

HARYANA ELECTRICITY REGULATORY COMMISSION

Notification

The 19th of December, 2008

Regulation No. HERC/ 19 / 2008: - In exercise of the powers conferred on it by sub-section (1), and clause (zd) of sub-section (2) of section 181 of the Electricity Act 2003 (Act 36 of 2003), and all other powers enabling it in this behalf, the Haryana Electricity Regulatory Commission, after previous publication, hereby frames the following Regulations:

CHAPTER – I

GENERAL

1. Short Title, Commencement, and interpretation. – (1) These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2008.

(2) These regulations shall come into force on the date of their publication in the Haryana Government Gazette.

(3) These regulations shall extend to the State of Haryana.

(4) The Punjab General Clauses Act 1898 (Act 1 of 1898) as applicable to the State of Haryana shall apply to the interpretation of these regulations.

2. Scope and extent of application. - (1) These regulations shall apply where the Commission determines tariff for supply of electricity by generating company to distribution licensee (s) under Section 62 & 64 of the Act.

(2) Where tariff has been determined through the transparent process of bidding in accordance with section 63 of the Act, the Commission shall adopt such tariff in accordance with the provisions of the Act.

(3) Where tariff has been determined bilaterally between the distribution licensee and the generating company and the power purchase agreement has been approved by the Commission based upon such tariff, the Commission shall adopt such tariff together with the terms and conditions of such approved power purchase agreement.

3. Definitions. - In these regulations, unless the context otherwise requires, -

(a) ‘**Act**’ means the Electricity Act, 2003, including any amendment thereto;

(b) ‘**Actual energy**’ means the quantum of energy actually generated by the generating station over a specified period and shall be measured at the generator terminals;

(c) ‘**Additional Capitalization**’ means the capital expenditure actually incurred after the date of commercial operation of the generating station and admitted by the Commission after prudence check;

- (d) **'Authority'** means Central Electricity Authority referred to in Section 70 of the Act;
- (e) **'Auxiliary Energy Consumption' or 'AUX'** in relation to a period means the quantum of energy consumed by auxiliary equipment of the generating station and transformation losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;
- (f) **'Availability'** in relation to a thermal generating station for any period means the average of the daily average declared capacities (DCs) for all the time blocks during the period expressed as a percentage of the rated installed capacity of the generating station minus normative auxiliary consumption in MW, and shall be computed in accordance with the following formula:

$$\text{Availability} = 10000 \times \left(\frac{\sum_{i=1}^N \text{DC}_i}{N \times \text{IC} \times (100 - \text{AUX}_n)} \right) \%$$

Where,

IC = Installed Capacity of the generating station in MW

DC_i = Average declared capacity of the ith time block of the period in MW.

N = Number of time blocks during the period

AUX_n = Normative Auxiliary Energy Consumption as a percentage of gross generation.

Explanation:

The availability in any period shall be limited to 100% if it works out more than 100% based on the above formula;

- (g) **'Bank Rate'** for the purpose of these regulations means the rate at which the Reserve Bank of India (RBI) lends fund to banks against approved securities, purchases, discounts or eligible bills of exchange;
- (h) **'Beneficiary'** in respect of a generating company shall mean a person buying power generated at such generating station on payment of Annual Fixed Charges;
- (i) **'Block'** in relation to a combined cycle thermal generating station includes combustion turbine – generator(s), associated waste heat recovery boiler(s), connected steam turbine – generator and auxiliaries;
- (j) **'Date of Commercial Operation'** (COD) In relation to a unit mean the date declared by the generator after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity through a successful trial run after notice to the beneficiaries and in relation to the generating station the date of commercial operation means the date of commercial operation of the last unit or block of the generating station;
- (k) **'Commission'** means the Haryana Electricity Regulatory Commission;

- (l) **‘Core Business’** for the purpose of these regulations, the core business means the regulated activities of generating electricity and does not include any other business or activities of the company like consultancy, telecommunication etc;
- (m) **‘Cut off Date’** means the date of first financial year closing after one year of the date of commercial operation of the generating station;
- (n) **‘Declared Capacity’ or ‘DC’** means the capability of the generation 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;
- (o) **‘Existing Generating Station’** means a generating station declared under commercial operation from a date prior to 1.4.2008;
- (p) **‘Generating Company’** means existing / to be set up, intra-state generating company;
- (q) **‘Gross Calorific Value or GCV’** in relation to a thermal power generating station means the heat produced in kCal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;
- (r) **‘Gross Station Heat Rate or SHR’** means the heat energy input in kCal required to generate one kWh of electric energy at generator terminals;
- (s) **‘Infir Power’** means electricity-generated prior to commercial operation of the unit of a generating station;
- (t) **‘Installed Capacity or IC’** means the summation of the name plate capacities of the units in the generating station or the capacities of the generating station as determined by the Commission in consultation with the Authority from time to time considering the up-rating, de-rating, as applicable;
- (u) **‘Licensee’** means a person who has been granted license under Section 14 of the Act;
- (v) **‘Maximum Continuous Rating or MCR’** in relation to a unit of the thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturers at rated parameters and, in relation to a unit or block of a combined cycle thermal generating station means the maximum continuous output at the generator(s) terminals, guaranteed by the manufacturer with water/steam injection (if applicable) and corrected to 50 Hz grid frequency and specified site conditions;
- (w) **‘Operation and Maintenance Expenses or O&M Expenses’** means the expenditure incurred in operation and maintenance of the plants and equipments, including part thereof and includes the expenditure on manpower, repairs, spares, consumables, insurance and other overheads;
- (x) **‘Original Project Cost’** means the actual expenditure incurred by the project developer, as per the original scope of project up to the ‘cut off date’ of the last unit as admitted by the Commission for determination of tariff;
- (y) **‘Plant Load Factor or PLF’** in a given period, means the total sent out energy 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:

$$PLF = 10000 \times \frac{\sum_{i=1}^N SG_i}{\{N \times IC \times (100 - AUX_n)\}} \%$$

Where: -

IC = Installed capacity of the generating station in MW,

SG_i = Scheduled generation in MW for the *i*th time block of the period.

N = Number of time block during the period, and

AUX_n = Normative Auxiliary Energy Consumption as a percentage of Gross Generation;

- (z) **‘Rated Capacity’** in relation to the Generating Station means the Maximum continuous Rating (MCR) of unit multiplied by number of Units in the Generating Station;
- (aa) **‘Scheduled Generation or SG’** at any time or for any period or time block means schedule of generation in MW ex-bus given by the State Load Dispatch Centre;
- (bb) **‘Scheduled Energy’** means the quantum of energy generated at the generating station over 24 hours period, as scheduled by the SLDC;
- (cc) **‘Small gas Turbine Power Generating Station’** means and includes gas turbine/combined cycle generating station with gas turbines in the capacity range of 50 MW or below;
- (dd) **‘Stabilization period’** in relation to a unit, means the period reckoned commencing from the date of commercial operation of that unit as follows, namely:
 - (i) Coal-based and lignite-fired generating stations - 180 days
 - (ii) Gas turbine/combined cycle generating stations - 90 days
- (ee) **‘Tariff’** shall mean, in relation to the generating company, the schedule of charges for generation including Commission approved fixed charges, Fuel Surcharge / Price Adjustments and any other approved terms and conditions;
- (ff) **‘Time Block’** shall mean, a time block of 15 minutes beginning 00.00 hours;
- (gg) **‘Unit’** means steam generator, turbine - generator and auxiliaries or in relation to a combined cycle power generating station means gas – turbine generator & auxiliaries;
- (hh) **‘Unscheduled Interchange’** (UI) shall mean unscheduled interchange as defined in the Indian Electricity Grid Code;
- (ii) **‘Year’** shall mean, the current financial year ending on 31st March, the preceding financial year shall be the ‘previous year’; the succeeding financial year shall be the ‘ensuing year’;

- (jj) All other expressions used herein but not specifically defined herein but defined in the Act shall have the meaning assigned to them in the Act. The other expressions used herein but not specifically defined in the regulations or in the Act but defined under Haryana Electricity Reform Act, 1997 (Act 10 of 1998) shall have the meaning assigned to them under the said Act, provided that such definitions in the Haryana Electricity Reform Act, 1997 are not inconsistent with the provisions of the Electricity Act, 2003;

CHAPTER - II

GENERAL GUIDING FACTORS FOR DETERMINATION OF GENERATION TARIFF

4. **Determination of Generation Tariff.** – (1) The Commission shall, by an order, determine the generation tariff, under the Act, for supply of electricity by a generating company to a distribution licensee (s)

(2) The tariff order shall, unless amended or revoked, continue to be in force for such period as may be specified in the tariff order. In the event of failure on the part of the generating company to file the Aggregate Revenue Requirement (ARR) under regulations 7, the tariff determined by the Commission shall cease to operate, unless allowed to be continued for a further period with such variations, or modifications, as may be ordered by the Commission.

(3) Tariff determined by the Commission and the directions given in the tariff order by the Commission shall be the *quid pro quo* and mutually inclusive. The tariff determined shall, within the period specified by it, be subject to the compliance of the directions to the satisfaction of the Commission and their non-compliance shall lead to such amendment, revocation, variations and alterations of the tariff, as may be ordered by the Commission.

5. **Guiding Factors for Determination of Tariff.** – The commission shall, while determining the tariff, keep in view the factors, namely:-

(a) the principles that will –

- (1) encourage efficiency, economy, competition, good performance, optimum investments and reduction of costs;
- (2) reward efficiency in performance;
- (3) stress commercial aspects;
- (4) promote cogeneration and generation of electricity from renewable sources of energy;

(b) the guidelines and procedure, as may be laid down under sub-section (5) of section 62, for calculating expected revenues from the tariff and charges and tariff filing;

(c) multi year tariff principles;

(d) National Electricity Policy and Tariff Policy;

(e) the need to rationalize tariff on the basis of bench marked and performance based costs of generation.

6. **Charging of permissible tariff.** – (1) No generating company shall, without prior approval of the Commission, charge any tariff:

Provided that the existing tariff being charged by the generating company shall continue to be charged, after the date of the commencement of these regulations, for such period as may be specified by a notification, without prejudice to the powers of the Commission to take up any matter relating to tariff.

(2) The generation company shall not charge a tariff in excess of the tariff determined by the Commission and if any generating company recovers a price or charge exceeding the tariff determined under these regulations, without prejudice to any other liability incurred by the generating company, -

- (a) the excess amount shall be recoverable by the person who has paid such price or charge, along with interest equivalent to the bank rate; and
- (b) the generating company shall be liable to penalties as are prescribed under section 142 and 146 of the Act.

(3) If the Commission is satisfied that the expected revenue of a generating company differs significantly from the revenue it is permitted to recover, it may order the generating company to file an application within the time specified by the Commission to amend its tariffs appropriately failing which the Commission shall *suo moto* start the proceedings for determination of tariff.

CHAPTER – III

FILING OF AGGREGATE REVENUE REQUIREMENT

7. Filing of Aggregate Revenue Requirement. – (1) For the determination of tariff, each intra-state generating company and the distribution licensee, for its generation business shall, for the ensuing financial year, file the Annual Revenue Requirement (ARR), both on hard and soft format, along with requisite fee in accordance with the provisions of HERC (Fee) Regulations, 2005, in the formats provided in APPENDIX – 1, each year, by 31st October.

(2) The Commission, while determining the tariff applicable to generating companies shall be guided by the principles and methodologies specified by the Central Electricity Regulatory Commission (CERC) and the terms and conditions of such tariff notified by the said Commission.

Provided that the Commission for the purpose of determination of tariff may, for sufficient reasons and after taking into consideration factors, as it may deem fit, decide to differ from the approved capital expenditure and deviate from the terms and conditions for determination of tariff notified by the CERC

(3) The ARR/report referred in sub regulation (1) shall include all the relevant details including but not restricted to the following:

- (a) capital investments, financial costs and rate base;
- (b) working capital, interest on working capital, O&M expenditure and depreciation;
- (c) foreign exchange rate variation;
- (d) return on equity component;
- (e) station wise (unit / stage wise) separately all the relevant technical details regarding all its generating stations;
- (f) the data should be provided for three years.
 - 1) Audited figures for the previous year;
 - 2) Information for the previous year shall be based on the audited accounts, in its absence; the audited accounts for the immediately preceding year should be filed with the un-audited accounts of the previous year;
 - 3) Estimated figures for the current financial year should be based on actual figures for the first six months of the current financial year and the estimated figures for the second six-month of the current financial year. The estimated figures for the second half of the current financial year should be based on actual audited figures of the second half of the previous financial year with adjustments that reflect known and measurable changes expected to occur between them. These adjustments must be specifically documented and justified.
 - 4) Forecasted figures for the ensuing financial year should be based on the current year figures, with adjustments that reflect known and measurable

changes expected to occur between them. These adjustments must be specifically documented and justified.

(g) the information to be provided by the generating company shall also include:

- (i) a statement of current tariff rates and all applicable terms and conditions, and the expected full year revenue from the current tariff rates in the year in which the new tariffs are to be implemented.
- (ii) a statement of the proposed tariff rate, price and charge, including a full statement of all applicable terms and conditions. This statement should be shown in a form appropriate to the proposed tariff structure. Details should also be supplied of the publicity intended to be given to new tariff options when they are to be implemented.
- (iii) a statement of the expected full – year revenue of the proposed tariff for the year in which the tariff is to be implemented.
- (iv) if the proposed tariff is to be introduced after the beginning of the financial year a statement of the proportion of expected revenue and quantities supplied under each proposed rate during the remaining months of the financial year should be included.
- (v) a statement of the estimated change in annual expected revenues that would result from the proposed tariff changes in the year in which they are to be implemented, stated in ‘Rupees’ and ‘Percentage’ terms.
- (vi) a study of marginal cost of the generators business, including time – differentiated (time of use) short term marginal costs by voltage levels (wherever applicable) and a written explanation of the method used to calculate marginal costs. In addition, the statement shall include a comparison of the percentage of marginal costs recovered by the current and proposed tariff.
- (vii) a written explanation of the rationale for the proposed changes in tariff and other charges, along with justification of the return on equity being requested.
- (viii) a statement containing full details of the calculation of any subsidy / subventions received, due or assumed to be due from the State Government.
- (ix) a written explanation supported by calculations of tariff rates, of any proposed new tariff.
- (x) such other information as the Commission may direct from time to time;

(4) The generating company shall furnish such additional information, particulars and documents as the Commission may require from time to time for the purpose of validating the data provided in the ARR submitted as per sub-regulation (1)

(5) A Licensee owning generating station or a generating station having a licensed business shall maintain and submit separate accounts for the licensed business and generation activities.

(6) In case of generating station expected to be declared under commercial operation after the beginning of a Financial Year, the generating company shall submit an application for determination of tariff in two stages as mentioned below.

- (a) an application for determination of provisional tariff in anticipation of the date of completion of the project. The application shall be based on the capital expenditure actually incurred on the generating station upto the date of application.
- (b) a fresh application shall be made by the generating company based on the actual capital expenditure upto the date of commercial operation of the generating station duly audited and certified by the Statutory Auditor.
- (c) difference, if any between the final tariff and the provisional tariff shall be adjusted in the tariff of the ensuing year as may be decided by the Commission.
- (d) provisional tariff or provisional billing of charges, wherever allowed by the Commission based on the application made by the generating company or by the Commission on its own motion or otherwise, shall be adjusted against the final tariff approved by the Commission.

Provided that where the provisional tariff charged exceeds the final tariff approved by the Commission under these regulations, the generating company shall pay simple interest @ 6% per annum, computed on monthly basis, on the excess amount so charged, from the date of payment of such excess amount and up to the date of adjustment.

Provided further that where the provisional tariff charged is less than the final tariff approved by the Commission, the beneficiaries shall pay simple interest @ 6% per annum, computed on monthly basis on the deficit amount from the date on which final tariff will be applicable up to the date of billing of such deficit amount.

Provided also that excess/deficit amount along with simple interest @ 6% shall be adjusted within three months from the date of the order failing which the defaulting utility/beneficiary shall be liable to pay penal interest on excess/deficit amount at the rate as may be decided by the Commission.

(7) Where the proposed date of implementation falls within a financial year for which the Commission has previously approved the aggregate revenue requirement, the filing of proposed tariff should be accompanied by a copy of the relevant Annual Revenue Requirement, approved by the Commission, along with a copy of the order passed by the Commission in relation to that report.

(8) Where the Commission has not approved the aggregate revenue requirement for the financial year in which the proposed tariff is to be implemented, the Annual Revenue Requirement should accompany the filing of proposed tariff for that financial year.

(9) If the generating company believes that the amendments being proposed are minor in nature and will not change significantly either the expected aggregate revenue or the bills of any licensee, it may request waiver of any of the above requirements from the Commission

(10) Within 7 (seven) days of the filing of the ARR the generating company shall publish for the information of the public, the contents of the ARR in an abridged form in such manner as the Commission may direct and shall provide copies of the application and documents filed with the Commission at a price not exceeding normal photocopying charges. If the generating company is having website then the ARR shall also be hosted by the generating company at its website.

(11) The Commission may implement differential tariff based on 'Time of Use' (ToU) viz 'peak tariff' and 'off peak tariff' for ensuring better demand side management.

(12) The Commission may implement multi year tariff for the generating company. The Commission shall notify the control period (the period for which MYT is applicable) separately. The base year (of the control period) revenue & tariff shall be determined by the Commission after due diligence of the submission made by the generating company. For the purpose of computation of revenue requirement, and also for setting the targets for each year under review, the Commission may, by order, broadly classify the costs incurred by the generating company as, -

(a) controllable costs; and

(b) un-controllable costs:

(i) The controllable cost shall include (a) employee cost (b) repair & maintenance (c) Administrative & General Expenses. These components of Operation & Maintenance Cost shall be escalable from the base year cost as per the indices or formula determined by the Commission at the time of determination of base year tariff. Any such costs over and above the approved escalation shall not be considered for the purpose of calculation of tariff.

(ii) The uncontrollable cost shall include (a) fuel cost (b) costs on account of inflation (c) taxes and duties etc. These costs as determined by Commission shall be allowed as pass through.

(iii) In case the generating company fails to achieve any target to be achieved during the control period, as determined by the Commission, the resulting financial losses shall be borne by it and the gain, if any, shall be equally shared with the generating company and the beneficiaries.

(iv) The Commission shall review the performance of the generating company at the end of the control period. Subsequent to the comprehensive review the Commission may re-set the targets and other parameters that it deems fit.

8. Business Plan. - The generating company shall prepare and file for the approval of the Commission, a comprehensive business plan. The business plan for five years along with annual rolling plan shall incorporate a realistic projection of all parameters (financial / technical). The basis and data used of projection (including data source) shall also be provided as annexure to the business plan. The Licensee shall undertake annual re-appraisal of the business plan submitted vis-à-vis actual performance along with an explanation of the deviations and remedial measures taken to keep the medium term business plan on track.

9. Capital Investment Plan. - (1) The generating company shall, file a detailed capital investment plan for the next five years by 30th September each year, for approval of the Commission. The investment plan shall clearly establish a pay – back period and correlations between investments proposed and objectives of investment e.g. improvement in operational norms.

(2) The costs corresponding to the capital investment plan approved by the Commission shall only be considered for computation of its revenue requirement in any given year.

(3) The capital investment plan shall show, separately, on going projects that will spill over into year under review and new project that will commence during the period under

consideration and spill over to the subsequent periods. Sufficient justification should be provided for the time reckoned as construction period.

CHAPTER – IV

TARIFF COMPONENTS

10. **Components of Tariff.** - The tariff for sale of electricity from a thermal power generating station to a distribution licensee (s) shall comprise of two parts, namely, -

(a) capacity / fixed charge for recovery of annual capacity charges; and

(b) energy / variable charge for recovery of fuel cost.

(i) The capacity / fixed charges would cover the following fixed expenses: -

- (a) Interest on loan capital;
- (b) Depreciation and Advance Against Depreciation;
- (c) Return on equity component;
- (d) Operation and maintenance expenses;
- (e) Foreign exchange rate variation;
- (f) Interest on allowed working capital; and
- (g) Taxes, if any, on income.

(ii) The energy / variable charge shall comprise of fuel cost only viz.

- (a) Cost of primary fuel like coal, oil or gas as the case may be; and
- (b) Cost of secondary fuel oil.

11. **Norms of Operation.** - (1) The norms of operation as given hereunder shall apply for coal fired thermal stations and shall be applicable for the initial period of 3 years. In the case of gas turbine / combined cycle generating station operating norms shall be appropriately adjusted as provided in this regulation.

(2) Target Availability / Plant Load Factor (PLF) for recovery of full Capacity / Fixed charges for thermal power station.

(a)	All thermal generating stations, except those covered under (b) & (c) below	80%
(b)	FTPS (1-3)	55%
(c)	IPPs	As per Commission approved PPA

Note 1

Recovery of capacity (fixed) charges below the level of target availability shall be on pro-rata basis. At zero availability, no capacity charges shall be payable.

Note 2

The Commission, based on an application made by the generating company and for reasons to be recorded in writing, may relax the norms of target availability for such period, as it may consider appropriate, for any generating station,

Provided that no such relaxation shall be allowed without giving an opportunity of being heard to the beneficiaries of the generating station.

Note 3

Target availability / PLF may be read as target PLF till intra – state ABT is implemented.

(3) (a) Gross Station Heat Rate (Kcal / kWh):

Sr. No.	Coal-based thermal power generating stations, other than those covered under (b) given below :	200/210 – 250 MW sets (Kcal/kWh)	300 MW and above sets (Kcal/kWh)
1	During stabilization period	2600	2550
2	Subsequent period	2500	2450

Note: 300 MW and above units where the boiler feed pumps are electrically operated; the gross station heat rate shall be 40 kCal / kWh lower than the station heat rate indicated above.

(b) Existing Coal-based thermal power generating stations not covered above:

		FY 2008-09	FY 2009-10	FY 2010-11
(1)	PTPS (1- 4)	3200	2930	2750
(2)	PTPS (5,6)	2570	2500	2500
(3)	FTPS (1-3)	3970	3970	3970

(c) Gas based generating stations declared under commercial operation on or after 1/04/2007 (kCal/kWh):

	Advance Class Machines	E/EA/EC/E2 Class Machines
Open Cycle	2685	2830
Combined Cycle	1850	1950

(d) In the case of Small Gas Turbine Power Generating Stations the Station Heat Rate (kCal/kWh) shall be as under:

	With Natural Gas	With Liquid Fuel
Open Cycle	3125	1.02 x 3125
Combined Cycle	2030	1.02 x 2030

Note:

The Commission may vary the normative heat rate from those indicated in these regulations on a case-to-case basis based on the levels of O&M and Life Extension (LE) that the station has been subjected to in the recent past or adopt the norms as specified by the CERC from time to time.

(4) Secondary fuel oil consumption:

	Stabilization period	Subsequent period
All Coal based thermal generating stations	4.5 ml/kWh.	2.0 ml/kWh.

Note: The Commission may relax the above norm on case to case basis based on inherent technology of the stations of older vintage.

(5) Auxiliary Energy Consumption

(a)	All Coal-based generating stations (except those covered under (c) below	With cooling tower	Without cooling tower
	(i) 200 – 210 / 250 MW series	9.0%	8.5%
	(ii) 300 MW & above series	9.0%	8.5%
(b)	Natural Gas based & Naphtha / Liquid Fuel based generating stations	Combined Cycle	Open Cycle
		3%	1%
(c)	FTPS (Unit 1-3)	12.5%	-
(d)	PTPS (Unit 1-4)		11%

Note 1

During stabilization period, normative auxiliary consumption shall be reckoned at 0.5 per cent over and above the norms. The Commission may relax the above norms on a case-to-case basis based on unique plant lay out and inherent technology of the stations of older vintage.

Note 2

The auxiliary energy consumption for steam driven boiler feed pumps shall be 7.5% (with cooling tower) and 7.0% (without cooling tower).

12. **Capital Cost.** – (1) The actual expenditure incurred on the date of completion of the project shall form the basis for fixation of final tariff. Investments made prior to 1/04/2008 in the case of the existing generating stations shall be accepted for reckoning capital cost on the basis of audited accounts. The final tariff shall be determined based on the capital expenditure allowed by the Commission and the expenditure actually incurred up to the date of commercial operation of the generating station and shall include capitalized initial spares, subject to ceiling norms mentioned below, as a percentage of plant and equipment cost:

(i)	Coal based projects	2.5%
(ii)	Gas Turbine / CCGT	4.0%

(2) The admissibility of the capital cost shall be subject to the prudence check by the Commission. This shall, however, be limited to the reasonableness of the capital cost, financing structure, interest during construction, working capital margin, efficient technology and such other matters. Any benefit from capital restructuring shall be passed on to the beneficiaries.

Provided that where the power purchase agreement entered into between the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such ceiling for determination of tariff;

Provided further that any person intending to establish, operate and maintain a generating station may make an application before the Commission for 'in principle' acceptance of the project capital cost and financing plan before taking up a project through a petition in accordance with the procedure specified in the appendix – III to these regulations, as applicable from time to time. The petition shall contain information regarding salient features of the project including capacity, location, site specific features, fuel, beneficiaries, break up of capital cost estimates, financial package, schedule of commissioning, reference price level, estimated completion cost including foreign exchange component, if any, consent of beneficiary licensees to whom the electricity is proposed to be sold etc.;

Provided also that where the Commission has given 'in principle' acceptance to the estimates of project capital cost and financing plan, the same shall be the guiding factor for applying prudence check on the actual capital expenditure;

Provided also that in case of the existing generating stations, the capital cost admitted by the Commission prior to 1.4.2008 shall form the basis for determination of tariff.

13. Additional capitalization. - (1) The capital expenditure, mentioned below, within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

1	Deferred liabilities
2	Works deferred for execution
3	Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 12
4	Liabilities to meet award of arbitration or the satisfaction of the order or decree of a court
5	On account of change in law

Provided that original scope of works along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of generating station.

(2) The capital expenditure of the following nature actually incurred after the cut off date shall be admitted by the Commission, subject to prudence check:

- (i) deferred liabilities relating to works/services within the original scope of work;
- (ii) liabilities to meet award of arbitration or for compliance of the order or decree of a court;

- (iii) on account of change in law;
- (iv) any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost; and
- (v) deferred works relating to ash pond or ash handling system in the original scope of work.

(3) Impact of additional capitalisation in tariff revision within the approved project cost shall be considered by the Commission once in a tariff period.

Note 1

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 15.

Note 2

Any expenditure on replacement of old assets shall be considered after writing off the entire value of the original assets from the original capital cost.

Note 3

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 15.

Note 4

Any expenditure admitted by the Commission for determination of tariff on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 15 after writing off the original amount of the replaced assets from the original capital cost.

14. Sale of Infirm Power: Infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the State UI pool account at the applicable frequency-linked UI rates as may be determined by the CERC from time to time. Any revenue earned by the generating company from sale of infirm power, shall be taken as reduction in capital cost and shall not be treated as revenue.

15. Debt Equity Ratio. - (1) In case of the existing generating stations, debt equity ratio considered by the Commission for the period ending 31.3.2008 shall be considered for determination of tariff with effect from 1.4.2008:

Provided that in cases where the tariff determined by the Commission for the period ending 31.3.2008 has not considered the debt equity ratio, the same shall be as may be decided by the Commission:

Provided further that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2008 and admitted by the Commission under Regulation 13, equity in the additional capitalization to be considered shall be,-

- (a) 30% of the additional capital expenditure admitted by the Commission; or
- (b) equity approved by the competent authority in the financial package, for additional capitalization; or

(c) actual equity employed, whichever is the least:

Provided further that in case of additional capital expenditure admitted under the second proviso, the Commission may consider equity of more than 30% if the generating company is able to satisfy the Commission that deployment of such equity of more than 30% was in the public interest.

(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2008 and which are likely to be declared under commercial operation during the period 1.4.2008 to 31.3.2011, debt and equity in the ratio of 70:30 shall be considered:

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher than 30% was in the public interest.

(3) In case of the generating stations for which investment approval is accorded on or after 1.4.2008, debt and equity in the ratio of 70:30 shall be considered for determination of tariff:

Provided that where equity actually employed is more than 30%, equity in excess of 30% shall be treated as notional loan at the rates and on the terms as may be specified by the Commission in its Generation Tariff Order:

Provided further that where deployment of equity is less than 30%, the actual debt and equity shall be considered for determination of tariff.

(4) The debt and equity amount arrived at in accordance with above clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.

16. Capacity (Fixed) Charges: (1) The capacity charges shall be computed on the following basis and their recovery shall be related to target availability.

(i) **Interest on loan capital**

(a) Interest on loan capital shall be computed loan-wise on the loans arrived at in the manner indicated in Regulation 15;

(b) The loan outstanding as on 1.4.2008 shall be worked out as the gross loan in accordance with Regulation 15 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2008. The repayment for the period 2008-11 shall be worked out on a normative basis;

(c) The generating company shall make every effort to re-structure their loan portfolio from time to time as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries;

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries;

- (e) In case of dispute, any of the parties may approach the Commission with proper application alongwith all the relevant details . However, the beneficiaries shall not withhold any payment ordered by the Commission to the generating company during pendency of any dispute relating to re-financing of loan;
- (f) In case any moratorium period on repayment of loan is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly;
- (g) The generating company shall not make any profit on account of re-financing of loan and interest on loan;
- (h) The generating company may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice-versa, at its own cost and gains or losses as a result of such swapping shall accrue to the generating company:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.

(ii) **Depreciation and Advance Against Depreciation**

(a) **Depreciation**

For the purpose of tariff, depreciation shall be computed in the following manner, namely:

- (i) the value base for the purpose of depreciation shall be the historical cost of the asset;
- (ii) depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations.

The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2008 already allowed by the Commission.

- (iii) on repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
- (iv) depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on *pro rata* basis.

(b) **Advance Against Depreciation**

In addition to allowable depreciation, the generating company shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 16 (i) subject to a ceiling of 1/10th of loan amount as per regulation 15 minus depreciation as per Appendix II

Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year;

Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

(iii) Return on Equity:

Return on equity shall be computed on the equity base determined in accordance with regulation 15 @ 14% per annum.

Provided that equity invested in foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

Explanation

The premium raised by the generating company while issuing share capital and investment of internal resources created out of free reserve of the generating company, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of the approved financial package.

(iv) Operation and Maintenance expenses

- (a) The actual level of O&M expenses incurred in the preceding three years would be the guiding factor for allowing O&M expenses. In the absence of third party certified levels of the various components of O&M expenses the Commission may endeavor to determine O&M expenses on a normative basis for the first tariff review period. In that case the normative O&M cost approved by the Commission shall be recognized as actual and shall form the approved base values.
- (b) The approved base value of the O & M expenses shall be escalated at the rate of 4% per annum to arrive at the O&M expenses for the current year. However the Commission may relax the rate of escalation on case to case basis.
- (c) In case of a Generating Station, which has not been in existence for three years, or has been commissioned after the commencement of these regulations, the O&M expenses shall be considered at 1% of the Capital Cost (as admitted by the Commission) and shall be escalated at the rate of 4% per annum to arrive at the allowable O&M expenses for the relevant year.
- (d) Notwithstanding the above, a separate application may be made to claim abnormal O&M expenses over and above the allowable O&M expenses.

- (e) Annual O&M expenses for gross fixed assets added during the year shall be considered from the following year. Any savings achieved by the generating company in any year shall be allowed to be retained by it. However, the generating company shall bear the loss if it exceeds the targeted O&M expenses for the year.

(v) **Foreign Exchange Rate Variation**

Foreign exchange rate variation shall not be a pass through. Appropriate costs of hedging and swapping to take care of foreign exchange variations should be allowed for debt obtained in foreign currencies.

(vi) **Interest on Working Capital**

- (a) The Commission may conduct / get conducted a lead – lag study in order to ascertain the required level of working capital for various types of generating stations.
- (b) Till a methodology, based on the aforesaid study, is specified by the Commission for determining normative working capital requirement and interest thereto, the rate of interest shall be equal to short-term Prime Lending Rate of State Bank of India as applicable on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation. The interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.
- (c) The norms for determination of working capital shall be as specified below.
 - (i) Cost of coal 2 months for non-pit-head generating stations corresponding to the “target availability”.
 - (ii) In the case of Gas / CCGT, fuel cost for 1 month corresponding to the “target availability” and cost of liquid fuel stock for ½ month with due consideration to the mode of operation of the station i.e. gas fuel and liquid fuel.
 - (iii) Cost of secondary fuel oil for 2 month corresponding to the “target availability”.
 - (iv) Operation and Maintenance expenses for 1 month.
 - (v) Maintenance spares @ 1% of the plant and equipment cost as on 1.4.2008 or the date of commercial operation, whichever is later; and escalated @ 4% per annum.
 - (vi) Receivables equivalent to 2 months of fixed and variable charges for sale of electricity calculated on "target availability";

(vii) **Income Tax**

- (a) Tax on the income streams of the generating company from its core business, shall be computed as an expense at the rates applicable from time to time and shall be recovered from the beneficiaries.

- (b) Any under-recovery or over-recovery of tax on income shall be adjusted every year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditors.

Provided that tax on any income stream other than the core business shall not constitute a pass through component in tariff and tax on such other income shall be payable by the generating company.

Provided further that the benefits of tax-holiday as applicable in accordance with the provisions of the Income-Tax Act, 1961 shall be passed on to the beneficiaries.

Provided also that in the absence of any other equitable basis the credit for carry forward losses and unabsorbed depreciation shall be given in the proportion as provided in the second proviso to this regulation.

Provided also that income-tax allocated to the generating station shall be charged to the beneficiaries in the same proportion as annual fixed charges.

- (c) Recovery of income tax shall be done directly by the generating company from the beneficiaries without making any application before the Commission.

Provided that in case of any objections by beneficiaries to the amounts claimed on account of income tax the generating company may make an application before the Commission for its decision.

Provided further that in case the objections of the beneficiaries are found to be invalid by the Commission then they shall make payment of the amount claimed by the generating company alongwith late payment surcharge at the rates as applicable from time to time

(2) Full capacity charges shall be recoverable at target availability specified under regulation 11. Recovery of capacity (fixed) charges below the level of target availability shall be on pro-rata basis. At zero availability, no capacity charges shall be payable.

(3) The payment of capacity charges shall be on monthly basis in proportion to the allocated capacity.

17. Energy Charges. - (1) Generating Stations (not covered under ABT):

- (i) Energy / variable charges shall cover fuel costs and shall be worked out on the basis of paise per kWh on ex-bus energy delivered / sent out from the generating station as per the following formula:

Energy Charges = Rate of Energy Charges (Rs/kWh) X Energy delivered (ex-bus) 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 delivering ex-bus one kWh of electricity and shall be computed as under:

$$100 \{P_p \times (Q_p)_n + P_s \times (Q_s)_n\}$$

$$\text{REC} = \frac{\quad}{\{100-(\text{AUX}_n)\}}$$

Where,

P_p = Price of primary fuel namely Coal or Gas or Naphtha in Rs/Kg or Rs/cum 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 cum as the case may be, and shall be computed on the basis of Gross Generating station Heat Rate (less heat contributed by secondary fuel oil for coal based generating stations) and gross calorific value of coal, gas or Naphtha actually fired.

P_s = Price of Secondary fuel oil in Rs./ml,

$(Q_s)_n$ = Normative Quantity of Secondary fuel oil in ml /kwh.

AUX_n = Normative Auxiliary Energy Consumption as a percentage of Gross Generation.

(2) **Generating Stations (covered under ABT):** As and when the Commission decides, depending on the available infrastructure of the intra-state generators, to implement intra-state ABT regime, the energy / variable Charges shall cover fuel costs and shall be worked out on the basis of paisa per kWh on ex-bus energy scheduled to be sent out from the generating station as per the following formula:

Energy Charges = Rate of Energy Charges (Rs./kWh) X Scheduled Generation (ex-bus) for the month in kWh corresponding to scheduled generation.

(3) **Adjustment on account of variation in price or heat value of fuels:** Initially Gross Calorific Value of coal and secondary fuel oil shall be taken as per actual in the preceding financial year for the period for which data is available. Any deviation shall be adjusted based on the Gross Calorific Value of coal & secondary fuel oil received and burnt and landed cost incurred by the generating company for procurement of coal and fuel oil on month to month basis. No separate petition need to be filed with the Commission for fuel price adjustment. In case of any dispute, an appropriate application in accordance with Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, as amended from time to time or any statutory re-enactment thereof, shall be made before the Commission. For determining fuel price adjustment (FPA) amount the CERC FPA formulas, which is reproduced below, shall be adopted:

$$\text{FPA} = \text{A} + \text{B}$$

Where,

FPA = Fuel Price Adjustment for a month in Paise / kWh sent out.

A = Fuel Price Adjustment for Secondary Fuel Oil in Paise / kWh sent out.

B = Fuel Price Adjustment of r Coal in Paise / kWh in Paise / kWh sent out.

And,

$$\text{A} = 10 * (\text{SFCn}) * (\text{Kos}) / (100-\text{ACn}) * [(\text{Pom} / \text{Kom}) - (\text{Pos} / \text{Kos})]$$

$$\text{B} = 10 * [(\text{SHRn}) - (\text{SFCn}) * (\text{Kos})] / (100 - \text{ACn}) * [(\text{Pcm} / \text{Kcm}) - (\text{Pcs} / \text{Kcs})].$$

Where,

SFCn = Normative Specific Fuel Oil consumption in 1 / kWh

SHRn = Normative Gross Station Heat Rate in K.Cal / kWh

ACn = Normative Auxiliary Consumption in percentage

Pom = Weighted Average Price of fuel oil as per the invoices submitted for the month in Rs. / KL

Kom = Weighted Average GCV of fuel oils fired at boiler front for the month in K. Cal / Litre.

Pos = Base value of price of fuel oils as taken for determination of base energy charges in tariff order in Rs. / KL.

Kos = Base value of GCV of fuel oils as taken for determination of base energy charge in tariff order in K. Cal / Litre.

Pcm = Weighted average price of coal as per the invoices submitted for the month at the power station in Rs. / MT.

Kcm = Weighted average GCV of coal fired at boiler front for the month in K. Cal / Kg.

Pcs = Base value of price of coal as taken for determination of base energy charge in tariff order in Rs. / MT.

Kcs = Base value of GCV of cal as taken for determination of base energy charge in tariff order in K. Cal / Kg.

(4) **Landed Cost of Coal:** The landed cost of coal for the purpose of computation of energy charges shall be arrived at after considering 0.8% normative transit and handling losses of the quantity of coal dispatched by the coal supply company. The cost shall be considered as per the notifications of the Central Government or Coal Companies. In the absence of any recent notification, the weighted annual average cost of the current year adjusted for known changes shall be considered as the cost while computing generation tariff. The Commission may relax the norm in the light of achievability of the norm and circumstances specific to the generating station.

18. **Incentive.** – In the event of implementation of intra – state Availability Based tariff (ABT) incentive shall be payable at a flat rate of 25 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target plant load factor. Till such time incentive shall be worked out, at the rate specified above, based on actual generation beyond generation corresponding to target PLF.

19. **Unscheduled Interchange (UI) Charges.** - (1) As and when intra-state generators are moved on to ABT regime the variation in actual generation or actual drawl and scheduled generation or scheduled drawl shall be accounted for through Unscheduled Interchange (UI) Charges as notified by the CERC from time to time.

(2) UI for generating station shall be equal to its actual generation minus its scheduled generation. UI for beneficiary shall be equal to its total actual drawl minus its total scheduled

drawl. UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block at the rates as notified by CERC. These rates shall be subject to change as and when changed rates are notified by the CERC

- (3) (i) Any generation up to 105% of the declared capacity in any time block of 15 minutes and averaging up to 101% of the average declared capacity over a day shall not be construed as gaming, and the generator shall be entitled to UI charges for such excess generation above the scheduled generation (SG).
- (ii) For any generation beyond the prescribed limits, the State Load Despatch Centre shall investigate so as to ensure that there is no gaming, and if gaming is found by the State Load Despatch Centre, the corresponding UI charges due to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI account of beneficiaries in the ratio of their capacity share in the generating station.

Note

The Commission, in consultation with the stakeholders, may come out with a separate set of guidelines regarding the operationlisation of the ABT in Haryana.

20. Scheduling. - The methodology of scheduling and calculating availability shall be as per the State Electricity Grid Code as and when notified. Till such time, the methodology of scheduling & calculating availability shall be as under:-

- (i) Each day starting from 00.00 hrs. shall be divided into 96 time blocks of 15 minutes intervals.
- (ii) The generator shall make an advance declaration of capability of its generating station. The declaration shall be for that capability which can be actually made available. The declaration shall be for the capability of the generating station to deliver ex-bus MW for each time block of the day. The capability as declared by generator, referred to as capacity declared , would form the basis of generation scheduling.
- (iii) While making or revising their declaration of capability, the generator shall ensure that its declared capability during peak hours is not less than that during other hours. However, exception to this rule shall be allowed in case of tripping/re-synchronisation of units as a result of forced outage of units.
- (iv) The generation scheduling shall be done in accordance with the operating procedure stipulated in the Indian Electricity Grid Code till the time State Electricity Grid Code is notified.
- (v) Based on the declaration of the generator, State Load Despatch Centre shall communicate their shares to the beneficiaries out of which they shall give their requisitions.
- (vi) Based on the requisitions given by the beneficiaries and taking into account technical limitations on varying the generation and also taking into account transmission system constraints, if any, State Load Despatch Centre shall prepare the economically optimal generation schedules and drawal schedules and communicate the same to the generator and the beneficiaries. State Load Despatch Centre shall also formulate the procedure for meeting contingencies both in the long run and in the short run (daily scheduling).

- (vii) The scheduled generation and actual generation shall be at the generator's ex-bus. For beneficiaries, the scheduled and actual net draws shall be at their respective receiving points.
- (viii) For calculating the net drawal schedules of beneficiaries, the transmission losses shall be apportioned to their draws.
- (ix) Scheduled generation of the generating station for each time block, referred to as scheduled generation shall mean the Scheduled MW to be sent out Ex-bus from the generating station.
- (x) Actual generation of the generating station for each time block, referred to as actual generation, shall mean actual MW actually sent out Ex-bus from the generating station.
- (xi) In case of forced outage of a unit, State Load Despatch Centre shall revise the schedules on the basis of revised declared capability. The revised declared capability and revised schedules shall become effective from the 4th time block, counting the time block in which the revision is advised by the generator to be the first one.
- (xii) In the event of bottleneck in evacuation of power due to any constraint, outage, failure or limitation in the transmission system, associated switchyard and substations owned by State Transmission Utility (as certified by State Load Despatch Centre) necessitating reduction in generation, State Load Despatch Centre shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. Also, during the first, second and third time blocks of such an event, the scheduled generation of the generating station shall be deemed to have been revised to be equal to actual generation and also the scheduled drawals of the beneficiaries shall be deemed to have been revised to be equal to their actual drawals.
- (xiii) In case of any grid disturbance, scheduled generation of all the generating stations and scheduled drawal of all the beneficiaries shall be deemed to have been revised to be equal to their actual generation/drawal for all the time blocks affected by the grid disturbance. State Load Despatch Centre shall do certification of grid disturbance and its duration.
- (xiv) Revision of declared capability by the generator(s) and requisition by beneficiary (ies) for the remaining period of the day shall also be permitted with advance notice. Revised schedules/declared capability in such cases shall become effective from the 6th time block, counting the time block in which the request for revision has been received in State Load Despatch Centre to be the first one.
- (xv) If, at any point of time, State Load Despatch Centre observes that there is need for revision of the schedules in the interest of better system operation, it may do so on its own and in such cases, the revised schedules shall become effective from the 4th time block, counting the time block in which the revised schedule is issued by State Load Despatch Centre to be the first one.
- (xvi) Generation schedules and drawal schedules issued/revised by State Load Despatch Centre shall become effective from designated time block irrespective of communication success.

(xvii) For any revision of scheduled generation, including post facto deemed revision; there shall be a corresponding revision of scheduled draws of the beneficiaries.

(xviii) A procedure for recording the communication regarding changes to schedules duly taking into account the time factor shall be evolved by State Transmission Utility / SLDC.

21. Demonstration of Declared Capability. - (1) The generating company may be required to demonstrate the declared capability of its generating station as and when asked by the State Load Dispatch Centre of the region in which the generating station is situated. In the event of the generating company failing to demonstrate the declared capability, the capacity charges due to the generating station shall be reduced as a measure of penalty.

(2) The quantum of penalty for the first mis-declaration for any duration or block in a day shall be the charges corresponding to two days fixed charges. For the second mis-declaration the penalty shall be equivalent to fixed charges for four days and for subsequent mis-declarations, the penalty shall be multiplied in the geometrical progression.

(3) The operating logbooks of the generating station shall be available for review by the State Load Dispatch Centre. These books shall keep record of machine operation and maintenance.

22. Metering and Accounting. - Metering arrangements, including installation, testing and operation and maintenance of meters and collection, transportation and processing of data required for accounting of energy exchanges and average frequency on 15 minute time block basis shall be provided by the State Load Dispatch Centre to State Transmission Utility. Processed data of the meters along with data relating to declared capability and schedules etc. shall be supplied by State Load Dispatch Centre to State Transmission Utility. The State Transmission Utility shall issue the energy bills on a monthly basis and UI charges on weekly basis. UI accounting procedures shall be governed by the orders of the Commission.

23. Billing and Payment. – (1) Billing and payment of energy charges and capacity charges shall be done on a monthly basis in the following manner:

- (i) Each beneficiary shall pay the energy charges as per regulation 17 of these regulations.
- (ii) Each beneficiary shall pay the capacity charges in proportion to its percentage share in Installed Capacity of the generating station.

Note 1

A distribution licensee / beneficiary may surrender its share in the installed capacity in favor of another distribution licensee within the state. In such circumstances the capacity charges payable shall be revised in accordance with the capacity surrendered and additional capacity acquired. Any such reallocation shall be notified by the SLDC in advance i.e. at least 3 days prior to such reallocation taking effect. Except for the period of reallocation of capacity the beneficiaries of the generating station shall continue to pay the full fixed charges as per allocated shares.

Note 2

(i) A person having power purchase agreement for firm power for more than one year shall also share capacity charges in proportion to his firm contract of power and he shall be eligible to transfer his share as specified above.

(ii) If there is any capacity, which remains un-requisitioned during day-to-day operation in any period, the generating company shall have full freedom to sell that electricity to any person including a person outside the state through bilateral arrangements and under intimation to the State Load Dispatch Centre. This information may be made available online by State Load Dispatch Centre through its website.

(iii) The capacity charges shall be paid by the beneficiary(ies) including those outside the region to the generating company every month in accordance with the following formulas:

(a) Total Capacity charges payable to the generating company for the:

$$\begin{aligned}
 1^{\text{st}} \text{ month} &= (1 \times \text{ACC1})/12 \\
 2^{\text{nd}} \text{ month} &= (2 \times \text{ACC2} - 1 \times \text{ACC1})/12 \\
 3^{\text{rd}} \text{ month} &= (3 \times \text{ACC3} - 2 \times \text{ACC2})/12 \\
 4^{\text{th}} \text{ month} &= (4 \times \text{ACC4} - 3 \times \text{ACC3})/12 \\
 5^{\text{th}} \text{ month} &= (5 \times \text{ACC5} - 4 \times \text{ACC4})/12 \\
 6^{\text{th}} \text{ month} &= (6 \times \text{ACC5} - 5 \times \text{ACC5})/12 \\
 7^{\text{th}} \text{ month} &= (7 \times \text{ACC7} - 6 \times \text{ACC6})/12 \\
 8^{\text{th}} \text{ month} &= (8 \times \text{ACC8} - 7 \times \text{ACC7})/12 \\
 9^{\text{th}} \text{ month} &= (9 \times \text{ACC9} - 8 \times \text{ACC8})/12 \\
 10^{\text{th}} \text{ month} &= (10 \times \text{ACC10} - 9 \times \text{ACC9})/12 \\
 11^{\text{th}} \text{ month} &= (11 \times \text{ACC11} - 10 \times \text{ACC10})/12 \\
 12^{\text{th}} \text{ month} &= (12 \times \text{ACC12} - 11 \times \text{ACC11})/12
 \end{aligned}$$

(b) Each beneficiary having firm allocation in capacity of the generating station shall pay for the:

$$\begin{aligned}
 1^{\text{st}} \text{ month} &= [\text{ACC1} \times \text{WB1}]/1200 \\
 2^{\text{nd}} \text{ month} &= [2 \times \text{ACC2} \times \text{WB2} - 1 \times \text{ACC1} \times \text{WB1}]/1200 \\
 3^{\text{rd}} \text{ month} &= [3 \times \text{ACC3} \times \text{WB3} - 2 \times \text{ACC2} \times \text{WB2}]/1200 \\
 4^{\text{th}} \text{ month} &= [4 \times \text{ACC4} \times \text{WB4} - 3 \times \text{ACC3} \times \text{WB3}]/1200 \\
 5^{\text{th}} \text{ month} &= [5 \times \text{ACC5} \times \text{WB5} - 4 \times \text{ACC4} \times \text{WB4}]/1200 \\
 6^{\text{th}} \text{ month} &= [6 \times \text{ACC5} \times \text{WB6} - 5 \times \text{ACC5} \times \text{WB5}]/1200 \\
 7^{\text{th}} \text{ month} &= [7 \times \text{ACC7} \times \text{WB7} - 6 \times \text{ACC6} \times \text{WB6}]/1200 \\
 8^{\text{th}} \text{ month} &= [8 \times \text{ACC8} \times \text{WB8} - 7 \times \text{ACC7} \times \text{WB7}]/1200 \\
 9^{\text{th}} \text{ month} &= [9 \times \text{ACC9} \times \text{WB9} - 8 \times \text{ACC8} \times \text{WB8}]/1200 \\
 10^{\text{th}} \text{ month} &= [10 \times \text{ACC10} \times \text{WB10} - 9 \times \text{ACC9} \times \text{WB9}]/1200 \\
 11^{\text{th}} \text{ month} &= [11 \times \text{ACC11} \times \text{WB11} - 10 \times \text{ACC10} \times \text{WB10}]/1200 \\
 12^{\text{th}} \text{ month} &= [12 \times \text{ACC12} \times \text{WB12} - 11 \times \text{ACC11} \times \text{WB11}]/1200
 \end{aligned}$$

Where,

ACC1, ACC2, ACC3, ACC4, ACC5, ACC6, ACC7, ACC8, ACC9, ACC10, ACC11 and ACC12 are the amount of Annual Capacity Charge corresponding to ‘target availability’ for the cumulative period up to the end of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th months respectively.

And, WB1, WB2, WB3, WB4, WB5, WB6, WB7, WB8, WB9, WB10, WB11 and WB12 are the weighted average of percentage allocated capacity share of the beneficiary during the cumulative period up to 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th month respectively.

(2) **Rebate and late payment surcharge:** Rebate for timely payment and surcharge for late payments shall be leviable at the rates as may be applicable from time to time.

CHAPTER - V

TARIFF NORMS FOR WYC PROJECTS & MICRO HYDEL

24. **Norms of Operation.** – (1) Normative Capacity Index computed on the basis of average of the daily capacity indices over one year shall be as determined by the Commission in its Generation Tariff Order for WYC & Kakroi.

(2) Auxiliary Energy Consumption for Micro Hydel Generating stations including WYC projects & Kakroi shall be 0.5% of the energy generated.

(3) Transformation losses from generation voltage to transmission voltage shall be 0.5 % of energy generated.

25. **Capital Cost.** - (1) Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for fixation of final tariff. The final tariff shall be fixed based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalised initial spares subject to a ceiling norm as a percentage of original plant and equipment cost (as on cut off date) of 1.5%.

(2) The licensee shall file a detailed capital investment plan in accordance with the guidelines issued by the Commission.

(3) In case of existing projects, the project cost admitted by the Commission shall form the basis for tariff fixation.

26. **Additional capitalization.** - (1) The capital expenditure within the original scope of work relating to following nature actually incurred after the date of commercial operation up to the cut off date may be admitted by the Commission subject to prudent check.

- (i) Deferred liabilities,
- (ii) Works deferred for execution,
- (iii) Liabilities to meet award of arbitration or in satisfaction of the order or decree of a Court & on account of change in law.

Provided that original scope of works along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of generating station.

(2) The capital expenditure of the following nature actually incurred after the cut off date may be admitted by the Commission subject to prudence check:

- (i) Deferred liabilities relating to works/services within the original scope of work,
- (ii) Liabilities to meet award of arbitration or in satisfaction of the order or decree of a court,

(iii) On account of change in law.

(iv) Any additional works/service, which has become necessary for efficient and successful operation of plant but not included in the original capital cost.

(3) Impact of additional capitalization in tariff revision within the approved project cost may be considered by the Commission once in a tariff period.

Note 1

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio.

Note 2

Any expenditure on replacement of old assets shall be considered after writing off the entire value of the original assets from the original capital cost.

Note 3

Any expenditure admitted on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio of 70:30.

Note 4

Any expenditure admitted on renovation and modernization and life extension shall be serviced on normative debt-equity ratio of 70:30 after writing off the original amount of the replaced assets from the original capital cost.

Note 5

The scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology and such other matters for the purposes of determination of tariff.

27. Sale of Infirm Power. – Infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the State UI pool account at the applicable frequency – linked UI rate as may be determined by the CERC from time to time. Any revenue earned by the generating company from sale of infirm power, shall be taken as reduction in capital cost and shall not be treated as revenue.

28. Computation of Tariff. - (1) The tariff shall comprise a single rate in terms of Rs / kWh of energy generated on an annual basis. It shall consist of:

- (a) Interest on loan capital,
- (b) Depreciation, including Advance Against Depreciation,
- (c) Return on equity,
- (d) Operation and maintenance expenses, and
- (e) Interest on working capital.

(2) The tariff rate shall be computed on the basis as laid down herewith.

- (a) It shall comprise total annual expenses and allowed return on equity.
 - (b) Less other income / income form non-core business.
 - (c) The payment of charges shall be on a monthly basis.
 - (d) It shall be computed as Energy Sent out x Energy Rate.
- (3) WYC projects / Micro Hydro generating plant will not be subject to scheduling.

29. Billing and Payment of Capacity Charges. - Billing and payment of fixed charges, as and when two part tariff is introduced, shall be done on a monthly basis in the following manner:

- (i) Each beneficiary shall pay the charges in proportion to the energy drawn by it during the month.

CHAPTER – VI

TARIFF ORDER AND REVISION THEREOF

30. **Hearing.** – (1) The Commission may hold proceedings on the ARR calculations given by the generating company and may hear such persons as the Commission may consider appropriate to decide on such ARR calculations.

(2) The procedure of hearing on the ARR of the generating company shall be as per the provisions of the HERC (Conduct of Business) Regulations, 2004 or in the manner as the Commission may decide from time to time.

(3) Where the Commission is satisfied that the appointment of Consultant is essential in order to arrive at just and fair conclusion in any matter before it and so appoints consultant, it may require the generating company to pay for the same and the same shall be pass through in the ARR.

31. **Order of the Commission.** – Upon hearing the generating company and such other parties and upon making such other inquiry as the Commission considers to be appropriate, the Commission shall pass an order in accordance with section 64 of the Act.

32. **Removal of difficulties.** - If any difficulty arises in giving effect to the provisions of these regulations, the Commission may, by an order, make such provision, not inconsistent to the provision of the Act and these regulations, as may appear to be necessary for removing the difficulty.

33. **Power to Relax.** – The Commission, for reasons to be recorded in writing, may vary any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

34. **Powers to amend.** - The Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations.

35. **Repeal.** - The provisions relating to generation tariff of Haryana Electricity Regulatory Commission (Tariff) Regulations, 1999 shall stand repealed from the date of coming into force of these regulations.

By Order of the Commission

(Sd.)....,

Secretary
Haryana Electricity Regulatory Commission

APPENDIX – II
(Depreciation Schedule)

Description of Assets	Fair life		Depreciation
	(years)		(Straight line)
	1	2	3 = (2/1)
A. Land (Owned)	Infinity	Depreciation at 90% of the asset value i.e. 10% residual value (value to include additional capitalization)	Depreciation Rate (%)
Land (held under lease)/ cost of clearing	Period of lease (or period remaining unexpired/at the date of clearing the site)		
B. New Assets (purchased after 31st March 2005)			
a. Plant and machinery in generating stations/including plant foundations			
i) Hydro-electric	35	90	2.57
ii) Thermal-electric / Waste heat recovery ancillaries and plants.	25	90	3.60
iii) Liquid Fuel/Diesel / Gas plants.	15	90	6.00
b. Cooling towers and circulating water systems	25	90	3.60
c. Hydraulic works forming part of Hydro-electric systems including:-			
i) Dams, Spillways, weirs, canals, reinforced concrete Flumes and syphons	50	90	1.80
ii) Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge (tanks) hydraulic control valves and other hydraulic works	35	90	2.57
d. Building & civil engineering works of permanent character excluding those mentioned above			
i) Offices & showrooms	50	90	1.80
ii) Containing thermo-electric generating plant	25	90	3.60
iii) Containing hydro-electric generating plant	35	90	2.57
iv) Temporary erection such as wooden structures	5	90	18.00
v) Roads other than kutchra roads	50	90	1.80
vi) Others	50	90	1.80
e. Transformers, transformer (Kiosk) sub-station equipment & other fixed apparatus (including plant foundations)			
i) Transformers (including foundations) having a rating of 100 kilo volt amperes and over	25	90	3.60
ii) Others	25	90	3.60

f. Switchgear including cable connections	25	90	3.60
g. Lightning arrestors			
i) Station type	25	90	3.60
ii) Pole type	15	90	6.00
iii) Synchronous condenser	35	90	2.57
h. Batteries	5	90	18.00
i) Underground Cable including joint boxes and disconnected boxes	35	90	2.57
ii) Cable duct system	50	90	1.80
i. Overhead lines including supports:			
i) Lines on fabricated steel operating at nominal voltages higher than 66 kV	35	90	2.57
ii) Lines on steel supports operating at nominal voltages higher than 13.2 kilovolts but not exceeding 66 kilovolts	25	90	3.60
iii) Lines on steel or reinforced concrete supports	25	90	3.60
iv) Lines on treated wood supports	25	90	3.60
j. Meters	15	90	6.00
k. Self propelled vehicles	5	90	18.00
l. Air conditioning plants:			
i) Static	15	90	6.00
ii) Portable	5	90	18.00
M. i) Office furniture and fittings	15	90	6.00
ii) Office equipments	15	90	6.00
iii) Internal wiring including fittings and apparatus	15	90	6.00
iv) Street light fittings	15	90	6.00
n. Apparatus let on hire			
i) Other than motors	5	90	18.00
ii) Motors	15	90	6.00
o. Communication equipment:			
i) Radio and high frequency carrier system	15	90	6.00
ii) Telephone lines and telephones	15	90	6.00
p. Assets by way of transfer schemes or not otherwise mentioned in the above schedule.	Reasonable period as determined by the Commission on a case to case basis having regard to the nature, age and condition of the assets at the time of its acquisition by the Generating Company/ Licensee		

APENDIX - III

PROCEDURE FOR MAKING APPLICATION FOR 'IN PRINCIPLE' APPROVAL OF PROJECT CAPITAL COST.

- (1) The application shall be made to the Commission in the forms appended as Appendix I to these regulations and shall be accompanied by such fee as may be specified by the Commission from time to time.
- (2) Before making the application, the applicant shall serve a copy of the application on each of the beneficiary.
- (3) The applicant shall post complete application on its own website or any other authorised website.
- (4) While making the application to the Commission, the applicant shall indicate whether copy of the complete application has been served on each of the beneficiary and whether the application has been posted on its own website or any other authorised website, with address of the website whereon the application has been posted.
- (5) The application made shall be supported by an affidavit of the person acquainted with the facts stated in the application. The application shall be kept on the website at least for 30 days from the date of publication of the notice of application in accordance with clause (6) of this appendix
- (6) The applicant shall, within 7 days after making the application, publish a notice of his application in at least two daily newspapers, one in English language and one in hindi language, having circulation in the State of Haryana where the beneficiaries are situate in the same language as of the daily newspaper in which the notice of the application is published, as per the specimen given in the schedule to this appendix.
- (7) The suggestions and objections, if any, to the proposal for in principle approval of capital cost, may be filed before the Secretary, Harayan Electricity Regulatory, Bays No. 33-36, Sector – 4, Panchkula – 134112 by any person, including the beneficiaries within 30 days of publication of the notice with a copy to the applicant.
- (8) The applicant shall within 15 days from the date of publication of the notice as aforesaid submit to the Commission on an affidavit the details of the notice published and shall also file before the Commission relevant copies of the newspapers in which the notice has been published.
- (9) The applicant may file his comments on affidavit on the suggestions and objections, if any, received in response to the public notice within 45 days of its publication in the newspapers, with an advance copy to the person who has filed the suggestions and objections on the proposals made in the application.

Provided that it shall not be necessary to publish notice of the application made for approval of provisional tariff.

DECISION ON APPLICATION

- (1) The Commission may after considering the proposal made in the application and the suggestions and objections received on the proposals made in such application in response to the public notice :-
 - (a) Issue the order accepting the application with such modifications or such conditions as may be specified in the order; or
 - (b) Reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of the rules or regulations made thereunder or the provisions of any other law for the time being in force:

Provided that the Commission may in its discretion, afford an opportunity of hearing to the applicant, the beneficiary, or any person who has filed suggestions or objections, or any one or more of them before issuing the tariff order;

Provided further that the applicant shall be given a reasonable opportunity of being heard before rejecting his application.

- (2) The Commission shall, within seven days of making the order, send a copy of the order to the Government of Haryana, the Central Electricity Authority, the applicant and the beneficiaries.

SCHEDULE
(to APPENDIX – III)

[To be published in pursuance of Clause (6) of appendix - III]

Name of the Company (in bold letters)

(Registered Office Address)

1. The applicant above-named has made an application before the Haryana Electricity Regulatory Commission, Panchkula for in principle approval of capital cost for [Give name of the generating station].

2. The beneficiaries of the generating station are:

- (a)
- (b)
- (c)
- (d)

.....
.....

3. Capacity of the generating station:

4. Approved capital cost of the project (Rs. in lakh) -

Original:

Final (Revised):

5. Authority which has approved the Capital Cost:

6. Scheduled date of commercial operation -

Original:

Final (Revised):

7. Actual date of commercial operation:

8. Capital cost on the date of commercial operation (Rs. in lakh):

9. Details of Capital Cost (Publish only applicable portion):

Particulars	Capital cost (Rs. in lakh)
1. Thermal Power Generating Station a) b) and so on	
2. Hydro Power Generating Station a) b) and so on	

10. A copy of the application made for in principle approval of capital cost is posted on the website (indicate here the address of the website).
11. The suggestions and objections, if any, on the proposals for in principle approval of capital cost contained in the application be filed by any person, including the beneficiary before the Secretary, Haryana Electricity Regulatory Commission, Bays No. 33 –36, Sector – 4, Panchkula – 134112 with a copy to the applicant within 30 days of publication of this notice.

Place _____

Name and Designation of the
Authorised Signatory

Date _____