

# **Power Purchase Agreement**

**(PPA)**

**Between**

**MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.**

**&**

**M/S.**

.....

**DIST. ....**

**(..... MW Installed Capacity)**

**Based on Rfs No. MSEDCL/RE/Bagasse/2019/T-32 issued  
by MSEDCL on dated 08.02.2019**

## Power Purchase Agreement

This agreement is executed at Mumbai on \_\_\_\_\_ of \_\_\_\_\_ 2019.

between:

**M/s.** ..... i.e. A Co-operative / Limited Sugar Factory registered under the Co-operative Societies Act 1984/ Indian Companies Act 1956, and having factory at ..... its registered office at ..... (Maharashtra State), represented by its **Managing Director** hereinafter referred to as 'Generator' (which expression shall unless repugnant to the subject or context or meaning thereof deemed to include its successors, representatives and permitted assignees) as party of the **FIRST PART**,

**AND**

**Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)** (formerly Maharashtra State Electricity Board, MSEB), a company formed and registered under the Companies Act, 1956 (1 of 1956) as per the Government of Maharashtra's Notification No. Reform. 1005/CR-9061 (1)/NRG-5 dated 4<sup>th</sup> June 2005, having its registered office at Prakashgad, Prof. Anant Kanekar Marg, Bandra (East), Mumbai 400051 formerly the Maharashtra State Electricity MSEDCL, a statutory MSEDCL constituted under the erstwhile Electricity (Supply) Act 1948, with its Registered Office at Hongkong Bank Building, 3rd Floor, M.G. Road, Fort, Mumbai 400 023, (hereinafter referred to as the ("MSEDCL /MSETCL /MSEB") which expression shall unless repugnant to the context or meaning thereof include its successor and assigns) as party of the **SECOND PART**.

WHEREAS, the Generator is a Registered company / Co-operative Societies which carries the business of manufacturing sugar and by products of molasses, Bagasse and simultaneously proposed / commissioned Generation of Electricity at ....., Tal. ....Dist. ....

AND WHEREAS, the Memorandum and Articles of Association and the by-laws of the Generator permits the Generation of electricity AND THEREFORE the Generator has proposed to undertake the business of generating electricity.

AND WHEREAS any generating company may establish, operate and maintain a generating station without obtaining a license under EA Act 2003, if it complies with the technical standards relating to connectivity with the grid referred to in clause (b) of section 73 of EA

Act 2003.

AND WHEREAS, the Generator has undertaken to install the generating set and the erection, installation and commissioning of the said co-generation plant is planned to be completed by .....[Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

AND WHEREAS Government of Maharashtra has notified the policy for power generation from non-conventional sources of energy with a target of 2000 MW from bagasse based Co-generation project which has been achieved by MSEDCL.

AND WHEREAS Government of Maharashtra vide its Letter dated 01<sup>st</sup> January 2019 allowed MSEDCL to procure power from Bagasse based Cogeneration project under Reverse auction bidding process at the ceiling price of Rs. 4.75 per unit.

AND WHEREAS MERC has issued the RPO regulations stipulates that the Obligated entities may purchase non-solar power to fulfil their RPO at the tariff determined through competitive bidding.

AND WHEREAS MSEDCL had accordingly adopted a single stage bidding process and invited bid proposals by its RfS dated 08.02.2019 for short listing of Bidders who offer to supply electricity from bagasse based Cogen power generating station, and had shortlisted certain Bidders including, inter alia, the selected bidder.

AND WHEREAS MSEDCL had prescribed the technical and commercial terms and conditions, and opened RfS tariff bids shortlisted pursuant to the bidding documents for undertaking the Project.

AND WHEREAS, Pursuant to the said bidding process and after evaluation of the Bids received and post E-Reverse Auction process, MSEDCL has accepted the Bid of ..... [Insert name of Successful Bidder to which LoA has been issued], the selected bidder and issued its Letter of Intent No. .... dated ..... (hereinafter called the "LOI") to the selected bidder requiring, inter alia, the execution of this Agreement for Purchase of Power within 1 month from the date of issue of LOA.

AND, WHEREAS the Generator has furnished Performance Bank Guarantee no. .... dated ..... amounting to Rs. .... (calculated at Rs 5 Lakh / MW) as per the RfS no. \_\_\_\_\_ [Applicable only in case of New plant yet to be commissioned or for capacity augmentation].

AND WHEREAS, In pursuance of the LOA, the Parties have agreed to enter into this Agreement for hereinafter for sale and supply of electricity to MSEDCL as an Aggregate Exportable Contracted Capacity (as described hereunder) from the Bagasse based Cogeneration Power Generating Station in accordance with the terms in accordance with the terms and conditions to be set forth in an agreement for purchase of power to be entered into under and in accordance with the provisions of the Electricity Act, 2003 of this Agreement.

AND WHEREAS, based on bidding process, MSEDCL is desirous of purchasing the power from the cogeneration power project and the Generator is willing to sell surplus power from the cogeneration power project to MSEDCL from the date of commercial operation as declared by the Generator [Applicable only in case of New plant yet to be commissioned or for capacity augmentation] or from the date of signing of the PPA [Applicable only in case of existing projects].

AND WHEREAS MSETCL/MSEDCL, has checked and approved the feasibility for evacuation of power & grid connectivity is issued vide letter No. .... and thereby the power will be **evacuated at .... kV level** at ..... KV Substation.

AND WHEREAS the Generator has proposed to sell the surplus power as an exportable capacity from the said Bagasse based Cogeneration Power Generation plant to MSEDCL to the tune of \_\_\_\_\_ MW in season and \_\_\_\_\_ MW in Off-season against the installed capacity of \_\_\_\_\_ MW. The electricity, will be produced by using bagasse as fuel. The supply of the surplus power available for export will be made after meeting the consumption of the sugar mill and the auxiliary consumption of the Co-gen power plant.

AND WHEREAS the Generator has proposed to sell surplus power generated from the said plant to MSEDCL as under:

Sr. No	Items	Value in MW	
		Season <sup>s</sup>	Off-Season <sup>s</sup>
1.	Gross Power Generation Capacity	10 MW	0 MW
2.	i. Power Consumption (For Sugar Mill Cane Crushing & Boiler Auxiliary)	4 MW	0 MW
	ii. Distilleries & Colonies	0.10 MW	0 MW
3.	Total Consumption	4.10 MW	0 MW
4.	Exportable Power at Interconnection point	5.90 MW	0 MW

\* - The above table is just an illustration under which the exportable surplus power will be calculated.

\$ - Season means sugar cane crushing period during the year. (180 days)\$ - Off season means, period other than sugar cane crushing during the year (60 days)

AND WHEREAS the Generator shall abide by the terms and conditions laid down by the Maharashtra Electricity Regulatory Commission (MERC) Regulations, Orders and the subsequent Clarificatory Orders, issued by MERC or any judicial authorities from time to time.

AND WHEREAS as per MERC (Terms & Conditions for determination of RE Tariff) Regulations, 2015, this co-generation plant shall be subjected to "Merit Order Dispatch " principles and shall be subjected to scheduling and dispatch code as specified under the State Grid Code (SCG) including amendments thereto.

The Generator shall be fully responsible for obtaining and maintaining the validity of any and all licenses and permits required by the law and shall abide by Law, the Rules, Regulations or any notification or order issued there under by the Central Govt. or State Govt. or Local Authority or any other Authority prescribed under any Law connected with the Generation

Facility of the Generator.

NOW THEREFORE IN VIEW OF THE FOREGOING PREMISES AND IN CONSIDERATION OF THE MUTUAL COVENANTS AND CONDITIONS HEREINAFTER SET FORTH, MSEDCL AND THE GENERATOR, EACH TOGETHER WITH THEIR RESPECTIVE SUCCESSORS AND PERMITTED ASSIGNS, A PARTY AND COLLECTIVELY THE PARTIES, HEREBY AGREE AS FOLLOWS:

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## CLAUSE 1. DEFINITIONS AND INTERPRETATIONS

### 1.1 Definitions

For convenience and brevity, certain terms used in this Agreement are defined and listed in alphabetical order below. Each defined term used in this Agreement has been identified by capitalizing the first letter of that term

**Act** means the Electricity Act, 2003 (36 of 2003).

**Agreement** shall mean this Power Purchase Agreement executed hereof, including the schedules hereto, amendments, modifications and supplements made in writing by the Parties from time to time.

**Appropriate Commission** shall mean the Maharashtra State Electricity Regulatory Commission (MERC).

**Approvals** means the permits, clearances, licenses and consents as are listed in Schedule 3 hereto and any other statutory approvals.

**Auxiliary Energy Consumption** means the quantum of energy consumed by auxiliary equipment of the Generating Station and transformer losses within the Generating Station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the Generating Station.

**Bagasse** is the combustible organic matter left after the extraction of the usable products of the sugarcane.

**Billing Period** means (subject to Clause 6.1 of the Agreement) the calendar month ending with the Metering Date. The first Billing Period shall commence from the Commercial Operation Date and end with the Metering Date corresponding to the month in which the Commercial Operation Date occurs.

**Billing Date** shall be the first Business Day after the Metering Date of each Billing Period.

**Business Day** shall mean a Day other than Sunday or a statutory holiday on which banks remain open for business in Mumbai.

**CERC** means Central Electricity Regulatory Commission

**Change in Law** as defined in Clause 9 of this document.

**Competent Authority** means the Government of India, the Government of the State of Maharashtra and any agency, authority, department, inspectorate, ministry or statutory person (whether autonomous or not) of the Government of India or the

Government of the State of Maharashtra.

**Commercial Operation Date (COD) means** the date on which Generation Facility starts delivering power to MSEDCL, notifying MSEDCL in advance the date of commercial operation. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

**Commissioning Date means** the date on which the Generator makes the declaration that the Co-generation project is ready for generation of electricity before declaration of commercial operation Date (COD). [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

**Competent Court** means the Supreme Court of India or any High Court, or any tribunal or any similar judicial or quasi-judicial body that has jurisdiction in relation to issues relating to the Project.

**Co-generation Facility -** A Co-generation facility is defined as one, which simultaneously produces two or more forms of useful energy such as electrical power and steam, electric power and shaft (mechanical) power etc.

**Delivered Energy** means the kilowatt hours of Electricity actually fed and measured by the energy meters at the Delivery Point and as certified under joint meter reading.

**Delivery Point / Interconnection Point** shall mean the interface point of renewable energy generating facility with the transmission system or distribution system, as the case may be; in relation to non-fossil fuel based co-generation power projects, the interconnection point shall be the line isolator on outgoing feeder on HV side of generator transformer.

**Due Date of Payment** shall mean in relation to any invoice the day falling **30 Days** after the date upon which such invoice is submitted. If such day is not a business day, the immediately succeeding business day will be considered as due date for payment;

**Effective Date** shall mean the date of execution of Power Purchase Agreement (PPA) by both the parties;

**Electricity Laws** shall mean the Electricity Act, 2003 and the relevant Rules, Notifications, and amendments issued there under and all other Laws in effect from time to time and applicable to the development, financing, construction, ownership, operation or maintenance or regulation of electric generating companies and Utilities in India, the rules, regulations and amendments issued by the MERC / CERC from time to time.

**Emergency** means a condition or situation of physical damage to MSETCL's / MSEDCL's electrical system including the Grid System, which threatens the safe and reliable



operation of such system or which is likely to result in disruption of safe, adequate and continuous electric supply by MSETCL or MSEDCL Grid System or could endanger life or property.

**Expiry Date** shall mean the date occurring after \_\_\_\_\_ years from the Commercial Operation Date of the project or \_\_\_\_\_ years from the signing of the PPA.

**Exportable Capacity** shall mean the surplus power available at the interconnection point after the self-consumption of the co-generation plant from the total power generated by the bagasse based co-generation plant.

**Financial Closure or Project Financing agreements**, means arrangement of necessary funds by the bidder either by way of commitment of funds by the company from its internal resources and / or tie-up of funds through a bank / financial institution by way of sanction of loan or letter agreeing to finance. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

**Force Majeure** as defined in Clause 8 of this document.

**Forced Outage** is the period of interruption or reduction or shutdown of the Generation Facility attributed to unforeseen condition other than planned or scheduled outage.

**Fuel** means non-fossil fuels such as bagasse.

**FY** shall mean financial year (beginning on 1<sup>st</sup> April and ending on 31<sup>st</sup> March of the following year)

**Generator** means the generating company / Society registered under the Companies Act 1956 / Co-operative Society Act, 1960, and established to design, finance, own, operate, generate & supply Electricity by using non fossil fuel such as bagasse.

**Generation Facility** means the co-generation electric power generating facility along with associated Sugar Mill /processing plant to be constructed and owned by Generator or (an independent Generator and a Sugar Mill/ processing plant having PDA between them in case of BOOT basis), located in the state of Maharashtra.

**Government Instrumentality** shall mean the GoI, the GoM and their ministries, inspectorate, departments, agencies, bodies, authorities, legislative bodies

**Grid System** shall mean CTU / STU / Discom's power transmission system / distribution system through which Delivered Energy is evacuated and distributed.

**GoM** means the Government of Maharashtra

**Installed capacity** shall mean the total capacity of the bagasse based co-generation plant.

**kV** means Kilovolts.

**kWh** means Kilowatt – Hour(s).

**kW** means Kilowatts.

**Land** means the land on which the Generation Facility will be constructed.

**Liability** means any liability (whether known or unknown, asserted or unasserted, absolute or contingent, accrued or unaccrued, liquidated or unliquidated, and due or to become due), including any liability for Taxes in accordance with the provisions of this Agreement.

**MERC** means the Maharashtra Electricity Regulatory Commission.

**Metering Date** for a Billing Period, means the midnight of the last Day of the calendar month.

**Metering Point** will be similar to the interconnection point as defined in this agreement..

**MSEDCL and MSETCL** means the Maharashtra State Electricity Distribution Co. Ltd. and Maharashtra State Electricity Transmission Co. Ltd. respectively.

**Ordinary Course of Business** means the ordinary course of business consistent with past custom and practice (including with respect to quantity and frequency) in the same type of undertaking.

**One Year Span** means a period of 365 days counted from the reference year (Commercial operation year) date.

**Order means**

**1)** MERC RE (Terms & Conditions for determination of RE Tariff) Regulations 2010/ 2015 & RPO Regulations 2010/ 2016, for purchase of Power from Bagasse based Co-generation Projects and in the matter of aiding the State Government in formulation of Policy,

**2)** MERC Regulations / Orders issued from time to time.

**3)** Any other relevant order issued by any judicial authority including High Court, CERC, APTEL, Supreme Court which may have any impact on the specified arrangement in the bidding process.

**Person** means an individual, a partnership, a corporation, an association, a joint stock company, a trust, a joint venture, an unincorporated organization, or a governmental entity or any department or agency.

**Project** shall mean a Bagasse based Cogen Power Station to be established by the Generator at \_\_\_\_\_, Dist: \_\_\_\_\_ the State of Maharashtra, aggregating to installed capacity of \_\_\_\_\_ MW and shall include land, buildings, plant, machinery, ancillary equipment, material, switch-gear, transformers, protection equipment and the like necessary to deliver the Electricity generated by the Project to MSEDCL at the Delivery Point.

**Project Agreement** means:

- a) this Agreement;
- e) The Operations and Maintenance Agreement, if any;

**Prudent Utility Practices** means the exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances or conditions, and in so doing in the general conduct of its undertaking seeking, in good faith, to perform its contractual obligation and complying with applicable laws.

**RTU** means Remote Terminal Unit for data acquisition and equipment control.

**Renewable Purchase Obligation** – Every eligible person shall have to procure electricity generated from eligible renewable energy sources at the percentages specified of its total consumption of electricity within the area of a distribution licensee.

**SCADA** means Supervisory Control and Data Acquisition System.

**Season** means the cane crushing period starting from October-November and ending in March- April of next year.

**SBI 1 Year MCLR Rate** means 1 year Marginal Cost of Funds Based Lending Rate (MCLR) fixed by State Bank of India (SBI) / any replacement thereof by SBI for the time being in effect applicable for 1 year period, as on 1st April of the respective financial year in accordance with regulations and guidelines of Reserve Bank of India. In absence of such rate, any other arrangement that substitutes such rate as mutually agreed to by the Parties.

**Scheduled COD” or “Scheduled Commercial Operation Date** means {insert date} (not exceeding 18 (Eighteen) months from the date of signing of PPA.

**Tax** means and includes a tax, duty, rate, cess, toll, fee etc. levied by the central or state Govt. or Local authorities under laws of India.

**Tenure (Term)** means the period defined in clause 2.

**Tariff** shall have the meaning set forth in Clause 5.

**Topping cycle mode of Co-generation** - Any facility that uses non-fossil fuel input for power generation and also utilizes the thermal energy generated for useful heat application in other industrial activities simultaneously.

For the co-generation facility to qualify under topping cycle mode, the sum of useful power output and one half the useful thermal outputs should be greater than 45% of the facility's energy consumption, during cane crushing season.

**Transactions** mean the sale of electricity by Generator to MSEDCL pursuant to the Agreement and all other transactions described in or contemplated by the Agreement.

**Way leaves** means all way leaves, easements and other rights of way (however described) necessary for the installation, operation and maintenance of the Generation Facilities and transmission lines and interconnection facilities.

**Yearly period** means the period of Financial Year (i.e. 1<sup>st</sup> April to 31<sup>st</sup> March next year.)

Save as aforesaid and unless repugnant to the context or if the subject matter otherwise requires, words and expressions used in this agreement and not defined, but defined in the Act, or the Indian Electricity Grid Code or Maharashtra State Grid Code or the Maharashtra Electricity Regulatory Commission (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations, 2015 and amendments thereof shall have the meanings assigned to them respectively in the Act or the Indian Electricity Grid Code or Maharashtra State Grid Code or the Maharashtra Electricity Regulatory Commission (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations, 2015 and amendments thereto.

## **1.2 Arithmetic Conventions**

- 1.2.1 All calculations shall be done to 4 decimal places, with a fifth digit being rounded up, except for calculations of Rupees, which shall be done to two decimal places only.

## **1.3 Interpretation:**

- 1.3.1 Unless otherwise stated, all references made in this Agreement to "Articles" and "Schedules" shall refer, respectively, to Articles of, and Schedules to, this Agreement. The Schedules to this Agreement form part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement.
- 1.3.2 In this Agreement, unless the context otherwise requires (i) the singular shall include plural and vice versa; (ii) words denoting persons shall include partnerships, firms, companies and Discom (iii) the words "include" and "including" are to be construed

without limitation and (iv) a reference to any Party includes that Party's successors and permitted assigns.

## **2 CLAUSE 2. - TENURE OF PPA**

### **2.1 Term of PPA**

- 2.1.1 This agreement shall be effective and shall remain in full force and effect for a period of ..... **years** determined from the Commercial operation Date (COD) for new projects or ..... years from the effective date of PPA in respect of already commissioned projects.
- 2.1.2 The Generator expects to conclude financial closure within [6 month] from the date of signing this agreement and plant will be commissioned within [18 months] from the date of signing this agreement. MSEDCL's obligations to purchase electricity under this Agreement will start only on Commercial Operation Date. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation] or from the effective date of the PPA [Applicable in case of existing projects].
- 2.1.3 In case financial closure does not take place within 6 months from the date of signing of PPA, the PPA will become null and void unless agreed in writing by MSEDCL. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 2.1.4 The period for financial closure may be agreed to be extended by MSEDCL on verification of the following documents. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- a) Proof of purchase /placing of order for T-G set and allied equipment.
  - b) Status of financial tie up with financial Institutions.
  - c) Work order for execution, civil works, building etc.
  - d) Document indicating status of execution at site or
  - e) Any other related documents, that too on written request from the Generator.
- 2.1.5 No financial liability will attach to MSEDCL till the date of Commercial Operation of the plant as declared by the Generator. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

### **2.2 Survival of PPA**

- 2.2.1 The expiry or termination of this Agreement shall not affect any accrued rights, obligations and liabilities of the Parties under this Agreement, including the right to receive penalty as per the terms of this Agreement, nor shall it affect the survival of any continuing obligations for which this Agreement provides, either expressly or by necessary implication, which are to survive after the Expiry Date or termination including those under Clause 8 (Force Majeure), Clause 10 (Events of Default and Termination), Clause 12 (Indemnification), Clause 18 (Governing Law And Arbitration), Clause 20 (Miscellaneous Provisions), and other Articles and Schedules of this Agreement which expressly or by their nature survive the Term or termination of this Agreement shall continue and survive any expiry or termination of this Agreement.

### 3 CLAUSE 3.- CONDITIONS PRECEDENT

#### 3.1 Condition Precedent of the Generator

3.1.1 The respective obligations of the Generator under this Agreement in connection with the Generation Facility are subject to the satisfaction in full of the following conditions precedent unless any such condition has been waived as hereinafter provided.

**A. Condition Precedent to be performed by the Generator:**

- 1) The Generator shall obtain all clearances to operate the Generation Facility as may be required under Electricity Act, 2003 and rules and regulation there under.
- 2) To provide the Performance Bank Guarantee to MSEDCL of Rs. \_\_\_\_\_  
[Applicable only in case of New plant yet to be commissioned or for capacity augmentation];
- 3) Execution of any other Agreements or Contracts deemed necessary by the Generator for the Commercial Operation of the Generation Facility;
- 4) All way leaves required in connection with the Generation Facility are obtained,
- 5) Generator will provide technically suitable plot of appropriate area, duly fenced for termination arrangements of MSEDCL/MSETCL's transmission line along with separate and independent approach road to the project switchyard free of cost.  
[Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 6) Before taking up execution of work, approval of C.E. (Elec) PWD, Govt. Maharashtra will have to be obtained by the Generator. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 7) As per approved drawing/scheme of the **switchyard of the generator**, by MSEDCL, the Generator shall provide space of required area for accommodating MSEDCL/MSETCLs CR panels and PLCC panels etc. in control room and also extend 48 V / 110 V DC, 415 VAC supply for MSEDCL/MSETCL's requirements. The Generator shall construct air-conditioned metering cabin of size 3.5 x 3.5 meters for housing energy/ tariff meters. The procurement and installation work of HT metering including metering, (revenue meter as per the type, make approved by MSEDCL/MSETCL) CT/PT's, isolators will be carried out by Generator, the cost of which shall be borne by the Generator. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 8) The Generator shall carry out the entire evacuation work beyond the interconnection point. i.e. entire expense incurred related with evacuation arrangement. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 9) The Generator, at its sole cost and expense, shall acquire and maintain in effect all clearances, consents, permits, licenses and approvals required from time to

time by all regulatory / statutory competent authority(ies) in order to enable it to perform its obligations under the Agreement. MSEDCL will render all reasonable assistance to the Generator to enable the latter to obtain such clearances without any legal obligation on part of MSEDCL. Provided, however, non-rendering or partial rendering of assistance shall not in any way absolve the Generator of its obligations to obtain such clearances. Nor shall it mean to confer any right or indicate any intention to waive the need to obtain such clearances.

- 10) To procure access to the transmission system required for carrying electricity from the Power Station to the near by substation.
- 11) Before commissioning a generator set, the Generator shall obtain all the permission / licenses / authorization including but not limited to NOC from MPCB / environmental dept., Electrical inspector as may be required under Electricity Act, 2003 and rules and regulations made there under. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 12) The Generator should achieve financial closure within 6 months. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 13) The Generator should commission the Cogeneration project within Eighteen months from the date of signing of PPA. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 14) The Generator shall construct, operate and maintain the Project during the term of PPA at his cost and risk including the required Interconnection Facilities and in close co-ordination with STU's / MSEDCL feasibility in accordance with Prudent Utility Practices.
- 15) The Generator shall undertake at its own cost construction/ upgradation of (a) the Interconnection Facilities, (b) the Transmission / distribution Lines and as per the specifications and requirements of STU / MSEDCL.
- 16) The Generator shall be responsible for all payments on account of any taxes, cesses, duties or levies imposed by the GoM or its competent statutory authority on the land, equipment, material or works of the Project or on the Electricity generated or consumed by the Project or by itself or on the income or assets owned by it.
- 17) To procure start up power required for the plant from MSEDCL;
- 18) Fulfilling all other obligations undertaken by him under this Agreement.
- 19) The Generator cannot inject power earlier to Scheduled Commercial Operation Date from Project / Unit without MSEDCL's consent. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

### **3.2 Condition Precedent of MSEDCL**



3.2.1 The respective obligations of the MSEDCL under this Agreement in connection with the purchase of power are subject to the satisfaction in full of the following conditions precedent unless any such condition has been waived as hereinafter provided.

- 1) MSEDCL/MSETCL shall obtain clearances on a timely basis to acquire rights of way necessary for the construction and operation of MSEDCL/MSETCL's facilities including transmission lines and interconnection facilities. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 2) MSEDCL/MSETCL shall co-ordinate with the project holder referred with the evacuation arrangement from interconnection point up to nearest substation.
- 3) Executed and provided cascading irrevocable and revolving Letter of Credit of an amount not less than 1 month average billing from the project;

### **3.3 Obligations to Satisfy the Conditions Precedent**

3.3.1 Each of Generator and MSEDCL shall use all reasonable endeavors to procure the satisfaction in full of the conditions precedent set out above when and in so far as the subject matter of the relevant condition falls within the scope of its respective responsibility under Clause 3.1.

### **3.4 Liquidated Damage for Delay in Commissioning: [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]**

3.4.1 The Project shall be commissioned within 18 months of the date of signing of PPA. In case of failure to achieve this milestone, provisions as mentioned below shall apply: -

#### **A. MSEDCL shall encash the Performance Bank Guarantee (PBG) in the following manner:**

- a. Delay up to three months – 20% of the PBG amount shall be encashed as penalty for the first month of delay, calculated on per day basis; e.g. for a Project of 10 MW exportable capacity, if commissioning is delayed by 18 days from the scheduled date, then the penalty shall be: 20% of PBG amount X (18/90).
- b. Delay of more than three months and up to six months – MSEDCL will encash remaining amount from Performance BG worked out on per day basis. e.g. for a Project of 10 MW exportable capacity, if commissioning is delayed by 150 days from the scheduled date, then the penalty shall be: 80% of PBG amount X ((150-90)/90).
- c. The maximum time period allowed for commissioning of the Project with encashment of Performance Bank Guarantee shall be limited to 24 months from the date of signing of PPA. In case, the Commissioning of the Project is delayed beyond 24 months from the date of signing of PPA, the PPA will stand terminated.
- d. For the purpose of calculations for penalty, the month shall be

considered consisting of 30 days.

### **3.5 Commercial Operation Date of the New Project [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]**

- 3.5.1 The Commercial Operation Date (COD) shall be considered as the date as certified by Generator. The maximum 20 year tenure of PPA shall be considered from the date of establishment of CoD.
- 3.5.2 The following milestone dates may therefore be observed and may fall on separate dates:
  - a. **Inter connection with Grid:** This may be provided by the STU on the request of the project developer, even if the project is only partially ready to facilitate testing and allow flow of power generated into the grid to avoid wastage of Power.
  - b. **Commissioning of Project:** This will be on a date, when the project meets the criteria defined for project commissioning. The testing power injected during this period prior to establishment of CoD shall be treated as lapsed.

### **3.6 Generation compensation due to evacuation issues at the time of COD**

- 3.6.1 Upon the occurrence of an Emergency in / STU's / Discom's evacuation system for safe operation of its Grid, STU / MSEDCL reserves the right to shut down the line and has no obligation to evacuate the power.
- 3.6.2 If plant is ready before Schedule Commercial Operation Date, but the offtake is constrained because of incomplete power evacuation infrastructure, no compensation shall be payable. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]
- 3.6.3 However, If the plant is ready but necessary evacuation is not ready on Schedule Commercial operation date, corresponding generation loss considering the normative PLF of 60%, the excess generation shall be procured by MSEDCL at the PPA tariff to offset such loss. [Applicable only in case of New plant yet to be commissioned or for capacity augmentation]

## **4 CLAUSE 4: SYNCHRONISATION, COMMISSIONING AND COMMERCIAL OPERATION [APPLICABLE ONLY IN CASE OF NEW PLANT YET TO BE COMMISSIONED OR FOR CAPACITY AUGMENTATION]**

### **4.1 Synchronization, Commissioning and Commercial Operation**

- 4.1.1 The Generator shall give at least thirty (30) days written notice to the SLDC and MSEDCL, of the date on which it intends to synchronize the Power Project to the Grid System.
- 4.1.2 Subject to Clause 4.1.1, the Power Project may be synchronized by the Generator to the Grid System when it meets all the connection conditions prescribed in the Grid Code and otherwise meets all other Indian legal requirements for synchronization to the Grid System.
- 4.1.3 The synchronization equipment and all necessary arrangements / equipment including Remote Terminal Unit (RTU) for scheduling of power generated from the Project and transmission of data to the concerned authority as per applicable regulation shall be installed by the Generator at its generation facility of the Power Project at its own cost. The Generator shall synchronize its system with the Grid System only after the approval of STU, SLDC and MSEDCL.
- 4.1.4 The Generator shall immediately after each synchronization / tripping of generator, inform the sub-station of the Grid System to which the Power Project is electrically connected in accordance with applicable Grid Code.
- 4.1.5 The Generator shall commission the Project / Unit within SCOD.

### **4.2 Performance Bank Guarantee**

- 4.2.1 The Performance Bank Guarantee furnished by Generator to MSEDCL shall be for guaranteeing the commissioning / commercial operation of the project / unit up to the Exportable Contracted Capacity within SCOD.
- 4.2.2 If the Generator fails to commission the project / Unit on or before Scheduled Commercial Operation Date, MSEDCL shall have the right to encash the Performance Bank Guarantee without prejudice to the other rights of the Generator under this Agreement as per Clause 3.4.
- 4.2.3 MSEDCL shall release the Performance Bank Guarantee upon successful commissioning of full contracted capacity after adjusting Liquidated Damages (if any) as per Clause 3.4.

### **4.3 EVACUATION FACILITIES**

- 4.3.1 The Generator shall bear the entire cost of Generation Facility switchyard and interconnection facilities in the premises of the generator up to the point of energy metering (interconnection point).
- 4.3.2 Further the grid connectivity of the project & the erection of evacuation infrastructure beyond the interconnection points upto the nearest MSEDCL/MSETCL substation shall be the responsibility of the Generator.
- 4.3.3 The operation and maintenance (O&M) of this evacuation facility shall be carried out by the Generator.
- 4.3.4 No claims for improper evacuation shall be entertained from Generator and MSEDCL shall be totally indemnified against any claims for any reason whatsoever. Any Un-stabilization and non evacuation of power due to any reason whatsoever, referred with sale power, MSEDCL shall not be held responsible.
- 4.3.5 The Generator will notify MSEDCL about the readiness of the Generation Facility for commissioning one month in advance. All the transmission systems required for the power off-take shall be installed, commissioned and tested by MSEDCL/MSETCL before the date of commissioning of the generating unit.
- 4.3.6 Not later than 30 days prior to the scheduled commercial operation date of the Generation Facility, the generator under supervision of MSEDCL/MSETCL shall ensure that the construction and operation of the transmission line is completed to commence the supply of power to the Generation Facilities. MSEDCL/MSETCL when requested by the Generator shall supply power to the Generator during the following periods:
- a) The construction of the Generation Facility; (from separate feeder)
  - b) The start-up and commissioning of the Generation Facility through import – export ( ABT Special Energy Meter);
  - c) During scheduled maintenance of the Generation Facility; and
  - d) During Forced Outages.
- (Note: Construction supply should be disconnected once the import/export metering is established)**

## **5 CLAUSE 5. - PURCHASE OF ENERGY AND TARIFF**

### **5.1 Energy Consumption under normal conditions**

- 5.1.1 The generator will declare the annual PLF (considering 240 Operating days i.e. 180 days of crushing season and 60 days of off-season) of his Project at the time of commissioning and will be allowed to revise the same every year before the start of the crushing season. The declared annual PLF shall in no case be less than 60%.
- 5.1.2 The bidder shall maintain generation so as to achieve annual PLF within  $\pm 10\%$  of the declared value. The annual PLF will be calculated every year from 1st day of crushing period upto last day of plant operation in next year. i.e. tentatively from the month of October upto May of next year.

### **5.2 Dispatch and Scheduling**

- 5.2.1 The Generator shall be required to Schedule its power as per the applicable regulations / requirements / guidelines of CERC / MERC / SLDC and maintain compliance to the Grid Code requirements and directions, as specified by SLDC from time to time. Any deviation from the Schedule will attract the provisions of applicable regulation / guidelines / directions and any financial implication on account of this shall be to the account of the Generator.
- 5.2.2 Generator shall be responsible for deviations made by it from the dispatch schedule and for any resultant liabilities on account of charges for deviation as per applicable regulations.

### **5.3 Testing Conditions**

- 5.3.1 During the period of testing and commissioning of the Generation Facility, all of the electricity that Generator makes available for delivery to MSEDCL/MSETCL at the interconnection Point shall be treated as lapsed and no payment shall be made by MSEDCL.

### **5.4 Start-up power**

- 5.4.1 MSEDCL shall supply electricity to the Co-Generator during Off Season – no generation period) at the MSEDCL's prevailing HT Industrial Tariff rate in force from time to time and Generator shall pay for this electricity (Fixed Demand (kVA) & variable power in kWh) at that rate. MSEDCL shall ensure that the power as required by the Generator under reasonable notice shall be available without delay. The SE (O&M) ..... Circle shall be the Nodal Officer authorized to sanction & release startup power / power supply during off season at this rate adhering to the norms of MSEDCL.

## **5.5 Shortfall in generation**

- 5.5.1 If for any Contract Year, it is found that the bidder has not been able to export minimum energy corresponding to the value of annual PLF (i.e. below 90% of the declared annual PLF), such shortfall in performance shall make the bidder liable to pay the compensation to MSEDCL. In case of lower generation for any reason such as such as drought, low crushing business, the bidder shall atleast export the generated units in pro-rata basis to total generation to MSEDCL. i.e. in case the installed capacity is 10 MW and bidder has tied-up with the export capacity with MSEDCL for 6 MW, then in case the actual generation is 6 MW, bidder is under obligation to supply 3.6 MW.
- 5.5.2 In case the export is less than the minimum PLF specified or lower than pro-rata basis entitled by MSEDCL as specified above, the bidder shall pay MSEDCL for the actual shortfall in terms of units at the prevailing floor price for non-solar REC fixed by the CERC for the said year of default, since the MSEDCL is an obligated entity to utilize Non-Solar power as per Hon'ble CERC's RPO Regulation.
- 5.5.3 However, this compensation shall not be applicable in events of force majeure identified under the PPA, affecting the supply and also in case of evacuation issue during the operation period.

## **5.6 Excess generation**

- 5.6.1 Any excess generation over and above 10% of declared annual PLF will be purchased by MSEDCL at a 75% of the tariff of the successful bidder. The bidder cannot claim REC for these excess generated units as the same shall be accounted for meeting the RPO target of MSEDCL.

## **5.7 Generation Compensation in offtake constraint due to transmission:**

- 5.7.1 During the operation of the plant, due to temporary transmission unavailability, if the power is not evacuated, for reasons not attributable to bidder, then the generation loss shall be procured by MSEDCL at the PPA tariff to offset loss in 3 years. The Generation Loss shall be computed as Average Generation per hour x number of hours of grid unavailability.

## **5.8 Use of Fossil Fuel:**

- 5.8.1 The use of fossil fuels shall be limited to the extent of 15% of total fuel consumption on monthly basis.
- 5.8.2 Non-compliance with the condition of fossil fuel usage by the bidder, during any month, shall render such bidder to be ineligible for tariff determined under this Rfs. The sale of power during the defaulting month shall be at a rate lower by Rs 0.50/kWh below the applicable tariff of the successful bidder determined under this Rfs.

## **5.9 Taxes:**

- 5.9.1 Tariff determined under MERC (Terms & Conditions for determination of RE Tariff) Regulations, 2015 is exclusive of taxes and duties on generation and sale of electricity from renewable energy project as may be levied by the appropriate Government.
- 5.9.2 It is the responsibility of the Generator for payment of all taxes/duties connected with sale of electricity directly to the concerned State/Government department as the case may be.
- 5.9.3 The taxes and duties levied by the appropriate Government on generation and sale of electricity from renewable energy project will be allowed as pass through on actual incurred basis.

## **5.10 Tariff Payable**

- 5.10.1 MSEDCL shall pay for the Delivered Energy as certified through joint meter reading, for the Term of this Agreement from the Commercial Operation Date, to the Generator every month. The Tariff for the purchase of electricity by the MSEDCL from the co-generation project shall be as per ..... Rs./ kwh as discovered under the Competitive Bidding (followed by e-reverse auction) and as agreed by the Parties upon commissioning of a Unit / Project for delivered energy during the period of years. The tariff will be constant and there shall be no escalation during the contractual period other than due to change in law.
- 5.10.2 For MoD purpose, the tariff shall be bifurcated into fixed charge and variable charge in 50:50 ratio.
- 5.10.3 Subject to the succeeding paragraph of this Clause, the Tariff rate and the Tariff Structure for the sale of electricity to the MSEDCL is firm and the same will not be modified on any account such as exchange rate variation, additional cost on account of fuel. etc. In addition, the tariff will be modified on account of change in law, change in tax.

## **6 CLAUSE 6 - INVOICES AND PAYMENT**

### **6.1 Invoices**

6.1.1 The Generator shall prepare invoices on a monthly basis and shall submit the same to the office of Chief Engineer (Renewable Energy), MSEDCL in the forms annexed as Annexures (A to E) on the fifth business day of the month. The invoice shall be based on the reading taken on the last business day of the month or as decided mutually by the S.E. (O&M), MSEDCL, ..... Circle and the Generator, as recorded on ABT meter data. The reading will be certified by S.E. (O&M), MSEDCL, ..... Circle or his representative but not below the rank of Executive Engineer and Generator representative Or any other method that will be developed by MSEDCL as per its policy.

### **6.2 Billing & Payment:**

6.2.1 The Generator shall raise a monthly energy bill based on the AMR/joint meter reading taken by the Generator and the MSEDCL at the end of each month along with the monthly fuel usage certificate certified by the Chartered Account, in the forms annexed as Annexures (A to E).

6.2.2 The due date for the payment of bill by the MSEDCL shall be thirty (30) days from the date of receipt of the bill.

### **6.3 Payment mechanism:**

6.3.1 All payment to be made by MSEDCL to the Generator under this Agreement shall be made by RTGS / Electronic Transfer. For payment through RTGS / Electronic Transfer the Generator shall submit the notarized affidavit on Rs. 200/- stamp paper mentioning the name of the bank alongwith bank & account details, in accordance with the provisions of Clause 6.2 above.

### **6.4 Reactive Power Penalty:**

6.4.1 In case of Bagasse based co-generation projects, the Project will supply reactive power (RkVAh) equivalent to at least 36% of the active power (kWh) supplied to the grid on a monthly basis. In case of failure to do so, the STU/Licensee shall charge the shortfall at the rate of Rs. 0.25/RkVAh, or such other rate as may be stipulated by the Commission from time to time.

### **6.5 Late Payment:**

6.5.1 For payment of Monthly bill by MSEDCL, if paid after Due date of Payment, a late Payment charge shall be payable by MSEDCL to the Generator at the rate of 1.5% in excess of the SBI 1 year Marginal Cost of Funds Based Lending Rate (MCLR) per annum / any replacement thereof by SBI, on the amount of outstanding payment,



calculated on a week or part thereof basis viz.

$$= \frac{(\text{SBI MCLR rate} + 1.5\%)}{52} \quad \text{per week or part thereof.}$$

## **6.6 Rebate:**

6.6.1 For payment of Monthly Bill by MSEDCL, if paid before Due Date of Payment, a Rebate shall be deducted by MSEDCL at the rate of 1.5% in excess of the applicable SBI 1 year Marginal Cost of Funds Based Lending Rate (MCLR) per annum / any replacement thereof by SBI, on the amount paid before due date, calculated on a week or part thereof basis viz.

$$= \frac{(\text{SBI MCLR rate} + 1.5\%)}{52} \quad \text{per week or part thereof.}$$

## **6.7 Letter of Credit:**

6.7.1 MSEDCL shall establish and maintain irrevocable and unconditional revolving Letter of Credit in favour of, and for the sole benefit of, the Generator for the contracted capacity. All the cost incurred by MSEDCL for opening, maintenance and other cost related to establishment of Letter of Credit shall be borne by MSEDCL.

6.7.2 The Letter of Credit shall be established in favour of, and issued to, the Generator on the date hereof and made operational thirty (30) days prior to due date of first invoice and shall be maintained consistent herewith by MSEDCL and all times during the Term of the Agreement.

6.7.3 Such Letter of Credit shall be in form and substance acceptable to both the Parties and shall be issued by any Scheduled Bank and be provided on the basis that:

- In the event a Tariff Invoice or any other amount due and undisputed amount payable by MSEDCL pursuant to the terms of this Agreement is not paid in full by MSEDCL as and when due, the Letter of Credit may be called by the Generator for payment of undisputed amount.
- The amount of the Letter of Credit shall be equal to average one month's projected payments.
- The MSEDCL shall replenish the Letter of Credit to bring it to the original amount within 30 days in case of any valid drawdown.

6.7.4 The Letter of Credit shall be renewed and/or replaced by the MSEDCL not less than 30 days prior to its expiration.

6.7.5 Payment under the Letter of Credit: The drawl under the Letter of Credit in respect of a Tariff Invoice (excluding supplementary bills) shall require:

- a copy of the metering statement jointly signed by the official representatives of both the Parties, supporting the payments attributable to the Delivered Energy in respect of such Tariff Invoice.

- a certificate from the Generator stating that the amount payable by MSEDCL in respect of such Tariff Invoice has not been paid and disputed by MSEDCL till the Due Date of Payment of the Tariff Invoice.

## **6.8 Disputes:**

- 6.8.1** In the event of a dispute as to the amount of any Tariff Invoice, MSEDCL shall notify the Generator of the amount in dispute and MSEDCL shall pay the Generator 100% of the undisputed amount within the due date. If any of the Party disputes the amount payable under a Monthly Bill as the case may be, either Party shall, within thirty (30) days of receiving such Bill settle the dispute: provided either party shall have the right to approach the MERC to effect a higher or lesser payment on the disputed amount. The Parties shall discuss within a week from the date on which MSEDCL notifies the Generator of the amount in dispute and try and settle the dispute amicably.
- 6.8.2** Where any dispute arising out of or in connection with this agreement is not resolved mutually then such dispute shall be submitted to adjudication by the MERC under Section 79 or 86 of Electricity Act 2003 and the MERC may refer the matter to Arbitration as provided in the said provision read with Section 158 of Electricity Act 2003. For dispute beyond the power conferred upon the MERC, such dispute shall be subject to jurisdiction of High Court of Mumbai. If the dispute is not settled during such discussion then the payment made by MSEDCL shall be considered as a payment under protest.
- 6.8.3** Upon resolution of the dispute, in case the Generator is subsequently found to have overcharged, then it shall return the overcharged amount with an interest of SBI 1 year Marginal Cost of Funds Based Lending Rate (MCLR) per annum plus 1.5% for the period it retained the additional amount. MSEDCL / Generator shall not have the right to challenge any Tariff Invoice, or to bring any court or administrative action of any kind questioning/modifying a Tariff Invoice after a period of three years from the date of the Tariff Invoice is due and payable.

## **7 CLAUSE 7 – METERING, OPERATING AND INTERCONNECTION PROCEDURES**

### **7.1 Procedures**

7.1.1 Generator shall operate and maintain the Generation Facility in accordance with Prudent Utility Practices and as per the Operating Procedures set forth in Schedule-I and the Interconnection Procedures set forth in Schedule II.

### **7.2 Records**

7.2.1 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 and the operation of the Power Plant. Among such other records and data, the Generator shall maintain an accurate and up-to-date operating log at the Power Plant with records of:-

- a. Fifteen (15) minutes logs of real and reactive power generation, frequency, transformer tap position, bus voltage(s), Main Meter and Back up Meter Readings and any other data mutually agreed;
- b. any unusual conditions found during operation / inspections;
- c. chart and printout of event loggers, if any, for system disturbances/ outages;
- d. All the records will be preserved for a period of 36 months.

## 8 CLAUSE 8: FORCE MAJEURE

### 8.1 Definition

8.1.1 Force Majeure means any event or circumstance or a combination of events and circumstances which (i) referred to herein which (or any consequences of which) adversely affects the performance by the Party of its obligations under this Agreement; (ii) which are beyond the reasonable control of the Party; and (iii) which the Party could not have prevented by Prudent Utility Practices.

**A. Industry Force Majeure** shall mean the following events and circumstances to the extent that they, or their consequences, have an effect described herein:

- (i) Act of God, epidemic, lightning, earthquake, cyclone, whirlwind, flood, tempest, storm, drought, lack of water or other unusual or extreme adverse weather or environmental conditions (excluding the monsoon), meteorites, objects falling from aircraft, pressure waves caused by aircraft or aerial devices traveling at high speed, fire or explosion, chemical or radioactive contamination or ionizing radiation;
- (ii) Act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo (resulting in non-availability or shortage of Fuel), revolution, riots, insurrection, civil commotion, act of terrorism, or sabotage;
- (iii) Air Crash;
- (iv) Strikes and lock-outs affecting (i) the power industry in the State of Maharashtra, in case of MSEDCL, and (ii) the power industry or the sugar industry in the State of Maharashtra as a whole and having a duration of not less than 7 consecutive days and not arising out of disputes between Generator or any Affiliate or any of their employees, contractor, sub-contractors or agents; and
- (v) Loss of or damage to marine cargo in the course of marine transit and intended for incorporation in the Power Station.
- (vi) Any event or circumstance of a nature analogous to the forgoing, including severe grid disturbances, grid collapse and cascade tripping.

**B. Political Force Majeure** shall mean the following events and circumstances to the extent that they, or their consequences, have an effect described herein:

- (i) The expropriation or compulsory acquisition or seizure of the assets of

Generator by GOI or GOM or any Competent Authority thereof, provided that, this sub-clause (b) (i) shall not apply where such act (including expropriation or compulsory acquisition) constitutes a remedy or sanction lawfully exercised as a result of a breach by Generator of any Indian law but excluding any change in Law;

(ii) Any exercise of a sovereign or executive prerogative by any of GOI or GOM or any Competent Authority thereof vested by law with such authority, provided that this sub-clause (b) (ii) shall not apply where such act constitutes remedy or sanction lawfully exercised as a result of a breach by Generator of any Indian law or but excluding any change in Law;

(iii) Change in Law;

(iv) Any events or circumstances of a nature analogous to those in sub-clauses (i) and (ii) of this definition; and

(v) Any decision or order of the court or tribunal which has the effect of restraining all or any of the activities concerning the construction of the Power Station, except to the extent that it constitutes a remedy or sanction lawfully exercised as a result of a breach by Generator of any law or but excluding any change in Law. In this connection due regard shall be had to the final determination of the Court or Tribunal and the question as to the breach by Generator of any law or shall be determined on such basis.

## **8.2 Implication of Force Majeure**

8.2.1 Neither Party shall be responsible or liable for or deemed in breach hereof because of any delay or failure in the performance of its obligations hereunder (except for obligations to pay money due prior to occurrence of Force Majeure events under this Agreement) or failure to meet milestone dates due to any event or circumstance (a "Force Majeure Event") beyond the reasonable control of the Party experiencing such delay or failure, including the occurrence of any of the event.

## **8.3 Force majeure Exclusions**

8.3.1 Force Majeure shall not include the following conditions, except to the extent that they are consequences of an event of Force Majeure:

1. Unavailability, Late Delivery or Change in cost of plants and machineries, equipment, materials, spares parts or consumables for the project;
2. Delay in performance of any contractor / sub-contractor or their agents;

3. Non-performance resulting from normal wear and tear experience in power generation materials and equipments;
4. Strike or Labour Disturbances at the facilities of affected parties;
5. In efficiency of finances or funds or the agreement becoming onerous to perform, and
6. Non performance caused by, or concerned with, the affected party's
  - i. Negligent and intentional acts, errors or omissions;
  - ii. Failure to comply with Indian law or Indian Directive; or
  - iii. Breach of, or default under this agreement or any Project agreement or Government agreement.

#### **8.4 Notice of Force Majeure**

- 8.4.1 The affected Party shall give notice to other party of any event of Force Majeure as soon as reasonably practicable, but not later than 7 days after the date on which such Party knew or should reasonably have known of the commencement of the event of Force Majeure. If any event of Force Majeure results in a breakdown of communication rendering it not reasonable to give notice within the applicable time limit specified herein, then the party claiming Force Majeure shall give notice as soon as reasonably practicable after reinstatement of communication, but not later than one day after such reinstatement. Such notice shall include full particulars of the event of Force Majeure, its effects on the Party claiming relief and the remedial measures proposed, and the Affected Party shall give the other Party regular (and not less than monthly) reports on the progress of those remedial measures and such other information as the other party may reasonably request about the situation.
- 8.4.2 The affected Party shall give notice to the other Party of (1) cessation of relevant event of Force Majeure; and (2) cessation of the effects of such event of Force Majeure on the performance of its rights or obligations under this agreement, as soon as practicable after becoming aware of each of these cessations.
- 8.4.3 To the extent not prevented by a Force Majeure event, the affected party shall continue to perform its obligations pursuant to this agreement. The affected party shall use its reasonable efforts to mitigate the effect of any event of Force Majeure as soon as practicable.

#### **8.5 Available Relief for a Force Majeure Event:**

- 8.5.1 No Party shall be in breach of its obligations pursuant to this agreement to the extent that the performance of its obligations was prevented, hindered or delayed due to a Force Majeure event. However, adjustment in tariff shall not be allowed on account of Force Majeure event.

8.5.2 For avoidance of doubt, neither Party's obligation to make payments of money due and payable prior to occurrence of Force Majeure events under this Agreement shall be suspended or excused due to the occurrence of a Force Majeure Event in respect of such Party.

## **9 CLAUSE 9 – CHANGE IN LAW**

### **9.1 Definitions**

9.1.1 In this Clause 9, the Change in Law means the occurrence of the following after the date of this agreement:

- a) The enactment of any new Indian Law
- b) The amendment, modification or repeal of any existing Indian law or;
- c) The commencement of any Indian law which has not yet entered into effect;
- d) A change in the interpretation or application of Indian Law;
- e) The interpretation, application or enforcement of any existing law or statutory notification in a manner which was not reasonably foreseeable by the Generator (after making due and careful enquiry) at the date of this agreement
- f) The requirement to obtain new consent, permit or license, not owing to nay default of the Generator;
- g) After the date of grant of any Clearance a change in the terms and conditions attaching to such Clearance or the attachment of any terms or conditions; or
- h) Any such Clearance as has been granted ceasing in part or in whole to remain in full force at effect; save, in case of paragraphs (f), (g), and (h) above to the extent that such circumstances arose as a result of any default or neglect on the part of the Generator, its contractors, servants or agents;
- i) that results in any change with respect to any tax or surcharge or cess levied or similar charges by the Competent Government on the generation of electricity (leviable on the final output in the form of energy) or sale of electricity.

### **9.2 Relief for Change in Law**

9.2.1 If a Change in Law results in the Generator's costs directly attributable to the Project being decreased or increased by one percent (1%), of the estimated revenue from the Electricity for the Contract Year for which such adjustment becomes applicable or more, during Operation Period, the Tariff Payment to the Generator shall be appropriately increased or decreased with due approval of MERC.

9.2.2 The Generator / MSEDCL or the Generator, as the case may be, shall provide the other Party with a certificate stating that the adjustment in the Tariff Payment is directly as a result of the Change in Law and shall provide supporting documents to



substantiate the same and such certificate shall correctly reflect the increase or decrease in costs.

- 9.2.3 The revised tariff shall be effective from the date of such Change in Law as approved by MERC, the Parties hereto have caused this Agreement to be executed by their fully authorised officers, and copies delivered to each Party, as of the day and year first above stated.

## **10 CLAUSE 10. EVENTS OF DEFAULT AND TERMINATION**

### **10.1 Event of Default**

10.1.1 Events giving the Generator right to issue a default notice in case of -

- 1) Default by MSEDCL in performing its obligation under this agreement.
- 2) Default in payment of bills beyond 90 days.
- 3) MSEDCL repudiates this agreement.
- 4) If MSEDCL becomes voluntarily or involuntarily the subject of proceeding under any bankruptcy or insolvency laws or goes into liquidation or dissolution or has a receiver appointed over it or liquidator is appointed, pursuant to Law, except where such dissolution of MSEDCL is for the purpose of a merger, consolidation or reorganization and where the resulting entity has the financial standing to perform its obligations under this Agreement and creditworthiness similar to MSEDCL and expressly assumes all obligations under this agreement and is in a position to perform them.

10.1.2 Events giving the MSEDCL right to issue a default notice in case -

- 1) Failure to commission the project by scheduled commercial operation date [Applicable only in case of New plant yet to be commissioned or for capacity augmentation];
- 2) O&M Default on part of Generator.
- 3) Failure or refusal by Generator to perform any of its material obligations under this Agreement including but not limited to financial closure.
- 4) Generator fails to make any payment required to be made to MSEDCL under this agreement within three (3) months after the due date of a valid invoice raised by MSEDCL on the Generator.
- 5) If the Generator (i) assigns or purports to assign its assets or rights in violation of this agreement; or (ii) transfers or novates any of its rights and / or obligations under this agreement, in violation of this agreement.
- 6) If the Generator becomes voluntarily or involuntarily the subject of proceeding under any bankruptcy or insolvency laws or goes into liquidation or dissolution or has a receiver appointed over it or liquidator is appointed, pursuant to Law, except where such dissolution of the Generator is for the purpose of a merger, consolidated or reorganization and where the resulting entity has the financial standing to perform its obligations under this Agreement and creditworthiness similar to the Generator and expressly assumes all obligations under this agreement and is in a position to perform them;
- 7) Generator Repudiates this agreement;
- 8) Failure to follow the grid discipline in accordance with Grid Code.

- 9) Any other reason which will act against the interest of MSEDCL/ MSETCL consumers.
- 10) Occurrence of any other event which is specified in this Agreement to be a material breach / default of the Generator.

## **10.2 Termination**

- 10.2.1 Upon the occurrence of an event of default as set out in sub-clause 10.1 above, the non-defaulting party, may deliver a default notice to the defaulting party which shall specify the event of default giving rise to the default notice.
- 10.2.2 At the expiry of 30 days from the delivery of the default notice delivered and unless the parties have agreed otherwise, or the event of default giving rise to the default notice has been remedied, the party giving the default notice may deliver a termination notice to the other party.
- 10.2.3 The Party giving the termination notice may terminate this Agreement by delivering a termination notice to the other party and intimate the same to MERC. Upon delivery of the termination notice this Agreement shall stand terminated, if agreed by MSEDCL and the rights and liabilities of the parties as at the date the termination notice is delivered, shall be determined according to the provisions of this Agreement.
- 10.2.4 Where a default notice has been issued with respect to an event of default, which requires the co-operation of both Generator and MSEDCL to remedy, both parties, shall render all reasonable co-operation to enable the event of default to be remedied.

## **10.3 Liquidated Damages in case of default by Generator**

- 10.3.1 In case of event of default as specified in clause 10.1 (B) (9) - Compensation if any, made applicable by the State Load Dispatch Centre shall be levied on the generator.
- 10.3.2 The Generator shall have liability to make payment within 30 days from the date of termination notice toward compensation to MSEDCL equivalent to one years billing based on normative PLF of 60%.

## **10.4 Liquidated Damages in case of default by MSEDCL**

- 10.4.1 At the expiry of 30 (thirty) days from the delivery of the Default Notice and unless the Parties have agreed otherwise, or the Event of Default giving rise to the Default Notice has been remedied, the Generator may serve a "Suspension Notice" to MSEDCL for a duration not exceeding one year ("Suspension Period").
- 10.4.2 MSEDCL shall allow the Generator to sell power from the project, to any HT consumers of the State, in the open market either by finding the said consumers on its own or through any Central / State power trading utilities. In case of wheeling of power to such third parties, the transmission charges, transmission losses, wheeling charges and losses SLDC

charges and cross subsidy surcharge etc. shall be applicable as per MERC's regulation in force from time to time and paid directly to respective agencies by third party. No banking facility shall be allowed to Generator and third parties.

- 10.4.3 Till expiry of the Suspension Period, MSEDCL will be entitled to cure its default and buy power from the Generator. In the event MSEDCL fails to cure the default, the Generator may terminate this Agreement by delivering a Termination Notice to MSEDCL/ its successor entity and in such an event MSEDCL shall have liability to make payment within 30 days from the date of termination notice toward compensation to Generator equivalent to one years billing on normative PLF of 60%.

## **11 CLAUSE 11. - INDEMNIFICATION AND INSURANCE**

### **11.1 Indemnification**

11.1.1 Each Party shall indemnify, defend and hold harmless the other, its directors, members of the MSEDCL, partners, assigns, trustees, agents, officers and employees, against all claims, demand, judgments and associated costs and expense, related to property damage, bodily injuries or death suffered by third parties resulting from breach of its obligation by such party under this Agreement except to the extent that any such claim has arisen due to a negligent act or omission, breach of contract or breach of statutory duty on the part of the other Party, its contractors, servants or agents.

### **11.2 MSEDCL/MSETCL's Insurance**

11.2.1 Throughout the term of this Agreement, MSEDCL, at its cost and expense, shall cover concerned employees of MSEDCL/ MSETCL under Workmen Compensation Act, 1923, (as amended), under which MSEDCL/ MSETCL will accept all liability of compensation in case of accidental death, bodily injuries or incapacitation of MSEDCL/ MSETCL's employees, connected with generation facility.

### **11.3 Generator's Insurance**

11.3.1 Throughout the term of this Agreement, Generator at its reasonable cost and expense, shall maintain and keep in full force and effect the following insurance:

- (i) Insurance of the Generation Facility against loss or damage of the kinds usually insured against by operators similarly situated, by means of insurance policies issued by reputable insurance companies with uniform standard coverage endorsement at that time in use in Maharashtra State, India, in amounts and with such deductible provisions as determined by Generator. Generator may insure or cause to be insured such property under a blanket insurance policies in such amounts as determined by Generator;
- (ii) Public liability insurance with respect to the Generation Facility with one or more reputable insurance companies for death or bodily injury and property damage resulting from the operations of the Generation Facility;
- (iii) Statutory workers compensation insurance and employer's liability insurance; and
- (iv) Any other insurance that may be required pursuant to financing agreement or statutory requirement.

## **12 CLAUSE 12 : MONITORING MECHANISM FOR THE USE OF FOSSIL FUEL AND COGENERATION EFFICIENCY**

### **12.1 Fuel Efficiency**

12.1.1 The generator shall, along with its monthly energy bill, furnish a monthly fuel procurement statement and monthly fuel usage statement duly certified by Chartered Accountant to MSEDCL with a copy to State Nodal Agency i.e. MEDA for the purpose of monitoring the fossil and non-fossil fuel consumption. The statement shall cover details such as –

- a) Quantity of fuel (in tonnes) for each fuel type (bagasse fuel and fossil fuels) procured and consumed during the month for power generation,
- b) Cumulative quantity (in tonnes) of each fuel type procured and consumed till the end of the month during the year,
- c) Actual (gross and net) energy generation (in kWh) during the month,
- d) Cumulative actual (gross and net) energy generation (in kWh) until the end of that month during the year,
- e) Opening fuel stock quantity (in tonnes),
- f) Receipt of fuel quantity (in tonnes) at the power project site, and
- g) Closing fuel stock quantity (in tonnes) for each fuel type (bagasse fuel and fossil fuels) available at the power plant site.

**12.1.2** The generator shall limit his use of fossil fuel to 15%.

## **13 CLAUSE 13: MEASUREMENT AND VERIFICATION PROTOCOL FOR COMPLIANCE MONITORING**

### **13.1 Compliance**

- 13.1.1 An Energy Audit of the co-generation facility shall be conducted by the generator once a year, during the crushing season, through a Certified Energy Auditor or an Energy Auditor empanelled by State Nodal Agency (MEDA), and report furnished to MSEDCL. The dates of the audit shall be intimated to MSEDCL, who shall have the option to depute its representatives to participate in the Audit. MSEDCL shall scrutinise such Audit reports so as to verify compliance by the project.
- 13.1.2 The Energy Audit shall be conducted during a period of steady load on the plant during the season.
- 13.1.3 In addition to any other, the following readings/stipulations shall be mandatory for such Audit:
- a) Duration of Test – The duration shall be at least one hour of continuous operation.
  - b) Input fuel (e.g. Bagasse) flow – The total quantity of fuel supplied to a boiler for the duration of the test is to be measured (in case the continuous measurement of fuel inflow is not possible, an average figure of fuel intake/hour can be taken as the basis. To arrive at this average, the fuel weighment over a period of constant plant load operation – either on 8-hour shift or 24 hours, as the case may be – shall be considered). Mass flow rate of non-fossil fuel – bagasse i.e. (mass balance is to be then calculated in kg/hr).
  - c) A sample of input fuel (e.g. bagasse) is to be tested (certified laboratory test report to be included) for its Gross Calorific Value using a bomb calorimeter.
  - d) Temperatures and pressures are to be measured at the different steam consumption points say, 1,2,...n (T1, P1, T2, P2,....Tn, Pn etc.)
  - e) The steam flow rates at 1,2, ....n (m1, m2,....mn) are to be measured with on line steam flow meters. The flow meters are to be calibrated before the Audit.
  - f) Electrical output – at generator terminals is to be recorded in kWh for the test period.
  - g) A schematic of the configuration showing the instrument locations shall be provided.
- 13.1.4 The Energy Audit shall include computation of the boiler efficiency (based on direct or indirect method), the turbine isentropic efficiency and the auxiliary electricity consumption of the co-generation facility.
- 13.1.5 The co-generation project entity shall appoint, at its cost, an independent Certified Energy Auditor or an Auditor for conducting Energy Audit as above, from among a panel of such Auditors prepared by State Nodal Agency (MEDA).

## **14 CLAUSE 14. COMPLIANCE MONITORING OF NON-FOSSIL FUEL-BASED CO-GENERATION PROJECTS**

- 14.1.1 The compliance regarding usage of fossil fuel by the generator shall be responsible for monitored by MSEDCL as mandated in MERC RE tariff Regulations, 2015.
- 14.1.2 The generator shall submit the information to MSEDCL procuring power as per ANNEXURE E (templates- 1.1, 1.2, 2.1 and 2.2)
- 14.1.3 In addition to the above monitoring mechanism, the generator shall also submit on an annual basis, such necessary financial Statements or documents as stipulated from time to time to enable the Commission to ascertain that the financial returns to the generators are in accordance with the regulated returns specified under RE Tariff Regulations, 2015.



**15 CLAUSE 15. ASSIGNMENT OR TRANSFER**

15.1.1 Subject to the provisions of sub-clause 15.2 below and Clause 2 of Schedule III, neither this Agreement nor any rights in respect of ownership of Generation Facility hereunder may be assigned or transferred, by Generator without the prior written consent of MSEDCL.

15.1.2 The provisions of sub-clause 15.1.1 shall not apply to:

- a) Liens arising by operation of law (or by an agreement evidencing the same) in the ordinary course of the business of the Generation Facility;
- b) Pledges of goods, the related documents of title and/or other related documents arising or created in the ordinary course of the business of the Generation Facility and as security only for indebtedness to a Bank, financial institution, or Lenders relating to the goods or documents over which that pledge exists.
- c) Working capital arrangements for the Generation Facility as provided for in the financing package.
- d) Security arising out of retention of title provisions in relation to goods acquired in the ordinary course of the business of the Generation Facility.

**16 CLAUSE 16. REPRESENTATIONS AND WARRANTIES AND OPINIONS**

16.1.1 Generator makes to MSEDCL the representations and warranties set forth in Schedule III hereto.

16.1.2 MSEDCL makes to Generator the representations and warranties set forth in Schedule IV hereto.

**17 CLAUSE 17. NOTICES**

17.1.1 All notices, certificates or other communications under this Agreement shall be in writing and shall be acknowledged by the Party receiving it. All notices shall be addressed as follows:-

- a. **Co-Generator** : M/s .....
- At .....
- Telephone : .....
- Email : .....
- Attn : .....

b. **MSEDCL** : **Renewable Energy Section**  
'Prakashgad', 5<sup>th</sup> Floor  
Bandra (East), Mumbai 400 051

Telephone : 022-2647 4211/ 26580645  
Attn. : Chief Engineer (Renewable Energy)

or to such other and different address as may be designated by each Party

## **18 CLAUSE 18. GOVERNING LAW AND ARBITRATION**

### **18.1 Governing Law**

18.1.1 This Agreement shall be governed by and construed in accordance with the laws of India, MERC (Terms & Conditions for determination RE tariff) Regulations 2015, MERC RPO Regulation 2016 and any Orders issued from time to time & Electricity Act 2003.

### **18.2 Dispute**

18.2.1 Any dispute or disagreement as to the interpretation or performance, rights and obligations of this Agreement which cannot be settled by negotiation among the Parties within sixty (60) days.

18.2.2 Such Dispute or disagreement shall be submitted to MERC at the request of either party upon written notice to that effect to the other party.

### **18.3 Dispute Awards to be binding**

18.3.1 Generator and MSEDCL undertake to carry out any decision or award of the MERC relating to such Dispute without delay. Awards relating to any Dispute shall be final and binding on the parties to such dispute as from the date they are made & is appealable.

18.3.2 Generator and MSEDCL agree that such decision or award shall be final and binding. Any such MERC decision shall be subject to appeal as provided before Appellate authority.

18.3.3 Generator and MSEDCL agree that decision or award may be enforced against Generator and MSEDCL or their assets wherever situate.

## **19 CLAUSE 19. CLEAN DEVELOPMENT MECHANISM (CDM) AND SUBSIDY:**

19.1.1 All risks, costs and efforts associated with the availing of carbon credits shall be borne by the generating company. Further, the entire proceeds of carbon credit from

approved CDM project, if any, shall be retained by the generating company.

## **20 CLAUSE 20. MISCELLANEOUS PROVISIONS**

For performing any obligation in respect of this agreement, arising out of purchase of power from the cogeneration project, MSEDCL may, if found necessary, enter into a general /separate agreement in this regard with MSETCL.

### **20.1 Amendment**

20.1.1 Except otherwise provided herein, this Agreement may not be amended except by a signed agreement in writing between the parties. All the terms and conditions referred with this agreement shall be subjected to amendment in line with the approval / Orders as shall be issued by MERC from time to time.

### **20.2 Counterparts:**

20.2.1 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.

### **20.3 Successors and Assigns:**

20.3.1 This Agreement shall be binding upon, and insure to the benefit of, the parties hereto and their respective successors and permitted assigns.

### **20.4 Power Scheduling**

20.4.1 The generator shall have to schedule the power on day ahead basis in the office of CE (SLDC), Kalwa under intimation to MSEDCL.

### **20.5 Permissions from different authorities**

20.5.1 All the relevant permissions/license from concerned authorities including MERC if required will be sought by the generator at their own cost.

IN WITNESS WHEREOF the parties herein below have executed these presents on the day \_\_\_\_\_, month \_\_\_\_\_ and the year 2019 herein mentioned.

This Agreement shall be binding upon, and insure to the benefit of, the parties hereto and their respective successors and permitted assigns.

IN WITNESS WHEREOF, MSEDCL and the Co-GENERATOR (M/s ..... ) have executed this Agreement on the date set forth herein on the FIRST PAGE .

**SIGNED, SEALED and DELIVERED by**

**Shri.**  
Designation

**Shri.**  
Director (Commercial)

For and on behalf of

For and on behalf of  
**MAHARASHTRA STATE ELECTRICITY  
DISTRIBUTION Co. LTD. (MSEDCL)**

In the presence of

**Shri.**  
Designation

**Shri.**  
Chief Engineer (Renewable Energy)

**Shri.**  
Designation

**Shri.**  
Superintending Engineer (RE)

## **SCHEDULE - I**

### **OPERATING PROCEDURES**

#### **1. Generation Facility Design**

The Co-generation power project should use Bagasse. The co-generation projects should be sized in co-relation to the locally available Bagasse. The Generator should establish the availability of fuel for the project period.

The Generation Facility will be sized based on the availability of – **Bagasse** from the cane crushing which has been established as .....Tonnes per day (TCD). The power generated in excess of the sugar mill requirement & auxiliary consumption of the co-gen plant shall be delivered to MSEDCL. The electric system of the Generation Facility will be interconnected to MSEDCL electric system.

#### **2. Operating Requirements Of Dedicated Facilities**

- a) The Generator shall not commence operation of the Generation Facility while electrically interconnected to MSEDCL's transmission system ("Parallel Operation") until Generator's Dedicated Facilities have successfully completed initial functional testing in accordance with the interconnection requirements set forth in Schedule II and operating procedures have been finalized by the generator in consultation with MSEDCL.
- b) The Generator shall be solely responsible for performing any actual physical operation of Generator's equipment.
- c) The Generator & MSEDCL shall publish and keep current list of the Generator and MSEDCL personnel to be notified in case of an emergency which occurs at Generation Facility or on MSEDCL's electric transmission or distribution system associated with the Generation Facility.
- d) The Generator shall not close breakers or switches that could energize any MSEDCL's circuit without specific authorization from MSEDCL's Load Dispatch Department, such authorization not to be unreasonably withheld.
- e) The Generator shall be responsible for maintaining and testing all equipment under Generator's ownership in accordance with operating procedures and testing procedures to be developed in accordance with this Agreement.
- f) MSEDCL reserves the right to verify the calibration and operability of all protective equipment including, but not limited to relays, circuit breakers, and batteries associated with the Dedicated Facilities. Such verification may include tripping inter-tie circuit breakers with protection relays.

- g) The Generator shall maintain documentation (to be referred to as the 'Operating Log') at the Plant indicating changes in operating status (available, unavailable, or partially available), maintenance outages, trip indications, or other unusual conditions found upon inspection.

In case MSETCL carries out LILO arrangement for evacuation **[above 33KV/ 132/220 kV]**, the bus in Generator's S/s premises will be under MSETCL's possession. For this purpose the Generator shall provide suitable space as required by MSETCL with fencing and independent entrance for MSETCL personnel for terminating arrangements for MSETCL's LILO arrangement and also provide a space of 12 m x 8 m for MSETCL's C and R panel and PLCC panel.

The metering equipment such as metering CT/PTs, metering cabinet shall be under MSEDCL/MSETCL's custody and control. The energy recorded by this meter shall be considered for billing. The Generator may provide and install other set of metering equipment for checking metering. Generator shall provide air-conditioned metering room of size 3.5 x 3.5 m.

The Generator shall provide necessary static VAR source of fast response to avoid voltage fluctuation to load and maintain voltage variation to within +/- 1%.

The Generator shall spare three cores of transformer CTs out of which two cores will be of PS class for bus protection & 0.2 S for MSEDCL supervisory metering. The protection/synchronization and S/s layout shall be finalized by Generator with CE (Dist) MSEDCL/CE (Trans. Planning) MSETCL & the concerned CE (Electrical) PWD. Before taking up work of S/s in hand the S/s layout equipment shall be got approved by CE (Trans. PI ) MSETCL/ CE (Dist ) MSEDCL and the concerned CE(Electrical)PWD for evacuation at 33 KV level.

- h) MSEDCL/ MSETCL shall be accorded access without prior notice to the Dedicated Facilities at any time, day or night, provided that Generator's authorized personnel are present at all times along with MSEDCL personnel.
- (1) MSEDCL/MSETCL shall be responsible for maintaining, testing and operating efficiently transmission and distribution equipment under MSEDCL/MSETCL' ownership in accordance with this Agreement.
- j) The Parties agree that they will not construct any facilities or structures or engage in any activities that will materially interfere with the rights granted to the Parties or the Generation Facility under this Agreement.

### **3. Operation, Performance and Maintenance Guarantees**

Generator shall conduct performance and reliability tests once the Generation Facility start-up and Commissioning is complete. Generator shall demonstrate that the Generation Facility meets the Generator's performance criteria.

#### 4. Metering and Telemetry

- a) Except as may be otherwise specifically provided for herein, electrical meters and associated equipment of the type approved by MSEDCL, which meters and equipment shall be installed on Generator's premises at their cost and thereon owned, installed, operated and maintained by MSEDCL. Generator shall, at its own expense, furnish, install and maintain mounting facilities for such meters and associated devices located in the Dedicated Facilities. The Generator shall construct air-conditioned metering cabin of size 3.5 x 3.5 meter for housing energy and tariff metering.

Special Energy Meters (ABT) with online reading features having continuous communication facility with SLDC shall be installed at the metering point. The utility / licensee, if opted for by the co-gen project entity, shall provide **check meter**, with identical specifications to that of main billing meter having independent CTs & PTs, at the cost of the project holder, to assess the energy generated and fed into the grid during such period when the main meter or its related accessories such as CT/PT fail or develop problems, so as to avoid disputes in future.

Generator's and MSEDCL's electric metering equipment shall be sealed and the seals shall be broken only upon occasions when the meters are to be inspected, tested or calibrated before the representatives of Generator and MSEDCL, who shall be present upon such occasions. Normal inspection, testing and calibration shall be performed once a year, or at Generator's expense, at more frequent intervals.

- b) If any of the electric metering equipment tests provided by normal inspection and testing disclose that the error for such equipment exceeds two tenths of a one percent (0.2%), plus or minus of one hundred percent (100%), then one half (1/2) of the readings of such metering equipment taken during the billing periods since the last test on such equipment was made will be adjusted, either upward or downward, to correct for such error, unless there is verifiable information available from readings from Generator installed meters.

Any correction in billing resulting from such correction in meter records shall be made in the next monthly payment made by MSEDCL after inaccuracy is verified and such correction shall be made, in the absence of bad faith, manifest error, fraud, or intentional wrongdoing, will constitute a complete and final settlement of any claim arising between the Parties hereto out of such inaccuracy of the metering equipment.

- c) Should any metering equipment installed by MSEDCL fail to register to the electricity delivered during any period of time, or if Generator and MSEDCL agree that the meter registration is invalid, the amount of electricity delivered during such period will be based on meter readings available from Generator installed meter equipment.

#### 5. Co-ordination of Generation Facility and System Maintenance

- a) Other than unscheduled maintenance, Generator shall use best efforts to Co-ordinate with MSEDCL for the maintenance of the Generation Facility required in order to ensure the sound operation of the Generation Facility and MSEDCL's system, except in cases of emergency (other than routine maintenance which can

be scheduled) or repairs that cannot be deferred. Maintenance shall not be scheduled or performed during the months of November to April without prior written consent of MSEDCL which consent shall not unreasonably be withheld. This restriction may be modified by MSEDCL on not less than fifteen (15) days written notice to Generator and otherwise upon written consent of the Parties.

- b) MSEDCL shall use best efforts consistent with MSEDCL's business requirements to co-ordinate with Generator the scheduling of any planned maintenance or repair outages of facilities to which the Generation Facility is interconnected by scheduling such outages during times when Generator has scheduled maintenance of the Generation Facility, by giving advance notice to Generator or by other reasonable means of co-ordination.
- c) Generator agrees to perform maintenance on the Generation Facility in accordance with a three-year maintenance schedule to be developed and updated annually by the Generator.

## **6. Inspection**

Generator, on request, shall provide immediate access for authorized MSEDCL's employees to Generator's Dedicated Facilities and to the Generation Facility to witness the operation of Generator's equipment provided that Generator shall grant to MSEDCL, for no additional consideration, for the term of this Agreement all rights, privileges, rights-of-way and easements to construct, install, operate, maintain, repair, replace, inspect and remove MSEDCL's equipment and facilities as are necessary solely for the purpose of receiving electricity under this Agreement, including adequate and continuing access rights on property of Generator. Generator agrees to execute such other grants, deeds or customary documents as may be reasonably be required to enable MSEDCL to record such rights-of-way and easements.

## **7. Security of Facilities**

- a) Due to the nature of electrical equipment, it is necessary to protect Generator's personnel, MSEDCL's personnel, and the general public from electrical contact. Generator shall be responsible for providing for security of Generator's equipment and MSEDCL's system facilities installed in the Generator's Dedicated Facility.

The Generator shall develop a Security Review and submit it to the Operating Committee for its timely approval. Such approval shall not be unreasonably withheld.

## **8. Regulatory Requirements**

It shall be the responsibility of Generator to take all necessary action to satisfy any regulatory or other requirements, which may be imposed on Generator by any applicable central, state or local statute, rule or regulation in connection with Generator's Operating Procedures. MSEDCL will cooperate with Generator and provide information or such other assistance, at factory/Generator's request, as may be reasonably necessary for Generator to satisfy such regulatory or other requirements. All the MERC Regulations and Orders issued from time to time shall be applicable to the Co-Generators.



**SCHEDULE - II**  
**INTERCONNECTION PROCEDURES**

**1. MSEDCL's System Interface**

Indian standards to be followed for equipment specifications. The evacuation voltage and switchyard equipment shall be of 33/66/110/132/220 KV at present.

Engineering for MSEDCL/ MSETCL's system interface and dedicated facilities in the Generator's switchyard shall be done by the Generator and submitted for MSEDCL/MSETCL's approval. MSEDCL/MSETCL shall approve the engineering design within 30 days of submission. Generator shall coordinate for Single Line Diagram (SLD) approval and system interface for evacuation of power up to 33 KV level with C.E. (Dist.) MSEDCL and for evacuation above 33 KV level with C.E. (STU) MSETCL.

**2. Power System Studies**

In case MSEDCL intends to perform Power System Studies at MSEDCL's cost, for its own purposes, Generator shall cooperate in providing the relevant information to MSEDCL to the extent, in can be obtained without undue expense. MSEDCL shall ensure such Power System Studies have no impact on the Project Schedule or purchase of equipment by Generator.

**3. Provision of Equipment**

- a) Generator shall provide and install all equipment in accordance with Prudent Utility Practices.
- b) Generator shall provide, at Generator's expense, all revenue meters, revenue metering transformers and associated equipment including CT/PT etc. The devices such as SCADA- PLCC, remote terminal units shall be provided by MSEDCL/MSETCL in accordance with and as per requirement of MSEDCL/MSETCL/ SLDC.

**4. Disconnect Requirements**

- a) Generator shall provide and install a visible break disconnect switch (to be designated as Generator's "Disconnect Switch") at the Delivery Point to the MSEDCL's system.

The Disconnect Switch shall be accessible to MSEDCL's personnel at all times and must be capable of disconnecting all Generator equipment from MSETCL's transmission & MSEDCL's distribution system. The Disconnect Switch shall be capable of being locked in the open position. The Operating Committee will develop protocols of notices for this purpose.

**5. Connection and Operation**

- a) Generator's Generation Facility shall not be connected to or operated in parallel with MSEDCL's system until all provisions of this Agreement are met by both Parties hereto.
- b) The plant will be commissioned strictly after obtaining written consent of concerned (O&M) MSEDCL/MSETCL authorities with due regards to the techno-commercial satisfaction thereof at their end.
- c) MSEDCL/MSETCL shall commit a firm schedule for construction of the transmission line and interconnection facilities to be connected to the Dedicated Facility, which will co-ordinate with Generation Facility schedule.

It is expressly provided that MSEDCL/MSETCL shall complete the construction of MSEDCL/MSETCL's facilities including the transmission line and interconnection facilities on or before the commencement of commissioning of the Generation Facility. MSEDCL/MSETCL's facilities including the transmission line and interconnection facilities shall be capable of accepting all the power generated by the Generation Facility on or before the commencement of commissioning of the Generation Facility.

## **6 Operation of MSEDCL's System**

The Generator's generating unit shall operate in parallel with the MSEDCL's generation and distribution system. MSEDCL is responsible for physical operation and maintenance of MSEDCL's equipment and system.

## **7. Compliance with Codes, Laws, notifications and Regulations**

Generator shall install all generating equipment and associated wiring and devices in accordance with manufacturer's specifications and all applicable Central, State, and local laws, regulations, codes and ordinances.

## **8. Inspection**

Generator shall provide MSEDCL with evidence that any and all legally constituted authorities having jurisdiction have inspected the conditions of the electrical installation and have determined that the electrical installation meets the governing code (s) before initial testing and operation of the Generation Facility is commenced.

The Generator will provide all safety measure referred with the suggestions as desired by the MSEDCL/MSETCL specially related with the grid stability and safety as per section 73(b) of Electricity Act, 2003.

## **9. Limitation of Requirements Scope**

The specifications and other technical data described herein do not cover Generator's complete electrical installation design, but concern only those points in which Generator, their consulting engineer, electrical contractor, and equipment manufacturer have a mutual interest with MSEDCL. MSEDCL is not in any way responsible for protection of Generator's generator (s) or of any other portion of

electrical equipment. Generator is fully responsible for protecting its equipment in such a manner that faults or other disturbances on MSEDCL's system will not cause damage to Generator's equipment. Generator has the right to satisfy itself that the fault in MSEDCL's system has been cleared and the system has been restored to normalcy before re-synchronizing.

**10. Dedicated Facilities**

Generator shall install, own and maintain, at Generator's cost, the Dedicated Facilities including associated protection and switching devices.

**11. Major Equipment Requirement**

The following general requirements apply to all major equipment in the Dedicated Facility operating in parallel with the MSEDCL's transmission system.

**a) (i) Feeder Protection**

A directional distance relay that operates when the circuit reactance or impedance drops below a predetermined value.

**(ii) Protective Relaying on the Inter-tie Circuit Breaker**

Generator shall be responsible for tripping their inter-tie breaker and/or their generator breaker within 0.3 seconds after the occurrence of a fault on the electric facilities serving their installation hereby removing their generator and isolating transformer as a source of fault current.

Equipment shall be installed to trip Generator's inter-tie breaker whenever the MSEDCL supply is de-energized. The inter-tie breaker shall be automatically locked out and prevented from being closed into a de-energized MSEDCL system or partially de-energized system (loss of one phase).

A synchronism check relay that operates when the voltage and phase angle differences of two systems are within certain limits and thus allows the two systems to be paralleled.

An under voltage and over voltage relay that operates on predetermined values of either under voltage or over voltage within a system. (This relay may be either a combination relay or two individual relays designed to provide both functions.)

Grid disturbance relay.

An over and under frequency relay that operated when the system frequency deviates from predetermined limits for a time greater than its preset value.

A differential over current relay of percentage type. Local backup protection provided.

**b) Circuit Breaker Requirements**

Generator power circuit breaker shall comply with all current, applicable Indian standards specifications.

- I. The Basic Insulation Level (BIL) of the circuit breaker and bushing shall be appropriate.
- II. The circuit breaker (s) shall meet all applicable ratings as per IS.
- III. Since the breaker (s) will be associated with an electric power generating facility, independent pole breakers and/ or independent pole tripping shall not be allowed.
- IV. The breaker(s) shall be capable of being remotely controlled and shall meet or exceed the requirements for interrupting capabilities with de-rating factors applied in accordance with IS.
- V. The breaker(s) and all auxiliaries shall be designed to withstand damage or loss of function and shall remain operational during and following a design basis earthquake as per Indian Code of Practice.
 

**NOTE:** The term "Operational" implies that rotating equipment will not seize, vessels will not rupture, supports will not collapse, etc. in addition, the equipment will not change operational state such as go from closed to open.
- VI. The breaker(s) shall be capable of withstanding an out-of-phase voltage across the terminals with the phase angle between the two voltages continuously varying. This requirement is to assure that the breaker in the open position is capable of withstanding voltages to which it will be subjected when the MSEDCL and Generator systems are being synchronized.
- VII. The interrupting rating of the breaker(s) shall be a minimum of : 31.05 kA for 3 seconds for 110 kV

**c) Potential Transformer**

Generator's potential transformers shall comply with current IS. In addition, the following requirements shall apply:

- I. The basic insulation level (BIL) of the transformers shall be no less than:
  - 650 kV BIL for application at 132 kV
  - 650 kV BIL for application at 115 kV
- II. Three phase potential transformers shall be connected grounded wye primary and secondary Single phase potential transformers shall be connected line to ground;
- III. Accuracy
  - Protection 3P class
  - Tariff metering 0.2
  - Synchronization 0.2

**d) Surge Arrester**

Properly applied surge arresters are required at the high voltage connection point of the MSEDCL metering transformers and at the terminals of the inter-tie power transformers. Surge arresters shall comply with current IS. In addition, the following requirements shall apply: Arresters shall be gapless metal oxide units of the station class. Arresters shall be connected as close as possible to the protected equipment (metering transformers and power transformer) with minimum lead lengths. Arrester ratings shall be calculated in accordance with IS.

**e) Revenue Metering**

I. Generator shall install special Energy Meters (ABT) with 15 min block with online reading features and maintain all facilities necessary to accommodate metering including all revenue meters, metering transformers and metering devices. Generator shall provide suitable space for such facilities. Meters shall be capable of bi-directional registration so that deliveries to and from Generator's equipment can be separately recorded. MSEDCL shall provide Generator the design specifications for their equipment and metering room.

All meter installations shall employ appropriate test blocks for calibration purposes.

The metering equipment shall be sealed and the seals shall be broken only upon occasions when the meters are to be inspected, tested or adjusted, and representatives of Generator shall be accorded reasonable opportunity to be present upon such occasions. The Operating Committee will develop protocols of notices for this purpose.

The location of revenue metering equipment shall be in Generator's HV side of substation.

Generator shall furnish, install and maintain all wiring and miscellaneous equipment for revenue meters, metering transformers. This shall be done in accordance with MSEDCL supplied drawings, specifications and procedures.

Meters and protective devices installed by Generator for their use shall not be connected to secondary of MSEDCL's current or potential transformers.

**f) Control Power Requirements**

The station battery shall be sized for a ten hour duty cycle in accordance with IEEE Standard 485-1978. At the end of the duty cycle the battery shall be capable of tripping and closing all breakers. All control and protection functions shall be powered from the station battery, AC to DC converters are not acceptable.

**g) Protective Relaying on the Generator Circuit Breaker**

MSEDCL will not assume any responsibility for the protection of Generator's generator(s) or if any other portion of Generator's electrical equipment.

Generator is fully responsible for protecting their equipment in such manner that faults or other disturbances do not cause damage to Generator's equipment.

The following relaying is required solely for the purpose of minimizing the adverse effects of Generator owned parallel generation on the MSEDCL System during abnormal conditions. Additional relaying may be required by Generator to adequately protect their facilities.

Relaying on the generator circuit breaker shall include :

A synchronizing relay that automatically synchronizing or supervises the manual synchronizing of a generator with an electric system.

Directional power relay that operates on a predetermined value of power flow in a specific direction.

A negative sequence relay that operates on a predetermined value of negative sequence current produced by an external fault condition.

A voltage restrained over-current relay that will operate on a predetermined value of current and a reduced value of voltage. This relay is usually set below full load current in order to detect three phase faults whose magnitude is determined by the synchronous reactance of the generator. An over-voltage relay that is designed to operate when a ground conditions occurs somewhere on and leaving a generator exceed a preset value.

## **12. Protocol Procedure**

It shall be the responsibility of the Generator as regards the correctness of design, workmanship of equipment and its procurement, installation, testing, maintenance and operation of the their generation system. In any event, MSEDCL shall not be responsible for any damage caused to the generating set or equipment or/and generation system on account of any mistake or defect in the design, procurement, installation, testing, maintenance & operation of generation system of Generator.

The Generator shall make all arrangements for paralleling the set/s with the MSEDCL's grid at their cost at the point of supply, in consultation with and to the satisfaction of the MSEDCL's officers, that is subject to the approval of the Electrical Inspector. However, it shall be the responsibility of the Generator to avoid back feeding of the supply to their generating unit.

The Generator shall run the generating set and generation system unit as a part of integrated grid system. The Generator may, if found necessary, with prior permission of the MSEDCL change or arrange to modify the MSEDCL's supply system or infrastructure for the purpose of auxiliary power requirement without causing any damages to any of the equipment or installation of the supply arrangements of the MSEDCL and the cost of such modification shall be borne by the Generator. The Generator shall pay the damages to the MSEDCL, if any, caused to the supply system / arrangement of the MSEDCL.

The SE (O & M) Circle, MSEDCL ..... shall be the nodal officer for effecting all techno-commercial arrangement.

The Generator shall also keep liaison with the S.E., O & M Circle, ....., CE (STU), MSETCL, Mumbai and the Chief Engineer, Load Dispatch Centre, Kalwa during the period of generation. During the period this Agreement is in force, the Generator shall intimate one month in advance to the S.E., O&M Circle, ..... and the chief Engineer, L.D. Centre, Kalwa in Annexure-A, the date of commencement of generation and also arrange for testing and commissioning of the protection system well in advance. If requested by the Generator, the MSEDCL shall extend the assistance for the purpose of testing, subject to condition that the Generator shall pay the charges for such assistance to the MSEDCL as would be notified or indicated by the concerned testing division of the MSEDCL.

The Generator shall furnish a monthly schedule of program of the proposed supply of electricity to the MSEDCL, indicating the total quantum of electricity etc., in the last week of every month.

The Generator shall submit Monthly Invoice in the form annexed as Annexure-B to this Agreement to C.E.(Renewable Energy), MSEDCL, Mumbai.

The Generator shall maintain log book and submit daily generation report in the form annexed as Annexure - C to this Agreement to Chief Engineer Load Dispatch, Kalwa, S.E., O&M Circle, ..... irrespective of energy generation or no generation.

The Generator shall maintain a monthly tripping report and the reason thereof in the form annexed as Annexure -D to this Agreement.

**Inspection of premises of the Generator by any MSEDCL/MSETCL's official without prior permission or intimation to the Generator shall be allowed. Continuity of Services –**

Notwithstanding anything contained herein above, the Generator shall not be entitled to and the MSEDCL shall not be liable to pay any compensation on account of non drawl of energy due to defect in the grid or Force Majeure conditions specified hereinafter or any other circumstances beyond the control of the MSEDCL.

The MSEDCL shall take all reasonable steps to minimize the number and duration of interruptions, curtailments or reduction.

**Personnel and system safety**

The **S.E. (O&M) Circle, MSEDCL, .....** of the MSEDCL shall act as a **Nodal Officer** for implementing this agreement in its true spirit and facilitating the power generation .

Notwithstanding any other provisions of this agreement, the MSEDCL shall have the right to disconnect the Generation facility from the MSEDCL's electrical system, if at any time the MSEDCL determines that-

- 1) The Generation Facility may endanger the safety of person; and /or
- 2) The continued operation of the Generation Facility may endanger the integrity of the MSEDCL's electric system or have an adverse effect on the electric service of the MSEDCL's other customer/s.
- 3) The Generation Facility shall remain disconnected until such time that the conditions (s) referred to above have been corrected, and the MSEDCL shall not be obligated to accept or pay for any energy from the Generation during such period.



### **SCHEDULE - III**

#### **REPRESENTATIONS AND COVENANTS OF GENERATOR**

1. Generator is in material compliance with all applicable material laws, judicial and administrative orders, rules and regulations with respect to the ownership and operation of the Generation facility.
2. Generator is not prohibited by any law/authority from entering into this Agreement or discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement.
3. The executions and delivery of this Agreement, the consumption of the transactions contemplated hereby and the fulfillment of and compliance with the provisions of this Agreement will not conflict with or constitute a breach of or a default under, any of the terms, conditions or provisions of any applicable law, order of any court or other agency of government, the certificate of incorporation or by-laws of the Generator or any contractual limitation, corporate restriction or outstanding trust indenture, deed for trust, mortgage, loan agreement, other evidence of indebtedness or any other Agreement or instrument, to which the Generator is a Party or by which it or any of its property is bound, or result in a breach of or a default under any of the foregoing.
4. This Agreement is the legal, valid and binding obligation of the Generator enforceable in accordance with its terms, except as limited by bankruptcy, insolvency, reorganization, moratorium, or other laws of general application relating to or affecting enforcement is sought in a proceeding in equity or at law.
5. Generator has taken all such action as may be necessary to authorize this Agreement, the execution and delivery thereof, the consummation of the transactions and the carrying out of all covenants and obligations on its part to be performed under and pursuant to this agreement

## **SCHEDULE - IV**

### **REPRESENTATIONS AND COVENANTS OF MSEDCL**

1. MSEDCL is a Maharashtra State owned Utility duly organized, validly existing and qualified to do business under the laws of the State of Maharashtra, India, has the power and authority to own its properties to carry on its electric utility business as now being conducted and to enter into this Agreement and to carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement.
2. MSEDCL is not prohibited by any law/authority from entering into this Agreement or discharging and performing all covenant and obligations units part to be performed under the pursuant to this Agreement.
3. The execution and delivery of this Agreement, the consumption of the transactions contemplated hereby and the fulfillment of and compliance with the provisions of this agreement under, any of the terms, conditions or provisions of any applicable law, order of any court or other agency of Govt., the certificate of incorporation or by-laws of MSEDCL, or any contractual limitation, corporate restriction or outstanding trust indenture, mortgage, loan agreement, other evidence of indebtedness or any other agreement or instrument to which MSEDCL is a Party or by Which it or any of its property is bound or result in a breach of or a default under any of the foregoing.
4. This Agreement is the legal, valid and binding obligation of MSEDCL enforceable in accordance with its terms, except as limited by bankruptcy, insolvency, reorganisation, moratorium, or other laws of general application relating to or affecting enforcement of creditor's rights, whether such enforcement is sought in a proceeding in equity or at law.
5. All consents and authorizations required for MSEDCL to execute, deliver and perform this Agreement have been obtained.

## ANNEXURE – A

Format for meter reading of generating unit

### METER READING OF THE POWER GENERATION UNIT

Name of Generator:

C.T. ratio available/  
connected

Date of first commissioning

P.T. ratio available/  
Connected

Scale factor (if any)

Installed generation - M.W.  
Capacity

Multiplying factor (MF)

Surplus generation M.W.  
Capacity

Meter make/meter  
Number

PREVIOUS READING				CURRENT READING			
Date & Time	KWH	KVAH	KVARH	Date & Time	KWH	KVAH	KVARCH

Difference in KWH :

Actual units exported :

Difference in KVARH reading :

Actual reactive power shared :

Executive Engineer  
O & M DCL Division MSE with date

Works Manager/Chief Engineer  
Power Plant with date & Seal

Copy to:

1. C.E. (Renewable Energy), MSEDCL, 5<sup>th</sup> Floor, Prakashgad, Bandra (E), Mumbai – 51.
2. C.E. (O&M) Zone \_\_\_\_\_, MSEDCL.
3. C.E., LDC, Kalwa.

**ANNEXURE – B**

**INVOICE**

Invoice No.                      For the month of                      Date :

Name of the Generator:

Name of the MSEDCL : Maharashtra State Electricity MSEDCL.

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C.T. ratio available/ connected P.T. ratio available/ Connected	Date of first commissioning
Scale factor (if any)	Installed generation - M.W. Capacity
Multiplying factor (MF)	Surplus generation M.W. Capacity
Meter make/meter Number	

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KWH	KVARH
Previous reading	Previous reading
Current reading	Current reading
(A) Difference	(A) Difference
(B) Difference X.M.F.	(B) Difference X.M.F.

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Ratio – KWH                      :                      KVARH \_\_\_\_\_ %

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Exported KWH	Unit rate As per PPA	Amount	Shortfall KVARH	Penalty per KVARH	Amount of penalty
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**Note : Invoice to be raised in the name of C.E. (Renewable Energy), MSEDCL, Mumbai**

## ANNEXURE - C

### DAILY GENERATION REPORT

Name of Generator:  
And address

Unit No.  
Installed generation capacity

Report date : / /  
Installed surplus generation  
Capacity

Time in Hr.	MSEDCL Energy Meter (HT site)						Generator Readings			Remarks
	Export to MSEDCL			Import from MSEDCL			KW Meter	P.F. Meter	Energy Meter	
	Reading	Difference	Actual (Diff. MF/SF)	Reading	Difference	Actual (Diff. MF/SF)				
00										
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
Total										
Total electricity generation in KWH during the day _____										
Export Meter						Import Meter				
At 00 hrs. : at 24 Hrs. Difference : Actual						At 00 Hrs. : At 24 Hrs. : Difference : Actual				
KVAH Reading										
KVARH Reading										

Works Manager/Chief Engineer  
Power Plant (with seal)

CC:

1. The C.E. (Renewable Energy), MSEDCL, Mumbai
2. The C.E. (LDC) Kalwa
3. The C.E. Zone \_\_\_\_\_
4. S.E. (O&M) Circle \_\_\_\_\_.

**Note: For the use of Generator for maintaining the log book.**

## ANNEXURE – D

### MONTHLY TRIPPING REPORT (GENERATION)

Name of Generator and address:

Unit No.

Report Date:

Installed generation capacity MW

Installed surplus power  
Generation capacity

Date of first commissioning  
(Synchronising)

Date of commercial operation

Date of synchronizing  
(Current season)

Progressing days  
(Generation)

Date of start of  
Crushing season

Progressing crushing  
Season days

S.N	Tripping			Reason for tripping					Synchronising		Total Lost		
	Date	Time Hrs. Min.		Mecha- nical	Elect- rical	No cane	Clean- ing	Other	Date	Time Hrs. Min.		Hrs.	Min.

Total energy exported to MSEDCL during the month (Period From \_\_\_\_\_ to \_\_\_\_\_ )

Progressive : During crushing season:  
Since first commissioning:  
During financial year (1<sup>st</sup> April to 31<sup>st</sup> March):

Total energy imported from MSEDCL during the month (Period from \_\_\_\_\_ to \_\_\_\_\_ )

Progressive : During crushing season:  
During financial year:

Works Manager/Chief Engineer  
Power Plant with date & seal

To,

1. The C.E. (Renewable Energy), MSEDCL, Mumbai.
2. The C.E. (LDC) Kalwa
3. The C.E. (Zone \_\_\_\_\_)
4. S.E. (O&M) Circle \_\_\_\_\_.

Note: For the use of Generator for maintaining the log book.

**Format of Monthly Statements to be submitted by Co-Generation Project Entities to State Nodal Agency**

Template 1.1: Monthly Fuel Usage Statement

Name of the Project

(Location, District)

SNA/Utility Ref. No.

Installed Capacity (MW)

Date of Commissioning

For FY:

Statement Date:

Project Code:

Sr. No.	Month	Biomass Fuel-1 consumption (in Tonnes)			Biomass Fuel-2 consumption (in Tonnes)			Biomass Fuel-3 consumption (in Tonnes)			Fossil Fuel (Coal) consumption in Tonnes)			% Fossil Fuel Consumption of Total Fuel Consumption	
		Type of Fuel	During current month	Cumulative last 12 month	Type of Fuel	During current month	Cumulative last 12 month	Type of Fuel	During current month	Cumulative last 12 month	Grade of coal used	During current month	Cumulative last 12 month	Cumulative during current month	Cumulative last 12 month
														(13)/ (4+7+10+13)	(14)/ (5+8+11+14)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	April														
2	May														
3	June														
4	July														
5	August														
6	September														
7	October														
8	November														
9	December														
10	January														
11	February														
12	March														

**Format of Monthly Statements to be submitted by Biomass and Co-Generation Project Entities to State Nodal Agency**

Template 1.2: Monthly Fuel Usage Statement

Name of the Project

(Location, District)

SNA/Utility Ref. No.

Installed Capacity (MW)

Date of Commissioning

For FY:

Statement Date:

Project Code:

Sr. No.	Month	Energy Generation (kWh) during the month		Cumulative Energy Generation (kWh) during FY till end of the month		Biomass Fuel-1 consumption (in Tonnes)			Biomass Fuel-2 consumption (in Tonnes)			Biomass Fuel-3 consumption (in Tonnes)			Fossil Fuel (Coal) consumption in Tonnes			% Fossil Fuel Consumption of Total Fuel Consumption	
		Gross	Net	Gross	Net	Type of Fuel	During current month	Cumulative last 12 month	Type of Fuel	During current month	Cumulative last 12 month	Type of Fuel	During current month	Cumulative last 12 month	Grade of coal used	During current month	Cumulative last 12 month	During current month	Cumulative last 12 month
						3	4	5	6	7	8	9	10	11	12	13	14	(13)/(4+7+10+13)	(14)/(5+8+11+14)
1	2																		
1	April																		
2	May																		
3	June																		
4	July																		
5	August																		
6	September																		
7	October																		
8	November																		
9	December																		
10	January																		
11	February																		
12	March																		



**Template 2.1: Monthly Fuel Procurement Statement (1/2)**

Name of the Project  
 (Location, District)  
 MEDA/Utility Ref. No.  
 Installed Capacity (MW)  
 Date of Commissioning

For FY:  
 Statement Date:  
 Project code:

Sr. No.	Month	Quantity of fuel procured (in tonnes)				Total delivered cost of fuel (in Rs Lakhs)			
		Biomass Fuel- 1	Biomass Fuel- 2	Biomass Fuel- 3	Biomass Fuel- 4	Biomass Fuel- 1	Biomass Fuel- 2	Biomass Fuel- 3	Biomass Fuel- 4
1	2	3	4	5	6	7	8	9	10
1	April								
2	May								
3	June								
4	July								
5	August								
6	September								
7	October								
8	November								
9	December								
10	January								
11	February								
12	March								

**Template 2.2: Monthly Fuel Procurement Statement**

Name of the Project  
 (Location, District)  
 SNA/Utility Ref. No.  
 Installed Capacity (MW)  
 Date of Commissioning

For FY:  
 Statement Date:

Sr. No.	Month	Biomass Fuel-1 procured					Biomass Fuel-2 procured					Biomass Fuel-3 procured					Fossil Fuel (Coal)procured				
		Cost to Supplier	Storage cost	Handling cost	Transportation cost	Delivered cost of fuel	Cost to Supplier	Storage cost	Handling cost	Transportation cost	Delivered cost of fuel	Cost to Supplier	Storage cost	Handling cost	Transportation cost	Delivered cost of fuel	Cost to Supplier	Storage cost	Handling cost	Transportation cost	Delivered cost of fuel
		Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton	Rs./Ton
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	April																				
2	May																				
3	June																				
4	July																				
5	August																				
6	September																				
7	October																				
8	November																				
9	December																				
10	January																				
11	February																				
12	March																				