

# **Jammu and Kashmir State Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Generation Tariff) Regulations, 2016**

JAMMU & KASHMIR

India

## **Jammu and Kashmir State Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Generation Tariff) Regulations, 2016**

### **Rule**

### **JAMMU-AND-KASHMIR-STATE-ELECTRICITY-REGULATORY-COMMISS of 2016**

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Jammu and Kashmir State Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Generation Tariff) Regulations, 2016Published vide Notification No. 54-JKSERC of 2016, dated 19.12.2016No. 54-JKSERC of 2016. - In exercise of powers conferred by section 138, read with sections 55, 56 and 71 of the J&K Electricity Act, 2010 (Act XIII of 2010) and all other powers enabling it in this behalf, the J&K State Electricity Regulatory Commission hereby makes the following Regulations, namely :-Jammu and Kashmir State Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Generation Tariff) Regulations, 2016Part-I Preliminary

### **1. Short title and commencement.**

- 1.1 These Regulations may be called the Jammu and Kashmir State Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Generation Tariff) Regulations, 2016.1.2These shall come into force on the date of their publication in the Government Gazette and shall be applicable for determination of tariff for the period FY 2018-19 to FY 2020-21 in a manner as specified in these Regulations. The subsequent Control Period for these Regulations shall be of five (5) years or as may be specified by the Commission.

## 2. Scope and extent of application.

- 2.1. These Regulations shall apply in the following cases :-(a)Where tariff for a generating station or a unit thereof is required to be determined by the Commission under section 56 of the J&K Electricity Act, 2010 ;(b)Where tariff has been determined bilaterally between the State Government and the Utility prior to the allotment of the project to the Utility for construction, operation and maintenance and for which 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 ;(c)Where the Government of J&K notifies a policy to encourage investment in the State by allowing setting up of generating plants, out of which certain percentage of installed capacity as decided by the GoJK from time to time, can be procured by the Distribution Licensees of the State of J&K for which the tariff may be determined under Section 56 of the Electricity Act, 2010.(d)Where tariff may be determined by the Commission for hydroelectric projects which meet the following criteria :-(i)The Commission is satisfied that the project site has been allotted to the developer by the Government of J&K after following a transparent two stage process. The first stage should be for prequalification on the basis of criteria of financial strength, past experience of developing infrastructure projects of similar size, past track record of developing projects on time and within estimated costs, turnover and ability to meet performance guarantee etc. In the second stage, bids are to be called on the basis of quantifiable parameter, such as, additional free power in excess of percentage of free power, as notified by the State Government, equity participation offered to the Government of J&K, or any other parameter to be notified by the State Government from time to time.(ii)Concurrence of CEA (if required under Section 8 of the Act), financial closure, award of work and long term Power Purchase Agreement (PPA) (of the duration of 35 years or more) of the capacity specified in (iii) below with distribution licensees are completed by 15-08-2022.(iii)Long term PPA is firmed up for 60% or more of the total saleable design energy, balance being allowed for merchant sale :Provided that distribution licensees can extend the duration of long term PPA beyond 35 years for a further period of 15 years at the existing terms and conditions subject to the approval of Appropriate Commission :Provided further that nothing contained in this Regulation shall apply to Pumped Storage Plants (PSP).(iv)The time period for commissioning of all the units of the project shall ordinarily be fixed at four years from the date of approval of the commissioning schedule by the Commission. However, the Commission may, after recording reasons in writing, fix longer time period for hydroelectric projects (reservoir as well as run-of- river projects) of more than 100 MW capacity. Agreed timelines to achieve the fixed commissioning schedule along with penalty for delay shall be decided by the Commission. The Commission shall allow pass through the Interest During Construction (IDC) and Financing Cost (FC) only up to the period of delay not attributable to the developer. The approval of CEA, wherever required under Section 8 of the Act, shall be sought.(v)Award of contracts for supply of equipment and construction of the project, either through a turnkey or through well defined packages, are done on the basis of international competitive bidding.Notwithstanding anything contained in Regulation 2.1 (d) above, the developers of hydroelectric projects of more than 100 MW design capacity for which sites have been awarded earlier by following a transparent process and on the basis of pre-determined set of criteria would have the option of getting the tariff determined by the Commission for the power to be sold through long term PPA on the basis of cost plus under Section 56 of the Act.2.2These Regulations shall not apply to,-(a)The tariff of generating companies, owned

or controlled by the Central Government.(b)Generating stations whose tariff has been discovered through tariff based competitive bidding in accordance with the guidelines issued under Section 57 of J&K Electricity Act, 2010.(c)Generating stations based on renewable sources of energy whose tariff is determined in accordance with the JKSERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2013 and amendments thereof.(d)The tariff of generating companies, other than owned or controlled by the Central Government as specified in Regulation (a) above, if such generating companies enter into or otherwise have a composite scheme for generating and sale of electricity in more than one state.2.3These Regulations shall extend to the whole of the State of Jammu and Kashmir.

### 3. Definitions.

(1)"Act" means the Jammu and Kashmir Electricity Act, 2010 (Act No. XIII of 2010), including amendments thereto.(2)"Accounting Statement" means for each financial year the following statements, namely :-(i)Balance sheet, prepared in accordance with the form contained in Part I of Schedule VI to the Companies Act, 1956/Schedule III to the Companies Act, 2013 and as amended from time to time ; together with notes thereto, and such other supporting statements and information as the Commission may direct from time to time ;(ii)Profit and loss account, complying with the requirements contained in Part II of Schedule VI to the Companies Act, 1956/Schedule III to the Companies Act, 2013 and as amended from time to time ;(iii)Cash flow statement, prepared in accordance with the Accounting Standard on Cash Flow Statement (AS-3) of the Institute of Chartered Accountants of India ;(iv)Report of the statutory auditor(s) of the Generating Company ;(v)Directors report and accounting policies ; and(vi)Cost records, if any, prescribed by the Central Government under Section 209(1) (d) of the Companies Act, 1956/ Schedule III to the Companies Act, 2013 and as amended from time to time.(3)"Additional Capitalization" means the capital expenditure actually incurred or projected to be incurred, after the date of commercial operation of the Project and admitted by the Commission after prudence check, subject to provisions of Regulation10.9.(4)"Authority" means Central Electricity Authority as referred to in section 70 of the Electricity Act, 2003 (Central Act 36 of 2003).(5)"Aggregate Revenue Requirement or ARR" means for each financial year, the costs pertaining to the generating company which are permitted, in accordance with these Regulations, to be recovered from the tariffs and charges determined by the Commission.(6)"Applicant" means a generating company who has made an application for determination of tariff or an application for annual performance review/True-up in accordance with the Act and these Regulations and includes a Generating Company whose tariff is the subject of a review by the Commission either suo motu or on a Petition filed by any interested or affected person or as part of an Annual Performance Review/ True-up.(7)"Auxiliary Energy Consumption" in relation to a period means the quantum of energy consumed by auxiliary equipment of the generating station, such as the equipment being used for the purpose of operating plant and machinery including switchyard of the generating station and transformer losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at generator terminals of all the units of the generating station :Provided that auxiliary energy consumption shall not include energy consumed for supply of power to housing colony and other facilities at the generating station and the power consumed for construction works at the generating station.(8)"Auditor" means an auditor appointed by the generating company, in accordance with the

provisions of Chapter X of the Companies Act, 2013 (18 of 2013) or any other law for the time being in force.(9)"Base Year" means the Financial Year immediately preceding the first year of the Control Period, and used for the purposes of these Regulations i. e. FY 2017-18.(10)"Beneficiary" in relation to a generating station means any entity buying power generated at such a generating station, whose tariff is determined under these Regulations.(11)"Block" in relation to a combined cycle thermal generating station includes combustion turbine-generator, associated waste heat recovery boiler, connected steam turbine-generator and auxiliaries.(12)"Capital cost" means the capital cost as defined in Regulation 10.7.(13)"CERC" or "Central Commission" means the Central Electricity Regulatory Commission.(14)"Change in Law" means occurrence of any of the following events :- (i) the enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal of any law ; or (ii) change in interpretation of any law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation ; or (iii) change by any competent statutory authority, in any consent, approval or licence available or obtained for the project ; (iv) coming into force or change in any bilateral or multilateral agreement/treaty between the Government of India and any other Sovereign Government having implication for the generating station regulated under these Regulations.(15)"Commission" means Jammu and Kashmir State Electricity Regulatory Commission.(16)"Control Period" means a multi-year period fixed by the Commission, from 1st April, 2018 and up to 31st March, 2021 ; (17)"Cut-off Date" means 31st March of the year closing after two years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation : Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalization could not be made within the cut-off date for reasons beyond the control of the project developer.(18)"Date of Commercial Operation" or "COD" means, - (i) in relation to a unit or block of the thermal generating station, the date declared by the generating company after demonstrating the Maximum Continuous Rating (MCR) or the Installed Capacity (IC) through a successful trial run after notice to the beneficiaries, from 0000 hour of which scheduling process as per the Indian Electricity Grid Code (IEGC) is fully implemented, and in relation to the generation station as a whole, the date of commercial operation of the last unit or block of the generating station ; (ii) in relation to a unit of hydro generating station, the date declared by the generating company from 0000 hour of which, after notice to the beneficiaries, scheduling process in accordance with the Indian Electricity Grid Code is fully implemented and in relation to the generating station as a whole, the date declared by the generating company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run, after notice to the beneficiaries. Note : - 1. In case the hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, provided that it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir/ pond level is achieved.

**2. In case of purely run-of-river hydro generating station if the unit or the generating station is declared under commercial operation during lean inflows period when the water is not sufficient for such demonstration, it shall be mandatory for such hydro generating station or unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient inflow is available.**

(19)"Daily Capacity Index" means the declared capacity expressed as a percentage of the maximum available capacity for the day and shall be mathematically expressed as hereunder :-Daily Capacity Index = Declared Capacity (MW) x 100/Maximum Available Capacity (MW).Daily Capacity Index shall be limited to 100%.(20)"Day" means the 24 hour period starting at 0000 hour.(21)"Declared capacity" means the capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time block of the day as defined in the Grid Code or whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in the relevant regulation :- (a)For run-of-river power station with pondage and storagetype power stations, declared capacity means the ex-bus capacity in MW expected to be available from the generating station over the peaking hours of next day, as declared by the generator, 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 3 hours within 24 hour period ; and (b)In case of purely run-of-river power stations, declared capacity means 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.(22)"De-capitalization" for the purpose of the tariff under these regulations, means reduction in Gross Fixed Assets of the project corresponding to the removal/deletion of assets as admitted by the Commission.(23)"De-Commissioning" means removal from service of a generating station or a unit thereof including communication system or element thereof, after it is certified by the Central Electricity Authority or any other authorized agency, either on its own or on an application made by the project developer or the beneficiaries or both, that the project cannot be operated due to non-performance of the assets on account of technological obsolescence or uneconomic operation or a combination of these factors.(24)"Deemed Generation" means the energy, which a generating station was capable of generating but could not generate due to the conditions of grid or power system beyond the control of generating station resulting in spillage of water.(25)"Design Energy" in case of hydro generating station, means the quantum of energy which can be generated in a 90% dependable year with 95% installed capacity of the hydro generating station ;(26)"Existing generating station/project" means a generating station/project declared under commercial operation from a date prior to 01-04-2018.(27)"Expenditure Incurred" means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released.(28)"Financial Year" means a period commencing on 1st April of a calendar year and ending on 31st March of the subsequent calendar year.(29)"Force Majeure" for the purpose of these Regulations means the event or circumstance or combination of events or circumstances including those stated below which partly or fully prevents the generating company to complete the project within the time specified in the Investment Approval, and only if such events

or circumstances are not within the control the generating company and could not have been avoided, had the generating company taken reasonable care or complied with prudent utility practices - (a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years ; or (b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action ; or (c) Industry-wide strikes and labor disturbances having a nationwide impact in India. (30) "Generating Company" means any Company or body corporate or association or body of individuals, whether incorporated or not, or artificial juridical person, which owns or operates or maintains a generating station. (31) "Gross Calorific Value" or "GCV" in relation to a thermal 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. (32) "Gross Station Heat Rate" or "GHR" means the heat energy input in kCal required to generate one kWh of electrical energy at generator terminals of a thermal generating station. (33) "Generating Station" or "Station" means any station for generating electricity including any building and plant with step-up transformer, switch gear, switch yard, cables or other appurtenant equipment, if any used for that purpose and the site thereof ; a site intended to be used for a 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. (34) "Infirm power" means electricity generated prior to commercial operation of the unit of a generating station. (35) "Installed Capacity" means the summation of the name plate capacities of the units in the generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the Commission from time to time. (36) "Maximum available capacity" means the following :- (a) Run-of-river power station with pondage and storage type power stations. The maximum capacity in MW, the generating station can generate with all units running, under the prevailing conditions of water levels and flows over the peaking hours of next day. Explanation : - The peaking hours for this purpose shall not be less than 3 hours within a 24 hours period. (b) Purely run-of-river power stations - The maximum capacity in MW, the generating station can generate with all units running, under the prevailing conditions of water levels and flows over the next day. (37) "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 manufacturer at rated parameters, and in relation to a block of a combined cycle thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer with water/steam injection (if applicable) and corrected to 50 Hz grid frequency and specified site conditions. (38) "Normative Annual Plant Availability Factor" or "NAPAF" in relation to a generating station means the availability factor specified in Regulation 11.4 for thermal generating station and in Regulation 12.3 for hydro generating station. (39) "Normative Annual Plant Load Factor" or "NAPLF" in relation to a generating station means the Plant Load Factor specified in Regulation 11.4 for thermal generating station. (40) "New generating station or new project" means a generating station or new project achieving COD on or after 1.04.2018. (41) "Operation and Maintenance Expenses" or "O&M Expenses" means the expenditure incurred in operation and maintenance of the generating station, including part thereof, including the expenditure on manpower, repairs, spares, consumables, insurance and

overheads but excludes fuel expenses and water charges.(42)"Original Project Cost" means the expenditure incurred by the generating company, within the original scope of project up to the cut-off date as admitted by the Commission.(43)"Plant Availability Factor (PAF)" in relation to a generating station for any period means the average of the daily Declared Capacities (DCs) for all the days during that period expressed as a percentage of the installed capacity in MW reduced by the normative auxiliary energy consumption.(44)"Plant Load Factor (PLF)" in relation to thermal generating station or unit for 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:-N

$$PLF = \frac{\sum_{i=1}^N SG_i}{N \times IC \times (100 - AUX_N)} \times 100 = 88.436\%$$

Where, IC = Installed Capacity of the generating station or unit in MW ;SG<sub>i</sub> = Scheduled Generation in MW for the i<sup>th</sup> time block of the period ;N = Number of time blocks during the period ; andAUX<sub>N</sub> = Normative Auxiliary Energy Consumption as a percentage of gross energy generation.(45)"Primary energy" means the quantum of energy generated up to design energy on per year basis at the generating station.(46)"Project" means a generating station and in case of a hydro generating station includes the complete hydro power generating facility covering all components such as dam, intake, water conductor systems, power generating station and generating units of the scheme as apportioned to power generation, power generating station and generating units of the scheme, as apportioned to power generation.(47)"Prudence Check" means scrutiny of reasonableness of capital expenditure incurred or proposed to be incurred ; financing plan, use of efficient technology, cost and time over-run and such other factors as may be considered appropriate by the Commission for determination of tariff. While carrying out the Prudence Check, the Commission shall look into whether the generating company has been careful in its judgments and decisions and vigilant in executing the project.(48)"Pumped storage hydro generating station" means a hydro station which generates power through energy stored in the form of water energy, pumped from a lower elevation reservoir to a higher elevation reservoir.(49)"Run-of-river power station" means a hydroelectric power generating station which has no upstream pondage.(50)"Run-of-river power station with pondage" means a hydroelectric power generating station with sufficient pondage for meeting the diurnal variation of power demand.(51)"Saleable Primary energy" means the quantum of primary energy available for sale (ex-bus) after allowing for free energy to the home state, if any.(52)"Saleable Secondary energy" means the quantum of secondary energy available for sale (ex-bus) after allowing for free energy to the home state, if any.(53)"Secondary energy" means the quantum of energy generated in excess of the design energy on per year basis at the station.(54)"Scheduled Commercial Operation Date or SCOD" shall mean the date(s) of commercial operation of a generating station or generating unit or block thereof or as indicated in the Investment Approval or as agreed in power purchase agreement, whichever is earlier.(55)"Scheduled energy" means the quantum of energy scheduled by the concerned Load Dispatch Centre to be injected into the grid by a generating station over a day.(56)"Scheduled Generation" or "SG" at any time or for any period or time-block means schedule of generation in MW or MWh ex-bus, given by the State Load Despatch Centre.Note : - For the open cycle gas turbine generating station or a combined cycle generating station if the average frequency for any time-block, is below 49.52 Hz but not below 49.02 Hz and the scheduled generation is more than

98.5% of the declared capacity, the scheduled generation shall be deemed to have been reduced to 98.5% of the declared capacity, and if the average frequency for any time-block is below 49.02 Hz and the scheduled generation is more than 96.5% of the declared capacity, the scheduled generation shall be deemed to have been reduced to 96.5% of the declared capacity.(57)"Small Gas Turbine Generating Station" means and includes open cycle gas turbine or combined cycle generating stations with gas turbines in the capacity range of 50 MW or below.(58)"State" means the State of Jammu and Kashmir.(59)"Small gas turbine generating station" means and includes open cycle gas turbine or combined cycle generating stations with gas turbines having capacity of 50 MW or below.(60)"Start Date or Zero Date" means the date indicated in the Investment Approval for commencement of implementation of the project and where no date has been indicated, the date of investment approval shall be deemed to be Start Date or Zero Date.(61)"Storage type power station" means a hydroelectric power generating station associated with large storage capacity to enable variation of generation of power according to demand.(62)"State Government" means the Government of Jammu and Kashmir.(63)"Tariff" shall mean the schedule of charges for generation and bulk supply of electricity together with terms and conditions applicable thereof ;(64)"Tariff Period" shall mean the period from 1st April, 2018 and up to 31st March, 2021 for which Tariff is determined by the Commission under these Regulations.(65)"Trial Run and Trial Operation" Trial Run in relation to generating station or unit thereof shall mean the successful running of the generating station or unit thereof at maximum continuous rating or installed capacity for continuous period of 72 hours in case of unit of a thermal generating station or unit thereof and 12 hours in case of a unit of a hydro generating station or unit thereof :Provided that where the beneficiaries have been tied up for purchasing power from the generating station, the trial run shall commence after seven days' notice by the generating company to the beneficiaries.(66)"Unit" in relation to a thermal generating station other than combined cycle thermal generating station means steam generator, turbine generator and auxiliaries, or in relation to a combined cycle thermal generating station, means turbine generator and auxiliaries ; and in relation to a hydro generating station means turbine generator and its auxiliaries.(67)"Useful life" in relation to a unit of a generating station from the COD shall mean the following, namely :-(i)Coal/Lignite based thermal generating station -25 years ;(ii)Gas/Liquid fuel based thermal generating station -25 years ; and(iii)Hydro generating station -35 years.(68)"Year" means a financial year.

#### 4.

Words or expressions used in these regulations and not defined herein but defined in the Jammu and Kashmir Electricity Act, 2010 shall have the meaning assigned to them in the Act.

#### 5.

All proceedings under these regulations shall be governed by the Conduct of Business Regulations.

### 6. Tariff determination for associated transmission network/ lines.

- 6.1 The tariff for the associated transmission network/lines of the generating stations shall be governed by the JKSERC (Terms and Conditions for Determination of Transmission Tariff)



## **7. Norms of operation to be threshold norms.**

- 7.1 For removal of doubts, it is clarified that the norms of operation specified under these Regulations are the threshold norms and this shall not preclude the generating company and Beneficiaries from agreeing to improved norms of operation and in such case the improved norms shall be applicable for the determination of tariff :Provided if Power Purchase Agreement between generating company and the beneficiary stipulates better norms of operation, then such norms provided in the Power Purchase Agreement shall be considered for the determination of tariffPart-II Tariff Framework and Guiding Principles for Multi Year Tariff (MYT) Framework

## **8. Tariff framework.**

- 8.1 The Commission shall adopt Multi Year Tariff framework for approval of ARR and Tariff during the Control Period.8.2Accordingly, the Control Period shall commence from 1st April, 2018 and shall extend till 31st March, 2021. ARR filings for the Control Period shall be done in accordance with the MYT framework contained in these Regulations ;Multi Year Tariff Framework for the Control Period (FY 2018-19 to FY 2020-21)8.3The generating company shall file MYT application and other documents with the Commission as per the timelines specified in Regulation 18 of these Regulations. The Application shall include statements containing Aggregate Revenue Requirement (ARR) for the previous year, base year and the projections for Control Period. The information for the previous year should be based on audited accounts.8.4The Guiding Principles for MYT framework are described in Regulation 9 of these Regulations.8.5The principles for determination of ARR for the Control Period are described in Part-III of these Regulations and the procedure for annual filing during the control period is laid down in Part-IV of these Regulations.

## **9. Guiding Principles for MYT framework.**

- 9.1 The Commission in specifying these Regulations shall be guided by the principles contained in Sections 55 and 56 of the Act to encourage competition, efficiency, economical use of resources, good performance and optimum investments.9.2The Multi Year Tariff framework shall be based on the following :-(a)Business Plan of the generating company (plant-wise separately) for the entire Control Period to be submitted to the Commission for approval, prior to the start of the Control Period ;(b)Applicant's forecast of expected tariff for sale of power for each year of the Control Period, based on reasonable assumptions of the underlying financial and operational parameters, as submitted in the Business Plan ;(c)Trajectory for specific parameters stipulated by the Commission, where the performance of the Applicant is sought to be improved through incentives and disincentives ;(d)Annual review of performance which shall be conducted vis-à-vis the approved forecast.Base Year. -9.3The values for the Base Year of the Control Period will be determined based on the audited accounts available, best estimate for the relevant years and other factors considered relevant by the Commission, and after applying the tests for determining the controllable or uncontrollable nature of various items.9.4The Commission will normally not revisit the performance targets even if the targets are fixed on the basis of base values of un-audited

accounts. Business Plan. -9.5 The generating company shall file for the Commission's approval, a Business Plan approved by the Board of Directors as per the timelines specified in Section 18 of these Regulations. The Business Plan shall be for the entire Control Period and shall, inter alia, contain : (a) Capital Investment Plan : This shall include details of the investments planned by the generating company, along with the corresponding capitalisation schedule and financing plan. This plan shall be commensurate with capacity enhancement and proposed efficiency improvements for various plants of the Company and shall include cost benefit analysis ; (b) Capital Structure : The generating company shall submit plant-wise details of the capital structure and cost of financing (interest on debt) and return on equity, after considering the existing market conditions, terms of the existing loan agreements, risks associated in generation business and creditworthiness ; (c) Operation and Maintenance (O&M) expenses : This shall include the costs estimated for the Base Year, the actual expenses incurred in the previous five years and the projected values for each year of the Control Period based on the proposed norms for O&M cost, including indexation and other appropriate mechanisms ; (d) Depreciation : This shall include details of depreciation based on the fair life of the asset and capitalisation schedules for each year of the Control Period ; (e) Performance Targets : A set of targets proposed for other controllable items such as NPAF, NAPLF, Station Heat Rate, Secondary Fuel Oil Consumption, and Auxiliary Power Consumption. The targets shall be consistent with the Capital Investment Plan proposed by the generating company ; (f) Power Sale Arrangement : The generating company shall submit the power sale arrangement in respect of new projects. For renovation and modernization schemes and all schemes meant for efficiency gain, cost benefit analysis and expected performance targets shall be required ; (g) Other Information : This shall include any other details considered appropriate by the generating company for consideration during determination of tariff. Capital Investment Plan. -9.6 Subject to the provisions of Act, Rules and Policies, the Commission shall approve capital investment plan of the generating company for the Control Period commensurate with generation capacity growth. The investment plan shall also include corresponding capitalisation schedule and financing plan. 9.7 The Commission shall review the actual capital investment at the end of each year of the Control Period as a part of the Annual Performance Review of the generating company. The generating company shall submit the actual capital expenditure incurred along with the Annual Performance Review Filing. In the normal course, the Commission shall not revisit the approved capital investment plan (capital expenditure and capitalisation schedule) during the Control Period and adjustment to depreciation and financing cost, which includes cost of debt (interest), working capital interest, cost of equity (return) for the actual capital expenditure incurred and capitalisation vis-à-vis approved capital investment plan (capital expenditure and capitalisation) shall be done at the end of Control Period. 9.8 In case the capital expenditure is required for emergency work which has not been approved in the Capital Investment Plan, the generation company shall submit an application (containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval by the Commission. The Licensee shall take up the work prior to the approval of the Commission provided that the emergency nature of the scheme has been certified by the Board of Directors : Provided that for the purpose of the Regulation 9.8 above, such approved capital expenditure shall be treated as a part of actual capital expenditure incurred to the generation company as well as the approved capital expenditure by the Commission. Performance Targets. -9.9 The Commission shall set targets for each year of the Control Period for the items or parameters that are deemed to be "controllable" and which includes : (a) Gross Station Heat Rate ; (b) Normative Annual Plant

Availability Factor/ Normative Annual Plant Load Factor ;(c)Auxiliary Energy Consumption ;(d)Secondary Fuel Oil Consumption ;(e)Operation and Maintenance Expenses;(f)Financing cost which includes cost of debt (interest), cost of equity (return) ; and(g)Depreciation.9.10Any financial loss on account of under performance on targets for parameters specified in Regulation 9.9 (a) to (e) is not recoverable through tariffs. Similarly, any financial gain on account of over-performance with respect to these parameters is to the generating company's benefit and shall not be adjusted in Tariffs.9.11The Commission shall carry out Truing-Up of tariff of generating station based on the performance of following uncontrollable parameters:(a)Force Majeure ;(b)Change in Law ; and(c)Primary Fuel Cost.True-Up during Control Period. -9.12The True-Up across various controllable parameters shall be conducted as per principles stated below :(a)any surplus and deficit on account of O&M expenses shall be to the account of the generating company and shall not be trued up in ARR ; and(b)at the end of the control period-i. The Commission shall review actual capital investment vis-à-vis approved capital investment ;ii. Depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of actual/audited information and prudence check by the Commission.9.13Notwithstanding anything contained in these Regulations, the gains or losses in the controllable items of ARR on account of force majeure factors shall be passed on as an additional charge or rebate in ARR over such period as may be laid down in the order of the Commission.Part-III Application for Determination of Tariff

## 10. Principles for determination of tariff.

- Existing Generating Station :10.1Where the Commission has, at any time prior to the notification of these Regulations, adopted or approved the tariff contained therein for supply of electricity from an existing generating station on the basis of a Power Purchase Agreement or arrangement, the tariff for the supply of electricity by the Generating Company to the Beneficiary shall henceforth, in the Control Period, be decided in accordance with these Regulations :Provided that where the Commission has approved a Power Purchase Agreement (PPA) or arrangement between a Generating Company and a Beneficiary, the supply of electricity by the Generating Company to the Beneficiary shall be decided in accordance with such PPA or arrangement for such a period as may be approved or adopted by the Commission, to the extent of existing installed Capacity as contained in the PPA or arrangement :Provided further that the Regulation or provisions stated in this Regulation is in line with the Regulation and provisions of "Norms of Operation to be Threshold Norms" of these Regulations.10.2In case of the existing projects, the generating company, may be allowed tariff by the Commission based on the admitted capital cost as on 31.3.2018 and projected additional capital expenditure for the respective years of the tariff period 2018-19 to 2020-21 in accordance with these Regulations :Provided that :(a)where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure exceeds the actual capital cost incurred on year to year basis by more than 5%, the generating company shall refund to the beneficiaries, the excess tariff recovered corresponding to excess capital cost, as approved by the Commission alongwith interest at 1.20 times of the J&K Bank base rate as prevalent on 1st April of respective year :(b)where the capital cost considered in tariff by the Commission on the basis of falls short of the actual capital cost incurred on year to year basis by more than 5%, the generating company shall be entitled to recover from the beneficiaries, the

shortfall in tariff corresponding to reduction in capital cost, as approved by the Commission alongwith interest at 0.80 times of J&K Bank base rate as prevalent on 1st April of respective year.10.3Where the generating station has been declared under commercial operation from the date of issue of these Regulations or on or after April 1, 2018, the tariff for supply of electricity by the generating company shall be decided in accordance with these Regulations.10.4The generating company may make an application for determination of tariff for new generating station or unit thereof in accordance with these Regulations, in respect of the generating station or generating units thereof within 180 days of the anticipated date of commercial operation.10.5In case of the new projects, the generating company, may be allowed tariff by the Commission based on the projected capital expenditure from the anticipated COD in accordance with these Regulations :Provided that :(a)if the date of commercial operation is delayed beyond 180 days from the date of issue of tariff order, the tariff granted shall be deemed to have been withdrawn and the generating company shall be required to file a fresh application for determination of tariff after the date of commercial operation of the project ;(b)where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure exceeds the actual capital cost incurred on year to year basis by more than 5%, the generating company shall refund to the beneficiaries, the excess tariff recovered corresponding to excess capital cost, as approved by the Commission alongwith interest at 1.20 times of the J&K Bank base rate as prevalent on 1st April of respective year ;(c)where the capital cost considered in tariff by the Commission on the basis of falls short of the actual capital cost incurred on year to year basis by more than 5%, the generating company shall be entitled to recover from the beneficiaries, the shortfall in tariff corresponding to reduction in capital cost, as approved by the Commission alongwith interest at 0.80 times of J&K Bank base rate as prevalent on 1st April of respective year.10.6Tariff Determination. -(1)The tariff in respect of a generating station under these Regulations shall be determined stage-wise, unit-wise or for the whole generating station.(2)For the purpose of tariff, the capital cost of the project shall be broken up into stages and by distinct units forming part of the project. Where the stage-wise or unit-wise break-up of the capital cost is not available and in case of on-going projects, the common facilities shall be apportioned on the basis of the installed capacity of the units. In relation to multipurpose hydroelectric projects, with irrigation, flood control and power components, the capital cost chargeable to power component to the project only shall be considered for determination of tariff.(3)The developer of a hydroelectric project, including Pumped Storage Plant (PSP), would have the option of getting the tariff determined by the Commission for the power to be sold through long term Power Purchase Agreements (PPAs) on the basis of performance based cost of service regulations if the following conditions are fulfilled :- (a)The Commission is satisfied that the project site has been allotted to the developer by the State Government after following a transparent two stage process. The first stage should be for prequalification on the basis of criteria of financial strength, past experience of developing infrastructure projects of similar size, past track record of developing projects on time and within estimated costs, turnover and ability to meet performance guarantee etc. In the second stage, bids are to be called on the basis of quantifiable parameter, such as, additional free power in excess of percentage of free power, as notified by the State Government, equity participation offered to the State Government, or any other parameter to be notified by the State Government from time to time ;(b)Concurrence of CEA (if required under Section 8 of the Act), financial closure, award of work and long term Power Purchase Agreement (PPA) (of the duration of 35 years or more) of the

capacity specified in (c) below with distribution licensees are completed by 15-08-2022 ;(c)Long term PPA is firmed up for 60% or more of the total saleable design energy, balance being allowed for merchant sale ;Provided that distribution licensees can extend the duration of long term PPA beyond 35 years for a further period of 15 years at the existing terms and conditions subject to the approval of Appropriate Commission :Provided further that nothing contained in this Regulation shall apply to Pumped Storage Plants (PSP) ;(d)The time period for commissioning of all the units of the project shall ordinarily be fixed at four years from the date of approval of the commissioning schedule by the Commission. However, the Commission may, after recording reasons in writing, fix longer time period for hydroelectric projects (reservoir as well as run-of- river projects) of more than 100 MW capacity. Agreed timelines to achieve the fixed commissioning schedule along with penalty for delay shall be decided by the Commission. The Commission shall allow pass through the Interest During Construction (IDC) and Financing Cost (FC) only up to the period of delay not attributable to the developer. The approval of CEA, wherever required as per Section 8 of the Act, shall be sought ;(e)Award of contracts for supply of equipment and construction of the project, either through a turnkey or through well defined packages, are done on the basis of international competitive bidding.(4)Notwithstanding anything contained in Paras (3) above, the developers of hydroelectric projects of more than 100 MW design capacity for which sites have been awarded earlier by following a transparent process and on the basis of pre-determined set of criteria would have the option of getting the tariff determined by the Appropriate Commission for the power to be sold through long term PPA on the basis of cost plus under Section 56 of the Act.In case of projects covered under Paras (3) and (4), the Commission shall determine tariff ensuring the following :-i. Any expenditure incurred or committed to be incurred by the project developer for getting project site allotted (except free power as notified) would neither be included in the project cost, nor any such expenditure shall be passed through in tariff ;ii. The project cost shall include the cost of the approved R&R plan of the project which shall be in conformity with the State Rehabilitation and Resettlement Policy currently in force. In case no such policy has been notified by the State Government, then the R&R plan shall be formulated in the light of National R&R policy ;iii. Annual fixed charges shall be taken pro-rata to the saleable design energy tied up on the basis of long term PPAs with respect to total saleable design energy. The total saleable design energy shall be arrived at by deducting the following from the design energy at the bus bar :-(a)Free power as may be notified by the State Government from time to time for the host State and percentage for contribution towards Local Area Development Fund as may be constituted by the State Government. This free power may be suitably staggered as decided by the State Government.Energy to be provided free of cost every month to every Project Affected Family as may be notified by the State Government to be offered through the concerned distribution licensee in the designated resettlement area/ projects area for a period of ten years from the date of commissioning.Capital Cost of the Project.

-10.7Capital cost for a Project shall include,-(a)the expenditure incurred or projected to be incurred, including interest during construction, IEDC and financing charges on the loan -(i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed,-up to the date of commercial operation of the project, as admitted by the Commission after prudence check shall form the basis for determination of tariff :Provided that the foreign exchange variation risk shall not be a pass through. However, appropriate costs of hedging and swapping to take care of foreign exchange

variations shall be allowed for debt obtained in foreign currencies. This provision would be relevant only for the projects where tariff has not been determined on the basis of competitive bids.

(b) Interest During Construction (IDC) : i. Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds up to SCOD. ii. In case of additional costs on account of IDC due to delay in achieving the SCOD, the generating company shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds : Provided that if the delay is not attributable to the generating company and is due to uncontrollable factors as specified in Regulation 9.10, IDC may be allowed after due prudence check : Provided further that only IDC on actual loan may be allowed beyond the COD to the extent, the delay is found beyond the control of generating company after due prudence and taking into account prudent phasing of funds.

(c) Incidental Expenditure During Construction (IEDC) : i. Incidental expenditure during construction shall be computed from the zero date and after taking into account pre-operative expenses up to SCOD : Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts may be taken into account for reduction in incidental expenditure during construction. ii. In case of additional costs on account of IEDC due to delay in achieving the SCOD, the generating company shall be required to furnish detailed justification with supporting documents for such delay including the details of incidental expenditure during the period of delay and liquidated damages recovered or recoverable corresponding to the delay : Provided that if the delay is not attributable to the generating company and is due to uncontrollable factors as specified in Regulation 9.11, IEDC may be allowed after due prudence check : Provided further that where the delay is attributable to an agency or contractor or supplier engaged by the generating company, the liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost. iii. In case the time over run beyond SCOD is not admissible after due prudence, the increase of capital cost on account of cost variation corresponding to the period of time over run may be excluded from capitalization irrespective of price variation provisions in the contracts with supplier or contractor of the generating company.

(d) capitalised initial spares subject to the ceiling norms specified as under: Initial spares shall be capitalized as a percentage of the plant and machinery cost up to cut-off date, subject to following ceiling norms : i. Coal-based/lignite fired thermal generating stations-4.0% ii. Gas Turbine/Combined Cycle thermal generating stations-4.0% iii. Hydro Generating stations-4.00% : Provided that where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost under first proviso to Regulation 10.8, such norms shall apply to the exclusion of the norms specified herein.

(e) additional capital expenditure determined under Regulation 10.9 and 10.10 of these Regulations : Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost. 10.8 The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff : Provided that in case of the thermal generating station prudence check of capital cost may be carried out based on the benchmark norms specified by the Central Commission from time to time : Provided further that in cases where benchmark norms have not been specified by the Central Commission, the Commission may specify the benchmark norms or allow the capital cost on the basis of a prudence check which shall include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction, use of efficient technology, cost over-run and time over run, and such other matters as

may be considered appropriate by the Commission for determination of tariff :Provided that the capital cost with respect to thermal generating station, incurred or projected to be incurred on account of the Perform, Achieve and Trade (PAT) scheme of Government of India will be considered by the Commission on case to case basis and shall include, -(a) cost of plan proposed by developer in conformity with norms of PAT Scheme ; and (b) sharing of the benefits accrued on account of PAT Scheme :Provided also that the Commission may issue guidelines for vetting of capital cost of hydroelectric projects by independent agency or expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff for the hydro generating station :Provided also that in case the site of a hydro generating station is awarded to a developer (not being a State controlled or owned company), by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer for getting the project site allotted shall not be included in the capital cost :Provided also that the capital cost in case of such hydro generating station shall include cost of approved Rehabilitation and Resettlement (R&R) plan of the project :Provided also that where the power purchase agreement entered into between the Generating Company and the Beneficiaries, provides for a ceiling of actual expenditure, the capital expenditure admitted the Commission shall take into consideration such ceiling for determination of tariff :Provided also that in case of the existing projects the additional capital expenditure projected to be incurred for the ensuing year shall form the basis for determination of tariff during control period the capital cost admitted by the Commission prior to 01.04.2018 and the additional capital expenditure projected to be incurred for respective year of the control period, as may be admitted by the Commission, shall form the basis for determination of tariff.

**Additional Capitalization. -10.9** The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check :-(i) Undischarged liabilities recognized to be payable at a future date ;(ii) Works deferred for execution ;(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions under Regulations 10.7 and 10.8 ;(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court ; and (v) Change in law :Provided that the details of works asset-wise/workwise included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

**10.10** The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check :-(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court ;(ii) Change in law ;(iii) Deferred works relating to ash pond or ash handling system in the original scope of work ;(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 ;(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc ;(vi) Impact of additional capitalization in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut-off date ;(vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialisation of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station ;(viii) In

case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to ecological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plan operation :Provided that in respect Sub-Regulation (vii) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machine, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w. e. f. 01-04-2018 for the control period :Provided also that if any expenditure has been claimed under Renovation and Modernization (R&M), Life Extension, repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation. 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 arrived at in the manner indicated in debt-equity ratio computation. Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original capital cost, except such items as are listed under additional capitalization computation of this Regulation. 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 debt-equity ratio computation.

**Renovation and Modernization.** -10.11 The generating company, for meeting the expenditure on Renovation and Modernization (R&M) for the purpose of extension of life beyond the useful life of the generating station or a unit thereof, shall make an application before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, record of consultation with beneficiaries and any other information considered to be relevant by the generating company.

10.12 Where the generating company, makes an application for approval of R&M proposal, the approval shall be granted after due consideration of reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost benefit analysis, and such other factors as may be considered relevant by the Commission.

10.13 Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on the estimates of renovation and modernization expenditure and life extension, and after deducting the accumulated depreciation already recovered from the original project cost, shall form the basis for determination of tariff :Provided that the Commission may revise the plant specific performance norms in order to share the benefits of efficiency improvement on account of renovation and modernisation between the generator and the beneficiaries.

**Special allowance for coal-based thermal generating stations.** 10.14 The generating company in case of coal-based thermal generating station, may, in its discretion, avail of a 'special allowance' either for a unit or a group of units as compensation for meeting the requirement of expenses including renovation and modernization beyond the useful life of the generating station or a unit thereof, and in such an event revision of the capital cost shall not be considered and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost :Provided also that such option shall not be available for a



generating station or unit for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these Regulations, or for a generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms.10.15A generating company (coal-based/lignite fired thermal generating station) on opting for the alternative in the Regulation10.14, shall be allowed special allowance at the rates as approved by the Central Commission from time-to-time, unit-wise from the next financial year from the respective date of the completion of useful life with reference to the date of commercial operation of the respective unit of generating station. In the event of granting special allowance by the Commission, the expenditure incurred or utilized from special allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission as and when directed to furnish details of such expenditure. Sale of Infirm Power10.16 Supply of infirm power shall be accounted as Deviation and paid for from the regional deviation settlement fund accounts in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof : Provided that any revenue earned by the Generating Company from sale of infirm power after accounting for the fuel expenses shall be applied for reduction in capital cost. Debt-Equity Ratio10.17 In case of the generating station declared under commercial operation prior to 01.04.2018, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.03.2018 shall be considered for determination of tariff.10.18 For the project declared under commercial operation on or after 01.04.2018, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan : Provided that where equity deployed is less than 30% of capital cost, the actual equity shall be considered for determination of tariff : Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment : Explanation. - The premium, if any, raised by the generating company, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station : Provided, further that any consumer contribution, deposit work and grant obtained for the execution of the project shall not be considered as part of the capital structure for the purpose of computation of normative debt equity. Return on Equity10.19 Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation10.17.10.20 Return on equity shall be computed on pre-tax basis at the base rate of 15.50% for thermal generating stations and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage, to be grossed up as per Regulation 10.21 : Provided that return on equity with respect to the actual base rate applicable to the Generating Company, in line with the performance of the respective generating station for the respective year during the Control Period shall be trued up separately for each year of the Control Period along with the tariff petition filed for the next Control Period : Provided that in case of Projects commissioned on or after 1st April, 2018, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in the Capital Investment plan approved by the Commission : Provided the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station is found to be declared under

commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system. As and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective SLDC, RoE shall be reduced by 1% for the period for which the deficiency continues. 10.21 The rate of return on equity shall be computed by grossing up the base rate with the normal applicable tax rate for the year FY 2018-19 applicable to the generating company : Provided that return on equity with respect to the actual tax rate applicable to the generating company, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be Trued-Up separately for each year of the Control Period along with the Tariff Petition filed for the next Control Period. 10.22 Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below : Rate of pre-tax return on equity = Base rate / (1-t) Where "t" is the applicable tax rate in accordance with Regulation 10.21. Illustration. - (i) In case of generating company paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess : Rate of pre-tax return on equity =  $15.50 / (1 - 0.2096) = 19.610\%$  (ii) In case of generating company paying normal corporate tax @ 33.99% including surcharge and cess : Rate of pre-tax return on equity =  $15.50 / (1 - 0.3399) = 23.481\%$ . Provided the generating company shall True-Up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2018-19 to 2020- 21 on actual gross income of any financial year : Provided penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries on year to year basis : Provided that the actual tax on income from other business streams including deferred tax liability (i.e. income on business other than business of generation or transmission, as the case may be) shall not be considered for the calculation of applicable tax rate. Interest and Finance Charges 10.23 The loans arrived at in the manner indicated in Regulation 10.17 shall be considered as gross normative loan for calculation of interest on loan. 10.24 The normative loan outstanding as on 01.04.2018 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.03.2018 from the gross normative loan. 10.25 Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed. 10.26 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Project : Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered : Provided further that if the generating station does not have actual loan, then the weighted average rate of interest of the generating company as a whole shall be considered : Provided further, in case of new generating company commencing its operation after the date of effectiveness of these Regulations, and which doesn't have actual loan portfolio, the rate of interest shall be considered on normative basis and shall be equal to the Base Rate of J&K Bank plus 200 basis points as on the date on which the generating unit is declared under commercial operation. 10.27 The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest. 10.28 The generating company shall make every effort to re-finance the loan as long as it

results in net savings on interest and in that event there is costs associated with such refinancing, such cost shall be pass through to the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company, in the ratio of 2:1.10.29The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.10.30In case of dispute, any of the parties may make an application in accordance with the Conduct of Business Regulation :Provided that the beneficiaries shall not withhold any payment on account of the interest claimed by the generating company during the pendency of any dispute arising out of re-financing of loan.10.31In case of Hydroelectric projects (HEPs), if the developer uses long-term financial instruments which results in reduction of tariff burden in the initial years, the Commission may devise a suitable incentive mechanism at the time of issuance of tariff order to share the benefits accrued between the generator and beneficiaries :Provided that the developer shall provide necessary documentary evidence as well as analysis of savings along with any other information deemed important by the Commission.10.32Depreciation shall be calculated for each year of the tariff period, on the amount of Capital Cost of the assets admitted by the Commission :Provided that depreciation shall not be allowed on assets funded by any capital subsidy/grant.10.33The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. The historical capital cost of the asset shall include additional capitalization on account of Foreign Exchange Rate Variation up to 31.03.2017 already allowed by the Government/ Commission :Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable.10.34Land other than land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.10.35Depreciation shall be calculated annually based on "Straight Line Method" and at rates specified in Appendix-I to these Regulations for the assets of the generating station :Provided that, the remaining depreciable value as on 31st March of the Year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the assets.10.36In case of existing projects, the balance depreciable value as on 01.04.2018 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.03.2018 from the gross depreciable value of the assets. The rate of depreciation shall be continued to be charged at the rate specified in Appendix-I till cumulative depreciation reaches 70%. Thereafter the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.10.37Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.10.38Interest on Working Capital10.38The Commission shall determine the working capital requirement for coal-based generating stations containing the following components :-(a)Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower ;(b)Cost of coal or lignite and limestone for 30 days for generation corresponding to normative annual plant availability factor ;(c)Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil ;(d)Maintenance spares @ 20% of operation and maintenance expenses specified in Regulation 10.43 ;(e)Operation and Maintenance expenses for 1

month ; and(f)Receivables equivalent to 2 months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor.10.39For the gas based generating stations, the working capital requirement shall be determined using the following components :(a)Fuel expenses for 1 month corresponding to the Normative Annual Plant Availability Factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel ;(b)Liquid fuel stock for ½ month corresponding to the Normative Annual Plant Availability Factor, and in case of use of more than one liquid fuel, cost of main liquid fuel ;(c)Maintenance spares @ 30% of Operation and Maintenance expenses specified in Regulation10.43 ;(d)Operation and Maintenance expenses for 1 month ; and(e)Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on Normative Annual Plant Availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel.10.40For hydro generating station, the working capital requirements shall be determined using the following components :(a)Receivables equivalent to two (2) months of fixed cost calculated on normative capacity index ; and(b)Maintenance spares @ 15% of Operation and Maintenance expenses specified in Regulation 10.44 ;(c)Operation and Maintenance expenses for 1 month.10.41The cost of fuel in cases covered under Regulation10.38 shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.10.42Rate of interest on working capital shall be equal to the J&K Bank Base Rate plus 350 basis points, as on 01.04.2018 or as on 1st April of the year during the tariff period 2018-19 to 2020-21 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later.Operation and Maintenance (O&M) expenses :10.43Thermal generating station.-(a)Operation and Maintenance (O&M) expenses for thermal generating company shall include-I. Employees costs ;II. Administrative and General expenses ;III. Repairs and Maintenance expenses.(b)The Commission shall stipulate a separate trajectory for each of the components of O&M expenses viz., employee cost, R&M expense and A&G expense for the Control Period for all existing thermal generating stations except for the new generating stations for which the O&M expenses would be determined as per the CERC (Terms and Conditions of Tariff) Regulations, 2014.Employee Cost :(c)The employee cost, excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, for the base year i.e. FY 2017-18, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, available in the accounts for the previous five (5) years immediately preceding the base year FY 2017-18, subject to prudence check by the Commission.(d)The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY2012-13 to FY 2016-17, shall then be used to project base year value for FY 2017-18. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision and any other expense of nonrecurring nature, if any) for each year of the Control Period.At the time of True-Up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period :Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any

other factor considered appropriate by the Commission. A&G Expenses and R&M Expenses : (e) The administrative and general expenses (excluding water charges) and repair and maintenance expenses, for the base year i.e. FY 2017-18, shall be derived on the basis of the normalized average of the actual administrative and general expenses (excluding water charges) and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2016-17, subject to prudence check by the Commission. Any other expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years. (f) The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2012-13 to FY 2016-17, shall then be used to project base year value for FY 2017-18. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the control period. At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period : Provided that water charges shall be pass-through in tariff on reimbursement basis : Provided that the thermal power plant(s) including the existing plants located within 50 km radius of sewage treatment plant of Municipality/local bodies/similar organization shall in the order of their closeness to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account shall be allowed as a pass through in the tariff on reimbursement basis. Such thermal plants may also ensure back-up source of water to meet their requirement in the event of shortage of supply by the sewage treatment plant. The associated cost on this account shall be factored into the fixed cost so as not to disturb the merit order of such thermal plant.

10.43.1. The O&M expenses for the base year i.e. FY 2017-18, for the units / stations coming into commercial operation after 01.04.2012, shall be considered as under :-(a) The normative O&M expenses as specified in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulation 2009 for the FY 2012-13 and shall be admissible at the rate of 90% of the value allowed by CERC for the respective year. Such normative value shall be exclusive of water taxes payable to the State Government which shall be pass through to the beneficiary on actual basis. However, except for pension fund liabilities, normative value, so derived, shall be considered inclusive of all expenses incurred to meet head office or holding company expenses. (b) The adjusted value for FY 2012-13, as arrived above, shall be escalated by the actual inflation at a weighted average of 60:40 of CPI: WPI ratio, respectively on year to year basis till FY 2016-17. (c) For projecting the normative value for FY 2017-18 and onwards, average inflation of last five years (i.e. FY 2012-13 to FY 2016-17) shall be applied : Provided, at the time of True-Up, the normative O&M cost shall be readjusted to take into account the effect of actual inflation for that period : Provided, further that impact of pay revision (including arrears), if any, shall be considered separately during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

10.44 Existing Hydro Generating Stations.-(a) Operation and Maintenance (O&M) expenses for generating company shall include : I. Employees costs ; II. Administrative and general expenses ; III. Repairs and Maintenance. (b) The Commission shall stipulate a separate trajectory for each of the components of O&M expenses viz., employee cost, R&M expense and A&G expense for the Control Period.

Employee Cost : (c) The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i. e. FY 2017-18, shall be derived on the basis of the normalized average of the actual employee expenses

excluding pension fund contribution and impact of pay revision arrears available in the accounts for the previous five (5) years immediately preceding the base year FY 2017-18, subject to prudence check by the Commission. Any other expense of nonrecurring nature shall be excluded while determining normalized average for the previous five (5) years. (d) The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY2012-13 to FY 2016-17, shall then be used to project base year value for FY 2017-18. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the control period. At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period : Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission. A&G Expenses and R&M Expenses : (e) The administrative and general expenses (excluding water charges) and repair and maintenance expenses, for the base year i.e. FY 2017-18, shall be derived on the basis of the normalized average of the actual administrative and general expenses (excluding water charges) and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2017-18, subject to prudence check by the Commission. Any other expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years. (f) The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY2012-13 to FY 2016-17, shall then be used to project base year value for FY 2017-18. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the control period. At the time of True-Up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period : Provided that water charges shall be pass through in tariff on reimbursement basis. (g) In case of the hydro generating stations, which have not been in commercial operation for a period of five years as on 01.4.2018, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation & resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated up to the FY 2017-18 and then averaged to arrive at the O&M expenses at FY 2017-18 price level. It shall be thereafter escalated annually to arrive at operation and maintenance expenses in respective year of the Tariff Period. The escalation factor shall be computed based on the weighted average increase in WPI and CPI during last five years (FY 2012-13 to FY 2016-17). The weighted average shall be computed in ratio of 80:20 for WPI and CPI, respectively. 10.45 For new hydro generating stations. - (a) O&M expenses for the first year of operation will be 2% of the original project cost (excluding cost of rehabilitation and resettlement works) ; (b) The O&M expenses for each year of the Control Period shall be determined by escalating the base year expenses determined above for the first year of operation, at the escalation factor computed in line with Regulation 6.40 (g). Tax on Income : 10.46 Tax on the income streams of the Generating Company, other than the core business, shall not be recovered from the Beneficiaries : Provided that the deferred tax liability, excluding Fringe Benefit Tax, for the period from 1st April 2018 to 31st March 2021 whenever it materializes, shall not be recoverable directly from the

beneficiaries and the long-term customers :Provided further that any tax liability on incentives and savings due to improved performance on any parameter, if any, shall be considered for passing onto the Beneficiaries in the ratio of the sharing of the gains as prescribed under these Regulations.

## 11. Thermal Power Generating Stations

- Components of tariff :11.1The Tariff for supply of electricity from a thermal generating station shall comprise of two parts, namely, capacity charge (for recovery of annual fixed cost) and energy charge (for recovery of primary fuel cost and secondary fuel cost & limestone where applicable) to be worked out in the manner provided hereinafter.11.2The annual fixed cost of a thermal generating station shall consist of the following components :-(a)Return on Equity ;(b)Interest and Financing Charges on Loan Capital ;(c)Depreciation ;(d)Operation and Maintenance Expenses ;(e)Interest Charges on Working Capital.Less :-(f)Non-Tariff Income11.3Energy Charge: Energy charges shall be derived on the basis of the landed fuel cost (LFC) of a generating station (excluding hydro) and shall consist of the following cost :-(a)Landed Fuel Cost of primary fuel ; and(b)Cost of secondary fuel oil consumption :Provided that any refund of taxes and duties along with any amount received on account of penalties from fuel supplier shall have to be adjusted in fuel cost.Norms of operation :11.4The norms of operation for generating stations in general shall be as under :-(a)Normative Annual Plant Availability Factor (NAPAF) : For all thermal generating stations, NAPAF shall be 85%.(b)Normative Annual Plant Load Factor (NAPLF) : All thermal generating stations, NAPLF shall be 85%.(c)Gross Station Heat Rate :-(a)Coal-based and lignite-fired thermal generating Stations = 1.045 X design heat rate (kCal/kWh).Where, the design heat rate of a unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero per cent make up, design coal and design cooling water temperature/back pressure :Provided that the design heat rate shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units :

Pressure Rating (Kg/cm <sup>2</sup> )	150	170	170	247	247
SHT/RHT (oC)	535/535	537/537	537/565	537/565	565/593
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven	Turbine Driven	Turbine Driven
Max. Turbine Cycle Heatrate (KCal/kWh)	1955	1950	1935	1900	1850
Min. Boiler Efficiency					
Sub-Bituminous Indian Coal	0.85	0.85	0.85	0.85	0.85
Bituminous Imported Coal	0.89	0.89	0.89	0.89	0.89
Max. Design Unit Heat rate (KCal/kWh)					
Sub-Bituminous Indian Coal	2300	2294	2276	2235	2176
Bituminous Imported Coal	2197	2191	2174	2135	2079

(b)Provided further that in case pressure and temperature parameters of a unit are different from above ratings, the maximum design unit heat rate of the nearest class shall be taken ;(c)Provided also that where unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the unit design heat

rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency ;(d)Provided also that if one or more units were declared under commercial operation prior to 01.4.2016, the heat rate norms for those units as well as units declared under commercial operation on or after 01.4.2017 shall be lower of the heat rate norms arrived at by above methodology and the norms as per Regulation 11.1 ;(e)Note : In respect of units where the boiler feed pumps are electrically operated, the maximum design unit heat rate shall be 40 kCal/kWh lower than the maximum design unit heat rate specified above with turbine driven BFP ;(f)Gas-based/Liquid-based thermal generating unit(s)/ block(s)= 1.05 X Design Heat Rate of the unit/block for Natural Gas and RLNG (kCal/kWh)= 1.071 X Design Heat Rate of the unit/block for Liquid Fuel (kCal/kWh)Where, the Design Heat Rate of a unit shall mean the guaranteed heat rate for a unit at 100% MCR and at site ambient conditions ; and the Design Heat Rate of a block shall mean the guaranteed heat rate for a block at 100% MCR, site ambient conditions, zero per cent make up, design cooling water temperature/back pressure.(d)Auxiliary Energy Consumption :

(i) Coal-based generating stations

200 MW series	With Natural Draft cooling Tower or without cooling towers	8.5%
300/330/350/500 MW and above series-Steam Driven Boiler Feed Pumps	With Natural Draft cooling Tower or without cooling towers	5.25%
300/330/350/500 MW series-Electrically Driven Boiler Feed Pumps :	With Natural Draft cooling Tower or without cooling towers	7.75%

Provided further that for thermal generating stations with induced draft cooling towers, the norms shall be further increased by 0.5%.

(ii) Gas-based and Naphtha-based generating stations :

Combined cycle	2.5%
Open cycle	1.0%

(e)Secondary Fuel Oil Consumption for Coal based generating stations : 1.0 ml/kWh.11.5Wherever the station is designed for combined cycle operation, the approval of SLDC shall be required for operation of the station in the open cycle mode.11.6The Commission may prescribe relaxed operational norms including the norms of Normative Annual Plant Availability Factor contained in these Regulations for a generating station, and these relaxed norms shall be applicable for determination of tariff for such generating station during the Control Period.11.7In case of renovation and modernisation, derating and rerating of the generating station, norms of operation shall be reviewed and modified accordingly by the Commission.Recovery of Capacity Charge :11.8The fixed cost of a thermal generating station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share/allocation in the capacity of the generating station.11.9Full capacity charges shall be recoverable at Normative Annual Plant Availability Factor (NAPAF) specified in Regulation 11.4. Recovery of Capacity Charges below the level of Normative Annual Plant



Availability Factor (NAPAF) will be on a pro-rata basis. At zero availability, no capacity charges shall be payable.

11.10 The capacity charge payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae :-

$$CC1 = (AFC/12) \times (PAF1/NAPAF)$$

subject to a ceiling of (AFC/12).

$$CC2 = (AFC/6) \times (PAF2/NAPAF)$$

subject to a ceiling of (AFC/6) -

$$CC1 + CC3 = (AFC/4) \times (PAF3/NAPAF)$$

subject to a ceiling of (AFC/4) - (CC1 + CC2)

$$CC4 = (AFC/3) \times (PAF4/NAPAF)$$

subject to a ceiling of (AFC/3) - (CC1 + CC2 + CC3)

$$CC5 = (AFC \times 5/12) \times (PAF5/NAPAF)$$

subject to a ceiling of (AFC x 5/12) - (CC1 + CC2 + CC3 + CC4)

$$CC6 = (AFC/2) \times (PAF6/NAPAF)$$

subject to a ceiling of (AFC/2) - (CC1 + CC2 + CC3 + CC4 + CC5)

$$CC7 = (AFC \times 7/12) \times (PAF7/NAPAF)$$

subject to a ceiling of (AFC x 7/12) - (CC1 + CC2 + CC3 + CC4 + CC5 + CC6)

$$CC8 = (AFC \times 2/3) \times (PAF8/NAPAF)$$

subject to a ceiling of (AFC x 2/3) - (CC1 + CC2 + CC3 + CC4 + CC5 + CC6 + CC7)

$$CC9 = (AFC \times 3/4) \times (PAF9/NAPAF)$$

subject to a ceiling of (AFC x 3/4) - (CC1 + CC2 + CC3 + CC4 + CC5 + CC6 + CC7 + CC8)

$$CC10 = (AFC \times 5/6) \times (PAF10/NAPAF)$$

subject to a ceiling of (AFC x 5/6) - (CC1 + CC2 + CC3 + CC4 + CC5 + CC6 + CC7 + CC8 + CC9)

$$CC11 = (AFC \times 11/12) \times (PAF11/NAPAF)$$

subject to a ceiling of (AFC x 11/12) - (CC1 + CC2 + CC3 + CC4 + CC5 + CC6 + CC7 + CC8 + CC9 + CC10)

$$CC12 = (AFC) \times (PAFY/NAPAF)$$

subject to a ceiling of (AFC) - (CC1 + CC2 + CC3 + CC4 + CC5 + CC6 + CC7 + CC8 + CC9 + CC10 + CC11) : Provided that in case of generating station or unit thereof under shutdown due to Renovation and Modernisation, the generating company shall be allowed to recover part of AFC which shall include O&M expenses and interest on loan only. Where, AFC = Annual Fixed Cost specified for the year, in Rupees NAPAF = Normative Annual Plant Availability Factor in percentage. PAFN = Per cent Plant Availability Factor achieved up to the end of the nth month. PAFY = Per cent Plant availability factor achieved during the Year CC1, CC2, CC3, CC4, CC5, CC6, CC7, CC8, CC9, CC10, CC11 and CC12 are the capacity charges of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th months respectively.

11.11 The PAFM up to the end of a particular month and PAFY shall be computed in accordance with the following formula:

11.12 The PAFM and PAFY shall be computed in accordance with the following formula: PAFM or PAFY =  $10000 \times \sum_{i=1}^N DC_i / \{N \times IC \times (100 - AUX)\} \%$  Where, AUX - Normative auxiliary energy consumption in percentage ; DC<sub>i</sub> - Average declared capacity (in ex-bus MW), subject to Regulation 11.13, for the ith day of the period i.e. the month or the year as the case may be, as certified by the concerned Load Dispatch Centre after the day is over. IC - Installed Capacity (in MW) of the generating station. N - Number of days during the period i.e. the month or the year as the case may be. Note: - DC<sub>i</sub> and IC shall exclude the capacity of generating units not declared under commercial operation. In case of a change in IC during the concerned period, its average value shall be taken.

11.13 Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF).

11.14 In case of fuel shortage in a thermal generating station, the Generating Company may propose to deliver a higher MW during peak-load hours by saving fuel during offpeak hours. The SLDC may then specify a pragmatic day ahead schedule for the generating station to optimally utilize its MW and energy capability, in consultation with the beneficiaries. DC<sub>i</sub> in such an event shall be taken to be equal to the maximum peak-hour ex-power plant MW schedule specified by the SLDC for that day.

Energy Charge : 11.15 The energy (variable) charge shall cover primary fuel and secondary fuel costs and limestone consumption cost (where applicable), shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the specified energy charge rate of the month (with fuel price adjustment and limestone adjustment). Total energy

charge payable to the Generating Company for a month shall be: = (Energy charge rate in Rs./kWh) x {Scheduled energy (ex-bus) for the month in kWh.}

11.16 Energy Charge Rate (ECR) in Rupees per kWh on expower plant basis shall be determined to three decimal places in accordance with the following formulae :- (a) For coal based stations :  $ECR = \{(GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100 - AUX)$  (b) For gas and liquid fuel based stations :  $ECR = GHR \times LPPF \times 100 / \{CVPF \times (100 - AUX)\}$  Where, AUX - Normative auxiliary energy consumption in percentage CVPF - (a) Weighted Average Gross calorific value of coal as received, in kCal per kg. for coal based stations. (b) Weighted Average Gross calorific value of primary fuel as received in kCal per kg. per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations. (c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio. CVSF - Calorific Value of Secondary Fuel, in kCal per ml. ECR - Energy Charge Rate, in Rupees per kWh sent out. GHR - Gross station Heat Rate, in kCal per kWh. LC = Normative limestone consumption in kg. per kWh LPPF - Weighted average landed price of primary fuel, in Rupees per kg. per litre or per standard cubic metre, as applicable, during the month (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio). LPSFi = Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month LPL = Weighted average landed price of limestone in Rupees per kg. SFC - Specific fuel oil consumption, in ml. per kWh : Provided that energy charge rate for a gas/liquid fuel based station shall be adjusted for open cycle operation based on certification of Member- Secretary of respective Regional Power Committee for the open cycle operation during the month.

11.17 The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i. e. domestic coal, imported coal, e-Auction coal, lignite, natural gas, RLNG, liquid fuel etc.: Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-Auction coal and the weighted average GCV of the fuels as received shall also be provided separately, along with the bills of the respective month : Provided further that copies of the bills and details of parameters of GCV and price of fuel i. e. domestic coal, imported coal, e-Auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-Auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.

11.18 The landed fuel cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating station, before the start of the tariff period for existing stations and immediately preceding three months in case of new generating stations shall be taken into account. The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road or any other means, and, for the purpose of computation of energy charge, and in case of coal/lignite shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal or lignite dispatched by the coal or lignite supply company during the month as given below : Pithead generating stations : 0.2% Non-pithead generating stations : 0.8% : Provided that in case of pithead stations if coal or lignite is procured from sources other than the pithead mines which is transported to the station through rail, transit loss of 0.8% shall be applicable : Provided further that in case of imported coal, the transit and handling losses shall be

0.2%. Provided that, the tariff of gas based generating stations covered under the "Scheme for Utilization of Gas based power generation capacity" issued by the Government of India, Ministry of Power vide Office Memorandum No. 4/ 2/2015-Th.1 dated 27.3.2015 shall be determined in due consideration of the provisions of that scheme in deviation of the relevant regulations. Fuel Price Adjustment : 11.19 The Fuel Price Adjustment (FPA) applicable for calculation of Energy Charges is as follows : (a) For coal-based generating stations,  $FPA = A + B$  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 for Coal in Paise/kWh sent out ;

$$A = |10(100 - ACn)| * SFCn * (Pom - Pos)$$

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

$SFCn \{ (K_{om} * P_{cm} / K_{cm}) - (K_{os} * P_{cs} / K_{cs}) \}$  Where, SFCn = Normative Specific Fuel Oil consumption in l/ kWh ; SHRn = Normative Gross Station Heat Rate in Kcal/ kWh ; ACn = Normative Auxiliary consumption in percentage ; Pom = Weighted average price of fuel oil on as consumed basis during the month in Rs. / KL ; Kom = Weighted average Gross Calorific Value of fuel oils fired at boiler front for the month in Kcal/Litre ; Pos = Base value of price of fuel oils as taken for determination of base energy charge in tariff order in Rs. / KL ; Kos = Base value of Gross Calorific Value of fuel oils as taken for determination of base energy charge in tariff order in Kcal/Litre ; Pcm = Weighted average price of coal procured and burnt during the month at the power station in Rs./ MT ; Kcm = Weighted average Gross Calorific Value of coal fired at boiler front for the month in Kcal/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 gross calorific value of coal as taken for determination of base energy charge in tariff order in kCal/Kg (b) For gas based thermal power plants, the Fuel Price Adjustment is calculated using the following formula :

$$FPA = |10 * SHRn * (Pm / Km) - (Ps / Ks)|$$

Where : FPA = Fuel Price Adjustment for a month in Paise/kWh sent out ; SHRn = Normative Gross Station Heat Rate expressed in kCal/kWh ; ACn = Normative Auxiliary Consumption in percentage ; Pm = Weighted average price of Gas or Liquid fuel as per PSL for the month in Rs. / 1000 SCM of Rs./ KL or Rs./MT ; Km = Weighted average Gross Calorific Value of Gas or Liquid fuel for the month in Kcal/ SCM or kCal/ Litre or kCal/ Kg ; Ps = Base price of Gas or Liquid fuel as taken for determination of base energy charge in tariff order in Rs. / 1000 SCM of Rs./ KL or Rs./MT ; Ks = Base value of Gross Calorific Value of Gas or Liquid fuel as taken for determination of base energy charge in tariff order in Kcal/ SCM or kCal/Litre or kCal/ Kg ; 11.20 Any variation in fuel prices on account of change in the Gross Calorific Value (GCV) of coal or gas or liquid fuel shall be adjusted on a monthly basis on the basis of weighted average GCV of coal or gas or liquid fuel in stock, received and burnt and weighted average landed cost incurred by the generating company for procurement of coal, oil, or gas or liquid fuel, as the case may be for a power station. 11.21 Initially, the Base value of price of fuel oils, price of coal incurred by the Generating Company/ generating station shall be taken based on actuals of the weighted average price of the three preceding months and in the absence of weighted average landed costs for the three preceding months, latest respective weighted average procurement price for the generating station, before the start of the year. Initially the Base value of gross calorific value of fuel oils and gross calorific value of coal incurred by the Generating Company/ Generating Station shall be taken based on actuals of the weighted average gross calorific value of the three preceding months and in the absence of weighted average gross calorific value for the three preceding months, latest weighted average gross calorific value for the generating station,

before the start of the year.11.22In its bills, the generating company shall separately indicate rate of energy charges at base price of primary and secondary fuel specified by the Commission and the fuel price adjustment. No separate petition needs to be filed with the Commission for fuel price adjustment.

## 12. Hydro power generating station.

- Components of tariff :12.1The Tariff for supply of electricity from a hydro power generating station shall comprise of capacity charge and energy charge to be derived in the manner specified in these Regulations, for recovery of annual fixed cost consisting of the following components :(a)Return on Equity ;(b)Interest and Financing Charges on Loan Capital ;(c)Depreciation ;(d)Operation and Maintenance Expenses ;(e)Interest Charges on Working Capital ;Less :(f)Non-Tariff IncomeNorms of operation12.2The norms of operation for hydro power station shall be as under.12.3Normative Annual Plant Availability Factor (NAPAF): The Normative Annual Plant Availability Factor for hydro generating stations shall be determined by the Commission as per the following criteria :(a)Storage and pondage type plants with head variation between full reservoir level (FRL) and Minimum Draw Down Level (MDDL) of up to 8% and where plant availability is not affected by silt : 90%(b)Storage and pondage type plants with head variation between FRL and MDDL of more than 8%, where plant availability is not affected by silt: Plant-specific allowance to be provided in NAPAF for reduction in NAPAF for reduction in MW output capability as reservoir level falls over the months. As a general guidelines the allowance on this account in terms of multiplying factor may be worked out from the projection of annual average of net head, applying the formula := (Average head/Rated head) +0.02Alternatively in case of a difficulty in making such projection, the multiplying factor may be determined as := (Head at MDDL/Rated head) x 0.5 + 0.52(c)Pondage type plants where plant availability is significantly affected by silt : 85%(d)Run-of-river type plants : NAPAF to be determined plant-wise, based on 10 day design energy data, moderated by past experience where available/relevant.12.4A further allowance may be made by the Commission in NAPAF determination under special circumstances e.g. abnormal silt problem or other operating conditions, and known plant imitations.12.5In case of a new hydro-electric project the developer shall have the option of approaching the Commission in advance for fixation of NAPAF based on the principles enumerated in Regulation12.3, 12.4.12.6In case of pumped storage hydro generating stations, the quantum of electricity required for pumping water from down-stream reservoir to up-stream reservoir shall be arranged by the beneficiaries duly taking into account the transmission and distribution losses etc. up to the bus bar of the generating station. In return, beneficiaries shall be entitled to equivalent energy of 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir from the generating station during peak hours and the generating station shall be under obligation to supply such quantum of electricity during peak hours :Provided that in the event of the beneficiaries failing to supply the desired level of energy during off-peak hours, there will be pro-rata reduction in their energy entitlement from the station during peak hours :Provided further that the beneficiaries may assign or surrender their share of capacity in the generating station, in part or in full, or the capacity may be reallocated by the Central Government, and in that event, the owner or assignee of the capacity share shall be responsible for arranging the equivalent energy to the generating station in off-peak hours, and be entitled to corresponding energy during peak hours in the same way as the original beneficiary was

entitled.12.7Auxiliary Energy Consumption (AUX): The norms for auxiliary energy consumption shall be as under : (a)Surface hydro generating stationsi. With rotating mounted on the generator shaft : 0.7%ii. With static excitation system : 1%(b)Underground hydro generating stationsi. With rotating exciters mounted on the generator shaft : 0.9%ii. With static excitation system : 1.2%Transformation Losses, from generation voltage to transmission voltage = 0.5% of energy generatedComputation and Payment of Capacity Charges and Energy Charges for Hydro Generating Stations :12.8The annual fixed cost of a hydro generating station shall be computed, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and energy charge, which shall be payable by the Beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, that is to say, in the capacity excluding the free power to the home State :Provided that during the period between the Date of Commercial Operation of the first unit of the generating station and the Date of Commercial Operation of the generating station, the annual fixed cost shall provisionally be worked out based on the latest estimate of the completion cost for the generating station, for the purpose of determining the Capacity Charge and Energy Charge payable during such period.12.9The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be  $= AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF)$  (in Rupees)Where,AFC -Annual Fixed Cost specified for the Year, in Rupees ;NAPAF -Normative Plant Availability Factor in percentage ;NDM -Number of Days in the month ;NDY -Number of Days in the Year ;PAFM -Plant Availability Factor achieved during the month, in Percentage.12.10The PAFM shall be computed in accordance with the following formula : $PAFM = 10000 \times i = \frac{I \times NDC_i}{\{N \times IC \times (100 - AUX)\}}$  %Where,AUX -Normative auxiliary energy consumption in percentage ;DCi -Declared Capacity (in ex-bus MW) for the ith Day of the month which the station can deliver for at least three (3) hours, as certified by the nodal load dispatch centre after the Day is over ;IC -Installed Capacity (in MW) of the complete generating station ;N -Number of Days in the month12.11The energy charge shall be payable by every Beneficiary for the total energy scheduled to be supplied to the Beneficiary, excluding free energy, if any, during the calendar month, on ex power plant basis, at the computed energy charge rate. Total Energy Charge payable to the Generating Company for a month shall be  $:= (\text{Energy Charge Rate in Rs. / kWh}) \times \{\text{Scheduled Energy (ex-bus) for the month in kWh}\} \times (100 - FEHS) / 100$ .12.12Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three decimal places based on the following formula, subject to the Regulation12.14 : $ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - AUX) \times (100 - FEHS)\}$ Where,DE -Annual Design Energy specified for the hydro generating station, in MWh, subject to the provision in Regulation12.13 ;FEHS -Free energy for home State, in per cent, if any.12.13In case actual total energy generated by a hydro generating station during a Year is less than the Design Energy for reasons beyond the control of the Generating Company, the following treatment shall be applied on a rolling basis :-(i)in case the energy shortfall occurs within 10 years from the Date of Commercial Operation of a generating station, the ECR for the Year following the Year of energy shortfall shall be computed based on the formula specified in Regulation 12.12 with the modification that the DE for the Year shall be considered as equal to the actual energy generated during the Year of the shortfall, till the energy charge shortfall of the previous Year has been made up, after which normal ECR shall be applicable ;(ii)in case the energy shortfall occurs after ten years from the Date of Commercial Operation of a generating station, the following shall apply. Suppose the specified annual Design Energy for the station is DE MWh, and the actual energy generated during the

concerned (first) and the following (second) financial year is A1 and A2 MWh respectively, A1 being less than DE. Then, the Design Energy to be considered in the formula as specified in Regulation of these Regulation for calculating the ECR for the third financial year shall be moderated as  $(A1 + A2 - DE)$  MWh, subject to a maximum of DE MWh and a minimum of A1 MWh ;(iii)Actual energy generated (e.g. A1, A2) shall be arrived at by multiplying the net metered energy sent out from the station by  $100 / (100 - AUX)$ .12.14In case the Energy Charge Rate (ECR) for a Hydro generating station, as computed in Regulation12.12 , exceeds eighty paise per kWh, and the actual saleable energy in a Year exceeds  $\{DE \times (100 - AUX) \times (100 - FEHS) / 10000\}$  MWh, the energy charge for the energy in excess of the above shall be billed at eighty paise per kWh only :Provided that in a year following a year in which total energy generated was less than the Design Energy for reasons beyond the control of the generating company, the Energy Charge Rate shall be reduced to eighty paise per kWh after the energy charge shortfall of the previous year has been made up.12.15The capacity charge payable to a pumped storage Hydro generating station for a calendar month shall be : $(AFC \times NDM / NDY)$  (in Rupees), if actual Generation during the month is  $\geq 75\%$  of the Pumping Energy consumed by the station during the month and  $\{(AFC \times NDM / NDY) \times (\text{Actual Generation during the month during peak hours} / 75\% \text{ of the Pumping Energy consumed by the station during the month})\}$  (in Rupees)}, if actual Generation during the month is  $< 75\%$  of the Pumping Energy consumed by the station during the month. Where, AFC = Annual fixed cost specified for the year, in Rupees NDM = Number of days in the month NDY = Number of days in the year :Provided that there would be adjustment at the end of the year based on actual generation and actual pumping energy consumed by the station during the year.12.16The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary in excess of the design energy plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir, at a flat rate equal to the average energy charge rate of 20 paise per kWh, excluding free energy, if any, during the calendar month, on ex power plant basis.12.17Energy charge payable to the generating company for a month shall be  $:= 0.20 \times \{\text{Scheduled energy (ex-bus) for the month in kWh} - (\text{Design Energy for the month (DEm)} + 75\% \text{ of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month})\} \times (100 - FEHS) / 100$ . Where, DEm = Design energy for the month specified for the Hydro generating station in MWh FEHS = Free energy for home State, in per cent :Provided that in case the Scheduled energy in a month is less than the Design Energy for the month plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month, then the energy charges payable by the beneficiaries shall be zero.12.18The generating company shall maintain the record of daily inflows of natural water into the upper elevation reservoir and the reservoir levels of upper elevation reservoir and lower elevation reservoir on hourly basis. The generator shall be required to maximize the peak hour supplies with the available water including the natural flow of water. In case it is established that generator is deliberately or otherwise without any valid reason, is not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power to its potential or wasting natural flow of water, the capacity charges of the day shall not be payable by the beneficiary. For this purpose, outages of the unit(s)/ station including planned outages and the forced outages up to 15% in a year shall be construed as the valid reason for not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power using energy of pumped water or natural flow of water :Provided that the total capacity charges recovered during the year

shall be adjusted on pro-rata basis in the following manner in the event of total machine outages in a year exceeds 15% :
$$(ACC)_{adj} = (ACC) R \times (100 - ATO) / 85$$
Where, (ACC)<sub>adj</sub> - Adjusted Annual Capacity Charges (ACC)R - Annual Capacity Charges recovered ATO - Total Outages in percentage for the year including forced and planned outages : Provided further that the generating station shall be required to declare its machine availability daily on day ahead basis for all the time blocks of the day in line with the scheduling procedure of Grid Code.12.19The concerned Load Despatch Centre shall finalise the schedules for the Hydro generating stations, in consultation with the Beneficiaries, for optimal utilization of all the energy declared to be available, which shall be scheduled for all beneficiaries in proportion to their respective allocations in the generating station.

## **Part IV – Procedure of Filing of ARR and Tariff**

**13. Multi year tariff filing procedure. - 13.1 The filing under MYT by the generating company shall be done as per the timelines specified in these Regulations and in compliance with the principles for determination of ARR as specified in these Regulations, in such form as may be prescribed by the Commission from time to time.**

13.2The Applicant shall also submit the Multi Year Tariff filing in electronic format to the Commission.13.3The applicant shall also submit a statement on compliance of directives issued by the Commission in its previous orders.Beginning of the Control Period Filings :13.4The generating company shall file for the Commission's approval, no later than 1st September of the year preceding the start of the Control Period, a Business Plan and a Capital Investment Plan in accordance with Regulations 9.5 to 9.8 ;13.5The Applicant shall file the MYT application for approval of generation tariff for each year of the Control Period consistent with the Business Plan, not later than 30th November or less than 120 days before the commencement of the first year of the Control Period or such other date as may be directed by the Commission.Annual Filings for the Control Period13.6The generating company shall submit periodic returns as may be specified, containing operational and cost data to enable the Commission to monitor the implementation of its MYT order.13.7The generating company shall submit to the Commission annual statements of its performance and accounts including latest report of audited accounts.

**14. Disposal of application. - 14.1 The Commission shall process the filings made by the Generating Company in accordance with these Regulations and the Conduct of Business Regulations.**

14.2Based on the generating company's filings, objections/ suggestions from public and other stakeholders, the Commission may accept the application with such modifications and/or such conditions as may be deemed justified and appropriate and issue :(a)An Order approving or rejecting the Business Plan shall, as far as practicable, within sixty (60) days from receipt of a complete Business Plan. The Order shall also contain targets for controllable items for the Control Period :(b)A Tariff Order, within 120 days of the receipt of the application and after considering all

suggestions and objections from public and other stakeholders, containing inter alia Trued up cost components for the Year preceding the base year, estimation of parameters for the Base Year and determination of ARR and generation tariff for each year of the Control Period.

**15. Annual performance review. - 15.1 To ensure smooth implementation of the Multi Year Tariff (MYT) framework, the Commission may undertake periodic reviews of generating company's performance during the Control Period, to address any practical issues, concerns or unexpected outcomes that may arise.**

15.2 The generating company shall submit information as part of annual performance review on actual performance to assess the performance vis-à-vis the targets approved by the Commission at the beginning of the Control Period. This shall include annual statements of its performance and accounts including latest available accounting statements, norms achieved and the tariff worked out in accordance with these Regulations. 15.3 The Commission may also direct any modifications to the forecast of the Generating Company for the remainder of the Control Period, with detailed reasons for the same.

**16. Truing up. - 16.1 The True-Up for the Control Period shall be as per Regulations 9.12 .**

## **Part V – Miscellaneous**

Foreign Exchange Rate Variation :

**17.**

**1. The generating company may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the generating station or the transmission or distribution system, in part or full in the discretion of the generating company or the licensee.**

17.2 The generating company shall recover the cost of hedging of foreign exchange rate variation corresponding to the normative foreign debt, in the relevant year on year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such foreign exchange rate variation shall not be allowed against the hedged foreign debt. Billing and Payment of Charges

: 17.3 Bills shall be raised for capacity charge and energy charge on monthly basis by the generating company in accordance with these Regulations and payments shall be made by the beneficiaries directly to the generating company. Scheduling : 17.4 The methodology for scheduling and despatch for the generating station shall be as specified in Grid Code, approved by the Commission. Metering



and Accounting :17.5 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 organised by the State Transmission Utility and State Load Despatch Centre as per the Grid Code. All concerned entities (in whose premises the special energy meters are installed), shall fully cooperate with the State Transmission Utility/State Load Despatch Centre and extend the necessary assistance by taking weekly meter readings and transmitting them to the State Load Despatch Centre. The State Load Despatch Centre shall issue the Accounts for energy on monthly basis as well as Deviation charges on weekly basis. Incentive for Completion of Hydro Power Generating Stations ahead of Schedule :-17.6 In case of commissioning of a Hydro Power Generating Station or part thereof ahead of schedule, as set out in the first approval of the Central/State Government or the techno-economic clearance of the Authority, as applicable, the generating station shall become eligible for incentive for an amount equal to pro-rata reduction in interest during construction, achieved on commissioning ahead of the schedule. The incentive shall be recovered through tariff in twelve equal monthly instalments during the first year of operation of the generating station. In case of delay in commissioning as set out in the first approval of the Central/ State Government or the techno-economic clearance of the Authority, as applicable, interest during construction for the period of delay shall not be allowed to be capitalized for determination of tariff, unless the delay is on account of natural calamities or geological surprise. Late Payment Surcharge :17.7 In case of payment of bills is delayed beyond a period of 60 days from the date of presentation of bills, the generating company may levy at the rate of 1.25% per month for each day of delay of payment. Rebate :17.8 For payment of bills of capacity charges/energy charges through a letter of credit on presentation, a rebate of 2% shall be allowed. If the payment is made by any other mode within a period of one month of presentation of bills by the Generating Company, a rebate of 1% shall be allowed. Savings :17.9 Nothing in these Regulations shall, expressly or impliedly, bar the Commission dealing with any matter or exercising any power under the Act for which no regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner, as it considers just and appropriate.17.10 Powers to Remove Difficulties : If any difficulty arises in giving effect to these Regulations, the Commission may, of its own motion or otherwise, by an order and after giving reasonable opportunity to those likely to be affected by such order, make such provisions, not inconsistent with these Regulations, as may appear to be necessary for removing the difficulty.17.11 Powers to Relax : The Commission, for reasons to be recorded in writing, may relax or vary any of the provisions on its own motion or on an application made before it by an interested person.

## 18. Summary of timelines. -

S. No.	Description	Filing of the Document by	Obtaining additional information and acceptance by the Commission	Approval of the Document
1	2	3	4	5
1.	Business Plan for the	1st August, 2017	Within 15 days of filing	Within 60 days

	First Control Period		of document	of acceptance of the filing
2..	Filing of MYT Petition for Existing Stations for the Control Period FY 2018-2019 to FY 2020-21	30th November, 2017	Within 30 days of filing of document	Within 120 days of acceptance of the filing
3..	Filing of MYT Petition for New Stations for the Control Period FY 2018-19 to FY 2020-21	Within 180 days of anticipated CoD	Within 30 days of filing of document	Within 120 days of acceptance of the filing
4.	Annual Performance Review/True-up	30th November of each year of the Control Period	Within 30 days of filing of document	Within 120 days of acceptance of the filing

Appendix-I :  
Depreciation  
Schedule

S. No.	Asset Particulars	Depreciation Rate (Salvage value=10%)
1	2	3
		SLM
A	Land owned under full ownership	0.00%
B	Land under lease :	
(a)	For investment in the land	3.34%
(b)	For cost of clearing the site	3.34%
(c)	Land for reservoir in case of hydro generating station	3.34%
C	Assets Purchased New :	
(a)	PI and machinery in generating stations:	
	(i) Hydroelectric	5.28%
	(ii) Steam electric NHRB and Waste Heat Recovery Boilers	5.28%
	(iii) Diesel electric and gas plant	5.28%
(b)	Cooling towers and circulating water systems	5.28%
(c)	Hydraulic works forming part of hydroelectric system including :	
	(i) Dams, spillways weirs, canals, reinforced concrete flumes and siphons	5.28%
	(ii) Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge (tanks) hydraulic	5.28%

	controlvalves and hydraulic works	
(d)	Building and civil engineering works of a permanent character, not mentioned above :	
	(i) Offices and showrooms	3.34%
	(ii) Containing thermoelectric generating plant	3.34%
	(iii) Containing hydroelectric generating plant	3.34%
	(iv) Temporary erection such as wooden structures	100.00%
	(v) Roads other than kutcha roads	3.34%
	(vi) Others	3.34%
(e)	Transformers, kiosk sub-station equipment and other fixed apparatus (including plant foundations) :	
	(i) Transformers (including foundations) having a rating of 100 kilo volt amperes and over	5.28%
	(ii) Others	5.28%
(f)	Switchgear, including cable connections	5.28%
(g)	Lightning arrestors :	
	(i) Station type	5.28%
	(ii) Pole type	5.28%
	(iii) Synchronous condenser	5.28%
(h)	Batteries :	5.28%
	(i) Underground cable including joint boxes and disconnected boxes	5.28%
	(ii) Cable duct system	5.28%
(i)	Overhead lines including cable support :	
	(i) Lines on fabricated steel operating at terminal voltages higher than 66 kV	5.28%
	(ii) Lines on steel supports operating at terminal voltages higher than 13.2 kV but not exceeding 66 kV	5.28%
	(iii) Lines on steel or reinforced concrete	5.28%
	(iv) Lines on treated wood supports	5.28%
(j)	Meters	5.28%
(k)	Self propelled vehicles	9.50%
(l)	Air conditioning plants :	
	(i) Static	5.28%
	(ii) Portable	9.50%
(m)	(i) Office furniture and furnishings	6.33%
	(ii) Office equipment	6.33%
	(iii) Internal wirings including fittings and apparatus	6.33%

	(iv) Street Light fittings	5.28%
(n)	Apparatus let on hire :	
	(i) Other than motors	9.50%
	(ii) Motors	6.33%
(o)	Communication equipment :	
	(i) Radio and higher frequency carrier systems	6.33%
	(ii) Telephone lines and telephones	6.33%
(p)	IT Equipments	15.00%
(q)	Fiber Optic	6.33%
(r)	Any other assets not covered above	5.28%