

POWER PURCHASE AGREEMENT

between

Maharashtra State Electricity Distribution Company Limited

(MSEDCL / MAHAVITARAN the "Procurer")

and

Maharashtra State Power Generation Company Limited

(MSPGCL / MAHAGENCO the "Seller")

POWER PURCHASE AGREEMENT

for

Procurement of Power on Long Term Basis

from

**Existing Power Stations including Parli T.P.S. Unit-6 (New Parli T.P.S. Unit -1)
and Paras T.P.S. Unit-3 (Paras T.P.S. Expansion Unit- 1)**

between

**Maharashtra State Electricity Distribution Company Limited
(MSEDCL / MAHAVITARAN the "Procurer")**

and

**Maharashtra State Power Generation Company Limited
(MSPGCL / MAHAGENCO the "Seller")**



महाराष्ट्र MAHARASHTRA

13 FEB 2009

श्री सौ. कांचन हर्षद बोंगाळे

BN 351603

चंद्र कोर्टाचमोर, अं. का. मार्ग,
वर्दि (पूर्व), मुंबई - ४०० ०५१

श्री/श्रीमती/देवता

21 FEB 2009

PROPER OFFICER

सांना रु.....

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Mr. I. S. Sawant

परवाना धारक मुद्रांक विक्रेता

This Power Purchase Agreement (here in after referred as the Agreement") is made this First day of February, Two Thousand Nine (2009) between

Rake

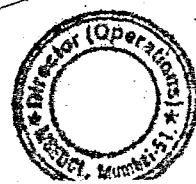
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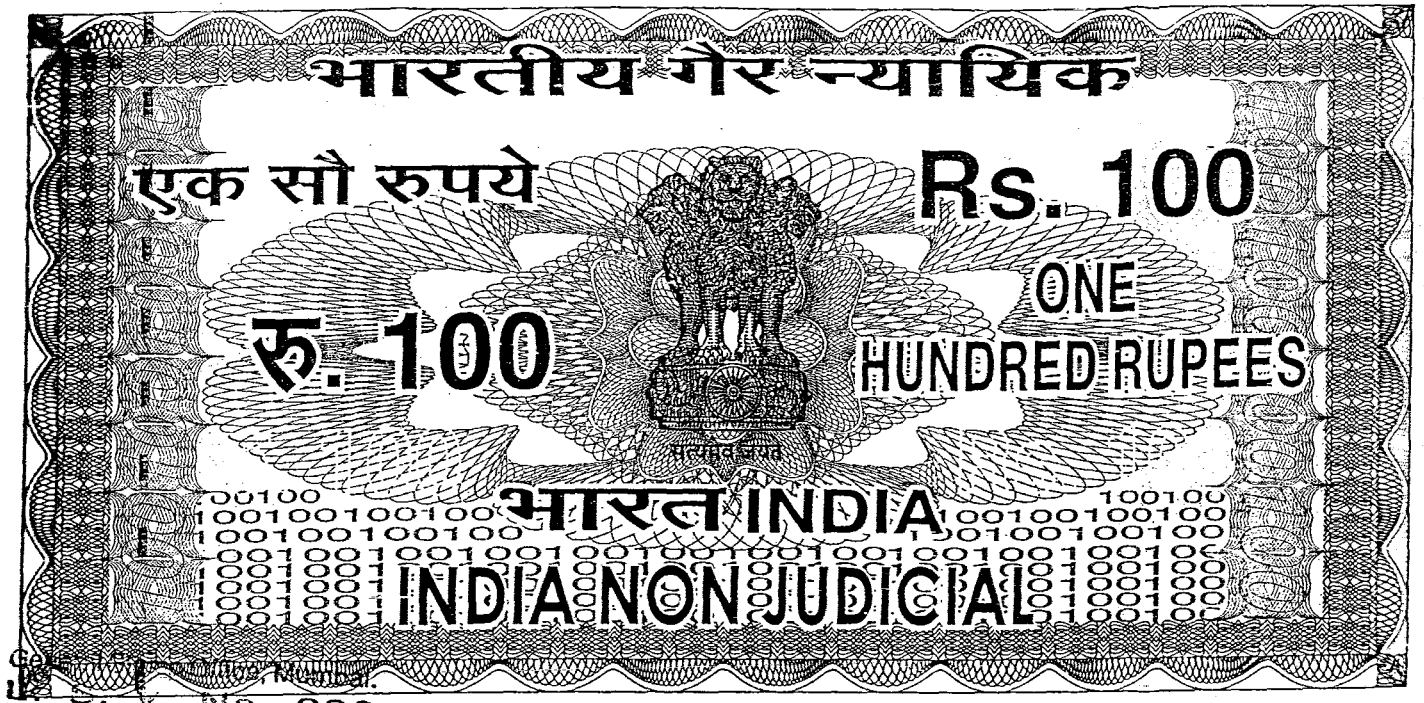
01-04-2009

Maharashtra State Power Generation Company Limited (MSPGCL), a Company incorporated under the provisions of the Companies Act, 1956 and having its registered office at Prakashgad, G-9, Anant Kanekar Marg, Bandra (E), off Western Express Highway, Mumbai - 400 051 (hereinafter referred to as MAHAGENCO which expression shall, unless repugnant to the context or meaning thereof include its successors and assigns) of the One Part:

And

Maharashtra State Electricity Distribution Company Limited (MSEDCL), a Company incorporated under the provisions of the Companies Act, 1956, and having its registered office at Prakashgad, G-9, Anant Kanekar Marg Bandra (E), Mumbai - 400 051 (hereinafter referred to as MAHAVITARAN, which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns) of the Other part.





महाराष्ट्र MAHARASHTRA

13 FEB 2009

PROPER OFFICER

F. S. Sawant

श्री सौ. कांचन हर्षद बोंगळे

BN 351604

वाटो कोर्टसमोर, अं. का. मार्ग,

को (पुणे), पुणे - ४११००१

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श्री/श्रीमतीने परत

M. S. P. G. C. Ltd

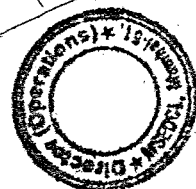
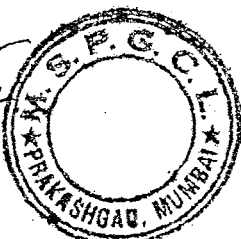
यांना र. अर्जातूनून ज. पोर विकला.

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परवाना कारक मुद्रांक विवेचना

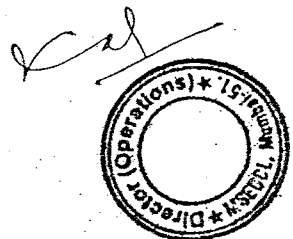
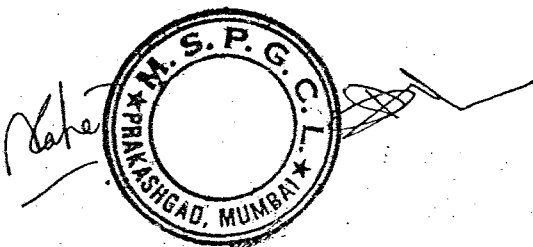
WHEREAS;

- The Maharashtra State Electricity Board, (hereinafter referred to as MSEB) a Board constituted under the Electricity (Supply) Act, 1948 as was applicable at the relevant time was the integrated electricity board in the State of Maharashtra undertaking the electricity generation, transmission, distribution and supply in the State;
- In terms of section 131, 133 etc. of the Electricity Act, 2003 the Government of Maharashtra (hereinafter referred to as the State Government) has reorganised the MSEB by Transfer Scheme notifications issued by the State Government on 4th June 2005;
- In terms of the Transfer Scheme notifications issued by the State Government the existing generating stations and ongoing generating stations of erstwhile MSEB as detailed at Schedule-1 and Schedule-2 respectively of this Agreement have been transferred and vested in MAHAGENCO from the said effective date and the electricity distribution and retail supply in the state has been transferred and vested in MAHAVITARAN;



- d) MAHAGENCO owns, operates and maintains the Thermal Generating Stations, operates & maintains Hydel stations and sells and supplies electricity in bulk to MAHAVITARAN with effect from 6th June 2005;
- e) The Maharashtra State Electricity Transmission Company Limited incorporated as per provisions of Section 131 of the Electricity Act 2003, the deemed licensee as per Section 14 of the said Act and the designated State Transmission Utility (STU) in Maharashtra state as per Section 39 (1) of the said Act and is also at present the State Load Dispatch Centre undertaking the functions as provided in section 32 of the said Act;
- f) The State Load Dispatch Centre (hereinafter the SLDC) shall be responsible for optimum scheduling and dispatch of electricity within a state in accordance with contract entered into with licensees or the generating companies operating in the state;
- g) The Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 provides that electricity purchase and procurement by a Distribution Licensee from a Generating Company or Licensee or from any other source through agreement or arrangement for purchase of power for distribution and supply within the State shall be in accordance with Part-D of regulations. And said MERC Regulations further provide that every agreement or arrangement for long-term power procurement by a Distribution Licensee from a Generating Company or Licensee or from other source of supply entered into after the date of notification of these Regulations shall come into effect only with the prior approval of the Commission in accordance with Part D of said regulations;

NOW THEREFORE, in view of the foregoing premises and in consideration of the mutual covenants and agreements herein after set forth, the MAHAGENCO and the MAHAVITARAN hereby agree as follows:

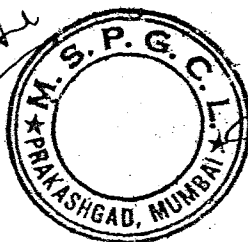


Abbreviations

ABT	Availability Based Tariff
ARR	Annual Revenue Requirement
AVF	Availability Factor
BPTA	Bulk Power Transmission Agreement
CC	Capacity Charges
CERC	Central Electricity Regulatory Commission
CMRI	Common Meter Reading Instrument
COD	Commercial Operation Date
CTs	Current Transformers
DC	Declared Capacity
EC	Energy Charges
EHV	Extra High Voltage
FCA	Fuel Cost Adjustment
FO	Forced Outages
FY	Financial Year
GCC	Grid Coordination Committee
GCV	Gross Calorific Value
GoM	Government of Maharashtra
GT	Generator Transformer
HV	High Voltage
IC	Installed Capacity
IEGC	Indian Electricity Grid Code
IRLC	Irrevocable Revolving Letter of Credit
KV	Kilo Volt
L/C	Letter of Credit
MCR	Maximum Continuous Rating



MERC	Maharashtra Electricity Regulatory Commission
M.F.	Multiplying Factor
MSEB	Maharashtra State Electricity Board
MSEB Holding	MSEB Holding Company Limited
MSEDCL/ MAHAVITARAN	Maharashtra State Electricity Distribution Company Limited
MSETCL/MAHATRANSCO	Maharashtra State Electricity Transmission Company Limited
MSPGCL/MAHAGENCO	Maharashtra State Power Generation Company Limited
MVA	Mega Volt Ampere
MW	Mega Watt
PLF	Plant Load Factor
PO	Plant Outages
PPA	Power Purchase Agreement
PTs	Potential Transformers
SAT	Station Auxiliary Transformer
SCADA	Supervisory Control And Data Acquisition
SGC	State Grid Code
SHR	Station Heat Rate
SLDC	State Load Despatch Centre
STU	State Transmission Utility
TPS	Thermal Power Station
UI	Unscheduled Interchange
VC	Variable Charges
WRLDC	Western Regional Load Despatch Centre



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1: ARTICLE 1: DEFINITIONS & INTERPRETATIONS

1.1 Definitions

The words/expressions mentioned below unless repugnant to the context shall have the meanings respectively as assigned hereunder;

- (a) "Act" means the Electricity Act 2003 (36 of 2003);
- (b) "Agreement" means this Power Purchase Agreement (PPA) including its schedules, as amended, supplemented or modified from time to time and in accordance with the terms and conditions herein and approved by the Commission thereof;
- (c) "Auxiliary (Energy) Consumption" in relation to a period, means the quantum of energy consumed by auxiliary equipment of the generating station and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the unit(s) of the generating station. And, for the purpose of this Agreement. The auxiliary consumption for a thermal generating station shall include transformer losses within the generating station;
- (d) "Availability" for any period means the average of the daily average declared capacities (DCs) for all the days during that period expressed as a percentage of the installed capacity of the generating station minus auxiliary consumption in MW, and shall be computed in accordance with the following formula:

$$Availability = 10000 \times \sum_{i=1}^N DCi / \{N \times IC \times (100 - AUX)\} \%$$

Where

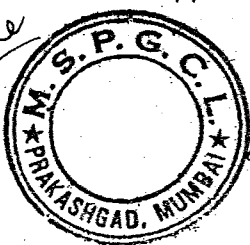
IC = Installed Capacity of the generating station in MW

DCi = Average declared capacity for the i^{th} time block in such period in MWs,

N = Number of time blocks in the given period,

AUX = Auxiliary Energy Consumption in MW expressed as a percentage of gross Generation;

- (e) "Availability Based Tariff" has the meaning set forth in the MERC order dated 17th May 2007 on 'Introduction of Availability Based Tariff Regime at State level within Maharashtra and other related issues' and any amendments issued thereof
- (f) "Balancing and Settlement Code" refers to such code as may be stipulated by the Commission or as may be published by the State Load Despatch Centre and approved by the Commission, for the balancing of energy accounts and



settlement of differences between energy scheduled and actual energy among the users of the grid in the State of Maharashtra;

- (g) **"Billing Date"** means the date on which the bill is presented to MAHAVITARAN by MAHAGENCO;
- (h) **"Billing Month"** means the calendar month for which Bill is issued by MAHAGENCO;
- (i) **"Capacity Charges"** means the fixed charges to be paid by MAHAVITARAN on a monthly basis to MAHAGENCO as specified by the Commission in accordance with MERC (Terms and Conditions of Tariff) Regulations 2005 set out in regulation 34;
- (j) **"CERC"** means Central Electricity Regulatory Commission;
- (k) **"Check Meter"** means the meter defined as "Check meter" in the Metering Code for intra-state transmission system approved by the Commission;
- (l) **"Commission"** means the Maharashtra Electricity Regulatory Commission;
- (m) **"Connection Agreement"** means an agreement setting out the terms and conditions relating to connection to and / or use of the intra-State transmission system;
- (n) **"Date of Commercial Operation" OR "COD"** in relation to a unit means the date declared by MAHAGENCO after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run of the unit;
- (o) **"Declared Capacity (DC)"** means

1. for a thermal generating station, the capability of the generating station to deliver ex-bus electricity in MW declared by such generating station in relation to any period of the day or whole of the day, duly taking into account the availability of fuel:

Provided that in case of a gas turbine generating station or a combined cycle generating station, the generating station shall declare the capacity for units and modules on gas fuel and liquid fuel separately, and these shall be scheduled separately. Total declared capacity and total scheduled generation for the generating station shall be the sum of the declared capacity and scheduled generation for gas fuel and liquid fuel for the purpose of computation of availability and Plant Load Factor respectively;

2 for run-of-river hydro power generating stations with pondage and storage-type power stations, the ex-bus capacity in MW expected to be available from the generating station over the peaking hours of the next day, as declared by the generating station, taking into account the availability of water, optimum use of



water and availability of machines and for this purpose, the peaking hours shall not be less than three (3) hours within a twenty-four (24) hour period;

3. for purely run-of-river hydro power generating stations, the ex-bus capacity in MW expected to be available from the generating station during the next day, as declared by the generating station, taking into account the availability of water, optimum use of water and availability of machines;

- (p) **"Deemed Generation"** means the energy which a hydro power generating station was capable of generating but could not generate due to reasons beyond the control of the generating station or on account of non-availability of Transmission Licensee's transmission lines or on receipt of backing down instructions from the State Load Despatch Centre resulting in spillage of water;
- (q) **"Designated Officer(s)"** means the Officer(s) in MAHAGENCO and MAHAVITARAN designated by the respective parties for matters relating to Billing and Payment;
- (r) **"Dispatch Instruction"** shall have the meaning given to it in the MERC (State Grid Code) Regulations, 2006;
- (s) **"Disputed Bill"** has the meaning as set forth in Article 9.2;
- (t) **"Due Date"** means the date falling on the 60th day from the Billing Date in case of a Monthly Bill and means the date falling on the 45th day from the Billing Date in case of a Supplementary Bill;
- (u) **"Energy Charges"** is the monthly amount payable by MAHAVITARAN to MAHAGENCO in respect of delivered energy and other matters related to the supply of fuel to the power station and shall be computed as specified by the Commission in accordance with regulation 35 of the MERC (Terms & Conditions of Tariff) Regulations 2005;
- (v) **"Existing Generating Stations"** means generation stations mentioned in the Schedule-'B' of the Transfer Scheme notified on 4th June 2005 (No. Reform1005/CR-9061(1)/NRG-5) and effective from 6th June 2005;
- (w) **"Financial Year"** means the period from 1st of April of the year to 31st of March of the next year;
- (x) **"Force Majeure"** means as defined in Article 11;
- (y) **"Generating Station" or "station"** means any station for generating electricity, including any building and plant with step-up transformer, switch-gear, cables or other auxiliary equipments, if any used for that purpose and the site thereof, a site intended to be used for the generating station, and any building used for housing the operating staff of a generating station, and where electricity is generated by water power, includes penstocks, head and tail works, main and



regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-station;

- (z) **"Gross Station Heat Rate"** means the heat energy input in kCals required to generate one unit of Electrical Energy in kWh at generator terminals;
- (aa) **"Infirm Power"** means the energy supplied from the generating unit to MAHAVITARAN from the date of first synchronisation up to the Commercial Operation Date;
- (bb) **"Installed Capacity"** means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating (reckoned at the generator terminals) as approved by the Commission from time to time;
- (cc) **"Interconnection Point"** means the physical point or points where generating Station and the Grid System are connected at which the transfer of electrical power occurs between the MAHAGENCO and Transmission Utility;
- (dd) **"Interface Meter"** means as defined in the Metering Code for intra-state transmission system approved by the Commission;
- (ee) **"Main Meter"** means the meter defined as "main meter" in the Metering Code for intra-state transmission system approved by the Commission;
- (ff) **"Major investments"** means any expenditure incurred for the betterment of the Power Generating unit(s) of MAHAGENCO which involves an amount of more than or equal to Rupees Twenty five (25) Crores.
- (gg) **"Maximum Continuous Rating"** means the normal rated full load MW output capacity of a Generating Unit which can be sustained on a continuous basis at specified conditions;
- (hh) **"Metering System"** means meters and wherever applicable associated metering apparatus/equipment such as CTs, PTs, communications/SCADA equipment etc, necessary for such recording and communication of metered data and shall also include main meter, check meter and/or standby meters which are provided to enable proper accounting, billing, recording and auditing of energy consumption / energy transfer;
- (ii) **"Metering Code"** means the code and/or the metering section of the Grid Code in force or any amendments approved thereof by the Commission and covering aspects relating to metering equipment, its installations, operation and use;
- (jj) **"Monthly Bill"** has meaning as set forth in Article 9.1 (a);
- (kk) **"Plant Load Factor"** for a given period, means the total energy sent out corresponding to scheduled generation during the period, expressed as a



percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:

$$PLF (\%) = 10000 \times \sum_{i=1}^N SGI / \{N \times IC \times (100 - AUX)\} \%$$

Where;

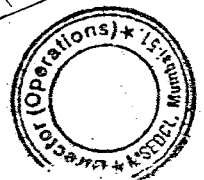
IC = Installed Capacity of the generating stations in MW

SGI = Scheduled Generation in MW for i^{th} time period in ex bus as given by State Load Despatch Centre.

N = Number of time Blocks during the given period

AUX = Auxiliary consumption in MW expressed as a percentage of gross generation

- (II) **"Power Station"** means the Generating Station as defined above;
- (mm) **"Primary Fuel"** means coal/gas as the case may be which is used as the main fuel for generation of power;
- (nn) **"Project"** means all activities related to construction, erection, testing and commissioning of a Generating Station undertaken prior to commercial Operation Date (COD);
- (oo) **"Prudent Utility Practices"** means the practices, methods, techniques, and standards that are generally accepted nationally and internationally from time to time and commonly used in the national and international electric utility industry for the operation and maintenance of equipment of a Generating Station in a safe, prudent and reliable manner consistent with the parameters for such operation and maintenance. Such practices, methods, techniques and standards shall be adjusted as necessary to take account of the requirements of Law, physical conditions at the site on which a Generating Station is located and operation and maintenance guidelines of the manufacturers of plant and equipment installed in the Power Station which MAHAGENCO is required to follow in order to maintain in effect any warranties, guarantees or insurance policies relating thereto;
- (pp) **"Reactive Power"** means the product of root mean square (rms) voltage, root mean square (rms) current and the sine of the electrical phase angle between the voltage vector and current vector, measured in 'Volt – Ampere reactive' (VAR) and in standard multiples thereof;
- (qq) **"Scheduled Generation"** at any time or for any given period or time block means the schedule of generation in MW ex-bus given by the State Load Despatch Centre;

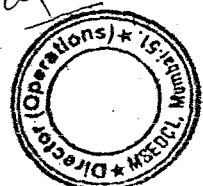


- (rr) **"Secondary Fuel"** means the liquid fuel for supplementary firing used during the start up and low load condition of the Generating station and also during stabilisation period;
- (ss) **"Start Up"** means the preparation and activities carried out for synchronisation and connection of the Generating Station to the Grid System;
- (tt) **"State Grid Code (SGC)"** means the MERC (State Grid Code) Regulation 2006 issued by Maharashtra Electricity Regulatory Commission through order dated 15th February 2006 as amended from time to time;
- (uu) **"Supplementary Bill"** means the bill raised by MAHAGENCO for any amount due to MAHAGENCO; other than the monthly bill, as stipulated in Article no 9.1 of this agreement;
- (vv) **"Transfer Date"** means the effective date of transfer of the generating undertakings and facility to MAHAGENCO under the Transfer Scheme notified by the State Government i.e. 6th June 2005;
- (ww) **"Transfer Scheme"** means the Maharashtra Electricity Reforms Transfer Scheme notified by the Government of Maharashtra under sections 131, 133 and 134 of the Electricity Act, 2003;
- (xx) **"Unit"** means the unit of a generating station;

1.2 Interpretation

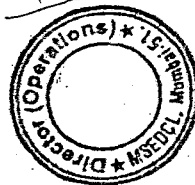
The capitalised terms listed in this Article shall have the meanings set forth herein whenever the term appears in this Agreement either in the singular or plural. The References to "Article", "Clauses" or "Schedules" shall be to Article, clauses or schedules of this Agreement.

- 1.3 The terms not defined herein shall have meaning as per the Electricity Act 2003.



2: ARTICLE 2: REGULATORY APPROVAL

- 2.1 This power purchase agreement is subject to approval of the Commission under Regulation 24 of the MERC (Terms & Conditions of Tariff) Regulations, 2005 read with section 62 and section 86(1) (b) of the Electricity Act, 2003. An application for approval of the power purchase agreement under Regulation 24 of the MERC (Terms & Conditions of Tariff Regulations, 2005) shall be filed by MAHAVITARAN to the Commission within a period of 30 days of signing of the PPA. MAHAGENCO shall participate in the proceedings that may be initiated by the Commission for the approval of PPA between the parties. The terms of this Agreement shall stand modified as per the orders passed by the Commission to this power purchase agreement from time to time.
- 2.2 The parties also agree that any subsequent amendment / modification to this power purchase agreement shall be effective subject to the approval to be obtained from the Commission.



3: ARTICLE 3: TERM OF AGREEMENT

3.1 Effective Date and Term of Agreement

The term of this Agreement come into force from the date of signing of this Agreement for power stations (as shown in Schedule 1& 2) for all purposes and intent and shall remain operative for a period of twenty five (25) years unless extended as per Article 3.3 or terminated earlier as per Article 3.2.

3.2 Early Termination

This Agreement shall terminate before the Expiry Date:

3.2.1 if either MAHAVITARAN or MAHAGENCO exercises a right to terminate, pursuant to Article 12; or

3.2.2 in such other circumstances as the MAHAGENCO and MAHAVITARAN may subsequently agree, in writing.

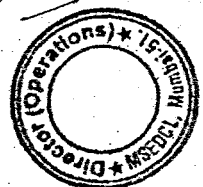
3.3 Extension of Term

3.3.1 Prior to one hundred and eighty days (180) before the Expiry Date, MAHAVITARAN may give a written notice to the MAHAGENCO that it wishes to extend this Agreement for an additional period.

3.3.2 Upon the receipt of the notice from MAHAVITARAN under Article 3.3.1 above, the parties shall in good faith negotiate the terms and conditions for extension of the agreement with the period of extension and if the parties mutually agree on the above, the parties will enter into a supplementary agreement. The Supplementary Agreement shall be subject to regulatory approval in the similar manner as provided in Article 2 above.

3.4 Survival

The expiry or termination of this Agreement shall not affect accrued rights and obligations of the Parties under this Agreement, nor shall it affect any continuing obligations for which this Agreement provides, either expressly or by necessary implication, the survival of, post its expiry or termination.



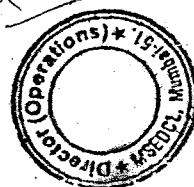
4: ARTICLE 4: RIGHTS & OBLIGATIONS FOR SUPPLY AND TAKE

4.1 Right to Electrical Output

- (a) Except as provided in Article 4.2.2 and Article 10.3 for sale to third party(s) by MAHAGENCO effective from the Transfer Date subject to terms and conditions of this Agreement, the ex-bus energy available from the entire generating capacity of the MAHAGENCO as given in Schedule-1 and Schedule-2 of this agreement is allotted to MAHAVITARAN. MAHAVITARAN shall purchase such power as per terms & conditions set forth in this Agreement.
- (b) MAHAVITARAN has exclusive rights to consume, sell, exchange, trade and dispose-off such power to any other party subject to regulatory approval as may be applicable.
- (c) The installed generating capacity of MAHAGENCO may vary from time to time due to de-rating, up-rating, R&M and scraping of the generating capacity or part thereof and this power purchase agreement shall remain valid for the effective installed generating capacity of MAHAGENCO at such time during the term of this PPA.
- (d) The details regarding the date of commissioning, completed age and expected life of all the Thermal units and Hydro Power Station units are shown in Annexure -I and the details of other Performance parameters of all the Existing Power stations are shown in Annexure-II.
- (e) The expected life of the units shown in the Annexure-I is indicative, considering the proposed Renovation and Modernization work of the units for their effective Extension of Life, which will be reviewed and if any change in the expected life of a unit is anticipated, it will be informed to MAHAVITARAN three (3) years prior to the completion of the expected life mentioned in the Annexure-I, subject to any forced majeure event.
- (f) The contractual and Technical parameters of all units covered under the Agreement are enclosed in Annexure - III. The values are based on the application filed by MAHAGENCO in its MYT Application to the Commission for the first control period of 2007-10. These parameters are likely to change with the aging of the plant and due to other factors which will be submitted to the commission for approval from time to time.

4.2 Third party Sale of Surplus Energy

- 4.2.1 MAHAGENCO agrees that it shall not sell the power generated from this generating station directly to third parties, except in situation where



the total schedules on day ahead basis of MAHAVITARAN becomes less than the declared capacity by MAHAGENCO;

4.2.2 Under the situation as mentioned in Article 4.2.1, if MAHAVITARAN do not exercise its right to sell / trade the unavailed capacity as per Article 4.1. (b), then MAHAGENCO have the right (but not obligation) to sell such unavailed capacity on short term basis to parties other than MAHAVITARAN on terms and conditions as may be decided between MAHAGENCO and such third party without losing the claim on the capacity charges due from MAHAVITARAN. In such a case, the sale realization in excess of Energy Charges shall be shared according to the formula given below:

1. Two-Third (2/3) of the Revenue in excess of energy charges shall be passed on to MSEDCL and balance One-Third (1/3) of Revenue in excess of energy charges shall be retained by MSPGCL till the capacity charges payable by MSEDCL are equivalent to the revenue shared with MSEDCL
2. Once the revenue shared with MSEDCL in excess of energy charges is equivalent to capacity charges payable by MSEDCL, any additional revenue shall be shared between MSPGCL and MSEDCL in equal proportion.

4.3 Start-up and Auxiliary back-up

4.3.1 Upon MAHAGENCO's request, MAHAVITARAN shall provide electrical energy to Power Stations of MAHAGENCO for start-up and auxiliary back-up. MAHAVITARAN shall submit an account of such energy made available to MAHAGENCO based on the interface meters provided at interconnection points of MAHAGENCO and MAHATRANSCO.

4.3.2 The energy drawn from the MSEDCL network for the auxiliary consumption, like river water pumping, ash water recovery, ash slurry booster pumps, and raw water booster pumps etc. required for power generation shall be a part of the Auxiliary Consumption.

4.3.3 Energy supplied by MAHAVITARAN for the purpose as mentioned in Clause 4.3.1 and Clause 4.3.2 shall be netted off from the energy supplied by MAHAGENCO from their generating stations and MAHAGENCO shall raise the Monthly Bill for the net energy supplied from MAHAGENCO's generating stations.



4.4 Construction Power

Upon MAHAGENCO's request, MAHAVITARAN shall provide construction power to MAHAGENCO for new projects and new works at existing power stations on mutually agreed terms and conditions and applicable tariff category. MAHAVITARAN shall raise appropriate bill upon MAHAGENCO for construction power not being start-up and auxiliary backup supply.



5: ARTICLE 5: OPERATION AND MAINTENANCE

5.1 Operation and Maintenance of the Power Station

5.1.1 MAHAGENCO shall be responsible at its own expense for ensuring that the generating Stations are operated and maintained in accordance with all statutory requirements, including the terms of all Consents and Prudent Utility Practices so as to meet its obligations under this Agreement, including without limitation its obligations under Article 4.1, and so as not to have an adverse effect on the Grid System.

5.1.2 MAHAGENCO shall be responsible at its own expense for obtaining and keeping in force all Consents required for the operation of a Unit, the generating Station and the Project in accordance with this Agreement throughout its Operating Period.

5.1.3 MAHAGENCO shall comply with all the existing provisions of State Grid Code 2006 and any further amendments to the same, from time to time.

5.2 Scheduling & Dispatch

5.2.1 Both the parties agree to comply with the provisions of the State Grid Code approved by the Commission. MAHAGENCO and MAHAVITARAN shall furnish their generation schedule & drawl schedule respectively in accordance with the Scheduling & Dispatch Procedure specified by the SLDC under the State Grid Code. MAHAGENCO agrees that for the purpose of Scheduling, it shall declare its true plant availability (capacity) to the SLDC and is required to demonstrate the declared capacity of any of its generating station as and when required by the State Load Despatch Centre. Any wrong declaration shall be subjected to provisions of regulation no. 40 (Demonstration of Declared Capacity) of Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005.

5.2.2 MAHAGENCO shall calculate the Availability as defined in Article 1:

5.2.3 The scheduling and despatch as regards to Koyna Hydro Station shall be followed by MSPGCL & MSEDCL as per instructions of SLDC. The schedule finalized by the concerned Load Despatch Centre for the hydro-electric generating station shall normally be such that the scheduled energy for a day equals the total energy (ex-bus) expected to be available on that day, as declared by the generating station based on foreseen/planned water availability/release. It is also expected that the total net energy actually supplied by the generating station on that



day would equal the declared total energy, in order that the water release requirement is met.

As regards the applicability of peak tariff for excess power generated during non peak period due to requirement of MSEDCL, the issue shall be referred to the MERC for inclusion of same in the tariff order.

5.3 Scheduled Maintenance Outages

MAHAGENCO on year-ahead basis shall furnish to SLDC its generation outage programme as per the SLDC Outage Planning Procedure for next financial year under Grid Code. MAHAGENCO shall also give the copy of such outage programme to MAHAVITARAN so that it can plan its power procurement in advance. MAHAVITARAN may request MAHAGENCO to defer/ reschedule its Annual Outage Programme based on its power requirement. MAHAGENCO based on the technical considerations may accede or reject such request from MAHAVITARAN for re-scheduling outage plan.

5.4 Grid Coordinating Committee

The parties herein agree that the issues relating to interconnection, evacuation & transmission facilities, and coordination with the grid system will be decided and settled between parties through Grid Coordination Committee (GCC) established under Clause 5 of the MERC (State Grid Code) Regulations, 2006.

5.5 Maintenance of Records

5.5.1 Each Party shall keep complete and accurate records of the following:

- (a) meter records and other records needed to reflect real and reactive power production for each Settlement Period and Electrical Output of the Power Station on a continuous real time basis;
- (b) records of Available Capacity and Declared Capacity;
- (c) the results of any tests;
- (d) changes in operating status, Scheduled Outages, Maintenance Outages and Forced Outages (and any other restrictions or limitations affecting Available Capacity);
- (e) any unusual conditions found during inspections; and
- (f) Records of primary and secondary fuel receipts, consumption and stocks.

5.5.2 Any other data required by each of them for the purpose of proper administration of this agreement shall be provided with a prior notice of 30



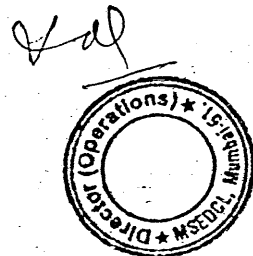
days or such time period as may be necessary to capture the required data.

5.5.3 All records maintained pursuant to this Article shall be maintained for minimum of sixty months after the creation of such records or data: Provided that, the Parties shall not dispose of or destroy any such records after such sixty month period without thirty days' prior written notice to the other parties or at any time during the continuation of any dispute in respect of any matter to which such records relate.

5.5.4 Every Party shall have the right, upon reasonable prior notice, to examine the records and data of the other Parties relating to this Agreement or the operation and maintenance of the Power Station at any time during normal office hours.



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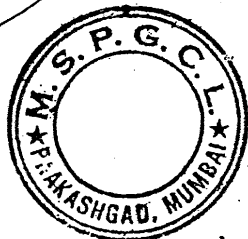
6: ARTICLE 6: METERING AND ENERGY ACCOUNTING

6.1 Installation, Inspection and Testing of Meters

- 6.1.1 All interface meters installed at the points of interconnection with intra-state transmission system shall be owned, operated and maintained by the MAHATRANSCO (STU) in accordance with the Metering Code approved by the Commission.
- 6.1.2 The interface meters installed at interconnection points of generating stations embedded into distribution system and injecting power directly into distribution system shall be owned, operated and maintained by the MAHATRANSCO (STU) in accordance with the Metering Code approved by the Commission.
- 6.1.3 The meters conforming to the specification mentioned in the relevant clauses of the Metering Code shall be suitable to measure and store all pertinent parameters, needed for billing as per the applicable tariffs and settlement system as specified by the commission.
- 6.1.4 MAHAGENCO & MAHAVITARAN can tap all data stored in the memory of the meters using hand held data collection device (CMRI) or through provision of RS 485 / Ethernet LAN port in the meter MAHAGENCO & MAHAVITARAN can transmit data to remote locations using appropriate communication media.
- 6.1.5 The parties agree for inspection and testing of meters in accordance with the relevant clause of the Metering Code approved by the Commission. The parties also agree that inaccuracies, failure and discrepancies in the interface meters shall be dealt by MAHATRANSCO in accordance with the relevant provisions of the Metering Code approved by the Commission.
- 6.1.6 Other provisions regarding metering system, which are not covered specifically in this agreement, shall be governed by the relevant codes and standards approved by the MERC.

6.2 Inter-connection point and boundary

- 6.2.1 The parties agree that the inter-connection boundary between MAHAGENCO's Generating Stations and Mahatransco's transmission system shall be the HV side of the Generator Transformer (GT) and the HV side of Station Auxiliary Transformer (SAT) of the Generating Station. The switchyard associated with the generating station for interconnection with Intra-State transmission shall be under the control of MAHATRANSCO.



6.2.2 The parties herein agree that at any subsequent date after signing this agreement any change in above arrangement of inter-connection boundary and/ or in operation and control of switchyard associated with the generating stations, either by the Commission or through mutual agreement between MAHATRANSCO and MAHAGENCO shall automatically apply to this agreement without any further act.

6.2.3 MAHAGENCO shall make separate connection Agreement(s) with MAHATRANSCO including provisions of metering code for intra state transmission system approved by the Commission and MAHAVITARAN shall make respective power transmission agreements for the evacuation of the power generated from these power stations prior to approval of MERC.

6.3 Interface Metering Points

6.3.1 The Meters for interface tariff shall be provided at inter-connection points between MAHAGENCO's Generating Stations and MAHATRANSCO's transmission system as specified in the Metering Code for intra-state transmission system approved by the Commission.

6.3.2 The list of inter-connection points between generating stations with MAHATRANSCO's intra-state transmission system and list of inter-connection points between generating stations embedded in distribution system is at Schedule-3 and Schedule-4 respectively. List of interface tariff Meters installed at generating stations for recording exporting and importing energy is given at Schedule - 5. Inter-connection boundary points and interface tariff metering points given at Schedule 3, Schedule-4 and Schedule-5 are subject to change from time to time and shall be considered for energy accounting and billing purpose.

6.4 Meter Reading

6.4.1 Joint Monthly Meter Reading: Meters for interface tariff shall be programmed so as to register and store the readings from 00.00 hrs of 1st day of current month to 00.00 hrs of first day of next month. Joint Monthly meter readings of the meters for interface tariff for billing shall be taken / downloaded at 11.00 hrs on the 1st day of the next month and confirmation signed by the authorised representatives of MAHAGENCO, MAHAVITARAN and MAHATRANSCO. No notice is required to be issued for monthly joint meter readings. In case any party not able to attend meter readings at specified time, the meter readings taken by the other party (s) shall be considered conclusive and binding on other parties unless a written objection is filed by the Party, who



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failed to attend the joint meter readings, within 10 days of communicating such readings to them.

6.4.2 Access to Metering Data

MAHAGENCO, MAHAVITARAN and MAHATRANSCO shall be entitled to have access to metering data from a metering installation through appropriate technology for their use.

6.5 Energy Accounting

6.5.1 State Energy Account: Monthly State Energy Account for intra-State transmission system shall be prepared by the State Load Despatch Centre indicating energy injected into / drawn from intra-State transmission system in pursuance with clause (C) sub-section (2) Section 32 of the Act. The SLDC shall prepare such monthly state energy account on the basis of joint meter readings at interface points, Monthly Regional Energy Account and such other information as may be deemed appropriate by SLDC. The monthly State energy account issued by the SLDC shall be basis for accounting, billing and settlement amongst the beneficiaries of intra-State transmission system.

6.5.2 SLDC Charges: The scheduling and SLDC charges as determined by the Commission from time to time shall be applicable and payable to SLDC separately by MAHAVITARAN & MAHAGENCO as the case may be.



7: ARTICLE 7: PRINCIPLE OF DETERMINATION OF TARIFF & CHARGES

7.1 The tariffs for supply of electricity contracted by MAHAVITARAN from the generating stations of MAHAGENCO under this agreement shall be determined on two part basis consist of (i) Fixed Charge and (ii) Energy Charge. The broad principles for working out fixed cost and variable cost shall be in line with Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 as amended from time to time subject to modifications as may be necessary to give effect to obligation to supply and take energy under Article 4 of the Agreement. The tariff / charges for supply of energy from the generating stations of MAHAGENCO to MAHAVITARAN shall be as determined /approved by the Commission from time to time.

7.2 Recovery of Fixed Charges

7.2.1 The recovery of annual fixed charges shall be Unit-wise or Generating Station-wise or grouped according to thermal or hydro stations and combination thereof as may be specified by the Commission from time to time.

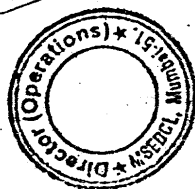
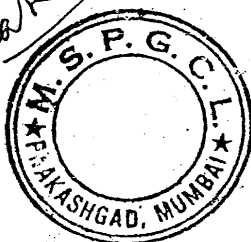
At present the Fixed and Energy Charges are calculated on station wise. However MAHAGENCO will work out Fixed Charge and Energy charge unit wise by March 2009 and the same will be made applicable with the approval of the Commission.

7.2.2 The annual fixed charges for thermal generating stations and hydro power generating stations shall consist of following elements:

- (a) Return on equity capital;
- (b) Income-tax;
- (c) Interest on loan capital;
- (d) Depreciation, including Advance against Depreciation, and amortization of intangible assets;
- (e) Operation and maintenance expenses and lease rent for Hydro stations; and
- (f) Interest on working capital

7.2.3 The aggregate cost in respect of above elements considered by the Commission in the Aggregate/ Annual Revenue Requirement of the MAHAGENCO shall be basis for recovery of fixed cost. Fixed cost shall be worked out as per following formula:

$$FC \text{ (Rs./MW/Month)} = \text{Approved Annual Fixed Cost of MAHAGENCO} / \text{Installed Generation Capacity} \times 12$$



7.2.4 Monthly Fixed charges payable by MAHAVITARAN for contracted capacity = Contracted Capacity X FC

7.2.5 Full capacity charge is to be paid if the generating station achieves the target availability of 80%. If the Commission approves target availability less than 80% for any generating station(s) for any particular year(s), such reduced target availability will be considered for recovery of full capacity charge for such period(s). Subject to forced majeure if any Power station(s) could not achieve the target Availability, fixed Charge will be reduced on pro rata basis as approved by the commission.

7.2.6 The capital expenditure incurred or to be incurred for the Renovation Refurbishing and Modernisation (R&M) would be pass through to MAHAVITARAN subject to approval of the Commission.

7.3 Energy Charge

The energy charges shall be determined station-wise and payable for ex-bus energy despatched by MAHAGENCO generating stations to MAHAVITARAN according to following formula:

(a) Thermal generating stations

Energy Charges (Rs) = Rate of Energy Charges in Rs/kWh x Ex-bus energy sent out for the month in kWh

Where,

Rate of Energy Charges (REC) shall be the sum of the cost of normative quantities of primary and secondary fuel for one-kWh of ex-bus energy sent out and shall be computed as under:

$$REC = \frac{100\{P_p \times (Q_p)_n + P_s \times (Q_s)_n\}}{(100 - (AUX)_n)} \text{ (Rs/kWh)}$$

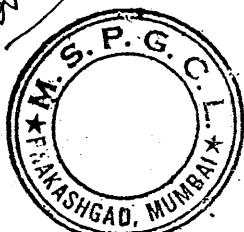
Where,

P_p = Landed cost of primary fuel namely coal or gas fuel in Rs/Kg or Rs/cubic-metre (m^3), as the case may be

$(Q_p)_n$ = Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in Kg or m^3 , as the case may be, and shall be computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal based generating stations) and gross calorific value of coal or gas as fired

P_s = Landed cost of Secondary fuel oil in Rs./ml

$(Q_s)_n$ = Normative Quantity of Secondary fuel oil in ml/kWh, and



AUXn = Normative Auxiliary Energy Consumption as percentage of gross generation

(b) Hydro power generating stations

(a) In case of Hydro power generating stations the energy rate for a hydro power generating station shall be such rate as may be notified by the Commission from time to time and shall be based on the price /variable cost of the least-cost available alternative source of power in accordance with MERC (Terms & Conditions of Tariff) Regulations, 2005.

(b) MAHAGENCO shall run its hydro power stations during "Peak Hours" and "Non-Peak Hours" as may be specified by the Commission from time to time in its ARR/Tariff order(s) and shall recover the tariff accordingly as per the orders of the Commission.

(c) The energy charge of hydro stations shall be computed in accordance with the following formula

Energy Charge = Saleable Energy x Energy Rate

(d) In case of hydro-stations the recovery of energy charges for saleable energy shall be reduced from Annual Fixed Cost of hydro power stations.

7.4 The tariffs for supply of electricity from this generating station of MAHAGENCO to MAHAVITARAN under this agreement shall be determined in accordance with the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 as amended from time to time and as approved by the commission in the ARR/MYT Petition filed by MAHAGENCO.



8: ARTICLE 8: APPLICABLE TARIFF

8.1 Applicable Tariff

8.1.1 Both the parties agree that the tariffs for supply of electricity to MAHAVITARAN from the generating stations of MAHAGENCO under this agreement shall be determined by the Commission from time to time. MAHAGENCO shall submit on annual basis its Annual Revenue Requirement (ARR) and the tariff petition with the Commission for approval under the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 as amended from time to time. The tariff determined by the Commission shall be binding and acceptable to both the parties for billing and payment for supply of electricity under this agreement.

8.1.2 MAHAVITARAN shall continue to pay to MAHAGENCO as per tariffs last determined by the Commission on provisional basis till the Tariff for the next financial year is determined by the Commission. Similarly the adjustment on rate of Energy charges on account of the variation in fuel cost etc raised by Mahagenco through supplementary Bills also is to be paid by MAHAVITARAN. Tariff for the next financial year will be effective from the date as approved by the Commission. If Tariff is approved by the commission with retrospective effect, then after finalisation of tariff by Commission for such period, where provisional rates have been used, MAHAGENCO shall issue supplementary bill(s) under Article 9 towards the difference amount between provisional rate and tariff approved by the Commission.

8.2 Incentive payment for Thermal Stations

MAHAGENCO shall be paid an incentive at a flat rate of 25.0 paise/kWh for scheduled generation in excess of generation of ex-bus energy corresponding to target PLF of 80% from these generating stations in accordance with Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005. Such incentive shall be in addition to scheduled energy charges as per applicable tariff payable. Necessary supporting certified documents should be annexed with bills.

8.3 Incentive payment for Hydro stations

In respect of hydel power stations incentive shall be payable to MAHAGENCO if the capacity index (CI) exceeds 90 per cent for purely run-of-river power stations and 85 per cent for run-of-river power station with pondage or storage type power generating stations in accordance with the following formula .

$$\text{Incentive} = 0.65 \times \text{Annual Fixed Charge} \times (\text{CIA} - \text{CIN})/100$$



(If incentive is negative, it shall be set to zero.)

Where, CIA is the Capacity Index achieved and CIN is the normative capacity index whose values are 90 per cent for purely run of the river hydro power generating stations and 85 per cent for pondage/ storage type hydro power generating stations.

8.4 Deemed Generation for Hydro Stations:

8.4.1 In case of reduced generation by a hydro power generating station on account of reasons beyond the control of the generating station or on account of non-availability of Transmission Licensee's transmission lines or on receipt of backing down instructions from the State Load Despatch Centre resulting in spillage of water, the energy charges on account of such spillage shall be payable to the Generating Company.

8.4.2 Energy charges on the above account shall not be allowable if the energy generated during the year is equal to or more than the design energy.

8.5 Mechanisms for Fuel Cost Adjustment

8.5.1 In respect of the generating station(s) the adjustment in the rate of energy charges due to change in price and / or heat value of fuels shall be payable by MAHAVITARAN on month to month basis in accordance with Maharashtra Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2005. The basis for computation of adjustment of energy charges due to variation in price or heat value of coal/lignite or gas or liquid fuel is given at Schedule-6.

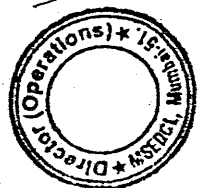
8.5.2 MAHAGENCO shall raise supplementary bill(s) on MAHAVITARAN on monthly basis for payment of variation in the energy charges on account of change in gross calorific value of coal/lignite or gas or liquid fuel received and burnt and landed cost incurred by the Generating Company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be from the values considered in computation of energy charges in the main bill for the corresponding period. The supplementary bill(s) for fuel cost adjustment in the energy charges shall be accompanied with necessary supporting documents of quantities, price and gross calorific values of coal/lignite/gas/ liquid fuel used for the relevant period. This is in line with the MERC directives stipulated under clause No.13 of chapter 7 of Tariff order for MSPGCL for 2006-07 dated 07.12.2006.



8.5.3 MAHAVITARAN shall make the full payment for such variation in the Rate of Energy Charges (Fuel Cost Adjustment) claimed by MAHAGENCO through the supplementary bill on monthly basis as mentioned in clause 9.1.d. & 8.5.2 and the same shall be recoverable by MSEDCL through FAC mechanism.

8.6 Reactive Power Charges

- 8.6.1 Both the parties agree that the reactive Power compensation and/or other facilities shall be provided as far as possible, in the low voltage systems close to the load points thereby avoiding the need for exchange of Reactive Power to/from the intra-State Transmission System and to maintain the intra-State Transmission System voltage within the specified range.
- 8.6.2 Transmission Licensee shall provide line Reactors as may be necessary after carrying out system studies to control temporary over voltage within the limits as set out in the State Grid Code and the Transmission Licensee Performance Standards as may be specified by the Commission from time to time.
- 8.6.3 The parties agree that they shall endeavour to minimize the Reactive Power drawal at an interchange point when the voltage at that point is below 95% of rated voltage, and shall not inject Reactive Power when the voltage is above 105% of rated voltage.
- 8.6.4 Both the parties agree that the charges for net drawal /injection of reactive energy under low /high voltage conditions as the case may be shall be governed by the intra-State scheme for pricing reactive energy exchange between intra-State entities.



9 ARTICLE 9: BILLING AND PAYMENT

9.1 All payments under this Agreement shall be billed and paid in accordance with the following provisions:

- (a) Monthly Bill: MAHAGENCO shall raise at monthly interval one or more bills on the basis of the joint monthly meter readings of the interface tariff meters recorded on 1st of every month for supply of electricity from the generating station and other charges payable by MAHAVITARAN. For a given Billing Month, MAHAGENCO shall issue Monthly Bill by 5th day of the subsequent month to month in which supply were effected by MAHAGENCO to MAHAVITARAN. The bills shall be raised in the name of officer designated by the MAHAVITARAN.
- (b) MAHAVITARAN shall arrange payment of such bill(s) within 60 (sixty) days from the Billing Date through cheque payable at Mumbai and drawn in the name of MAHAGENCO. The date of realisation of cheque by MAHAGENCO shall be considered as the date of payment for computation of rebate or late payment surcharge payable as the case may be.
- (c) MAHAVITARAN can also make a provisional payment based on the previous month's bills for which rebate will be applicable at the rate of 1.25% (one and quarter percent) of such advance payment.
- (d) Supplementary Bills: Any amount due to MAHAGENCO by MAHAVITARAN under this agreement other than amounts set out in a Monthly Bill shall be payable within forty-five (45) days of presentation of the Supplementary Bill by MAHAGENCO to MAHAVITARAN.

9.2 Disputed Bill:

9.2.1 The bill(s) of MAHAGENCO shall be paid by MAHAVITARAN in full subject to the condition that:

- (a) there is no apparent arithmetical error in the bill(s)
- (b) the bill(s) is /are claimed as per the approved tariff
- (c) they are in accordance with the joint monthly meter reading as in Article 6.4

9.2.2 If MAHAVITARAN has any disagreement with the bill(s) raised, they shall file a written objection with MAHAGENCO within 15 days of presentation of the bill(s) giving following particulars:

- (a) item disputed, with full details/data and reasons of dispute, and
- (b) amount disputed against each item



9.2.3 MAHAGENCO shall resolve the above dispute with MAHAVITARAN as soon as possible preferably within 30 days of receipt of such objection from MAHAVITARAN. In case the dispute is not resolved, such a bill is to be treated as a "disputed bill" and the matter shall be referred to dispute resolution mechanism as provided in Article 15.

9.2.4 Notwithstanding any dispute as to all or any portion of a Bill submitted by MAHAGENCO to MAHAVITARAN, MAHAVITARAN shall pay the 95% (ninety-five percent) amount of the Bill provided that the amount of the Bill is based on a joint meter reading and that the Tariff is as determined by the Commission.

9.2.5 The amount of excess/ shortfall with respect to the said 95% payment based on the final award of arbitration shall be paid/ adjusted with interest at the rate of SBI PLR from the date on which the amount in dispute was payable.

9.3 Rebate for prompt payment and Late payment surcharge

- (a) The rebate for prompt payment shall be governed as per Schedule-7 of this PPA. For payment of bills through a letter of credit on presentation a rebate of 2% (two percent) of amount paid shall be admissible. If the payments are made by MAHAVITARAN within seven days of presentation of the bill a rebate of 1.25% (one and quarter percent) of amount paid shall be admissible, and thereafter rebate shall be reduced gradually till the 59th day as per Schedule 7.
- (b) In case the payment of bills is delayed by MAHAVITARAN beyond due date of payment of the bill, a late payment surcharge at the rate of 1.25% (one and quarter percent) per month calculated for number of days for which payment delayed shall be levied by MAHAGENCO.
- (c) The provision for rebate and late payment surcharge shall be effective only from the date of approval of this agreement by the Commission.



10 ARTICLE 10: PAYMENT SECURITY MECHANISM:

10.1 Letter of Credit

Letter of Credit (L/C): MAHAVITARAN shall establish an Irrevocable Revolving Letter of Credit (IRLC) in favour of MAHAGENCO for an amount equivalent to one point zero five (1.05) times of average monthly billing computed on the basis of power supplied by MAHAGENCO during previous year towards the payment security. The Letter of Credit shall be opened with any scheduled commercial bank (agreeable to MAHAGENCO) one month prior to COD for the ongoing projects (Parli I & Paras Expansion Unit I as mentioned in Schedule 2) and within one month from the date of signing of this agreement for existing generating stations (as mentioned in Schedule 1). The amount of IRLC shall be reviewed each year on 1st April for determination of average monthly billing and its amount shall be enhanced / reduced accordingly. However for new generating stations commissioned during the current year, the amount of IRLC shall be computed as under:

$$\text{IRLC Value} = 1.05 \times \{(\text{Capacity of the plant} \times 8760 \times 1000 \times \text{Normative PLF}) \times \text{Applicable Tariff}\} / 12$$

The Letter of Credit established by MAHAVITARAN shall:

- ✓ (a) On the date it is issued, have a term equal to one year but revolving for the full term of this agreement.
- ✓ (b) The value of the L/C being equal to one point zero five (1.05) times of the average monthly billing computed on the basis of power supplied by MAHAGENCO during previous year.
- ✓ (c) Be transferable or assignable to any lender of MAHAGENCO.
- ✓ (d) Be payable as a payment security mechanism upon the execution and presentation by the designated officer of MAHAGENCO after the Due Date of Payment provided it is supported by a copy of the Bill for which payment is sought and a certificate by the designated officer of MAHAGENCO that the Bill remains unpaid.
- ✓ (e) Be reinstated to its original level after every valid draw by MAHAGENCO.
- (f) The charges for opening, maintaining and operation of Letter of Credit shall be borne by MAHAVITARAN.



10.2 Escrow Payment Security Mechanism

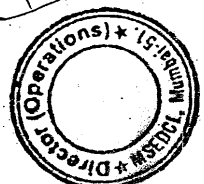
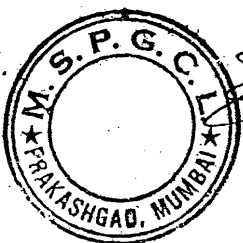
10.2.1 The parties herein agree that, no escrow account will be opened for the sale of power from the existing power station of MAHAGENCO. However, MAHAVITARAN shall establish an escrow payment security mechanism in favour of MAHAGENCO for purchase of power from MAHAGENCO's Parli unit 6 and Paras unit 3. Also, in case of any further major investment in the power plants, MAHAVITARAN shall provide for escrow payment security mechanism if such mechanism is demanded by the MAHAGENCO lenders and which is in line with the agreement on the loan covenants between MAHAVITARAN, MAHAGENCO & the Government of Maharashtra.

10.2.2 In such case, MAHAVITARAN and the MAHAGENCO, together with the Scheduled Bank as Escrow Agent, shall at least 30 days before the Commercial Operation Date, enter into an Escrow and Disbursement Agreement (Escrow Agreement) for the establishment and operation of the Escrow account in favour of the MAHAGENCO.

10.2.3 MAHAGENCO in the event of default of MAHAVITARAN in payment of its monthly bill of MAHAGENCO after expiry of due date of 60 days can operate the Collateral Arrangement in accordance with the terms thereof. Escrow Agent on such demand by MAHAGENCO shall liquidate the defaulted payment of MAHAGENCO. Provided that the Collateral Arrangement with Escrow Agent shall be invoked by MAHAGENCO only in case MAHAVITARAN is not able to maintain sufficient payment security through Letter of Credit under Article 10.1 or Letter of Credit is not operational for any reason whatsoever.

10.3 Third Party Sales on Payment default:

10.3.1 If MAHAVITARAN fails to pay a monthly bill or part there of within and including the due date, then subject to article 9.2.4, MAHAGENCO may draw upon the Letter of credit, and accordingly the bank shall pay with out any reference or instructions from MAHAVITARAN, an amount equal to such Monthly bill or part there of plus Late payment surcharge, if applicable, in accordance with Article 9.3.b, by presenting to the bank issuing the letter of credit, the documents mentioned in article 10.1.e. MAHAVITARAN shall re instate the LC within 30 days from the date of encashment by Mahagenco.



10.3.2 If MAHAVITARAN fails to make payments of consecutive two months bills and also is unable to maintain the Payment Security Mechanism specified in Article 10.1, for any reason whatsoever, the MAHAGENCO shall have the right (but not obligation) after giving 15 days notice to MAHAVITARAN to sell such power to

- (a) any consumer, subject to applicable law; and
- (b) any licensee or trader under the Electricity Act, 2003.

10.3.3 In the event that payments are not made within the 15 days notice period as specified in clause no.10.3.2 above, the supply of electricity to MAHAVITARAN shall be reduced forthwith by 25% of the available capacity as on the last day of the notice period. The reduction of 25% in supply shall be increased to 40% and 50% after 30 & 45 days from the date of issue of the notice. This shall continue up to 60 days from the date of issue of the notice as mentioned in Article 10.3.2.

10.3.4 If the condition mentioned in Article 10.3.2 above prevails, MAHAGENCO shall be entitled to sell the reduced/ curtailed Electricity as mentioned in clause 10.3.3, to the third party (s) at the cost and risk of MAHAVITARAN without losing claim on the Capacity Charges due from the MAHAVITARAN. On expiry of the time period mentioned in Article 10.3.3, Mahagenco shall be entitled to sell the entire capacity to third party without losing the claim on the capacity charge liability of MAHAVITARAN. The surplus over energy charges recovered from sale to such other party shall be adjusted against the capacity charge liability of the MAHAVITARAN for the month(s) for which such sale has been affected, subject to MAHAVITARAN clears their all dues. In case the surplus over energy charges is higher than the capacity charge liability of the MAHAVITARAN, such excess over the capacity charge liability shall be retained by the MAHAGENCO.

10.3.5 Sales to any third party other than the MAHAVITARAN shall cease and regular supply of Electricity to the MAHAVITARAN in accordance with all the provisions of this Agreement shall commence and be restored on the day on which MAHAVITARAN pays the due payment to the MAHAGENCO and renews the Letter of Credit.

10.4 Order of Precedence:

10.4.1 MAHAGENCO shall present its monthly Bill(s) and any Supplementary Bill(s) to MAHAVITARAN for direct payment by MAHAVITARAN pursuant to Article 9.1.

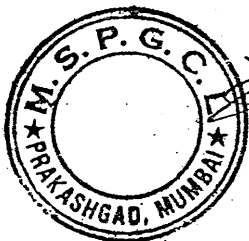


10.4.2 In case of payment default by MAHAVITARAN, MAHAGENCO has the freedom to proceed as under

- (i) Operation of Letter of Credit
- (ii) Escrow Payment Mechanism, if applicable
- (iii) Sale to third Party

10.5 Quarterly and Annual Reconciliation

Both Parties acknowledge that all payments made against Monthly and Supplementary Bills shall be subject to reconciliation at the end of each quarter and annual reconciliation at the end of each financial year to take into account State Energy Account (if applicable), Adjustment in Rate of Energy Charge, Rebate on prompt payment, Surcharge on delayed Payments, or any other reasonable circumstance provided under this Agreement. The Parties, therefore, agree that within 15 days of end of the quarter and within 30 days of close of financial year the data in respect of any quarter or a full financial year as the case may be has been finally verified and adjusted, the Parties shall jointly sign such reconciliation statement. Within fifteen days of signing of a reconciliation statement, MAHAGENCO shall raise a Supplementary Bill showing credit/ debit of payments.



11 ARTICLE 11: FORCE MAJEURE

11.1 A force majeure means any event or circumstance or combination of both including those stated below and on which the Affected Party has no control, that wholly or partly prevents or incapacitates the Affected Party in performing its obligations under this Agreement, even after the affected party having taken all reasonable care or it having complied with prudent utility practices:

- (a) act of God, including, but not limited to lightning, drought, fire and explosion, accident, terrorist activities like sabotage, explosion or criminal damage, strike at National or State level, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado;
- (b) any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo.

11.2 The Affected Party shall give notice to the other Party of any event of force majeure as soon as reasonably practicable, but not later than seven (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 an event of force majeure results in a breakdown of communications rendering it not reasonable to give notice within the applicable time limit specified herein, then the Party claiming Force majeure shall give such notice as soon as reasonably practicable after reinstatement of communications, but not later than one (1) 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.

11.3 The Affected Party shall give notice to the other Party of (i) the cessation of the relevant event of force majeure; and (ii) the 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.

11.4 In case of force majeure conditions prevails more than 100 days both the parties may mutually agree to rescind/ defer the agreement or portion thereof which have been affected due to such force majeure conditions on such terms and conditions between the parties.



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11.5 To the extent not prevented by a force majeure event pursuant to 11.2, the Affected Party shall continue to perform its obligations pursuant to this Agreement. The Affected Party shall put their best efforts to mitigate the effect of any event of force majeure as soon as practicable.

11.6 Available Relief for a force majeure event shall be limited to and extent that 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.



[Signature]

[Signature]



12 ARTICLE 12: TERMINATION ON EVENT OF DEFAULT

12.1 This agreement may be terminated as provided hereunder in the event of failure of MahaGenco continuously for 90 days of its obligations under Article 5.2 relating to Scheduling & Dispatch.

12.2 This agreement may be terminated as provided hereunder in the event of following defaults by MAHAVITARAN:

- (a) MAHAVITARAN fails to pay any portion of a Monthly Bill or Supplementary Bill for a period of 90 days after the Due Date and the MAHAGENCO is unable to recover the amount outstanding to the MAHAGENCO through the Payment Security Mechanism provided in Article 10.
- (b) Failure of MAHAVITARAN continuously for more than 90 days to furnish Day Ahead Drawl Schedule as per SLDC Scheduling Procedure under Article 5.2 resulting into non-despatch of declared generation capacity of MAHAGENCO during such period.

12.3 Termination Procedure

12.3.1 Upon the occurrence and continuation of Event of Default by any Party as specified above then Other Party shall have the right to deliver to the defaulting Party a Preliminary Termination Notice, which shall specify in reasonable detail the circumstances giving rise to the issue of such notice;

12.3.2 Following the issue of Preliminary Termination Notice the Parties shall wait for consultation as to what steps shall be taken to remedy the situation having regard to all the circumstances for consultation period of ninety (90) days or such longer period as the Parties may agree,

12.3.3 Any time after a period of seven (7) days following the expiry of the Consultation Period and unless the Parties shall have otherwise agreed to the contrary or the Party may terminate this Agreement by delivering a Final Termination Notice, whereupon this Agreement shall terminate on the date of such notice.

12.3.4 Till service of final notice of termination, the Parties shall, save as otherwise provided in this Agreement, continue to perform their respective obligations under this Agreement.

12.4 Consequences of Termination

12.4.1 In the event of Termination of this Agreement consequent to default by any Party, the other Party may resort to the remedy as provided



under Article 15 for deciding the compensation payable to the non defaulting party on account of Termination of Agreement due to event of default of the defaulting party.

12.4.2 The termination of the Agreement shall not affect the accrued rights and obligations of the parties.



13 ARTICLE 13: GOVERNING LAW

13.1 This Agreement shall be governed by and construed in accordance with the Laws of India.



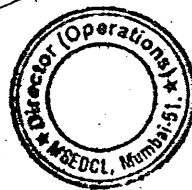
14 ARTICLE 14: CHANGE IN LAW

14.1 "Change in Law" means the occurrence of any of the following after the date of effectiveness of this agreement:

- (a) the enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal, of any statute, decree, ordinance or other law, regulation, notice, circular, code, rule or direction by any Governmental Instrumentality or a change in its interpretation by a Competent Court of law, tribunal, government or statutory authority or any of the above regulations, taxes, duties charges, levies, etc., or
- (b) the imposition by any Governmental Instrumentality of any material condition in connection with the issuance, renewal, modification, revocation or non-renewal (other than for cause) of any Consent after the date of this Agreement; that in either of the above cases results in any change with respect to any tax or surcharge or cess levied or similar charges by the Competent Government on the generation or sale of electricity;

14.2 In the event of change of law as defined above, which affects MAHAGENCO/ MAHAVITARAN, then MAHAGENCO / MAHAVITARAN shall send a notice in writing to the other party regarding such event and both parties shall meet and endeavour to agree to an amendment to this agreement to pass on the impact of such an event which shall be settled through a supplementary bill.

14.3 If within 90(ninety) days after such notification, the parties are unable to reach agreement on such amendment, or in the event that an agreement to amend has been reached but no amendment has been executed within 30 (thirty) days after reaching of such agreement to amend, either party shall have the right to commence the dispute resolution procedures set forth in Article 15 to determine or implement the appropriate amendment to this agreement.



15 ARTICLE 15: DISPUTE RESOLUTION & ARBITRATION

15.1 All disputes or differences between the parties herein arising out of or in connection with this Agreement shall be endeavoured to be settled amicably through mutual discussions between the parties, failing which, it shall be referred to the Dispute Resolution Mechanism in accordance with following procedure;

15.2 All disputes /differences between the parties arising out of or in connection with this Agreement shall be resolved by reconciliation through mutual discussions by Senior Officers not below the rank of Executive Directors of respective companies.

15.3 If the parties failed to resolve dispute mutually amongst them then such dispute shall be referred to

- i. the Regulatory Commission for adjudication if the dispute is related to tariff.
- ii. an Arbitrator for adjudication regarding provisions of PPA other than that related to tariff. The Arbitrator shall be appointed by mutual consent.

In the event of such differences or disputes, any party may send written notice of 30 (thirty) days to the other party. The arbitration proceedings shall be in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications thereto. The decision of the Arbitrator shall be final and binding on the parties. The venue of the arbitration shall be Mumbai. The Courts at Mumbai shall have the exclusive jurisdiction in all matters arising under this Agreement.

15.4 The Arbitrators shall reasonably decide in what proportion the fee and cost of arbitration proceedings shall be borne by the parties and shall mentioned the same in their award.

15.5 Notwithstanding the existence of any question, dispute, and differences referred to arbitration, the parties hereto shall continue to perform their respective obligations under this Agreement.



16 ARTICLE 16: MISCELLANEOUS PROVISIONS

16.1 Amendment

This Agreement may only be amended or supplemented by a written agreement between the Parties.

16.2 Third Party Beneficiaries

This Agreement is solely for the benefit of the Parties and their respective successors and permitted assigns and shall not be construed as creating any duty, standard of care or any liability to, any person not a party to this Agreement.

16.3 No Waiver

A waiver by a Party shall be in writing and executed by an authorized representative of that Party. Neither the failure by one Party to insist on any occasion upon the performance of the terms, conditions, and provisions of this Agreement nor time or other indulgence granted by one Party to the other shall act as a waiver of such breach or acceptance of any variation or the relinquishment of any such right or any other right under this Agreement, which shall remain in full force and effect.

16.4 Remedies

Where this Agreement provides for any rebate or other remedies for any breach or shortfall in performance, the Parties shall not be entitled to make any other claim or pursue other remedies under law.

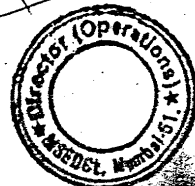
16.5 Entirety

- a) This Agreement and the Schedules are intended by the Parties as the final expression of their agreement and are intended also as a complete and exclusive statement of the terms of their agreement.
- b) All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement or the sale or purchase of Electrical Output and Contracted Capacity under this Agreement between the parties stand as abrogated and withdrawn, so far those are inconsistent to the terms of this Agreement.

16.6 Succession and Assignment

16.6.1 This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns in the manner prescribed herein this Agreement.

16.6.2 In the event of MAHAVITARAN and/or MAHAGENCO rights and obligations under this Agreement are assigned to and/ or succeeded by any other entity(s) through a scheme of reorganisation under



section 131 of the Act at a subsequent date during the term of this Agreement, either by way of formation of subsidiaries or spin-off or splitting off or re-configuration into one or more entities than MAHAGENCO and MAHAVITARAN shall proceed as under:

- a) The generation capacity contracted under this agreement shall be assigned and allocated amongst the successor distribution companies and/or generation companies in the manner, proportion and from such date as may be specified in the said Scheme of Reorganisation.
- b) This PPA shall be substituted by New Power Purchase Agreement(s) between the successor entities for the capacity allocation as set out in the Scheme of Reorganisation. The terms and conditions of new power purchase agreement(s) shall be same to this agreement except that the capacity charges and energy charges shall be shared by the successor distribution entities in proportion of their new capacity allocation and scheduled energy drawal.

16.6.3 The new power purchase agreements shall be subject to approval by the Commission under Section 86 (1) (b) read with regulation 24 of the MERC (Terms & Conditions of Tariff) Regulations, 2005 as amended from time to time.

16.7 Confidential Information

The Parties herein shall at all time during the continuance of this Agreement use their reasonable endeavours to keep all information relating to technical and commercial aspects affecting their business as confidential and accordingly no Party shall disclose the same to any other person unless the information which at the time of disclosure was in the public domain.

16.8 Severability

The invalidity or enforceability, for any reason, of any part of this Agreement shall not prejudice or affect the validity or enforceability of the remainder.

16.9 No Partnership

None of the provisions of this Agreement shall constitute a partnership or agency or any such similar relationship between the MAHAGENCO and MAHAVITARAN.

16.10 Survival

Notwithstanding anything to the contrary herein, the provisions under Article 11 (Force Majeure), Article 13 (Governing Law), Article 15 (Dispute Resolution &



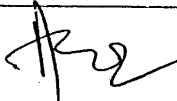
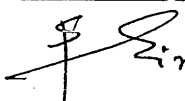
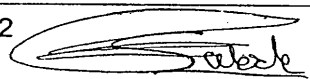
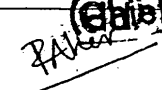


Arbitration), Article 12 (Termination on Event of Default), and Article 16 (Miscellaneous) shall continue and survive any expiry or termination of this Agreement.

16.11 Counterparts

This Agreement may be executed between the parties, each of which shall be deemed an original and all of which collectively shall be deemed one and the same instrument.

IN WITNESS WHEREOF the Parties have executed these presents through their authorized representatives at [place].

<p>For and on behalf of MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED</p> <p>----- </p> <p>Name & Designation with Seal M. R. Shelar Director (Operations) M.S.P.G.C.L., Mumbai-51.</p>	<p>For and on behalf of MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED</p> <p>----- </p> <p>Name & Designation with Seal S. K. Dabhade Director (Operations) M.S.E.D.C.L., Mumbai-51.</p>
<p>In the presence of</p>	<p>In the presence of</p>
<p>1  AMBEKAR L.N.</p>	<p>1  Chief Eng. (PP) C. Tripathi (PP)</p>
<p>2  (S. R. Kalode)</p>	<p>2  (P. H. Aher)</p>

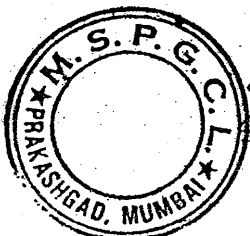


17 **SCHEDULE-1: GENERATING STATIONS OF MAHAGENCO COVERED
UNDER THIS AGREEMENT AS ON 6TH JUNE 2005**

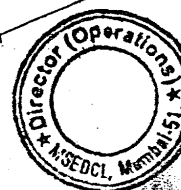
S.No	Name of Power Station	Generating Units	Installed Capacity (MW)	Derated Capacity (MW)
	Bhusawal Thermal Power Station			
1		Unit -1	62.5	55
2		Unit -2	210	210
3		Unit -3	210	210
		Sub Total	482.5	475
	Chandrapur Thermal Power Station			
1		Unit -1	210	210
2		Unit -2	210	210
3		Unit -3	210	210
4		Unit -4	210	210
5		Unit -5	500	500
6		Unit -6	500	500
7		Unit -7	500	500
		Sub Total	2340	2340
	Khaperkheda Thermal Power Station			
1		Unit -1	210	210
2		Unit -2	210	210
3		Unit -3	210	210
4		Unit -4	210	210
		Sub Total	840	840



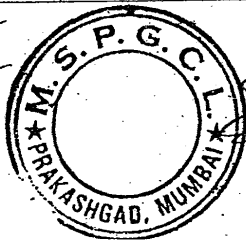
S.No	Name of Power Station	Generating Units	Installed Capacity (MW)	Derated Capacity (MW)
	Koradi Thermal Power Station			
1		Unit -1	120	105
2		Unit -2	120	105
3		Unit -3	120	105
4		Unit -4	120	105
5		Unit -5	200	200
6		Unit -6	210	210
7		Unit - 7	210	210
		Sub Total	1100	1040
	Nasik Thermal Power Station			
1	Stage I	Unit -1	140	125
2	Stage I	Unit - 2	140	125
3	Stage II	Unit -3	210	210
4	Stage II	Unit - 4	210	210
5	Stage II	Unit - 5	210	210
		Sub Total	910	880
	Paras Thermal Power Station			
1		Unit - 2	62.5	55
	Parli Thermal Power Station			
1		Unit - 1	30	20
2		Unit -2	30	20
3		Unit -3	210	210
4		Unit -4	210	210



S.No	Name of Power Station	Generating Units	Installed Capacity (MW)	Derated Capacity (MW)
5		Unit -5	210	210
		Sub Total	690	670
	Sub Total Thermal		6425	6300
	Uran Gas Turbine Power Station			
1	Gas Turbine	Unit- 2	60	60
2	Gas Turbine	Unit -3	60	60
3	Gas Turbine	Unit -4	60	60
4	Gas Turbine	Unit -5	108	108
5	Gas Turbine	Unit -6	108	108
7	Gas Turbine	Unit -7	108	108
8	Gas Turbine	Unit -8	108	108
9	Waste Heat Recovery Unit	Unit -A0	120	120
10	Waste Heat Recovery Unit	Unit -B0	120	120
		Sub Total	852	852
	Sub Total Thermal + Gas		7277	7152
	Bhatghar Hydro Power Station			
1		Unit - 1	16	16
	Bhira Tail Race Hydro Power Station			
1		Unit- 1	40	40
2		Unit -2	40	40
		SubTotal	80	80
	Bhatsa Hydro Power Station			
1		Unit -1	15	15



S.No	Name of Power Station	Generating Units	Installed Capacity (MW)	Derated Capacity (MW)
	Dhom Hydro Power Station			
1		Unit -1	1	1
2		Unit -2	1	1
		Sub Total	2	2
	Dhimbhe Hydro Power Station			
1		Unit -1	5	5
	Dhudhganga Hydro Power Station			
1		Unit -1	12	12
2		Unit - 2	12	12
		SubTotal	24	24
	Eldari Hydro Power Station			
1		Unit -1	7.5	7.5
2		Unit -2	7.5	7.5
3		Unit -3	7.5	7.5
		SubTotal	22.5	22.5
	Kanher Hydro Power Station			
1		Unit -1	4	4
	Koyna Stage I Hydro Power Station			
1		Unit -1	70	70
2		Unit -2	70	70
3		Unit -3	70	70
4		Unit -4	70	70
		SubTotal	280	280



S.No	Name of Power Station	Generating Units	Installed Capacity (MW)	Derated Capacity (MW)
	Koyna Stage II Hydro Power Station			
1		Unit -5	80	80
2		Unit -6	80	80
3		Unit -7	80	80
4		Unit -8	80	80
		SubTotal	320	320
	Koyna Stage III Hydro Power Station			
1		Unit -9	80	80
2		Unit -10	80	80
3		Unit -11	80	80
4		Unit -12	80	80
		SubTotal	320	320
	Koyna Stage IV Hydro Power Station			
1		Unit - 1	250	250
2		Unit - 2	250	250
3		Unit -3	250	250
4		Unit -4	250	250
		SubTotal	1000	1000
	Koyna Dam Hydro Power Station			
1		Unit -1	18	18
2		Unit -2	18	18
		Sub Total	36	36



S.No	Name of Power Station	Generating Units	Installed Capacity (MW)	Derated Capacity (MW)
	Manikdoh Hydro Power Station			
1		Unit – 1	6	6
	Paithan Hydro Power Station			
1		Unit –1	12	12
	Panshet Hydro Power Station			
1		Unit –1	8	8
	Pawana Hydro Power Station			
1		Unit –1	10	10
	Surya Hydro Power Station			
1		Unit –1	6	6
	Radhanagari Hydro Power Station			
1		Unit –1	1.2	1.2
2		Unit –2	1.2	1.2
3		Unit –3	1.2	1.2
4		Unit –4	1.2	1.2
		SubTotal	4.8	4.8
	Tillari Hydro Power Station			
1		Unit –1	66	66
	Terwanmedhe Hydro Power Station			
1		Unit –1	0.2	0.2



S.No	Name of Power Station	Generating Units	Installed Capacity	Derated Capacity
	Ujani Hydro Power Station			
1		Unit -1	12	12
	Vaitarna Hydro Power Station			
1		Unit -1	60	60
	Vaitarna Toe of Dam Hydro Power Station			
1		Unit -1	1.5	1.5
	Varasgaon Hydro Power Station			
1		Unit -1	8	8
	Veer Hydro Power Station			
1		Unit -1	4.5	4.5
2		Unit -2	4.5	4.5
		Sub Total	9	9
	Warna Hydro Power Station			
1		Unit -1	8	8
2		Unit -2	8	8
		Sub Total	16	16
	Sub Total Hydro		2344	2344
	Total Thermal + Gas		7277	7152
	Total Thermal + Hydro + Gas		9621	9496



18 **SCHEDULE-2 : GENERATING CAPACITY OF MAHAGENCO COVERED UNDER THIS AGREEMENT AFTER 6TH JUNE 2005**

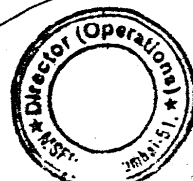
Plantss Covered under the Agreement:-

S. No	Name of Power Station	Generating Units	Installed Capacity (MW)
1	1x250 MW Parli Thermal Power Station	Unit- 6	250
	COD : 1 st November 2007		
2	1 X 250 MW Paras Thermal Power Station	Unit - 3	250
	COD : 31 st March 2008		
Total			500

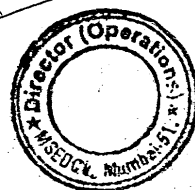


19 SCHEDULE-3 INTERCONNECTION POINTS OF GENERATING STATIONS WITH MSETCL INTRA-STATE TRANSMISSION SYSTEM

Unit No. and Capacity	Feeder Bay No.	Name of EHV Sub-station connected	Voltage
Paras Thermal Power Station			
Unit-2, 62.5 MW	Generator X er bay	132 kV Sub-station, Paras	132 kV
Unit-3, 250 MW	Bay No. 5	220 kV Paras Sub station	220 kV
Unit-3, 250 MW	Bay No. 6	220 Kv Paras Sub station	220 Kv
Bhusaval Thermal Power Station			
UNIT-1, 62.5 MW	Bay 10 (Old Switch yard)	132 Kv, Deepnagar	132 Kv
UNIT-2, 210 MW	Bay 11 (New Switch yard)	132 Kv, Deepnagar	132 Kv
UNIT-3, 210 MW	Bay 16 (New Switch yard)	132 Kv, Deepnagar	132 Kv
Chandrapur Thermal Power Station			
Unit -1, 210 MW	Bay-3	Gen. S/S, 400Kv RS (O&M)Division	220Kv
Unit -2, 210 MW	Bay-9	Gen. S/S, 400Kv RS (O&M)Division	400Kv
Unit -3, 210 MW	Bay-12	Gen. S/S, 400Kv RS (O&M)Division	400Kv
Unit -4, 210 MW	Bay-15	Gen. S/S, 400Kv RS (O&M)Division	400Kv
Unit -5, 500 MW	Bay-20	Gen. S/S, 400Kv RS (O&M)Division	400Kv
Unit -6, 500 MW	Bay-25	Gen. S/S, 400Kv RS (O&M)Division	400Kv
Unit -7, 500 MW	Bay-29	Gen. S/S, 400Kv RS (O&M)Division	400Kv
Parli Thermal Power Station			
Unit -1, 30 MW	G	T.P.S. Parli Vaijanath	132 Kv
Unit -2, 210 MW	I	T.P.S. Parli Vaijanath	132 Kv
Unit -3, 210 MW	H	T.P.S. Parli Vaijanath	220Kv
Unit -4, 210 MW	L	T.P.S. Parli Vaijanath	220Kv
Unit -5, 210 MW	R	T.P.S. Parli Vaijanath	220Kv
Unit -6, 250 MW	Generator bay	Parli 220 Kv Switchyard	220 Kv
Station X ^{er}	Station bay	Parli 220 Kv Switchyard	220 Kv
Khaperkheda Thermal Power Station			
Unit -1, 210 MW	Gen 1 bay	220 kV Switch yard	220kv
Unit -2, 210 MW	Gen 2 bay	220 kV Switch yard	220kv
Unit -3, 210 MW	Gen 3 bay	220 kV Switch yard	220kv
Unit -4, 210 MW	Gen 4 bay	220 kV Switch yard	220kv
Koradi Thermal Power Station			
Unit -1, 120 MW	5	220 kV Substation	220kv
Unit -2, 120 MW	7	220 kV Substation	220kv
Unit -3, 120 MW	11	220 kV Substation	220kv
Unit -4, 120 MW	13	220 kV Substation	220kv
Unit -5, 200 MW	5	400 kV Substation	400kv
Unit -6, 210 MW	7	400 kV Substation	400kv
Unit -7, 210 MW	9	400 kV Substation	400kv
Nasik Thermal Power Station			
Unit -1, 140 MW	Gen Unit-1 bay	GCR Sub-Station	220 kv
Unit -2, 140 MW	Gen Unit-2 bay	GCR Sub-Station	220 kv
Unit -3, 210 MW	Gen Unit-3 bay	GCR Sub-Station	220 kv
Unit -4, 210 MW	Gen Unit-4 bay	GCR Sub-Station	220 kv
Unit -5, 210 MW	Gen Unit-5 bay	GCR Sub-Station	220 kv
Uran Gas Turbine Power Station			
60 MW GT-2	12	220 kV Substation, Uran	220 kv
60 MW GT-3	9	220 kV Substation, Uran	220 kv
60 MW GT-4	8	220 kV Substation, Uran	220 kv
108 MW GT-5	14	220 kV Substation, Uran	220 kv
08 MW GT-6	15	220 kV Substation, Uran	220 kv



Unit No. and Capacity	Feeder Bay No.	Name of EHV Sub-station connected	Voltage
108 MW GT-7	17	220 kV Substation, Uran	220 kV
108 MW GT-8	18	220 kV Substation, Uran	220 kV
120 MW WHRP A0	20	220 kV Substation, Uran	220 kV
120 MW WHRP B0	24	220 kV Substation, Uran	220 kV
Small Hydro Power Stations			
Tillari (1x 66 MW)	1	Ponda	220 kV
	2	Halkarni	220 kV
Dudhganga (2x 12 MW)	1	Kolhapur	110 kV
	2	Radhanagiri	
Radhanagari (4x 1.2 MW)	1	Kankavali	110 kV
	2	Dudhganga	
Vaitarna (1x 60 MW)	1	Igatpuri I	132 kV
	2	Igatpuri II	132 kV
Bhatsa (1x 15 Mw)	1	Shahpur	100 kV
Bhira (2x40 MW)	1	Kandalgaon	220 kV
Yeldari (3x7.5 MW)	1	Risod	132 kV
	2	Jintur	132 kV
Paithan (1x12 MW)	1	Aurangabad MIDC	132 kV
Veer (2x4.5 MW)	1	Lonad	132 kV
	2	Bhatghar	132 kV
Bhatghar (1x16 MW)	1	Phursungi	132 kV
	2	Veer	132 kV
Ujjani (1x12 MW)	1	Indapur	132 kV
Warana (2x8 MW)	1	Kale Substation	110 kV
Pareshet (1x8 MW)	1	Varasgaon	132 kV
Varasgaon (1x8 MW)	1	Rahatane	132 kV
Pawana (1x10 MW)	1	Talegaon	100 kV
	2	Lonavla	
Koyana (Pophali) Hydro Power Stations			
Unit -1, 70 MW	1	Stage I & II Switchyard	220 kV
Unit -2, 70 MW	2	Stage I & II Switchyard	220 kV
Unit -3, 70 MW	3	Stage I & II Switchyard	220 kV
Unit -4, 70 MW	4	Stage I & II Switchyard	220 kV
Unit -5, 80 MW	5	Stage I & II Switchyard	220 kV
Unit -6, 80 MW	6	Stage I & II Switchyard	220 kV
Unit -7, 80 MW	7	Stage I & II Switchyard	220 kV
Unit -8, 80 MW	8	Stage I & II Switchyard	220 kV
Unit -9, 80 MW	1	Pedhambe Switchyard	220 kV
Unit -10, 80 MW	2	Pedhambe Switchyard	220 kV
Unit -11, 80 MW	3	Pedhambe Switchyard	220 kV
Unit -12, 80 MW	4	Pedhambe Switchyard	220 kV
Stage-IV Unit -1, 250 MW	1	Stage IV GIS	400 kV
Stage-IV Unit -2, 250 MW	2	Stage IV GIS	400 kV
Stage-IV Unit -3, 250 MW	3	Stage IV GIS	400 kV
Stage-IV Unit -4, 250 MW	4	Stage IV GIS	400 kV
Dam foot-1, 18 MW	1	KDPH Switchyard	220 kV
Dam foot-2, 18 MW	2	KDPH Switchyard	220 kV



20 **SCHEDULE-4: INTERCONNECTION POINTS OF GENERATING STATIONS WITH DISTRIBUTION SYSTEM**

(Embedded Generating Stations in Distribution System)

Unit No. and Capacity	Name of Sub-station connected	Voltage
Small Hydro Power Stations		
Dimbhe 1 x 5 MW	Ghodegaon	33 kV
Manikdoh 1 x 6 MW	Junnar	33 kV
Surya 1 x 6 MW	Suryanagar	33 kV
Vaitarna DT 1 x 1.5 MW	Igatpuri	33 kV
Dhom 2 x 1 MW	Wai Mahabaleshwar	22 kV 22 kV
Kanher 1 x 4 MW	Medha & Satara road	22 kV
Terwanmedhe 1 x 0.2 MW	Bedshi	11 kV



21 SCHUDULE-5: LIST OF METERS PROVIDED AT GENERATING STATIONS FOR RECORDING EXPORT/IMPORT

Unit No	Bus/ Bay No	Bus/Bay volt	Meter No	M.F	Remark
Paras Thermal Power Station					
Unit,MW- 2, 62.5	Generator X ^{er} bay	132 kV	27857473	1	HV end
Unit,MW- 2, 62.5	Station X ^{er} -I bay	66 kV	C816327	30	HV end
Unit,MW- 2, 62.5	Station X ^{er} -II bay	66 kV	C816340	30	HV end
Unit,MW- 2, 62.5	Station X ^{er} -III bay	132 kV	31848134	1	HV end
Unit,MW- 2, 62.5	Station X ^{er} -IV bay	66 kV	38648784	100	HV end
Unit,MW -3, 250	Main P.C.R	220 kV	74764	1	HV end
Unit,MW -3, 250	Bay No.5	220 kV	513895	1	HV end
Unit,MW -3, 250	Bay No.6	220 kV	513624	1	HV end
Bhusava Thermal Power Station					
Unit - 1, 62.5 MW	U-1 Generator bay-10	13.75 kV	27976394	10-4	LV end
Unit - 2, 210 MW	U-2 Generator bay-11	15.75 kV	06607912	1	LV end
Unit - 3, 210 MW	U-3 Generator bay-16	15.75 kV	99027511	10-3	LV end
Stage-I Station X ^{er} 1	Station X ^{er} 1 bay	6.6 kV	41468915	10-4	LV end
Stage-I Station X ^{er} 2	Station X ^{er} 2 bay	6.6 kV	41468916	10-4	LV end
Stage-II Station X ^{er} 1	Station X ^{er} 1 bay	6.6 kV	3024895	10-3	LV end
Stage-II Station X ^{er} 2	Station X ^{er} 2 bay	6.6 kV	3024894	10-3	LV end
Unit - 1, UAT	6.6 kV bus	6.6 kV	41468917	10-4	LV end
Unit - 2, UAT	6.6 kV bus	6.6 kV	3119607	10-3	LV end
Unit - 3, UAT	6.6 kV bus	6.6 kV	3119608	10-3	LV end
Chandrapur Thermal Power Station					
Unit-1, 210 MW	Bay-3	Gen Volt/ 220 kV	00027630 04220449	1 10	LV end HV end
Unit-2, 210 MW	Bay-9	Gen Volt/ 400 kV	00027630 04220470	1 10	LV end HV end
Unit-3, 210 MW	Bay-12	Gen Volt/ 400 kV	00027658 04220468	1 10	LV end HV end
Unit-4, 210 MW	Bay-15	Gen Volt/ 400 kV	00027666 04220447	1 10	LV end HV end
Unit-5, 500 MW	Bay-20	Gen Volt/ 400 kV	04180012 04220461	1 10	LV end HV end
Unit-6, 500 MW	Bay-25	Gen Volt/ 400 kV	04180016 04220457	1 10	LV end HV end
Unit-7, 500 MW	Bay-29	Gen Volt/ 400 kV	04180004 04220460	1 10	LV end HV end
Unit No.1 From Stn-I X ^{er}	C1A+C1B	6.6 kV/ 400kV	8027086 04220454	4 1	LV end HV end
Unit No.1 From Stn-II X ^{er}	C2A+C2B	6.6 kV/ 400kV	8027084 04220469	4 1	LV end HV end
Unit No.5 From Stn-III X ^{er}	SE 11/1	11 kV/ 400kV	8039377 04220459	3.33 10	LV end HV end
Unit No.5 From Stn-III X ^{er}	SE 11/2	11 kV	8039376	3.33	LV end



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Unit No	Bus/ Bay No	Bus/Bay volt	Meter No	M.F	Remark
Unit No.5 From Stn-III X ^{er}	SE 12/1	11 kV	8039374	3.33	LV end
Unit No.5 From Stn-III X ^{er}	SE 12/2	11 kV	8039383	3.33	LV end
Unit No.6 From Stn-IV X ^{er}	SF 11/1	11 kV 400kV	8039384 04220463	3.33 10	LV end HV end
Unit No.6 From Stn-IV X ^{er}	SF 11/2	11 kV	8039379	3.33	LV end
Unit No.6 From Stn-IV X ^{er}	SF 12/1	11 kV	8039386	3.33	LV end
Unit No.6 From Stn-IV X ^{er}	SF 12/2	11 kV	8039382	3.33	LV end
Unit No.7 From Stn-V X ^{er}	SG 11/1	11 kV 400kV	04180084 04220466	1 10	LV end HV end
Unit No.7 From Stn-V X ^{er}	SG 11/2	11 kV	04180081	1	LV end
Unit No.7 From Stn-V X ^{er}	SG 12/1	11 kV	04180079	1	LV end
Unit No.7 From Stn-V X ^{er}	SG 12/2	11 kV	04180079	1	LV end

Parli Thermal Power Station

Unit - 1, 30 MW	G	11 kV / 132 kV	LT660165 Not provided	0.04	LV end HV end
Unit - 2, 210 MW	I	11kV/ 132 kV	LT659836 Not provided	0.04	LV end HV end
Unit - 3, 210 MW	H	15.75kV/220 kV	01988545 10015436	0.2864 250	LV end HV end
Unit - 4, 210 MW	L	15.75kV/ 220 kV	810316 408158	0.2863 2400	LV end HV end
Unit - 5, 210 MW	R	15.75kV/ 220 kV	01988500 408157	0.2864 2400	LV end HV end
Stage I St. X ^{er} .I	E	3.3 kV	256583	1	LV end
Stage I St. X ^{er} .II	K	3.3 kV	256580	1	LV end
Stage II, St.Xer 1	J	220 kV 6.6 kV	02750992 02751022	0.12 0.12	HV end LV end
Stage II, St.Xer 2	K	220kV 6.6 kV	02750992 02751046	0.12 0.12	LV end LV end
Unit No - 6	Parli PCR	16.5 kV	74765	12000	LV end
Station X ^{er}	Station Bay	220 kV	EL103579	200	HV end
Unit No - 6	Generator Bay	220 kV	EL103652	12000	HV end

Khaperkheda Thermal Power Station

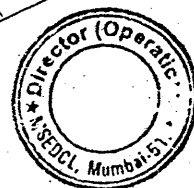
Unit-1, 210 MW	Bus I or Bus II	15.75/ 220Kv	01810302 231	1 3.2	LV end HV end
Unit-2, 210 MW	Bus I or Bus II	15.75/ 220kV	01810303 227	1 3.2	LV end HV end
Unit-3, 210 MW	Bus I or Bus II	15.75/ 220kV	DR-086310 1048585	1 1600	LV end HV end
Unit-4, 210 MW	Bus I or Bus II	15.75/ 220kV	Not allotted MSB00023	1 20	LV end HV end
Station-1, Station X ^{er}	Bus I or Bus II	220 kV /6.6 kV	7311/ 7321 1060048	1 250	HV end LV end
Station-2, Station X ^{er}	Bus I or Bus II	220 kV /6.6 kV	7352/ 7329 1060042	1 250	HV end LV end
Station-3, Station X ^{er}	Bus I or Bus II	220 kV /6.6 kV	Not allotted DR-086310	1 250	HV end LV end
Station-4, Station X ^{er}	Bus I or Bus II	220 kV /6.6 kV	Not allotted MSB00024	1 10	HV end LV end



Unit No	Bus/ Bay No	Bus/Bay volt	Meter No	M.F	Remark
Koradi Thermal Power Station					
Unit-1, 120 MW	I/5	13.8KV	01988722	1	LV end
Unit-2, 120 MW	I/7	13.8KV	01988753	1	LV end
Unit-3, 120 MW	I/11	13.8KV	01988726	1	LV end
Unit-4, 120 MW	I/13	13.8KV	01988766	1	LV end
Unit-5, 200 MW	I/5	15.75KV	01957086	1	LV end
Unit-6, 210 MW	I/7	15.75KV	01958285	1	LV end
Unit-7, 210 MW	I/9	15.75KV	01958291	1	LV end
SAT-1	I/3	220 kV/	3015189	19.8	HV end
		6.6kV	3052255	19.8	LV end
SAT-2	II/8	220 kV/	2906956	19.8	HV end
		6.6kV	3052258	19.8	LV end
SAT-3	I/14	220 kV/	6481939	0.001	HV end
		6.6kV	6489596	0.001	LV end
SAT-4	II/16	220 kV/	6481940	0.001	HV end
		6.6kV	6481941	0.001	LV end
Nasik Thermal Power Station					
Unit-1, 140 MW	Generator-1	15.5 kV	B958720	2	LV end
Unit-2, 140 MW	Generator-2	15.5 kV	B958721	2	LV end
Unit-3, 210 MW	Generator-3	15.75 kV	01956168	2400	LV end
Unit-4, 210 MW	Generator-4	15.75 kV	01987032	2400	LV end
Unit-5, 210 MW	Generator-5	15.75 kV	01987094	2400	LV end
Stn X ^{er} No.F3 for Units 1 &2	D1	6.6 kV	090002	1	LV end
Stn X ^{er} No.F4 for Units 1 &2	D2	6.6 kV	090001	1	LV end
Stn X ^{er} No.3 for Units 3,4,5	C3A	6.6 kV	04886413	1	LV end
Stn X ^{er} No.3 for Units 3,4,5	C3B	6.6 kV	04886449	1	LV end
Stn X ^{er} No.4 for Units 3,4,5	C4A	6.6 kV	04886411	1	LV end
Stn X ^{er} No.4 for Units 3,4,5	C4B	6.6 kV	04886480	1	LV end
Uran Gas Turbine Power Station:					
Unit-2 GT, 60 MW	12	220 kV	05436154	1	HV end
Unit-3 GT, 60 MW	9	220 kV	06489277	1	HV end
Unit-4 GT, 60 MW	8	220 kV	05463560	1	HV end
Unit-5 GT, 108 MW	14	220 kV	06489256	1	HV end
Unit-6 GT, 108 MW	15	220 kV	06489262	1	HV end
Unit-7 GT, 108 MW	17	220 kV	06489266	1	HV end
Unit-8, GT, 108 MW	18	220 kV	06489268	1	HV end
WHRP A0, 120 MW	20	10.5 kV	06489275	10	LV end
WHRP B0, 120 MW	24	10.5 kV	06489272	10	LV end
Unit-A0, 120 MW	20	220 kV	06489264	10	HV end
Unit-B0, 120 MW	24	220 kV	06489273	10	HV end
Unit-A0, 120 MW	20	6.6 kV	06607934	1	HV end
Unit-B0, 120 MW	24	6.6 kV	06607939	1	HV end
10 MVA, Stn X ^{er} -I	11	220 kV	06607937	1	HV end
10 MVA, Stn X ^{er} -II	10	220 kV	06607933	1	HV end



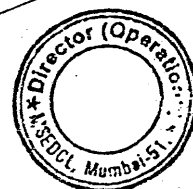
Unit No	Bus/Bay No	Bus/Bay volt	Meter No	M.F	Remark
Small Hydro Power Station					
Tillari					
Generator	Gen Side Ponda	11 kV/ 415 V 220 kV 220 kV	Not provided Import: 10028478 Export: 10028475	- 100 100	LV end HV end HV end
	Halkarni	220 kV	Import: 10028477 Export: 10028476	100 100	HV end HV end
UAT	11 Kv rural feeder	440 V	007128	100	LV end
Terwanmedhe					
Generator	Gen Side	415 V	Sr No. not allotted	KWh x 80	LV end
Dudhganga 1 & 2					
Generator	Gen Side	3.3 kV	TDK/C122, TDK/C121	KWh x 1000	LV end LV end
UAT	11 Kv rural feeder	440 V	161320	KWh x 1	LV end
Radhanagari (1 to 4 units)					
Generator	Gen Side	6.6 kV	Sr No. not allotted	KWh x 1	LV end
SAT	33 Kv rural feeder	Metering not provided at either side Consumption as per calculation			LV end
Vaitarna					
Generator	Gen Side 1(Igatpuri I) 2(Igatpuri II)	11kV 132 kV 132 kV	102523 Export: 143580 Export: 143581	MWH X 1 0.0096 0.0096	LV end HV end HV end
SAT/ UAT	132 kV bus	132 Kv 415 Kv	9051806 027554	KWhx1	LV end HV end
Vaitarna D.T					
Generator	Gen Side 1	3.3 kV 33 kV	Sr No. not allotted 1 Export Meter with out No.	- -	LV end LV end
SAT/ UAT	33 kV bus	415 V	Not allotted	-	LV end
Bhatsa					
Generator	Gen Side 1(Shahpur)	11 kV 100 kV	485647 Export: 152160	KWh x 1000 4000	LV end HV end
UAT	22 kVbus	440 V	7087094	KWh x 10	LV end
Surya					
Generator	Gen Side 1(Suryanaga)	33 Kv 33 Kv	nil. Export: T190884	nil KWh x 800	Provided at HV end
SAT	33 kVbus	440 V	31520	KWh x 8	LV end



Unit No	Bus/Bay No	Bus/Bay volt	Meter No	M.F	Remark
Bhira					
Bhira 1 2	Gen Side 1(Kandalgaon)	220 kV	Import: 138000 Export: D3M051-401/SW1	- 1 1	Provided at HV end
UAT	22 kVbus	415 V	Installed at 415 V	-	LV end
Yeldari					
Yeldari 1 2 3	Gen Side 1 (Risod) 2(Jintur)	11kV 132 kV 132 kV	28993386/ 385/387 Import: 28347379 Export: 28347380 Import: 28347381 Export: 28347382	KWh x 1000 KWh x 1000 800 800 800	LV end LV end HV end HV end HV end
UAT 1	66 kVbus	440 V	Installed at 440 V	KWhx 10	LV end
UAT 2	11 kVbus	440 V	Installed at 440 V	KWh x 10	LV end
UAT 3	-	440 V	Installed at 440 V	KWh x 10	LV end
Paithan					
	Gen. Side	11kV	788559	KWH x 1000	LV end
UAT	11 kVbus	440 V	031890	KWh x 10	LV end
Veer					
1 2	Gen. Side 1 (Lonad) 2 (Bhatghar)	11 kV 132 kV 132 kV	TD/STR/L/T/3080 TD/STR/L/T/2244 TD/STR/L/T/2245	KWH x 4000 0.001 0.001	LV end HV end HV end
UAT	22 kVbus	440 V	7018673/ 7018674	KWh x 1	LV end
Bhatghar					
	Gen. Side 1 (Phursungi) 2 (Veer)	11 kV 132 kV 132 kV	10008430 Import: 8025773 Export: 8025774 Import: 8025771 Export: 8025772	KWh x 10000 4 4 4 4	LV end HV end HV end HV end HV end
UAT	22 kVbus	440V	1087093	KWh x 1	LV end
Ujjani					
Generator 1) 2)	Gen. Side (Indapur) (Proposed Jeur line)	11 kV 132 kV 132 kV	020880 Import: 161195 Export: 161196 Import: 161197 Export: 161198	KWh x 10000 4800 4800 4800 4800	LV end HV end HV end HV end HV end
SAT/UAT	11 kVbus	440 V	021682/ 031890	KWhX10	LV end



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Unit No	Bus/Bay No	Bus/Bay volt	Meter No	MF	Remark
Warana					
(Unit 1 & 2)	Gen.Side 1 (Kale)	3.3 kV 110 kV	169359/TD/STR/LI T/ 3469 I&E: 4104885	KWh x 1.1 1 1	LV end HV end HV end
SAT/UAT	33 kVbus	440 V	TO ENTER/34575	KWh x 100	LV end
Kanher					
Generator	Gen.Side 1(Satara Road) 2(Medha)	11kV 22kV 22 kV	171842 I &E:TD/STR/L/T/2 246 I&E:TD/STR/L/T/2 243	.0006 500 1000	LV end HV end HV end
UAT	22 kVbus	440 V	4011297	KWh x 3.75	LV end
Dhom					
Generator	Gen. Side Wai 1 & 2	3.3 kV 22kV	30582/ 30583 Export: 121964	KWh x 37.5 100	LV end HV end
UAT	22 kVbus	440V	4011296	KWh x 1.5	LV end
Panshet					
Generator	Gen.Side 1(Varasgaon) Export	11kV 132 kV 132 kV	151684 Import: 151688 Export: 151832	M Wh x 1 0.0048 0.0048	LV end HV end HV end
UAT	11 kVbus	440 V	1087095	0.000001	LV end
Varasgaon	Gen. Side 1(Rahatane) 2(Khadakwasala) 3(Parvati)	11 kV 132 kV 22kV 22 kV	151685 I &E: 03174139 I &E: 03174038 I &E: 03174112	0.001 4800 800 800	LV end HV end HV end HV end
UAT	11 kVbus	440 V	1087093	KWh x 1	LV end
Pawana					
Generator	Gen.Side 601 (Talegaon) 602 (Lonavala)	11kV 100 kV 100 kV	017656 I &E: 04012970 I &E: 04012971	KWh x 130 909 909	LV end HV end HV end
UAT	22 kVbus	440 V	10623	KWh x 100	LV end
Manikdoh					
Generator	Gen.Side	6.6 kV 33 Kv	186671 I &E: M186671	780 780	LV end HV end
UAT	11 kVbus	440 V	7116092	34	LV end
Dimbhe					
Generator	Gen.Side	6.6 kV	2H65154	165	LV end
UAT	11 kVbus	440 V	7116067	80	LV end

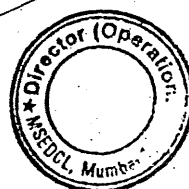


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Unit No	Bus/Bay No	Bus/Bay volt	Meter No	M.F	Remark
Koyna (Pophali) Power Station					
Unit-1, 70 MW	Unit-1 Bay	11kV	Exp/Imp26358453/ 9.470.100.1996	1	LV end
Unit-2, 70 MW	Unit-2 Bay	11kV	Exp/Imp 24609826 / 9.470.099.1996	1	LV end
Unit-3, 70 MW	Unit-3Bay	11kV	Exp/Imp 24609823 / 9.470.101.1996	1	LV end
Unit-4, 70 MW	Unit-4Bay	11kV	Exp/Imp 24609824 / 9.470.102.1996	1	LV end
Unit-5, 80 MW	Unit- 5Bay	11kV	Exp/Imp 29442666/ 9.470.106.1996	1	LV end
Unit-6, 80 MW	Unit- 6Bay	11kV	Exp/Imp 29442668/ 9.470.105.1996	1	LV end
Unit-7, 80 MW	Unit- 7Bay	11kV	Exp/Imp 29442667/ 9.470.103.1996	1	LV end
Unit-8, 80 MW	Unit- 8Bay	11kV	Exp/Imp 29442669/ 9.470.104.1996	0.004	LV end
Unit-9, 80 MW	Unit-9 Bay	11kV	0002138464	20	LV end
Unit-10, 80 MW	Unit-10 Bay	11kV	0002138465	20	LV end
Unit-11, 80 MW	Unit-11Bay	11kV	0002115342	20	LV end
Unit-12, 80 MW	Unit-12Bay	11kV	0002138466	20	LV end
STAGE-IV-Unit-1, 250 MW	Unit-4 Bay	11kV	ZMA405C4CR13E66820 267	1	LV end
STAGE-IV-Unit-2, 250 MW	Unit-2 Bay	11kV	ZMA405C4CR13E66820 265	1	LV end
STAGE-IV-Unit-3, 250 MW	Unit-3 Bay	11kV	ZMA405C4CR13E66820 266	1	LV end
STAGE-IV-Unit-4, 250 MW	Unit-4 Bay	11kV	ZMA405C4CR13E66820 269	1	LV end
Dam foot Unit-1 (18 MW)	Unit-1 Bay	11kV	8026262	10 ⁻³	LV end
Dam foot Unit-2 (18 MW)	Unit-2 Bay	11kV	8026263	10 ⁻³	LV end
Stage I & II, SAT-1	SAT-1	33 kV	Installed at 33 kV	Installed at 33 kV	HV end
Stage I & II, SAT-2	SAT-2	33 kV	Installed at 33 kV	Installed at 33 kV	HV end
Stage III, SAT-25 MVA	SAT 25 MVA	33 kV	Installed at 33 kV	Installed at 33 kV	HV end
Stage IV, SAT 1-2.5 MVA	SAT-1	400 V	Installed at 400 V	Installed at 400 V	LV end
Stage III, SAT 2-2.5 MVA	SAT-2	400 V	Installed at 400 V	Installed at 400 V	LV end
KDPH	SAT 1.5 MVA	400 V	Installed at 400 V	Installed at 400 V	LV end

Note: The replacement of meters with ABT compatible meters is in progress and the schedule will be modified once the replacement is completed.



22 SCHEDULE- 6: COMPUTATION OF ADJUSTMENT IN THE RATE OF ENERGY CHARGES FOR THERMAL GENERATING STATIONS

(a) Energy Charges shall cover fuel costs and shall be worked out on the basis of ex-bus energy sent out corresponding to scheduled generation as per the following formula:

Energy Charges (Rs) = Rate of Energy Charges in Rs/kWh X Ex-bus energy sent out corresponding to scheduled generation for the month in kWh

Where, Rate of Energy Charges (REC) shall be the sum of the cost of normative quantities of primary and secondary fuel for one-kWh of ex-bus energy sent out corresponding to scheduled generation and shall be computed as under:

$$REC = 100 \{ P_p \times (Q_p)_n + P_s \times (Q_s)_n \} / (100 - (AUX)_n) / (\text{Rs/kWh})$$

Where, P_p = Landed cost of primary fuel namely coal or lignite or gas or liquid fuel in Rs/Kg or Rs/cubic-metre (m³) or Rs./litre, as the case may be

$(Q_p)_n$ = Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in Kg or litre or m³, as the case may be, and shall be computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal/lignite based generating stations) and gross calorific value of coal/lignite or gas or liquid fuel as fired

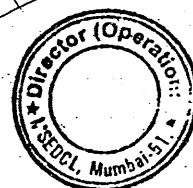
P_s = Landed cost of Secondary fuel oil in Rs./ml

$(Q_s)_n$ = Normative Quantity of Secondary fuel oil in ml/kWh as per Regulation 33.1.4, as the case may be, and

AUX = Auxiliary Energy Consumption as percentage of gross generation .

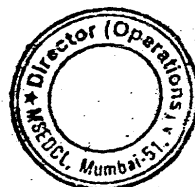
(b) Adjustment of REC on account of variation in price or heat value of fuels initially, gross calorific value of coal/lignite or gas or liquid fuel shall be taken as per actuals of the preceding three months. Any variation shall be adjusted on month to month basis on the basis of gross calorific value of coal/lignite or gas or liquid fuel received and burnt and landed cost incurred by the Generating Company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be. In case of any dispute, an appropriate application in accordance with the Conduct of Business Regulations shall be made before the Commission.

(c) Landed Cost of fuel: The landed cost of fuel shall include price of fuel corresponding to the grade/quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/ road/ pipeline or any other means, and, for the purpose of calculation of energy charges, shall be arrived at after considering transit losses as per Regulation 33.1.6.



23 **SCHEDULE- 7: SCHEDULE OF REBATE FOR PROMPT PAYMENT**

Payment Through L/C		2.00%	
Provisional payment		1.25%	
Payment made in Days from the billing date	% Rebate Applicable	Payment made in Days from the billing date	% Rebate Applicable
1	1.250	31	0.684
2	1.250	32	0.660
3	1.250	33	0.637
4	1.250	34	0.613
5	1.250	35	0.590
6	1.250	36	0.566
7	1.250	37	0.542
8	1.226	37	0.519
9	1.203	39	0.495
10	1.179	40	0.472
11	1.156	41	0.448
12	1.132	42	0.425
13	1.108	43	0.401
14	1.085	44	0.377
15	1.061	45	0.354
16	1.038	46	0.330
17	1.014	47	0.307
18	0.991	48	0.283
19	0.967	49	0.259
20	0.943	50	0.236
21	0.920	51	0.212
22	0.896	52	0.189
23	0.873	53	0.165
24	0.849	54	0.142
25	0.825	55	0.118
26	0.802	56	0.094
27	0.778	57	0.071
28	0.755	58	0.047
29	0.731	59	0.024
30	0.708	60	0.000



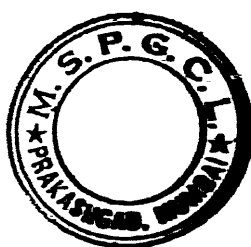
ANNEXURE I (A) EXPECTED LIFE OF THERMAL POWER STATIONS (INCLUDING GAS TURBINES)

Sr. No.	Power Station	Unit No.	Installed Capacity	Derated Installed Capacity 20.04.07	Date of Commissioning	Life (Completed years)	R&M (planned/Anticipated) / COD of replacement unit (FY)	Expected Balance Life (Yr)
1	K'Kheda	1	210	210	Mar-89	18	2019 (R&M anticipated)	27
2	K'Kheda	2	210	210	Jan-90	17	2020 (R&M anticipated)	28
3	K'Kheda	3	210	210	May-00	7	2025(R&M anticipated)	33
4	K'Kheda	4	210	210	Jan-01	6	2026(R&M anticipated)	34
5	Paras	2	62.5	55	Jun-67	40	July-2010 (Repl. Unit)	4
6	Paras	3	250	250	31Mar-08	0	New Plant	25
7	Bhusawal	1	62.5	55	Jul-68	39	July-2010 (Repl. Unit)	4
8	Bhusawal	2	210	210	Aug-79	28	2011 (R&M Planned)	19
9	Bhusawal	3	210	210	May-82	25	2014 (R&M anticipated)	22
10	Nashik	1	140	125	Aug-70	37	LE works planned in 10th plan cancelled. Essential maint. Works to be carried.	10
11	Nashik	2	140	125	Mar-72	35	LE works planned in 10th plan cancelled. Essential maint. Works to be carried.	10
12	Nashik	3	210	210	Apr-79	28	2009 (R&M Planned)	17
13	Nashik	4	210	210	Jul-80	27	2012 (R&M anticipated)	20
14	Nashik	5	210	210	Jan-81	26	2013 (R&M anticipated)	21
15	Parli	1	30	20	Nov-71	36	July-2010 (Repl. Unit)	4
16	Parli	2	30	20	May-72	35	July-2010 (Repl. Unit)	4
17	Parli	3	210	210	Oct-80	27	2010 (R&M Planned)	18
18	Parli	4	210	210	Mar-85	22	2016 (R&M anticipated)	24
19	Parli	5	210	210	Dec-87	20	2018 (R&M anticipated)	26
20	Parli	6	250	250	1Nov-07	1	New Plant	24
21	Koradi	1	120	105	Jun-74	33	April-2012 (Repl. Unit)	5
22	Koradi	2	120	105	Mar-75	32	April-2012 (Repl. Unit)	5
23	Koradi	3	120	105	Mar-76	31	April-2012 (Repl. Unit)	5



24	Koradi	4	120	105	Jul-76	31	April-2012 (Repl. Unit)	5
25	Koradi	5	200	200	Jul-78	29	2012 (R&M anticipated)	20
26	Koradi	6	210	210	Mar-82	25	2009 (R&M Planned)	17
27	Koradi	7	210	210	Jan-83	24	2015 (R&M anticipated)	23
28	Chandrapur	1	210	210	Aug-83	24	2010 (R&M Planned)	18
29	Chandrapur	2	210	210	Jul-84	23	2010 (R&M Planned)	18
30	Chandrapur	3	210	210	May-85	22	2017 (R&M anticipated)	25
31	Chandrapur	4	210	210	Mar-86	21	2018 (R&M anticipated)	26
32	Chandrapur	5	500	500	Mar-91	16	2021 (R&M anticipated)	29
33	Chandrapur	6	500	500	Mar-92	15	2022 (R&M anticipated)	30
34	Chandrapur	7	500	500	Oct-97	10	2023 (R&M anticipated)	31
35	GTPS Uran	2	60	60	Mar-82	25	To be run as per availability of gas	5
36	GTPS Uran	3	60	60	May-82	25	To be run as per availability of gas	5
37	GTPS Uran	4	60	60	Jul-82	25	To be run as per availability of gas	5
38	GTPS Uran	5	108	108	Oct-85	22	2010 (R&M anticipated) **	13
39	GTPS Uran	6	108	108	Aug-85	22	R&M completed in Dec-2001**, Next R&M anticipated in 2011	14
40	GTPS Uran	7	108	108	Jun-85	22	R&M completed in Dec-2006**, Next R&M anticipated in 2016	19
41	GTPS Uran	8	108	108	Jan-86	21	2009 (R&M anticipated) **	12
42	GTPS Uran	WHR -AO	120	120	Mar-94	13	2019 (R&M anticipated)	27
43	GTPS Uran	WHR -BO	120	120	Oct-94	13	2020 (R&M anticipated)	28

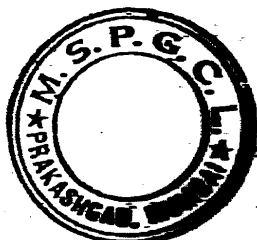
** GTPS, Uran U-6 & U-7 R&M was carried as indicated in the chart. However, their R&M will again be carried out subsequently to match with the LE programme of W.H.R. units. Similarly R&M of balance Gas Turbines will also be required. This will enhance the life of Gas Turbines to match with that of W.H.R. units.



25 ANNEXURE I (B) EXPECTED LIFE OF HYDRO POWER STATIONS

Sr. No.	HPS	Installed Capacity MW	Commissioning YEAR	Age as on 2007 Age in Years.	* Remaining life in years	Life extension/Service life
1	Koyna St I &II	600.00	1962	45	10	R&M carried out in 1999, therefore life extension by 20 years
2	Koyna St III	320.00	1975	32	3	
3	Koyna St IV	1000.00	2000	7	28	
4	K D P H	36.00	1980	27	8	
5	Radhanagri	4.80	1952	55	-	
6	Yeldari	22.50	1968	39	-	
7	Veer	9.00	1975	32	3	
8	Vaitarna	60.00	1976	31	4	
9	Bhatghar	16.00	1977	30	5	
10	Paithan	12.00	1984	23	12	
11	Tillari	60.00	1986	21	14	
12	Bhira T R	80.00	1987	20	15	
13	Vaitarna D T	1.50	1987	20	15	
14	Pawna	10.00	1988	19	16	
15	Kanher	4.00	1991	16	19	
16	V'gaon	8.00	1991	16	19	
17	Panshet	8.00	1991	16	19	
18	Bhatsa	15.00	1991	16	19	
19	Dhom	2.00	1992	15	20	
20	Ujjani	12.00	1994	13	22	
21	Manikdoh	6.00	1995	12	23	
22	Dimbhe	5.00	1998	9	26	
23	Terwanmøndhe	0.20	1998	9	26	
24	Surya	6.00	1999	8	27	
25	Warna	16.00	1999	8	27	
26	Dudhganga	24.00	2000	7	28	
		2336.00				

* Note : As per MERC norms the life of a Hydro Power Unit is 35 Years indicated in Appendix-II of Depreciation Schedule



ANNEXURE II MYT PROPOSED & APPROVED PERFORMANCE PARAMETERS

Power Station	Period	MYT Proposed & Approved Performance Parameters														
		Generation			PLF		Aux. Cons.		Availability		Heat Rate		Sp. Fuel Oil Cons.		Trans. Loss	
		Proposed Gross (MU)	Proposed Net (MU)	Approved Net (MU)	Proposed %	Approved %	Proposed %	Approved %	Proposed %	Approved %	Proposed Kcal/Kwh	Approved Kcal/Kwh	Proposed ml/Kwh	Approved ml/Kwh	Proposed %	Approved %
K'Kheda	2007-08	6059	5514	5544	82.30	82.34	9.00	8.50	86.44	86.44	2644	2558	1.94	2	1.4	0.8
	2008-09	5993	5454		81.40	81.44	9.00	8.50	85.73	85.73	2644	2581	1.96	2	1.4	0.8
	2009-10	5945	5410		80.80	80.79	9.00	8.50	85.04	85.04	2644	2566	1.96	2	1.4	0.8
Paras	2007-08	344	310	367	71.50	80.00	10.00	9.70	83.70	83.70	3200	3105	2.91	2	2.34	0.8
	2008-09	354	319		73.50	80.00	10.00	9.70	86.41	86.41	3200	3105	2.82	2	2.34	0.8
	2009-10	354	319		73.50	80.00	10.00	9.70	86.41	86.41	3200	3105	2.82	2	2.34	0.8
Bhusawal	2007-08	3225	2911	3023	77.50	80.00	9.75	9.75	86.44	86.41	2663	2649	3.02	2	2.04	0.8
	2008-09	2784	2513		66.90	80.00	9.75	9.75	86.41	80.00	2652	2652	2.9	2	2.04	0.8
	2009-10	3295	2973		79.20	80.00	9.00	9.00	85.39	85.39	2663	2648	3.33	2	1.74	0.8
Nashik	2007-08	5791	5270	5803	75.60	80.00	9.00	9.00	79.13	80.00	2663	2653	3.36	2	1.74	0.8
	2008-09	5384	4899		70.20	80.00	9.00	9.00	86.41	86.41	2652	2642	3.31	2	1.74	0.8
	2009-10	5868	5340		76.60	80.00	9.00	9.00	86.34	86.34	2660	2652	2.49	2	2	0.8
Parli	2007-08	4623	4188	4400	77.60	80.00	9.40	9.00	86.41	86.41	2652	2642	3.31	2	1.74	0.8
	2008-09	4614	4180		77.50	80.00	9.40	9.00	86.41	86.41	2652	2642	3.31	2	1.74	0.8
	2009-10	4132	3744		69.40	80.00	9.40	9.00	86.41	86.41	2660	2657	2.48	2	2	0.8
Koradi	2007-08	6740	6047	6827	75.40	80.00	10.20	9.83	85.61	85.61	2977	2786	3.41	2	1	0.8
	2008-09	6660	5975		74.50	80.00	10.28	9.80	81.31	81.31	2977	2792	3.41	2	1	0.8
	2009-10	6344	5692		71.00	80.00	10.28	9.80	85.97	85.97	2600	2545	1.28	2	0.98	0.8
Chandrapur	2007-08	16048	14796	15120	80.00	80.00	7.80	7.80	86.16	86.16	2600	2551	1.2	2	0.98	0.8
	2008-09	16048	14796		80.00	80.00	7.80	7.80	85.81	85.81	2600	2556	1.2	2	0.98	0.8
	2009-10	16048	14796		80.00	80.00	7.80	7.80	85.81	85.81	2600	2556	1.2	2	0.98	0.8
Uran	2007-08	3800	3712	3844	52.60	52.77	2.30	2.40	53.22	53.22	1980	1980				
	2008-09	3800	3712		52.80	52.77	2.30	2.40	53.22	53.22	1980	1980				
	2009-10	3800	3712		52.80	52.77	2.30	2.40	53.22	53.22	1980	1980				
Hydro (Koyna)	2007-08	3158	3135	2874+350 (Peak+Non-Peak)			0.74									
	2008-09	3158	3135				0.74									
	2009-10	3158	3135				0.74									
Other Hydro	2007-08		617	710 (Non-Peak)			0.74									
	2008-09		617													
	2009-10		617													

This shall be subject to revision annually as per the approval of the Commission

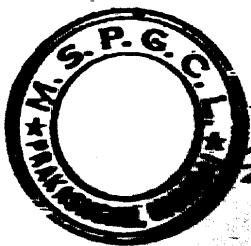
27 ANNEXURE III UNITWISE TECHNICAL INFORMATION OF THERMAL POWER STATIONS

PARAS THERMAL POWER STATION UNITWISE INFORMATION										
Year 2005-06										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
2	479.568	94.39	98.91	0.118	0.97	62	3193	9.58	1.54	0.81
Station	479.568	94.39	98.91	0.118	0.97	62	3193	9.58	1.54	0.81
Year 2006-07										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
2	425.026	83.65	91.27	6.58	1.85	60	3261	10.23	1.41	0.823
Station	425.026	83.65	91.27	6.58	1.85	60	3261	10.23	1.41	0.823

PARLI THERMAL POWER STATION, PARLI UNITWISE INFORMATION										
Year 2005-06										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	221.694	84.36	83.71	8.05	3.25	32	3105	8.95	12.4	0.676
2	244.202	92.92	96.96	0.69	2.35	32	3187	8.95	10.68	0.672
3	1397.647	75.98	83.83	8.42	7.76	212	2625	9.23	4.29	0.72
4	1604.792	87.24	94.46	1.96	3.58	220	2610	9.23	3	0.722
5	1693.645	92.07	96.24	0.59	3.17	220	2593	9.23	1.58	0.724
Station	5161.98	85.4	91.62	3.72	4.65	701	2661	9.2	3.65	0.736
Year 2006-07										
Unit	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	227.778	86.67	91.01	8.13	0.86	32	3264	9.13	5.81	0.901
2	230.172	87.58	91.27	7.95	0.78	32	3267	9.13	6.67	0.901
3	1280.412	69.6	78.48	15.66	5.86	212	2631	9.5	3.52	0.731
4	1248.135	67.85	74.53	17.7	7.77	220	2620	9.5	3.38	0.733
5	1588.719	86.36	88.84	7.15	4.01	226	2589	9.5	1.5	0.729
Station	4575.216	75.69	81.53	13.03	5.44	694	2678	9.48	3.05	0.748



KORADI THERMAL POWER STATION, KORADI										
UNIT WISE INFORMATION										
YEAR 2005-6										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	783.311	77.76	94.51	0	5.49	111	2995	8.97	1.31	0.769
2	341.03	33.85	47.94	48.84	3.23	105	3017	10.89	3.57	0.769
3	636.143	63.15	81.63	13.64	4.73	111	3003	8.62	2.14	0.769
4	708.855	70.36	86.24	9.34	4.42	112	3005	9.1	2.35	0.769
Stage-I	2459.339	61.28	77.58	17.95	4.47		3003	9.18	2.13	0.769
5	1151.857	55.75	71.4	19.52	9.08	210	2974	11.2	4.33	0.756
6	1302.966	70.83	78.6	16.02	5.38	220	2951	9.74	1.96	0.756
7	1536.105	83.5	88.5	9.29	2.21	220	2960	9.12	2.87	0.756
Stage-II	3990.928	73.43	79.63	14.87	5.5		2961	9.32	3	0.756
STN.	6460.267	68.23	78.76	16.18	5.06	1034	2977	9.64	2.67	0.761
YEAR 2006-07										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	649.362	64.46	86.82	5.48	7.69	108	3046	9.6	3.8	0.82
2	518.844	51.5	73.22	25.36	0.91	104	3053	10.22	4.6	0.82
3	680.974	67.5	87.73	6.28	5.98	109	3038	9.14	2.94	0.82
4	679.194	67.42	90.89	0	9.11	110	3039	9.86	3.07	0.82
Stage-I	2528.374	62.75	84.67	9.41	5.93		3043	9.67	3.54	0.82
5	1391.45	79.42	89.83	0.83	9.34	205	2973	10.69	2.68	0.798
6	1446.381	78.62	89.18	6.53	4.29	215	2962	9.74	1.43	0.798
7	1432.661	77.88	88.01	4.21	7.78	215	2974	9.91	2.71	0.798
Stage-II	4270.492	78.63	88.99	3.9	7.11		2970	10.11	2.27	0.798
STN.	6798.866	71.86	87.15	6.25	6.6	998	2997	9.95	2.74	0.806



**CHANDRAPUR THERMAL POWER STATION, CHANDRAPUR
UNITWISE INFORMATION**

Year 2005-06

Unit	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	1472.424	80.040	94.650	0.000	5.350	203.000	2717.000	10.470	0.885	0.754
2	1183.144	64.320	82.470	13.030	4.500	192.000	2769.000	10.000	1.432	0.758
3	1544.572	83.960	89.470	9.290	1.230	216.000	2657.000	8.300	1.345	0.738
4	1617.129	87.910	89.840	7.990	2.160	220.000	2671.000	7.700	0.939	0.741
STG-I&II	5817.269	79.060	89.110	7.580	3.310	816.000	2699.000	9.030	1.133	0.747
5	989.873	22.600	24.200	8.490	67.310	520.000	2584.000	7.490	0.491	0.735
6	3559.695	81.270	91.110	0.070	8.830	525.000	2553.000	6.600	1.121	0.724
7	3620.357	82.660	91.210	0.000	8.790	526.000	2539.000	7.050	1.412	0.728
STG-III	8169.925	62.180	68.840	2.850	28.310	1492.000	2551.000	6.910	1.174	0.727
Total	13987.194	68.240	76.120	4.550	19.330	2235.000	2611.000	7.790	1.157	0.735

Year 2006-07

Unit	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	1469.129	79.860	98.050	0.000	1.950	204.000	2673.000	10.190	0.668	0.808
2	1426.852	77.560	96.500	1.600	1.900	201.000	2658.000	9.850	0.751	0.796
3	1631.477	88.890	92.420	0.050	7.530	214.000	2589.000	8.630	0.649	0.785
4	1661.849	90.340	94.460	0.000	5.540	217.000	2631.000	7.900	0.699	0.799
STG-I&II	6189.307	84.110	95.360	0.410	4.230	829.000	2636.000	9.090	0.691	0.796
5	1121.927	25.610	27.450	0.000	72.550	510.000	2568.000	7.940	1.942	0.770
6	3430.463	78.320	86.140	10.230	3.630	517.000	2808.000	7.040	0.666	0.764
7	2419.184	55.230	60.080	34.870	5.050	520.000	2517.000	7.180	1.641	0.781
STG-III	6971.574	53.080	57.890	15.030	27.090	1477.000	2589.000	7.240	1.210	0.771
Total	13160.831	64.200	71.340	9.780	18.880	2234.000	2600.000	8.110	0.956	0.783

**BHUSAWAL THERMAL POWER STATION, NASHIK
UNIT WISE INFORMATION**

YEAR 2005-06

Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	429.212	84.48	95.43	1.06	3.51	63	2894	9.45	2.28	0.791
2	1659.005	90.16	92.47	0.14	7.04	221	2578	9.27	1.92	0.697
3	1293.22	70.3	74.89	21.06	4.05	218	2628	9.26	4.36	0.695
Total	3381.437	80.75	85.1	9.44	5.45	492	2638	9.29	2.9	0.708

YEAR 2006-07

Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	311.219	61.25	69.97	21.75	8.28	63	2818	9.73	2.78	0.82
2	1466.706	79.73	87.29	6.72	5.99	221	2646	9.68	4.32	0.75
3	1418.476	77.11	86.2	7.7	6.1	220	2655	9.81	4.02	0.748
Total	3196.401	76.34	84.71	8.97	6.32	500	2667	9.75	4.04	0.756



NASHIK THERMAL POWER STATION, NASHIK UNIT WISE INFORMATION										
YEAR 2005-06										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	736.955	60.09	74.14	21.74	4.17	135	2703	8.11	2.95	0.67
2	581.102	47.38	61.55	36.29	2.16	132	2762	8.01	2.13	0.675
3	1553.052	84.42	95.11	0	4.74	210	2645	9.48	2.42	0.66
4	1527.944	83.06	89.53	8.05	2.42	216	2607	9.16	1.87	0.66
5	1354.023	73.6	80.27	17.84	1.88	215	2621	9.46	2.86	0.657
Total	5753.076	72.12	82.01	14.9	3.06	899	2652	9.07	2.42	0.662
YEAR 2006-07										
Unit no.	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
1	834.475	68.04	87.3	6.18	6.53	132	2715	8.4	2.5	0.71
2	632.348	71.94	91.97	0.95	7.08	131	2755	8.16	2.25	0.711
3	1558.689	84.73	91.02	6.07	2.91	220	2634	9.25	2.99	0.713
4	1553.85	84.46	91.7	2.93	5.37	215	2661	9.61	2.05	0.708
5	1693.659	92.06	97.84	0.86	1.3	215	2646	9.08	2.03	0.707
Total	6523.021	81.82	92.32	3.37	4.3	913	2671	9	2.35	0.71

KHAPERKHEDE THERMAL POWER STATION UNITWISE INFORMATION										
Year 2005-06										
Unit No.	Gen (Mus)	PLF (%)	AVF(%)	PO(%)	FO (%)	Max Load During the Year (MW)	Heat Rate (Kcal/Kwh)	Aux Cons. (%)	Sp Oil Cons (KgKwh)	Sp Coal Cons (KgKwh)
1	1507.37	81.94	91.86	3.79	4.35	215	2601	10.413	3.652	0.78
2	1347.468	73.249	83.434	12.501	4.065	215	2582	9.396	3.104	0.775
3	1294.666	70.378	74.994	20.645	4.36	217	2609	9.518	2.612	0.785
4	1554.523	84.503	91.25	7.064	1.686	221	2596	8.973	2.08	0.782
Station	5704.045	77.517	85.384	11	3.615	868	2597	9.577	2.858	0.781
Year 2006-07										
Unit No.	Gen (Mus)	PLF (%)	AVF(%)	PO(%)	FO (%)	Max Load During the Year (MW)	Head Rate (Kcal/Kwh)	Aux Cons. (%)	Sp Oil Cons (KgKwh)	Sp Coal Cons (KgKwh)
1	1698.81	92.347	95.433	3.064	1.503	215	2604	9.373	0.487	0.75
2	1509.35	82.048	89.267	9.347	1.385	217	2614	9.1	0.949	0.752
3	1706.798	92.781	94.116	2.091	3.793	218	2625	8.927	0.656	0.756
4	1667.052	90.62	92.822	5.031	2.147	223	2607	8.612	0.753	0.75
Station	6582.01	89.449	92.909	4.883	2.207	873	2612	9.002	0.704	0.752



**URAN GAS TURBINE POWER STATION
UNITWISE INFORMATION**

YEAR 2005-06

Unit	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Gas Cons. (SM3/kwh)
2	12.211	2.320	80.910	18.800	0.260	-	-	0.02	N.A.	-
3	30.701	5.840	99.990	0.000	0.010	-	-	0.34	N.A.	-
4	3.677	0.700	96.940	0.000	3.060	-	-	0	N.A.	-
5	660.362	69.800	99.180	0.320	0.500	-	-	0.36	N.A.	-
6	665.357	70.330	93.720	5.970	0.310	-	-	0.28	N.A.	-
7	486.519	51.420	83.760	0.390	15.850	-	-	0.31	N.A.	-
8	600.353	63.460	90.820	0.000	0.180	-	-	0.29	N.A.	-
AO	697.142	66.320	98.990	0.700	0.310	-	-	5.25	N.A.	-
BO	621.170	59.090	97.800	1.520	0.680	-	-	6.31	N.A.	-
Station	3777.492	50.610	95.010	2.490	2.510	7.52	2026	2.27	N.A.	0.238

Year 2006-07

Unit	Gen. (Mus)	PLF (%)	AVF (%)	PO (%)	FO (%)	Max. Load During Year (MW)	Heat Rate (Kcal/ Kwh)	Aux. Cons. (%)	Sp.Oil Cons (kg/kwh)	Sp. Coal Cons. (kg/kwh)
2	7.674	1.460	99.720	0.000	0.280	-	-	0.04	N.A.	-
3	0.894	0.170	99.070	0.000	0.930	-	-	0.34	N.A.	-
4	1.436	0.270	99.950	0.000	0.050	-	-	0.07	N.A.	-
5	689.397	72.870	99.320	0.260	0.420	-	-	0.32	N.A.	-
6	855.751	90.450	98.460	0.050	1.490	-	-	0.3	N.A.	-
7	581.677	61.480	86.530	13.310	0.160	-	-	0.33	N.A.	-
8	463.040	48.940	99.110	0.050	0.840	-	-	0.03	N.A.	-
AO	639.176	79.830	99.400	0.000	0.600	-	-	4.84	N.A.	-
BO	588.641	55.020	99.210	0.070	0.720	-	-	6.23	N.A.	-
Station	4027.886	53.970	97.620	1.740	0.640	708	1969	2.14	N.A.	0.232

