SIPP) procurement and Unsolicited IPP procurement (UIPP). In addition, it has the Project evaluation covering Risk assessment and due diligence, Comprehensive evaluation approach and procedures, Tariff structures and analysis; and Financial evaluation. Lastly, it includes Project template documents including the IPP Framework Template Procurement Documents; and the IPP Framework Pro-Forma Project Agreements.

1.0 Introduction

Background

Malawi has one of the lowest electrification rates in Sub-Saharan Africa; its 365 MW installed capacity, mostly from hydroelectric power plants on the Shire River, provides electricity to less than 10% of Malawi's population. The Government of Malawi (GoM) intends to increase installed electricity capacity to around 719 MW by 2020 and increase access to electricity to around 30% of the population by 2030. Malawi government believes that with private sector participation in the power sector, the set targets in installed capacity and access to electricity is achievable.

2.0 The IPP Framework: Structure and Composition

GoM through the MNREM is therefore encouraging the participation of the private investors in power sector investment to complement the Government efforts in a form of independent power producers (IPPs). GoM is committed to providing an environment necessary that promotes IPPs through this IPP framework which outlines the rules of engagement for all participants in the power sector.

The IPP Framework (the framework) is made up of the following documents:

- The IPP Framework Structures and Processes covering, the IPP Roles, Responsibilities and Rules of Engagement
- The IPP Framework Template Procurement Documents
- The IPP Framework Pro-Forma Project Agreements
- IPP Framework Solicitation Processes covering, General IPP procurement processes; Solicited IPP (SIPP) procurement; and Unsolicited IPP procurement (UIPP)
- Project evaluation covering: Risk assessment and due diligence, Comprehensive evaluation approach and procedures, Tariff structures and analysis, Financial evaluation,
- Project template documents including: The IPP Framework Template Procurement Documents and The IPP Framework Pro-Forma Project Agreements, IPP Framework Due Diligence and Risk Assessment Detail

3.0 Roles and Responsibilities and Rules of Engagement

This section contains detailed diagrams and tables illustrating the IPP framework roles and responsibilities for the parties. It also outlines the rules of engagement.

3.1 IPP Solicitation Process, Evaluation and Financial Modelling and Negotiation

The Framework Structures and Process includes a description of the IPP procurement structures and processes and the roles of the various industry participants as well as evaluation processes.

3.2 The IPP Framework Procurement Process

The IPP procurement process shall be as follows:

- A, A bidding document will be issued inviting interested firms to participate in the IPP solicited procurement;
- B, Where applicable, the unsolicited IPP procurement process shall be pursued in the public interest;
- C, The IPP procurement shall be done according to the Public Procurement Act 2003 and other relevant legislations. Donor funded IPP procurement will be done according to the guidelines set by such institutions.

3.3 The IPP Framework Pro-Forma Project Agreements

The pro-forma documents provided are:

- A pro-forma transmission connection agreement (TCA)
- A pro-forma power purchase agreement (PPA)
- A pro-forma implementation agreement (IA)
- A pro-forma land lease agreement (LLA)

3.4 Roles and Responsibilities and Rules of Engagement

The roles and specific responsibilities for the Framework parties, namely: Funders, Infrastructure Owners, Constructors, Operators and Energy Owners are depicted in Figure 1 below and described in Table 1 below. These are ultimately governed by legislation as well as regulations and contractual agreements. Some additional rules of engagement are included in Section 4.0.

Figure 1: Roles and Responsibilities of Key Participants in IPP Framework

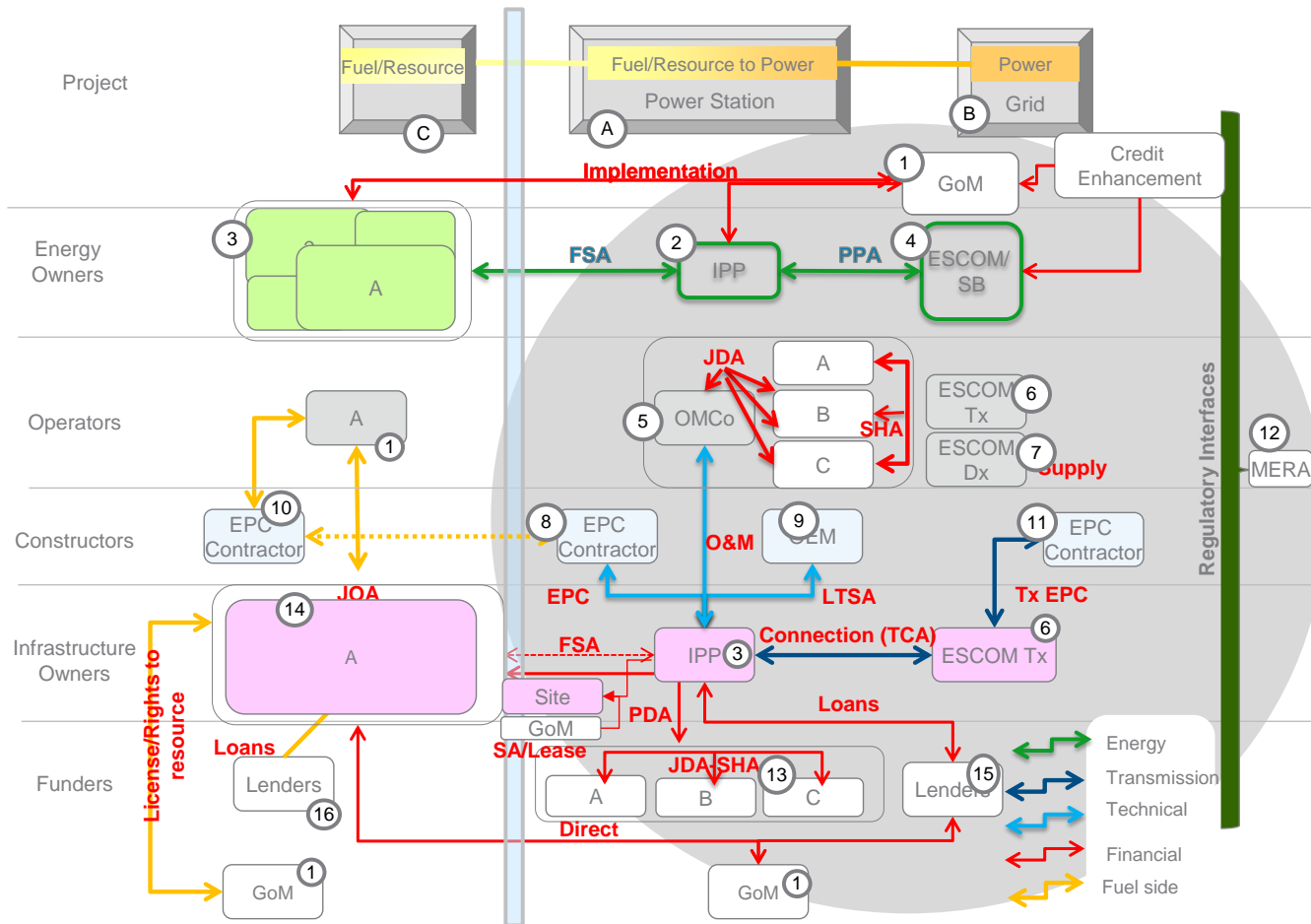


Table 1 Role and Responsibilities of Key Participants in IPP Framework

Entity type	Ref to Fig 1	Entity	Roles	Responsibility
Project Development Sponsors	I	IPP	Develop power project	Secure all requirements to make project feasible and bankable
	T	Transmission	Develop transmission connection	Administer connection application
	F	Fuel Supply	Develop fuel supply	Secure all requirements to make fuel supply feasible and bankable
Government	1	Government of Malawi (GoM)	Electricity Policy Support for Investment	Structural Reform Support for Cost Reflective Pricing Legislative Reform Support for SB Counterparty for Implementation Agreement Counterparty for Land Lease
Power Station	2	IPP	Energy: Contract for fuel purchase and electricity sales Infrastructure: Connection to fuel supply and transmission Secure finance, government support and ownership agreements Contract with GoM for Implementation and land rights/lease	Counterparty for EPC contract Counterparty for O&M contract Counterparty for LTSA contract
Fuel Supplier	3	Fuel supplier or IPP	Ensure fuel supply availability Counter party for fuel supply contract	Provide and deliver fuel Counter party for fuel supply contract
Power Buyer	4	SB	Contract for power purchase	Ensure payment responsibilities met
Power Station Operations and Maintenance	5	IPP Operator	Ensure plant is maintained and operated as contractually agreed	Operate to contractual standards

Entity type	Ref to Fig 1	Entity	Roles	Responsibility
Transmission	6/7	ESCOM Transmission / Distribution	Transmission Connection for Offtake Construction supply for IPP	Build or contract for Connection development Agree transmission connection agreement Administer connection agreement Grid Operations and Maintenance
Construction	8	Power station builder (EPC)	Build power station	Build without defect on time
	9	Original Equipment Manufacturer (OEM)	Provide power station equipment	Provide equipment without defect on time
	10	Fuel supply builder (EPC)	Build fuel supply	Build without defect on time
	11	Transmission builder (EPC)	Build transmission developments required	Build without defect on time
Regulation	12	MERA	Economic and technical regulation of the electricity sector	Economic regulation Technical regulation Approval of PPAs, award generation licence. Industry behaviour & rules governance Supporting Cost Reflective Pricing policies Grid code development
Owners	13	IPP Owners	Ownership	Equity investment (contingent equity for completion)
	14	Fuel Supply Owners	Ownership	Equity investment (contingent equity for completion)
Lenders	15	Power Station lenders	Financiers	Provide finance for power station Counterparty for loan agreements
	16	Fuel Supply lenders	Financiers	Provide finance for fuel supply Counterparty for loan agreements
Market and System operator	17	ESCOM	Power station scheduling and dispatch	Responsible for scheduling all power generation and responsible for dispatching generation whilst protecting the integrity of the transmission system

4.0 Rules of Engagement

In order to facilitate private power involvement in the Malawian electricity sector the following rules of engagement shall apply:

1. MNREM shall review the IRP every 5 years. The Single Buyer (SB) agrees to develop an annual generation procurement plan outlining the specific approach to be taken to power generation in the next twelve (12) months and updating as appropriate the material in the IRP.
2. All parties in the Malawi power sector shall offer open and equitable access to the Malawi power system.
3. MERA to act as adjudicator in the event of disputes regarding open access.
4. The Malawi Government shall provide timely and impartial responses to IPP requests and applications.
5. The SB, ESCOM Transmission and MERA shall set maximum response target times for stages of IPP evaluation, generation licence applications and transmission connections and agree to sign a charter codifying these response times.
6. The SB, ESCOM Transmission and MERA are, at their absolute discretion, entitled to set the required information and due diligence levels at which they will accept IPPs and advance them through the stages of the IPP procurement and generation licence application processes.
7. No Malawi Government entities will be liable for any costs incurred by IPPs for any reason except as agreed in the terms and conditions of any legally binding executed contracts.

4.1 IPP Solicitation Processes

4.1.1 The Integrated Resource Plan (IRP)

The IPP solicitation process shall be in line with the IRP as well as the Generation Procurement Plan

Specific IPP Procurement

The Framework processes and structures for each procurement type are summarised in the adjacent Figure 2 and the step by step process flow is documented in the following tables.

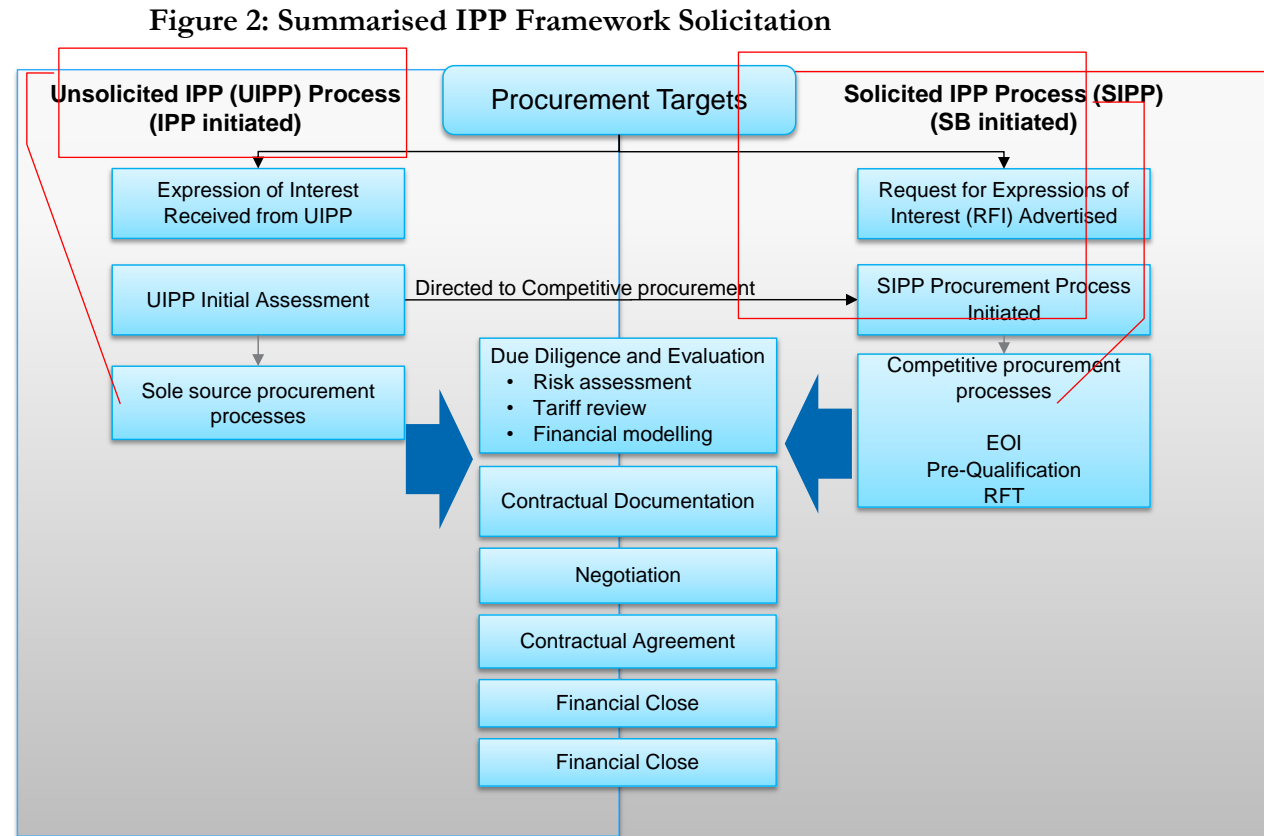


Table 1: IPP Framework General Procurement Processes

Stages	Parties	Action	Reference
Annual power Generation Procurement Plan	SB	The SB develops and publishes the Power Generation Procurement Plan at the beginning of each annual cycle.	Annual Generation Procurement Plan

Table 2: IPP Framework Unsolicited Procurement Processes

Stages	Parties	Action	Reference
Expression of Interest received from IPP	IPP/SB	The Single Buyer (SB) receives an EOI from an IPP	
EOI reviewed	SB	SB reviews EOI and confirms UIPP is consistent with the current generation procurement plan and IRP.	
UIPP Prefeasibility	IPP	If UIPP prefeasibility not completed this is undertaken by the IPP	
Environmental Project Brief (prep)	IPP	IPP undertakes and submits Environmental Project Brief	Annexure G
Environmental Project Brief (submission)	DEA	Environmental Project Brief reviewed by Director of Environmental Affairs (DEA) and Technical Committee on the Environment	Annexure G
UIPP Initial Assessment	SB	UIPP assessed by SB to determine where it will be directed	
Eligible UIPP Processes	SB	SB initiates sole or multi-party UIPP evaluation processes for any eligible UIPP it selects. UIPPs without valid unique characteristic directed to a competitive solicited process.	
Due Diligence and Evaluation	SB	Initial due diligence and evaluation carried out by SB on IPP	Annexure D
Transmission Connection	ESCOM Tx	IPP applied for transmission connection and ESCOM transmission (Tx) evaluates the application and responds	Annexure H
Full Feasibility Study	IPP	IPP performs full feasibility study, completing all tasks possible at this stage	

Stages	Parties	Action	Reference
Regulatory Assessment	IPP/MERA	IPP submits licence application and applies for interim licence or notice of any shortcomings. MERA provides IPP with indicative requirements for a licence to be awarded.	Annexure M
Due diligence updated and Full Valuation	SB	SB updates due diligence work and carries out full evaluation	Annexure D
Environmental Impact Assessment (EIA)	IPP/EAD	IPP undertakes EIA	Annexure G
EIA Reviewed	DEA	Review by Director of Environmental Affairs (DEA) and Technical Committee on the Environment	Annexure G
Transmission Connection Agreed	SB/ESCOM Tx	The SB agrees to the terms of ESCOM Tx's transmission connection offer	Annexure H
Negotiations on PPA	IPP/SB	The IPP and the SB negotiate the specific terms of the PPA	Annexure I
Negotiations on IA	IPP/MoF	The IPP and the MoF negotiate the specific terms of the IA	Annexure K
Land Lease contract	IPP/MLHUD	IPP requiring a land lease applies for and signs a land lease with the Ministry of Land, Housing and Urban Development (MLHUD).	Annexure L
Generation Licence	IPP/MERA	MERA provides IPP with a conditional generation licence which becomes effective upon satisfaction of conditions precedent	Annexure M
Financial Close and Project Agreements Effective	IPP	IPP secures financing for project and Project Agreements become effective	Figure 2: Summarised IPP Framework Solicitation

Table 3: IPP Framework Solicited Procurement Processes

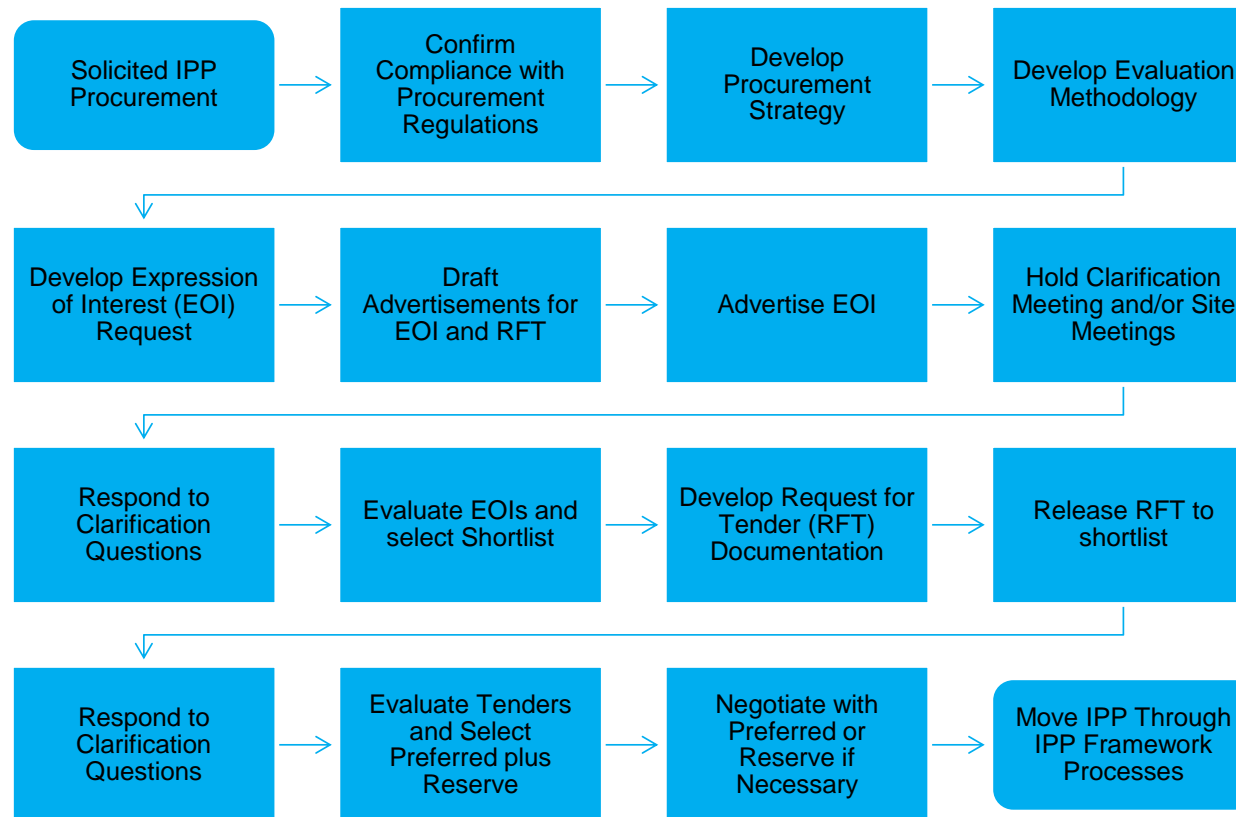
Stages	Parties	Action	Reference
SIPP Prefeasibility	GoM	GoM undertake prefeasibility studies	
Full Feasibility Study	GoM	GoM performs full feasibility study, completing all tasks possible at this stage	Annexure A Error! Reference source not found.
Request for EOIs (RFI)	SB	The SB develops and RFI and RfT and advertises RFI	
EOIs prepared	IPP	Candidate IPPs submit EOIs	
SIPP Initial Assessment	SB	Initial due diligence and evaluation carried out by SB on SIPPs and prequalified SIPP shortlist developed	Annexure D
Request for Tender (RfT)	SB	SB releases RfT to prequalified SIPPs	Annexure C
Environmental Project Brief	IPP	IPP undertakes and submits Environmental Project Brief	Annexure G
Environmental Project Brief	DEA	Environmental Project Brief reviewed by Director of Environmental Affairs (DEA) and Technical Committee on the Environment	Annexure G
Transmission Connection	ESCOM Tx	IPP applied for transmission connection and ESCOM transmission (Tx) evaluates the application and responds	Annexure H
Regulatory Assessment	IPP/MERA	IPP submits licence application and applies for interim licence or notice of any shortcomings. MERA provides IPP with indicative requirements for a licence to be awarded.	Annexure M
Due diligence	SB	SB updates due diligence while short-listed bidders complete RfT requirements.	Annexure D
Tender	IPP	RfT submitted by IPPs	
Tender Evaluation	SB	SB carries out full tender evaluation	Annexure D

Stages	Parties	Action	Reference
Preferred SIPPs selected	SB	SB selected preferred bidder/s and reserve bidder and notifies all bidders of next steps	
Transmission Connection Agreed	SB/ESCOM Tx	The SB agrees to the terms of ESCOM Tx's transmission connection offer	Annexure H
Negotiations on PPA	IPP/SB	The IPP and the SB negotiate the specific terms of the PPA	Annexure I
Negotiations on IA	IPP/MoF	The IPP and the MoF negotiate the specific terms of the IA	Annexure K
Land Lease contract	IPP/MLHUD	IPP requiring a land lease applies for and signs a land lease with the Ministry of Land, Housing and Urban Development (MLHUD).	Annexure L
Generation Licence	IPP/MERA	MERA provides IPP with a conditional generation licence which becomes effective upon satisfaction of conditions precedent	Annexure M
Environmental Impact Assessment (EIA)	IPP	IPP undertakes EIA	Annexure G
EIA Reviewed	DEA	Review by Director of Environmental Affairs (DEA) and Technical Committee on the Environment	Annexure G
Financial Close and Project Agreements Effective	IPP	IPP secures financing for project and Project Agreements become effective	Figure 2: Summarised IPP Framework Solicitation

4.1.2 Solicited IPP Procurement Processes

The following procurement processes are consistent with Malawi's Public Procurement Act 2003 and the Public Procurement Regulations 2004. To bring solicited IPPs into the IPP framework the procurement processes shall follow the steps outlined in Figure 3 below.

Figure 3: Solicited IPP Procurement Processes



The SB will determine the procurement strategy and get this signed off by GoM. Within the structure of that procurement strategy an evaluation methodology will be developed with an appropriate weighting for technical expertise and experience and a financial component ensuring the project represents good value.

Figure 4: Unsolicited IPP Initial Assessment

IPPs will be procured using a two stage process namely technical and financial proposals. Clarification meetings and site visits (where applicable) will be part of the procurement processes. The ultimate tender evaluation processes will be formal with strict probity rules governing these assessments.

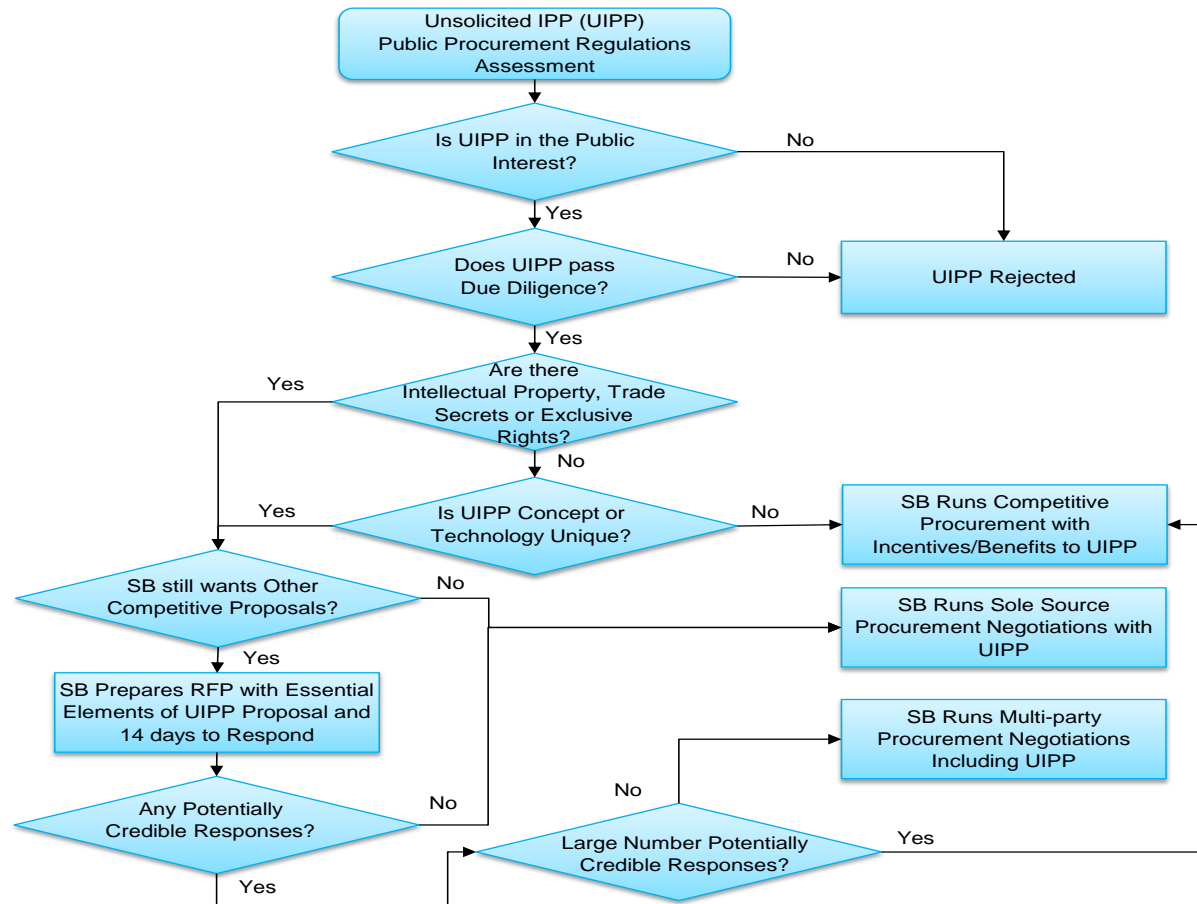
The proposed overall IPP framework approach to evaluating IPPs and establishing required milestone agreements is illustrated in Figure 4: Unsolicited IPP initial Assessment

The UIPP initial assessment is carried out to determine if the UIPP can be contracted with (subject to due diligence and evaluation) and if the UIPP can be sole sourced or whether it will be directed into a competitive process (when a suitable process is scheduled). The first step is confirming that the UIPP's expression of interest is consistent with the generation procurement plan and the IRP. After this, as outlined in the adjacent diagram an initial assessment will be carried out to determine the treatment of the IPP.

Key steps are to determine:

- Is contracting with UIPP in the public interest?
- Does the UIPP have particular and specific/unique intellectual property, trade secrets, exclusive rights or some unique aspect?
- Value for money
- Proven technology
- Emergency

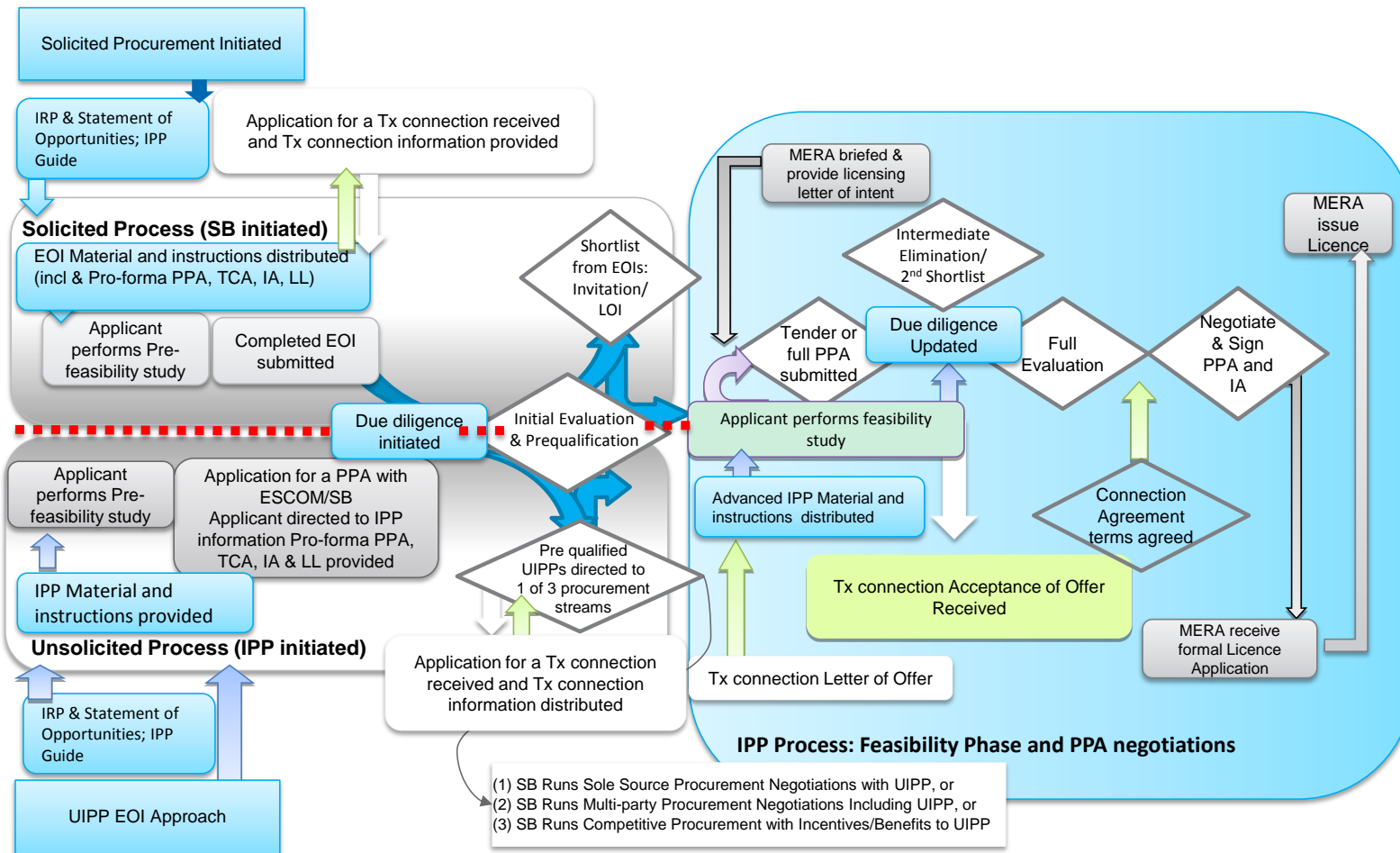
If the UIPP satisfies these requirements it will be moved through into the full evaluation and negotiation phase.



4.1.3 Detailed IPP Processes and Documentation

The detailed IPP framework processes are illustrated below:

Figure 5: IPP Processes



5.0 IPP Evaluation and Financial Modelling

5.1 IPP Evaluation Approach

The evaluation approach shall be carried out in five stages:

1. Preliminary (Mandatory) compliance

Mandatory procurement requirements are useful to limit bidders quickly by eliminating unacceptable bids at an early stage. All bids shall be assessed to see if they comply with the requirements that they were instructed would be mandatory such as tender compliance, corporate viability evidence, reference site information. A failure by any bidder to provide the required information at the necessary level will result in that bidder being excluded from further consideration.

2. Technical evaluation

Technical evaluation shall consider experience and expertise and the overall technical fit for purpose of the bids. Consideration shall be given to adequacy of reference projects, history of reliability and availability, environmental performance and site specific issues.

3. Due diligence

The due diligence process is designed to assist decision making by assessing the potential risk of conducting business with a particular party. The purpose of the due diligence and risk assessment process is to make an objective assessment of the likelihood of the developer and associated parties being a reasonable party for Single Buyer to deal with from an ethical, legal, financial and technical perspective. The result of the due diligence will be a view by Single Buyer of the risk it faces in entering into further discussions with the developer. If, in Single Buyer's view, the risk of involvement with the developer is high then Single Buyer may decline to continue discussions. Alternatively, Single Buyer shall determine that the developer represents an acceptable risk but shall require further assurance or checks before it ultimately considers contracting with the developer. It is important to remember that the due diligence is only the first step in determining if Single Buyer will contract with the developer. The due diligence process shall continue in some form throughout the period that the Single Buyer is evaluating the IPP proposal and negotiating with the prospective developer. The Single Buyer shall have an opportunity to protect itself against various contractual problems through the contracts and the due diligence process is not intended to provide a full evaluation of the project itself or against other projects.

4. Commercial evaluation

A commercial component shall be included which shall ask bidders to respond to pro-forma contracts and advise what changes they might require (if any). An indication of the expected level of government support shall be considered across the board in the evaluation at this point.

5. Financial assessment

Financial modelling for IPP evaluation shall be different for UIPP and SIPP evaluations.

5.2 SIPP Procurement Evaluation Financial Modelling

The SIPP bidders take responsibility for their financial proposals and the financial evaluation is focussed on comparing the offered tariffs using a normalised cost.

5.3 UIPP Procurement Evaluation Financial Modelling

The UIPP shall provide audited financial model for the SB to review. The SB shall assess the financial proposal from an UIPP by assessing the following items:

- All project agreements, including but not limited to agreements (where applicable) for the following:
- EPC
- O&M
- FSA
- Site & Land use
- Shareholders
- Financing
- Transmission connection
- Assumptions categorised as:
 - Economic
 - Foreign exchange
 - Inflation
 - Tax
 - Financial
 - Equity and Debt levels
 - Debt cost
 - Equity return
 - Fuel or resource
 - Fuel consumption
 - Fuel efficiency
 - Resource level assumptions

- Technical
 - Capital Cost
- Model operation
- Price and Returns

5.4 Tariff Structure

Tariff structures vary depending on whether the power station is dispatchable or non-dispatchable.

5.4.1 Dispatchable IPP Tariffs

Dispatchable tariffs usually consist of a capacity charge and an energy charge. The capacity charge is a fixed charge made to cover the fixed costs of the generator regardless of whether the generator has dispatched or not. The energy charge is variable (per MWh) for energy that is dispatchable to the off-taker. The capacity charge shall be reduced if tested capacity does not reach contracted levels or capacity availability is below contracted levels. A contract breach and possible PPA termination may result from a significant decline in power station capacity or persistent lower than contracted availability of power station capacity as well as a long sustained period of power station capacity unavailability.

5.4.2 Non-Dispatchable IPP tariffs

A non-dispatchable IPP will typically recover all its costs through a variable MWh charge. This means that the IPP will recover the risk that the IPP is dependent on and that the reliability of the generation plant will be sufficient to allow the IPP to recover its costs based on a forecast operating regime and capacity of the power station. If the off-taker or transmission system curtail the operation of the non-dispatchable IPP or delay its commissioning then typically a deemed energy charge will be payable. A deemed energy payment will be payable to a non-dispatchable IPP under the PPA if the buyer cannot take power that is available from the IPP or if the buyer has caused delayed commissioning of the IPP. Deemed energy will be calculated using measurement equipment to assess the energy that could have been generated if not for the breach. The deemed energy payment shall be based on the agreed energy charge applied to the deemed energy.

5.5 Tariff evaluation

An evaluation of the tariff structures shall be different for an UIPP and a SIPP.

5.5.1 Solicited IPP Tariff Evaluation

In solicited IPP evaluations the tariff structures will be reviewed to understand the mix of fixed and variable. However, generally the combined tariffs will be converted to a levelised cost of energy (LCOE) and this will be a primary factor in the evaluation of the solicited IPP bids.

The LCOE formula is as follows:

$$LCOE = \frac{\text{Net Present Value of Lifetime Project Costs}}{\text{Net Present Value of Lifetime of Project Output}}$$

5.5.2 Unsolicited IPP Tariff Evaluation

The evaluation of an unsolicited IPP's tariff offer will be substantially more intrusive because there is no competitive tension ensuring the price offered is reasonable and fair. Consequently, evaluation of an UIPP requires that the financial model is first audited by an independent expert and then provided by the UIPP to the SB for review. The SB will also need to be satisfied that the project returns of the IPP are in line with what an IPP should receive given the country, power market and other risks. In addition, the SB must be satisfied that the tariff reflects the reasonable cost of the project, a reasonable return and the SB's own review of the reasonableness of the UIPP's financial model.

6.0 Tender Evaluation Process

The section outlines sample arrangements for a transparent, professional, efficient and inclusive evaluation of a solicited IPP Tender.

6.1 Overview of Process for Selecting Solution

The tender to select the preferred solution for power supply is being managed by SB. The SB is responsible for preparing the Request for Tender, which is issued in accordance with SB's procurement procedures.

The SB shall establish an evaluation team to complete an evaluation of the bids received, conduct a quality control check on the evaluation results and present a recommendation as to the preferred solution to Internal Procurement Committee for approval.

6.2 Evaluation Process

The SB determines that separate envelop bids are required, so that the technical and financial evaluation of compliant bids can be conducted separately. A secure venue shall be utilised with controlled and restricted access to the members of the evaluation team only.

6.3 Evaluation schedule

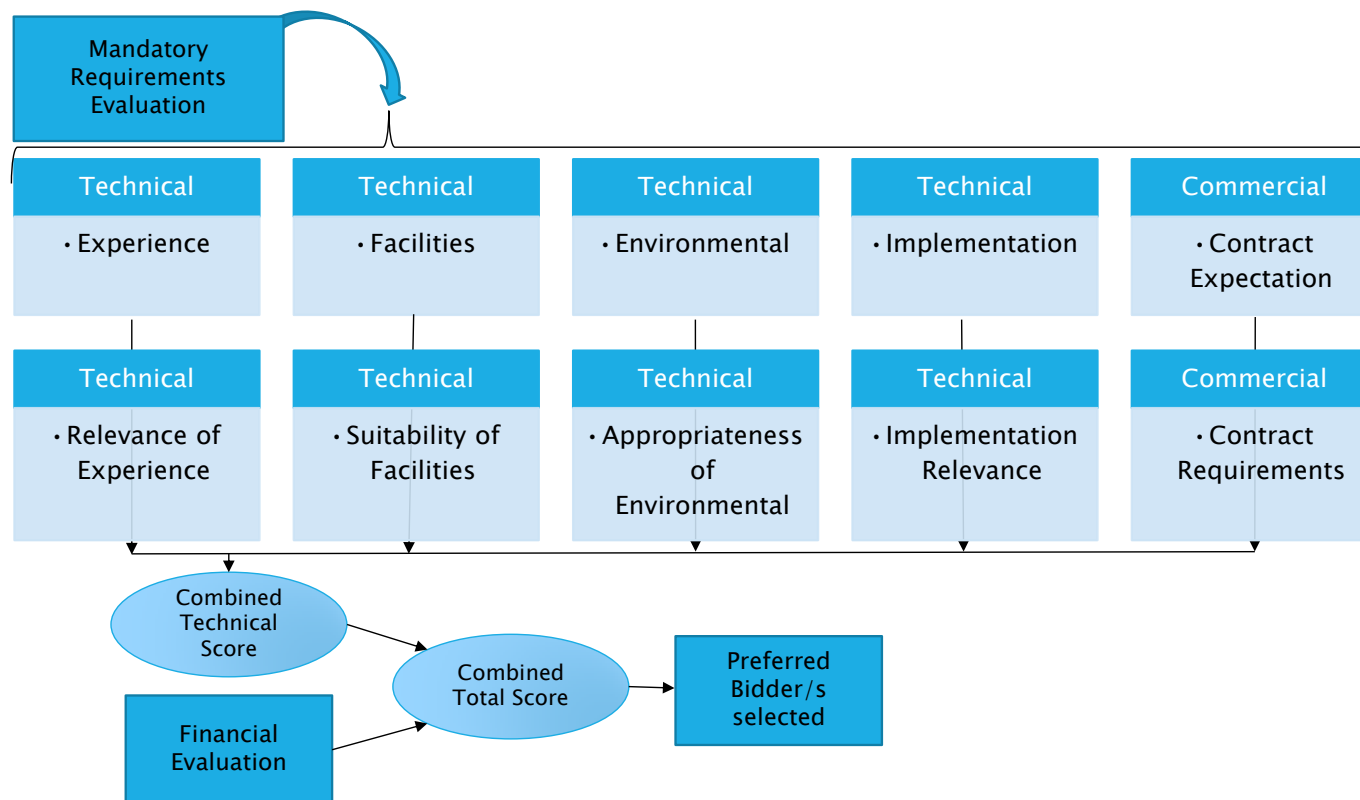
Two separate evaluation periods shall be required.

The first stage of the evaluation shall focus on compliance and technical evaluation. The second stage shall focus on the financial evaluation.

6.4 General Code of Conduct during Evaluation:

The evaluation shall be done according to the laid down guidelines as per the Procurement Act 2003 and the 2004 Regulations. The overall process for the tender evaluation is illustrated below.

Figure 6: Evaluation Approach



6.5 Technical evaluation

The evaluation comprises four components, as follows.

Mandatory compliance evaluation

Mandatory compliance is assessed on a positive (yes/no) response to every parameter. Bidders shall not proceed to the next level if they fail any one of the mandatory requirements.

Technical Evaluation

The technical evaluation comprises an assessment of four elements:

- Experience
 - Scored on the basis of a series of yes/no questions relating to reference sites.
- Site considerations
 - A two part evaluation:
 - Adequacy of response scored on the basis of a series of yes/no questions.
 - An evaluation of the technical ‘fit-for-purpose’ of the proposed technical solution.
- Implementation Process
 - A two part evaluation:
 - Adequacy of responses, scored on the basis of a series of yes/no questions.
 - An evaluation of the technical ‘fit-for-purpose’ of the proposed implementation process and timelines.
- Environmental
 - A two part evaluation:
 - Adequacy of responses, scored on the basis of a series of yes/no questions.
 - An evaluation of the environmental acceptability of the proposed solution.

6.6 Commercial Evaluation

A two part evaluation:

- Responses to specific information requests, scored on the basis of a series of yes/no questions.
- An evaluation of the extent of any changes requested to the pro-forma PPA and TCA.

Financial Evaluation

The financial evaluation shall consist of a determination of the Levelised Unit Cost of Electricity calculated using common fuel prices and exchange rates over the project life.

The following shall also be considered:

Implementation Timelines

Parameter	Evaluation Criterion
Adequacy of Timelines	
• Includes provision for site preparation	Yes/No
• Includes provision for equipment delivery	Yes/No
• Includes provision for equipment installation	Yes/No
• Includes provision for equipment commissioning/connection	Yes/No
• Includes provision for delivery/installation of transformers	Yes/No
• Includes provision for fuel supply contracting	Yes/No
• Includes provision for construction of storage	Yes/No
• Includes provision for supply of raw water	Yes/No
Technical Fit-for-Purpose	
• Credibility	Score out of 15
• Speed of implementation	Score out of 15

Environmental

Parameter	Evaluation Criterion
Adequacy of Information Provided	

• Identifies typical noise levels	Yes/No
• Confirms waste water complies with standards	Yes/No
• Confirms engines comply with World Bank standards	Yes/No
• Provides guaranteed max. SO2	Yes/No
• Provides guaranteed max. NO2	Yes/No
• Provides guaranteed max. CO	Yes/No
• Provides guaranteed max. unburned hydrocarbons	Yes/No
• Provides guaranteed max. particulate matter	Yes/No
• Provides example EMP	Yes/No
• Provides details of process to obtain ECC	Yes/No
Technical Fit-for-Purpose	
• Environmental suitability	Score out of 10

Commercial Bid Evaluation

Contractual Acceptability	
• Accepts Malawian/English Law?	Yes/No
• Provides details of proposed insurance?	Yes/No
• Accepts dispute resolution?	Yes/No
• Delay LDs > US\$100k/day?	Yes/No
• Aggregate delay LDs ≥ USD10 million	Yes/No
• Threshold for change in costs ≥ USD 1 million	Yes/No
• Indemnity ≥ USD 20 million	Yes/No
• Contracted Availability ≥ 98.5%	Yes/No

Extent of GoM support required	
• Does NOT require an Implementation Agreement	Yes/No
• Does NOT require government guarantee of PPA payments	Yes/No
• Does NOT require change-in-tax pass-through	Yes/No
Contractual Modifications Required	
• Acceptability of IA	Score out of 10
• Extent of modification to pro-forma PPA	Score out of 10
• Extent of modification to pro-forma TCA	Score out of 10

Evaluation Team:

The evaluation team is set out as below.

Specialist Area	Evaluators
General compliance evaluation	
Technical evaluation – information provided	
Technical evaluation – Fit-for-purpose	
Commercial evaluation	
Financial evaluation	
Legal evaluation	

Annexure A	Prefeasibility and Feasibility
Annexure B	Expression of Interest (Pre-qualification): Information Requirements
Annexure C	Pro-forma Tender Document
Annexure D	IPP Framework Due Diligence and Risk Assessment
Annexure E	Non-dispatchable Renewable IPP Risk Allocation Matrix
Annexure F	Dispatchable Thermal IPP Risk Allocation Matrix
Annexure G	The Environmental Impact Assessment Process in Malawi
Annexure H	Transmission Application to Connect (Generation)
Annexure I	Pro-forma Transmission Connection Agreement (TCA)
Annexure J	Pro-forma Power Purchase Agreement (PPA)
Annexure K	Pro-forma Implementation Agreement (IA)
Annexure L	Pro-forma Land Lease Agreement (LLA)
Annexure M	Generation Licence Application
Annexure N	IPP Framework Summary