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ARUNACHAL PRADESH STATE ELECTRICITY REGULATORY COMMISSION
ITANAGAR

NOTIFICATION

The 4th October, 2018

MULTI YEAR TARIFF REGUALTIONS -2018

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**ARUNACHAL PRADESH STATE ELECTRICITY REGULATORY COMMISSION
ITANAGAR**

NOTIFICATION

The 4th October, 2018

MULTI YEAR TARIFF REGUALTIONS -2018

No. APSERC/Notification/30/2018: In exercise of powers conferred by sub section (1) of section 181 and clauses (zd), (ze) and (zf) of sub section (2) of section 181, read with sections 61, 62, and 86, of the Electricity Act 2003 (36 of 2003) and all other powers enabling it in that behalf, the Arunachal Pradesh State Electricity Regulatory Commission hereby makes the following regulations, the same having being previously published in the Arunachal Pradesh Gazette issue dated 23rdOctober 2013 and duly considered, namely,

CHAPTER - 1 : PRELIMINARY

1.1 Short title and Commencement :

- (1) These Regulations shall be called the Arunachal Pradesh State Electricity Regulatory Commission **(Multi Year Tariff) Regulations, 2018** for Generation, Transmission, SLDC, Wheeling and Retail Supply.
- (2) These Regulations shall come into force from the date of their publication in the official Gazette of Arunachal Pradesh and shall remain in force till amended or repealed by the Commission:

Provided that where a project or Scheme or a part thereof of a utility, has been declared under commercial operation before the date of commencement of these Regulations, tariff in respect of such project or scheme or such part thereof, unless the context otherwise requires, shall be determined in accordance with the **APSERC (Multi Year tariff) Regulation 2013** for the relevant year, as amended from time to time.

- (3) These Regulations supersedes the "Arunachal Pradesh State Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2013" with all amendments thereto.

1.2 Scope and Extent of Application :

- (1) These Regulations shall be applicable to all existing and future Generating Companies, SLDC, Transmission Licensees, Distribution Licensees and their successors, if any;
- (2) These Regulations shall be applicable for determination of tariff in all cases covered under these Regulations from 1st April, 2019 and onwards;
- (3) These regulations shall be applicable where the capital cost based tariff is determined by the Commission. Where tariff has been determined through the transparent process of bidding in accordance with the guidelines issued by the Central Government, the Commission shall adopt such tariff in accordance with the provisions of Section 63 of the Act.
- (4) These regulations shall not apply for tariff determination of renewable energy generation projects. The tariff for such generation projects shall be determined as per Arunachal Pradesh State Electricity Regulatory Commission **(Terms & Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2018** as amended from time to time.
- (5) These Regulations shall extend to the whole of the State of Arunachal Pradesh.

1.3 Definitions :

In these regulations, unless the context otherwise requires, -

- (1) **"Accounting Statement"** means for each financial year, the following statements, namely-
 - (a) Balance sheet, prepared in accordance with the Part I of Schedule III to the Companies Act, 2013 as amended from time to time;
 - (b) Statement of Profit and Loss account, prepared in accordance with the Part II of Schedule III to the Companies Act, 2013 or as amended from time to time;
 - (c) Cash flow statement, prepared in accordance with the Accounting Standard on Cash Flow Statement (AS-3) notified by Ministry of Corporate Affairs, Government of India;

- (d) A Statement of changes in Equity, if applicable;
 - (e) Report of the statutory auditors including cost auditors and C& AG;
 - (f) Cost records prescribed by the Central Government under Section 148 of the Companies Act, 2013 or as amended from time to time together with notes and explanatory statements thereto, and such other supporting statements and information as the Commission may direct from time to time;
 - (g) Provided that in case of any local authority engaged in the business of distribution of electricity, the Accounting Statement shall mean the items, as mentioned above, prepared and maintained in accordance with the relevant Acts or Statutes as applicable to such local authority;
 - (h) Provided further that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts.
- (2) **“Act”** means the Electricity Act, 2003 (36 of 2003), 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;
- (4) **“Aggregate Revenue Requirement”** means the requirement of the Transmission Licensee or Distribution Licensee or Generating Company or SLDC for recovery, through tariff, of allowable expenses and return on capital pertaining to its Licensed or Regulated Business for a particular FY, in accordance with these Regulations.
- (5) **“Allocation Statement”** means for each financial year, a statement in respect of each of the separate businesses of the of the Generating Company or Transmission Licensee or Distribution Licensee, showing the amounts of any revenue, cost, asset, liability, reserve or provision etc., which has been either charged from or to each such Other Business together with a description of the basis of that charge; or determined by apportionment or allocation between different businesses of the licensee including the Licensed Businesses, together with a description of the basis of the apportionment or allocation:
- Provided further that such allocation statement in respect of a generating station, owned and/or maintained and/or operated by the distribution licensee, shall be maintained in a manner to enable tariff determination, stage wise, Unit wise and/or for the whole generating station.
- Provided that for the purpose of this Regulation, the licensed business of the Distribution Licensee for an area of supply would be separated as Distribution Wires and Retail Supply business:
- (6) **“Applicant”** means a Generating Company or Transmission Licensee or Distribution Licensee who has made an application for determination of Annual Revenue Requirement and Tariff in accordance with the Act and these Regulations and includes a Generating Company or Transmission Licensee or Distribution Licensee whose tariff is the subject of a review by the Commission either on Suo- motu basis or on a Petition filed by any interested or affected person or as part of an Annual Performance Review;
- (7) **“Area of Supply”** means the area within which a distribution licensee is authorized by virtue of his license, to supply electricity in that area.
- (8) **“Authority”** means Central Electricity Authority referred to in Section 70 of the Act;
- (9) **“Auxiliary Energy Consumption”** in relation to a period in case of a generating station 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 the transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;

Provided further that power consumed in housing colony and other facilities of a Generating Station including the power consumed in construction phase shall not be included as part of the auxiliary consumption for the purpose of these Regulations.

(10) **“Availability”** in relation to a transmission system for a given period shall mean the time in hours during that period in which the transmission system is capable of transmitting electricity at its rated voltage to the delivery point and shall be expressed in percentage of total hours in the given period. The procedure for calculation is specified in Annexure II of these Regulations.

(11) **“Allotted Transmission Capacity”** means the power transfer in MW between the specified point(s) of injection and point(s) of drawl allowed to a long-term customer or a medium-term customer on the intra-State transmission system under the normal circumstances and the expression "allotment of transmission capacity" shall be construed accordingly:

Provided that the Allotted Transmission Capacity to a long-term transmission customer or a medium-term transmission customer shall be sum of the generating capacities allocated to the long-term transmission customer or the medium-term transmission customer from the generating stations and the contracted power, if any;

(12) **“Bank Rate”** shall mean the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;

(13) **“Base year”** means the financial year immediately preceding the first year of the Control Period and used for the purposes of these regulations;

(14) **“Beneficiary”** in relation to a Generating Station means the purchaser of electricity generated at such a Generating Station whose tariff is determined under these Regulations;

“Beneficiary” in relation to transmission business means the person who has contracted the transmission capacity on payment of transmission charges.

(15) **“Bulk Power Transmission Agreement”** means an executed Agreement that contains the terms and conditions under which a Transmission System User is entitled to access an intra-State transmission system of a Transmission Licensee;

(16) **“Business Plan”** shall comprise of elements as specified in Regulation 2.3 of these Regulations;

(17) **“Capital Cost”** means the capital cost as determined in accordance with Regulation 4.3 of these regulations.

(18) **“CERC”** means the Central Electricity Regulatory Commission.

(19) **“Change in law”** means occurrence of any of the following events:

- (a) enactment, bringing into effect or promulgation of any new Indian law; or
- (b) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or
- (c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or
- (d) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or
- (e) 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 or the transmission system regulated under these Regulations.

(20) **“Commission”** means the Arunachal Pradesh State Electricity Regulatory Commission.

(21) **“Competitive Bidding”** means a transparent process for procurement of equipment, services and works in which bids are invited by the project developer by open advertisement covering the scope and specifications of the equipment, services and works required for the project, and the terms and conditions of the proposed contract as well as the criteria by which bids shall be evaluated, and shall include domestic competitive bidding and international competitive bidding;

(22) **“Conduct of Business Regulations”** means the Arunachal Pradesh State Electricity Regulatory Commission (Conduct of Business) Regulations, 2011.

(23) **“Connectivity”** means arrangement to facilitate interconnection of a licensee point, open access customer point and generating station point with arrangement to control the circuit with suitable switchgear including protection, communication and metering arrangement.

(24) **“Connectivity Charge or Point of Connection Charge”** means charge to be recovered for cost of arranging connectivity from concerned agency for availing the connection.

- (25) **“Consumer”** means any person who is supplied with electricity for his own use by a licensee or a deemed licensee engaged in the business of supplying electricity to the public under the Act or any other law for the time being in force and includes any person whose premises are for the time being connected for the purpose of receiving electricity with the work of a licensee.
- (26) **“Contracted Capacity”** means the capacity in MW contracted by long-term Transmission System User as part of its long term power procurement plan through a power purchase agreement and shall be equivalent to the deemed Transmission Capacity Right of a Transmission System User.
- (27) **“Control Period”** means the period of three years from April 1, 2019 to March 31, 2022, and for every block of three years thereafter, for submission of forecast.
- (28) **“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;
- (29) **“Date of Commercial Operation” or “COD”** means:
- (a) in relation to a Unit of a hydro Generating Station, the date declared by the generating company from 00:00 hour of which, after notice to the beneficiaries, scheduling process in accordance with the Indian Electricity Grid Code / Arunachal Pradesh State 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 :

- (i) 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 shall 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.
- (ii) 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.
- (iii) The certificate regarding commissioning of the generating station and compliance of all the Rules and Regulations in this regard and also of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations, 2010, shall be signed by CMD/CEO/MD of the company subsequent to its approval by the Board of Directors in the format enclosed at Annexure IV:
- (b) in relation to the transmission system, the date declared by the transmission licensee from 00:00 hour of which an element of the transmission system is in regular service after successful charging and trial operation for transmitting electricity and communication signal from sending end to receiving end:

Provided that where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement.

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee or its suppliers or its contractors but is on account of the delay in commissioning of the concerned generating station or in the commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission with an appropriate application to approve the date of commercial operation of such element of the transmission system.

- (30) **“Day”** means the 24-hour period starting at 00:00 hour;
- (31) **“De-Commissioning”** means removal from service of a generating station or a unit thereof or transmission system 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;
- (32) **“Declared Capacity”** (DC) shall mean the capability of the generating station 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 APSCRC Grid Code or whole of the day, duly taking into account the availability of fuel;
- (i) Declared capacity however shall be limited to Installed Capacity.
- (ii) Daily average declared capacity means the sum of capacity declared for every fifteen minutes block during the 24-hour period divided by 96.
- (33) **“Design Energy”** in relation to a hydro power Generating Station means the quantum of energy, which could be generated in a 90% dependable year with 95% installed capacity of the Generating Station;
- (34) **“Distribution Business”** means the business of operating and maintaining a distribution system for supplying electricity in the area of supply of the Distribution licensee.
- (35) **“Distribution System”** means the system of wires and associated facilities between the delivery points on the transmission lines or the generating station connection and the point of connection to the installation of the consumers.
- (36) **“Distribution licensee”** means a licensee authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area or supply.
- (37) **“Ensuing Year”** means the year immediately following the current year.
- (38) **“Event”** means an unscheduled or unplanned occurrence in the intra-State transmission system including faults, incidents and breakdowns;
- (39) **“Expected Revenue from Tariff and Charges”** means the revenue estimated to accrue to the Generating Company or Transmission Licensee or Distribution Licensee from the Regulated Business at the prevailing tariff;
- (40) **“Existing Generating Unit/Station”** means a Generating Unit/ Station declared under commercial operation prior to the date of effectiveness of these Regulations;
- (41) **“Existing Project”** means a project declared under commercial operation prior to the date of effectiveness of these Regulations;
- (42) **“Force Majeure Event”** means, with respect to any party, any event or circumstance, which is not within the reasonable control of, and is not due to an act of omission or commission of, that party and which, by the exercise of reasonable care and diligence, could not have been prevented, and without limiting the generality of the foregoing, would include the following events:
- (a) acts of God, including but not limited to lightning, storm, action of the elements, earthquakes, flood, torrential rains, drought and natural disaster;
- (b) strikes, lockouts, go-slow, bandh or other industrial disturbances not instigated by any party;
- (c) acts of public enemy, wars (declared or undeclared), blockades, insurrections, riots, revolution, sabotage, vandalism and civil disturbance;
- (d) unavoidable accident, including but not limited to fire, explosion, radioactive contamination and toxic dangerous chemical contamination;
- (e) any shut down or interruption, which is required to avoid serious and immediate risks of a significant plant or equipment failure, directed by the State or Central Government or by the Commission or by the State Load Despatch Centre.
- (43) **“Generation Business”** means the business of production of electricity from a Generating Station for the purpose of (i) giving supply to any premises or enabling a supply to be so given (ii) for the purpose of supply of electricity to any Distribution Licensee in accordance with the Act and the rules and regulations made there under and, (iii) subject to the Regulations made under sub-section (2) of Section 42 of the Act, supply of electricity to any consumer;

- (44) **“High Tension or HT”** means all voltages defined as high or extra high voltage under clause (av) of sub-rule (1) of Rule 2 of the Indian Electricity Rules, 1956 and corresponding voltage classifications as may be specified in accordance with clause (c) of sub-section (2) of Section 185 of the Act;
- (45) **“Infir power”** means electricity injected into the grid prior to the commercial operation of a Unit or Block of the Generating Station;
- (46) **“Installed Capacity”** means the summation of the name plate capacities of all the Units of the Generating Station or the capacity of the Generating Station (reckoned at the generator terminals) as approved by the Commission from time to time;
- (47) **“Intra-State Transmission System (InSTS)”** means any system for conveyance of electricity by transmission lines within the area of the State and includes all transmission lines, sub-stations and associated equipment of Transmission Licensees in the State;
- (48) **“Licensee”** means any person or persons granted licence under Section 14 or exempted under Section 13 of the Act including deemed licensee;
- (49) **“Licensed Business”** means the function and activities, which the licensee is required to undertake in terms of the License granted by the Commission or as deemed Licensee under the Act.
- (50) **‘Long Term Transmission Customers’** means a person availing or intending to avail access to the intra-state transmission system for a period of minimum 12 years but not exceeding twenty-five years or more.
- (51) **“Maximum Available Capacity”** shall mean the following:
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.
- (52) **“Mid-term Review”** means a review to be undertaken in accordance with the third provision of 2.2 of these Regulations;
- (53) **“New Generating Unit/Station”** means a Generating Unit/Station declared under commercial operation on or after the date of coming into force of these Regulations;
- (54) **“Non-Tariff Income”** means income relating to the regulated business other than from tariff, excluding any income from Other Business and, in case of the Retail Supply Business of a Distribution Licensee, excluding income from wheeling and receipts on account of cross subsidy surcharge and additional surcharge on charges of wheeling;
- (55) **“Normative Annual Plant Availability Factor” or “NAPAF”** in relation to a hydro generating station means the availability factor specified in Regulation 6.13 for hydro generating stations;
- (56) **“Norms”** means standards prescribed by the Commission for performance of generating station, transmission system and distribution system.
- (57) **“Open access”** means the non-discriminatory provision for use of transmission lines or distribution system or associated facilities with such lines or system by any lines or consumer or a person engaged in generation in accordance with the Regulations specified by the Commission.
- (58) **“Open Access Consumers”** means a consumer permitted by the Commission to receive supply of electricity from a person other than a distribution licensee of his area of supply and the expression includes a generating company or a licensee who has availed of or intends to avail supply of power through open access.
- (59) **“Operation and Maintenance expenses” or “O&M expenses”** means the expenditure incurred on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads but excludes fuel expenses and water charges;

- (60) **“Original Project Cost”** means the capital expenditure incurred by the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission;
- (61) **“Other Business”** means any business undertaken by the Generating Company, Transmission Licensee or Distribution Licensee, other than the business regulated by the Commission;
- (62) **“Plant Load Factor” or “(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:

$$PLF = 10000 * \sum_{i=1}^N \frac{SGi}{\{N * IC * (100 - AUXn)\}} \%$$

Where,

IC = Installed Capacity of the generating station or unit in MW,

SGi= Scheduled Generation in MW for the ith time block of the period,

N = Number of time blocks during the period, and

AUXn = Normative Auxiliary Energy Consumption as a percentage of gross energy generation;

- (63) **“Previous year”** means the year immediately preceding the current year.
- (64) **“Primary Energy”** means the quantum of energy generated up to the design energy on per year basis at the generating station;
- (65) **“Project”** means a Generating Station or the transmission system including communication system or the distribution system, as the case may be, and in case of a hydro Generating Station includes all components of generating facility such as dam, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation.
- (66) **“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 or transmission licensee has been careful in its judgments and decisions for executing the project or has been careful and vigilant in executing the project;
- (67) **“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;
- (68) **“Rated Voltage”** means the manufacturer’s design voltage at which the transmission system is designed to operate or such lower voltage at which the line is charged, for the time being, in consultation with Transmission System Users.
- (69) **“Regulated Business”** means any electricity business, which is regulated by the Commission.
- (70) **“Regulatory Asset”** means previously incurred losses that are in the nature of deferred expenditure and that can be recovered from consumers in future, provided allowed by regulatory authorities.
- (71) **“Regulatory Accounts”** means the regulatory accounts, duly audited by the auditor of the Utility containing all the financial and non-financial information of the Utility, including the filled up formats appended to these regulations and cover the activities which includes without limitation the Statutory Accounts prepared under Companies Act, 2013 or any other law applicable to the Utility;
- (72) **“Retail Supply Business”** means the business of sale of electricity by a licensee to consumers in accordance with the terms and conditions specified in the distribution and retail supply licensee.
- (73) **“Run-of-river Generating Station”** means a hydro Generating Station, which does not have upstream pondage;

- (74) **“Run-of-river Generating Station with pondage”** means a hydro Generating Station with sufficient pondage for meeting the diurnal variation of power demand;
- (75) **“Saleable Primary Energy”** means the quantum of primary energy available for sale (ex-bus) after allowing for free energy to home state, if any.
- (76) **“Saleable Secondary Energy”** means the quantum of secondary energy available for sale (ex-bus) after allowing for free energy to home state, if any.
- (77) **“Scheduled Energy”** means the quantum of energy scheduled by the State Load Dispatch Centre to be injected into the grid by a generating station for a given time period;
- (78) **“Scheduled Generation”** at any time for any period or time-block means schedule of ex-bus generation in MW or MWh, given by the State Load Dispatch Centre;
- (79) **“Secondary Energy”** means the quantum of energy generated in excess of the design energy on per year basis at the generating station;
- (80) **“State Load Dispatch Centre”** or **“SLDC”** means the centre established by the State Government for purposes of exercising the powers and discharging the functions under Section 31 of the Act;
- (81) **“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;
- (82) **“Tariff”** means the schedule of charges for generation, transmission, and distribution of electricity determined by the Commission from time to time;
- (83) **“Transmission”** means conveyance of electricity by means of transmission lines.
- (84) **“Transmission Services Agreement”** means an agreement entered into between a transmission licensee and the open access customer to avail access to the licensee’s transmission system for the transmission of electricity.
- (85) **“Transmission System”** means a line or a group of lines with or without associated sub-station, and includes equipment associated with transmission lines and sub-stations;
- (86) **“Transmission System User”** means a person who has been allotted transmission capacity rights to access an Intra-State transmission system pursuant to a Bulk Power Transmission Agreement, except as provided in the Arunachal Pradesh State Electricity Regulatory Commission (Terms & Conditions of Open Access) Regulations, 2012, as applicable and as amended from time to time;
- (87) **“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.

- (88) **“Useful life”** in relation to a Unit of a Generating Station, transmission system and distribution from the date of commercial operation shall mean the following, namely:
- (i) Hydro generating station: 35 years;
 - (ii) AC and DC sub-station: 25 years;
 - (iii) Transmission line: 35 years;
 - (iv) Distribution line: 35 years;

- (89) **“Wheeling”** means the operation where by the distribution system and associated facilities of a transmission or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under Section 62 of the Act.
- (90) **“Year”** means the financial year ending on 31st March.

The words and expressions used and not defined in these Regulations, but defined in the Act, shall have the meanings respectively assigned to them in the Act.

The words “Application” or “Petition” shall be interpreted synonymously.

CHAPTER 2- GENERAL PRINCIPLES

2.1 Multi-Year Tariff Framework :

- (1) The Commission decided to adopt Multi Year Tariff (MYT) principles for determination of tariffs, in line with the provision of Section 61 of the Act.
- (2) The Multi- Year Tariff framework aims that:
 - (a) Provide regulatory certainty to the Utilities, investors and consumers by promoting transparency, consistency and predictability of regulatory approach, thereby minimizing the perception of regulatory risk.
 - (b) Address the risk sharing mechanism between Utilities and consumers based on controllable and uncontrollable factors.
 - (c) Ensure financial viability of the sector to attract investment, ensure growth and safeguard the interest of the consumers.
 - (d) Review operational norms for Generation, Transmission, Distribution and Supply Businesses, related issues and recommend suitable measures to address such issues.
 - (e) Promote operational efficiency.
- (3) The Commission shall determine the tariff for matters covered under Regulation 1.2 above under a Multi-Year Tariff framework with effect from 1st April, 2019.

Provided that the Commission may, either on Suo-motu basis or upon application made to it by an applicant, exempt the determination of tariff of a Generating Company or Transmission Licensee or Distribution Licensee under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption.

- (4) The Multi-Year Tariff framework shall be based on the following elements, for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business:
 - (a) Control Period, before commencement of which a forecast of the Aggregate Revenue Requirement and expected revenue from existing tariff and charges shall be submitted by the applicant and approved by the Commission;
 - (b) A detailed Multi-Year Tariff Application comprising the forecast of Aggregate Revenue Requirement for the entire Control Period and expected revenue from existing tariffs for the first year of the Control Period to be submitted by the Applicant;
 - (c) Provided that the performance parameters, whose trajectories have been specified in these Regulations, shall form the basis for projection of these performance parameters in the Aggregate Revenue Requirement for the entire Control Period;
 - (d) Provided that a mid-term review of the Annual Revenue Requirement shall be undertaken for the Generating Company, Transmission Licensee, SLDC and Distribution Licensee.

- (e) Determination of Aggregate Revenue Requirement by the Commission for the entire Control Period and the tariff for the first year of the Control Period for the Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business;
- (f) Truing up of previous year's expenses and revenue by the Commission based on Audited Accounts vis-à-vis the approved forecast and categorisation of variation in performance as those caused by factors within the control of the Applicant (controllable factors) and those caused by factors beyond the control of the Applicant (uncontrollable factors);
- (g) Provided that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts;
- (h) The mechanism for pass-through of approved gains or losses on account of uncontrollable factors as specified by the Commission in these Regulations;
- (i) The mechanism for sharing of approved gains or losses on account of controllable factors as specified by the Commission in these Regulations;
- (j) Annual determination of tariff for the Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business, for each financial year within the Control Period, based on the approved forecast and results of the truing up exercise.
- (k) The tariff determined shall, within the time period specified in the order, be subject to the compliance of the directions by the Generating company, SLDC and the licensees to the satisfaction of the Commission. Noncompliance of directions given in the tariff order may also lead to invocation of the provisions of section 142 of the Act.

2.2 Accounting statement and filing under MYT :

- (1) The filing under MYT by the Generating Company, SLDC or the Licensee, 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.
- (2) The filing for the Control Period under these Regulations shall be as under:
 - (a) **For the first year of the Control Period MYT Petition shall comprise of:**
 - (i) Truing up for FY 2017-18.
 - (ii) Multi-Year Aggregate Revenue Requirement for the entire Control Period (FY 2019-20 to FY 2021-22) with year-wise details;
 - (iii) Revenue from the sale of power at existing tariffs and Projected revenue gap or revenue surplus, for the 1st year of the Control Period under these Regulations, viz., FY 2019-20;
 - (iv) Application for determination of tariff for FY 2019-20.
 - (b) **From the second year of the Control Period and onwards, the Petition shall comprise of :**
 - (i) Truing up for FY 2018-19 and onwards.
 - (ii) Revenue from the sale of power at existing tariffs and
 - (iii) Revenue gap or revenue surplus for the ensuing year based on the ARR approved in the Tariff Order;
 - (iv) Application for determination of tariff for the ensuing year;
 - (c) **In case of Mid-term Review of ARR, the Petition shall comprise of:**
 - (i) Truing up for the previous year under these Regulations;
 - (ii) Modification of the ARR for the remaining years of the Control Period, if any, with adequate justification for the same;
 - (iii) Revenue from the sale of power at existing tariffs and charges for the ensuing year;
 - (iv) Revenue gap or revenue surplus for the ensuing year calculated based on ARR approved in the MYT Order and truing up for the previous year;
 - (v) Application for determination of tariff for the ensuing year.
- (3) The Generating Company, Transmission Licensee, SLDC and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, shall file separate audited accounting statements with the application for determination of tariff and truing up under Regulation 3.1 of these Regulations.

- (4) In case of a vertically integrated business, the Utility shall be required to file separate applications for determination of ARR and tariff for Generation Business, Transmission Business, Distribution Business:

Till such time there is a complete segregation of audited accounts between Generation, Transmission, Wheeling and Supply Businesses, as per provisions of these regulations, the application for determination ARR and tariff and truing up for each Business shall be supported by an allocation statement to apportion costs and revenues to respective business. The allocation statement shall be approved by the head of the Organisation of the distribution licensee and accompanied with an explanation of the methodology which should be consistent over the control period.

2.3 Business Plan :

- (1) The Forum of Regulators recommends for submission of Business Plan six (6) months prior to submission of MYT Petition. Hence, date for submission of business plan would be 31st May for the 2nd year of the control period by the licensee or a Generation company.

Provided that a mid-term review of the Business Plan may be sought by the Generating Company, Transmission Licensee, SLDC or Distribution Licensee through an application filed three (3) months prior to the specified date of filing of Petition for tariff determination for the 3rd year of the Control Period. A detailed format and Structure of Business plan for Distribution Licensee is shown in Annexure V and the salient points are also discussed below:

I. For a Generation Company-

The Business Plan for the Generating Company shall be for the entire control period and shall, interalia, contain-

- (a) Capital investment plan, which shall include details of the investments planned by the Generating Company for existing stations, yearly phasing of capital expenditure along with the source of funding, financing plan and corresponding capitalisation schedule. This plan shall be commensurate with R&M schemes and proposed efficiency improvements for various plants of the company;
- (b) The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence in the Control Period but may be completed within or beyond the Control Period;
- (c) 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;
- (d) Details related to major shut down of machines, if any;
- (e) Trajectory of performance parameters.

II. For a Transmission Licensee :

The Business Plan for the Transmission Licenses shall be for the entire control period and shall, interalia, contain-

- (a) Capital investment plan which should be commensurate with load growth and quality improvement proposed in the business plan. The investment plan should also include yearly phasing of capital expenditure along with the source of funding, financing plan and corresponding capitalisation schedule. The system augmentation/expansion plan to be submitted as a part of Capital Investment Plan by the Transmission Licensee shall be consistent with the load growth forecast/ generation evacuation requirement during the control period. Further, the Capital Investment Plan shall be in conformity with the plans made by the CEA/CTU/ STU/Distribution Licensee;
- (b) The appropriate capital structure of each scheme proposed and cost of financing (interest on debt) and return on equity, terms of the existing loan agreements, etc;
- (c) Transmission loss reduction trajectory for each year of the control period, including details of the measures proposed to be taken for achieving the target loss;

III. For a Distribution Licensee

The Distribution licensees should submit the business plan and power purchase plan, for approval of the Commission, at least six months prior to submission of MYT petitions, comprising the following aspects:

- (a) Sales/demand forecast for each customer category and sub-categories for each year of the control period;
- (b) Distribution loss reduction trajectory for each year of the control period; including details of the measures proposed to be taken for achieving the target loss;
- (c) Power procurement plan in case of long term, medium term and short term based on the sales forecast and distribution loss trajectory for each year of the business plan period; the power procurement plan may also include energy efficiency and demand side management measures;
- (d) Collection efficiency improvement trajectory for each year of the control period;
- (e) Capital investment plan considering the sales/demand forecast, power procurement plan, distribution loss trajectory, targets for quality of supply, etc. The capital investment plan shall be consistent with the perspective plan drawn by the State Transmission Utility (STU), and the investment plan should also include yearly phasing of capital expenditure along with the source of funding, financing plan and corresponding capitalization schedule;
- (f) The appropriate capital structure of each scheme proposed and cost of financing (interest on debt and return on equity), terms of the existing loan agreements, etc.
- (g) Details related to availability of power from renewable energy sources and actions proposed for complying with the RPO specified by the Commission.

IV. For a State Load Dispatch Centre (SLDC) :

- (1) Capital Investment Plan including phasing of expenditure and funding pattern; Estimated budget for the control period;
- (2) The Applicant shall also submit the details in respect of its manpower planning for the Control Period as part of Business Plan.
- (3) In addition, the Utilities are required to submit their MYT Petition on or before 30th November of the previous year for which tariff has to be determined.
- (4) The Commission shall scrutinize and approve the business plan after following the due consultation process within a period of four (4) months from the date of its filing or submission of complete information, whichever is later so that the licensee or the Company submits the MYT petition based on the approved plan.

2.4 Specific trajectory for certain variables :

- (1) The Commission shall stipulate a trajectory for certain variables while approving the MYT petition having regard to the reorganization, restructuring and development of the electricity industry in the State.

Provided that the variables for which a trajectory shall be stipulated shall include but shall not be limited to,

- (a) In case of Generating Stations: Generating station's availability, auxiliary consumption, etc.
- (b) In case of Transmission Licensee: Transmission losses, transmission system availability, etc.
- (c) In case of Distribution Licensee: Supply availability, wires availability, distribution losses, AT&C losses, collection efficiency, etc.
- (2) Provided further that this trajectory should provide for sharing of gains and losses with the consumers because of superior and inferior performance as against the targets prescribed;
- (3) The applicant in its MYT Petition shall incorporate the trajectory stipulated by the Commission in accordance with these Regulations.

2.5 MYT Application :

- (1) The Generating Company, Transmission licensee, SLDC and Distribution Licensee, shall submit the forecast of Aggregate Revenue Requirement for the entire Control Period and tariff proposal for the 1st year of the Control Period, in such manner, and within such time limit as provided in these Regulations and accompanied by such fee payable, as may be specified under the Arunachal Pradesh State Electricity Regulatory Commission (Fees, Fines and Charges) Regulations, 2011, as amended from time to time.
- (2) The Applicant shall develop the forecast of Aggregate Revenue Requirement using the assumptions relating to the behaviour of individual variables that comprise the Aggregate Revenue Requirement during the Control Period.
- (3) The Applicant shall develop the forecast of expected revenue from tariff and charges based on the following:
 - (a) In the case of a Generating Company, estimates of quantum of electricity to be generated by each Unit/Station for ensuing financial year within the Control Period;
 - (b) In the case of a Transmission Licensee, estimates of transmission capacity allocated to Transmission System Users for ensuing financial year within the Control Period;
 - (c) In the case of SLDC, estimates of services to be extended to the beneficiaries.
 - (d) In the case of a Distribution Licensee, estimates of quantum of electricity to be supplied to consumers and to be wheeled on behalf of Distribution System Users for ensuing financial year within the Control Period;
 - (e) Prevailing tariffs as on the date of making the application.
- (4) Based on the forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges, the Generating Company, Transmission Licensee, SLDC and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, shall propose the tariff that would meet the gap, if any, in the Aggregate Revenue Requirement.
- (5) The Applicant shall provide full details supporting the forecast, including but not limited to details of past performance, proposed initiatives for achieving efficiency or productivity gains, technical studies, contractual arrangements and/or secondary research, to enable the Commission to assess the reasonableness of the forecast.
- (6) On receipt of application, the Commission shall either:
 - (a) Issue an Order approving the Aggregate Revenue Requirement for the entire Control Period and the tariff for the second year of the Control Period, subject to such modifications and conditions as it may specify in the said Order; or
 - (b) Reject the application for reasons to be recorded in writing, as the Commission may deem appropriate;
 - (c) Provided that the Applicant shall be given a reasonable opportunity of being heard before rejecting his application.

2.6 Annual Performance Review and True Up :

- (1) The Generating Company, Transmission Licensee or Distribution Licensee as the case may be shall be subject to an annual review of performance and True Up during the Control Period in accordance with this Regulation. The Licensee shall file an application for annual performance review of current year, Truing up of the previous year and determination of tariff for the ensuing year in not less than 120 days before the close of each year of the control period.

Provided that the Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed by the Commission, together with the Audited Accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of ARR and expected revenue from tariff and charges;

Provided further that the information for the previous year shall be based on audited accounts and in case audited accounts for previous year are not available, audited accounts for the immediately preceding previous year should be filed along with un-audited accounts for the previous year.

- (2) The scope of the annual review and True up shall be a comparison of the actual performance of the Generating Company, Transmission Licensee, SLDC or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise the following:

- (a) **True Up:** a comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year, subject to the prudence check including pass through of impact of uncontrollable items;
- (b) **Annual Review:** comparison of the revised performance targets of the applicant for the current financial year with the approved forecast in the Tariff order corresponding to the Control period for the current financial year subject to prudence check including pass through of impact of uncontrollable items and adjusting the trajectories of controllable items.

Categorisation of variations in performance with reference to approved forecast into factors within the control of the applicant (controllable items) and those caused by factors beyond the control of the applicant (un-controllable items). Provided such categorization of the controllable and uncontrollable items shall be done in accordance with Regulation 2.7 of these Regulations.

Provided that final accounts will be submitted at the time of submission of True up and Annual Review of the Generation Company, Transmission Licensee, Distribution Licensee or SLDC.

- (3) Upon completion of the review, any variations or expected variations in performance, for variables other than those specified under Regulation 2.7 below, shall not be reviewed by the Commission during the Control Period and shall be attributed entirely to controllable items.
- (4) The Commission shall allow carrying cost for the trued-up amount (positive or negative) at interest rate equivalent to the normative interest rate of three hundred (300) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff.

2.7 Controllable and uncontrollable factors :

- (1) The “**Uncontrollable factors**” shall comprise of the following factors which were beyond the control of, and could not be mitigated by the applicant:
 - (a) Force Majeure events, such as acts of war, fire, natural calamities, etc.
 - (b) Change in law;
 - (c) Taxes and Duties;
 - (d) Variation in sales;
 - (e) Transmission Loss;
 - (f) Fuel cost;
 - (g) Cost on account of Inflation; and
 - (h) Variation in the cost of power generation and/or power purchase due to the circumstances specified in these Regulations.
- (2) Some illustrative variations or expected variations in the performance of the applicant, which may be attributed by the Commission to “**Controllable factors**” include, but are not limited to the following:
 - (a) Variations in capital expenditure on account of time and/or cost overruns/ efficiencies in the implementation of a capital project not attributable to an approved change in scope of such project;
 - (b) Variations in Aggregate Technical & Commercial (AT&C) losses which shall be measured as the difference between the units input into the distribution system and the units realized (units billed and collected) wherein the units realized shall be equal to the product of units billed and collection efficiency (where Collection Efficiency shall be measured as ratio of total revenue realized to the total revenue billed for the same year);

- (c) Variations in Return on Equity (RoE), depreciation and working capital requirements;
 - (d) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted;
 - (e) Variation in operation & maintenance expenses, except those attributable to directions of the Commission.
 - (f) Variation in Wires Availability and Supply Availability.
- (3) Provided that where the applicant or any interested or affected party believes, for any variable not specified above, that there is a material variation or expected variation in performance for any financial year on account of uncontrollable factors, such applicant or interested or affected party may apply to the Commission for inclusion of such variable at the Commissions discretion, under this Regulation for such financial year.

2.8 Sharing of Gains and Losses :

In this Section, the mechanism of sharing the gains and losses on account of controllable factors has been elaborated.

Clause 8.1 (2) of the Tariff Policy stipulates:

“The State Commissions should introduce mechanisms for sharing of excess profits and losses with the consumers as part of the overall MYT framework. In the first control period the incentives for the utilities may be asymmetric with the percentage of the excess profits being retained by the utility set at higher levels than the percentage of losses to be borne by the utility. This is necessary to accelerate performance improvement and reduction in losses and will be in the long term interest of consumers by way of lower tariffs.”

The Profit Sharing mechanism is intended to share the benefits of better performance of the Utility with the consumers, while at the same time ensuring that the Utility has enough incentive to improve its operational efficiency. The proposed sharing of gains and losses in case of uncontrollable factors is discussed below:

(1) Mechanism for pass through of gains or losses on account of uncontrollable factors

- (a) The approved aggregate gain or loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the Generating Company or Transmission Licensee or Distribution Licensee over such period as may be specified in the Order of the Commission passed under these Regulations.
- (b) The Generating Company or Transmission Licensee or Distribution Licensee shall submit such details of the variation between expenses incurred and revenue earned and the figures approved by the Commission, in the prescribed format to the Commission, along with the detailed computations and supporting documents as may be required for verification by the Commission.
- (c) Nothing contained in this Regulation shall apply in respect of any gain or loss arising out of variations in the price of fuel and power purchase, which shall be dealt with as specified by the Commission from time to time.

(2) Mechanism for sharing of gains or losses on account of controllable factors :

(a) Sharing of Gains

- (i) One-third of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission;
- (ii) The balance amount, which will amount to two-third of such gain, may be utilised at the discretion of the Licensee.

(b) Sharing of losses

- (i) One-third of the amount of such loss may be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission; and
 - (ii) The balance amount, which will amount to two-third of such loss, shall be absorbed by the Licensee.
- (c) The gain or loss on account of other controllable factors, unless otherwise specifically provided by the Commission shall be to the account of the Licensee.

2.9 Suo Motu :

The Commission shall, at all times, have the authority, either Suo-Motu or on a petition filed by any interested or affected party, to determine the Tariff, including terms and conditions thereof, of Generation Company, Transmission Licensee, SLDC and Distribution Licensees and shall initiate the process of such determination in accordance with the procedure as may be specified:

Provided that the proceedings for such determination of Tariff, including terms and conditions thereof, shall be in the same manner as set out in the APSERC (**Conduct of Business Regulations**) 2011, as amended from time to time.

CHAPTER 3 - PROCEDURE FOR DETERMINATION OF TARIFF

3.1 Filing of Tariff Petition :

- (1) The petition for determination of tariff shall be made by 30th November every year, in such form and in such manner as specified in this Regulation, and accompanied by such fees as may be specified by the Commission. Proceedings to be held by the Commission for determination of tariff shall be in accordance with the APSERC (**Conduct of Business**) Regulations, 2011, as amended from time to time.
- (2) The applicant shall provide, based on the approved Business Plan, as part of his application to the Commission, in such form as may be prescribed by the Commission from time to time, full details of his calculation of the Aggregate Revenue Requirement and expected revenue from tariff and charges, and thereafter, he shall furnish such further information or particulars or documents as the Commission or the Secretary or any Officer designated for the purpose by the Commission may reasonably require to assess such calculation:
 - (a) Provided that the application shall be accompanied where relevant, by a detailed tariff revision proposal showing category-wise tariff and how such revision would meet the gap, if any, in Aggregate Revenue Requirement for the respective year of the Control Period:
 - (b) Provided further that the Commission may specify additional/alternative formats for details to be submitted by the applicant, from time to time, as it may reasonably require for assessing the Aggregate Revenue Requirement and for determining the tariff.
- (3) Upon receipt of a complete application accompanied by all requisite information, particulars and documents in compliance with all the requirements specified in these Regulations, the application shall be deemed to be received and the Commission or the Secretary or the designated Officer shall intimate to the applicant that the application is registered and ready for publication.
- (4) The application made shall be supported by affidavit of the person acquainted with the facts stated in the application.
- (5) The generating company and the Licensee shall file information in the formats for the previous year, current year and ensuing year along with their petition as provided in Annexure III of these Regulations.
- (6) The Generating Company and Licensee along with the aforesaid petition shall submit a statement on the status of compliance of directives, if any, issued by the Commission in its last tariff order.
- (7) The petition for determination of tariff shall also include the details of actual subsidy received from the State Government vis-à-vis claimed by the Distribution Licensee.
- (8) The petition shall be supported with an affidavit by an authorized person who is acquainted with all facts and not below the Rank of SE, stated in the application or else the Petition would be marked as Null and Void.
- (9) The petition shall be sent by registered post acknowledgement due or by hand delivery. In addition to the hard copies, the information shall necessarily be submitted in such electronic form, as the Commission may require.
- (10) Every new licensee shall file with the Commission, within one (1) month of grant of license, a tariff petition along with details. Every new generating company shall file a petition with the Commission, at least three (3) months ahead of commencement of commercial operations.

- (11) The Commission may seek clarification and additional information on inadequacies in the application, if any, within fourteen (14) days of filing of the application for approval of the MYT application for determination of tariff.
- (12) The Licensee shall respond within the next ten (10) days to the Commission with all clarification and information as required.
- (13) The Commission may take the petition on record for further processing within seven (7) days of submission of response to the clarifications and all the required data/information by the Licensee.
- (14) The Commission may reject the petition for reasons to be recorded in writing, if such petition is not in accordance with the provisions of the Act and the rules and regulations made there under or the provisions or any other law for the time being in force. Provided that the petitioner shall be given a reasonable opportunity of being heard before rejecting his application.
- (15) Notwithstanding anything contained in these Regulations, in case of delay in filing or non-submission of MYT application for determination of tariff, the Commission may initiate Suo-motu proceedings mandating the filing of the said application.

Provided that in the event of the licensee not filing the application despite the aforesaid proceeding, the Commission may on its own, decide the tariff based on previous year's tariff details and after incorporating suitable adjustments.

3.2 Publication of Tariff Application :

- (1) The applicant shall, within seven (7) days after registration of the application, publish the tariff petition in such abridged form and manner as may be specified by the Commission, in at least two (2) daily newspapers, having wide circulation in the area of supply inviting objections/ suggestions within the specified date from general public and stake holders.
- (2) The applicant shall submit within fifteen (15) days of publication of the notice, copies of the newspapers wherein the notice has been published, supported by an affidavit to such effect.
- (3) The applicant shall make available a hard copy of the complete application, to any interested party, at such locations and at such rates as may be stipulated by the Commission.
- (4) Provided further that the applicant shall also put up on its website, in downloadable spreadsheet format showing detailed computations, the application made to the Commission along with all regulatory filings, information, particulars and documents in the manner so stipulated by the Commission:

Provided further that the web-link to the information mentioned in the second proviso above shall be easily accessible, archived for downloading and shall be prominently displayed on the applicant's website

- (5) All suggestions/objections in response to the public notice shall be sent to the Secretary of the Commission at its headquarters office with a copy to the applicant.
- (6) The applicant shall file his response/comments /remarks on the suggestions/ objections received within fifteen (15) days from the last date of receipt of such suggestion /objections with the Commission along with a copy to the objector.
- (7) In case the applicant is unable to respond to any objection, justifiable reasons for not responding shall be furnished. Replies such as 'no comments' etc. to any objection(s) shall not be entertained.

3.3 Hearing on the application :

- (1) The Commission shall initiate a proceeding on the revenue calculations and tariff proposals given by the applicant and may hold public hearing(s) to decide on such revenue calculations and tariff proposals.
- (2) The procedure for public hearing of the tariff application shall be in the manner as specified by the Commission.

3.4 Order of the Commission :

- (1) Within a period of 120 days from the date of acceptance of the tariff application and after considering the proceedings of the hearing(s) as well as suggestions / objections received in

response to the public notice, the Commission shall issue the tariff order, communicating its decisions on the aggregate revenue requirement, revenue calculations and Tariff proposals to the generating company or the licensee as the case may be.

- (2) Tariff will come into force with effect from the date as specified in the Tariff order.
- (3) The Commission shall forward within seven (7) days of passing the order, a copy of the order to the State Government, the Central Electricity Authority, the concerned generating company or licensee and other authorities, as may be necessary.
- (4) The Commission shall post the tariff order in its website.
- (5) The tariff order shall, unless amended or revised, continue to be in force for such period as may be specified in the Tariff order.

3.5 Publication of Tariff Order :

- (1) The generating company or the licensee shall publish the tariff or tariff approved by the Commission in two newspapers having wide circulation in the area of supply.
- (2) Copies of such tariff notification shall be made available by the generating company or licensee to any person on payment of a reasonable amount fixed by them.

3.6 Review of Tariff Order :

- (a) All applications for the review of tariff shall be in the form of petition accompanied by the prescribed fee. A petition for review of tariff can be admitted by the Commission under the following conditions:
 - (i) the review petition is filed within sixty (60) days for the date of the tariff order, and/or
 - (ii) There is an error apparent on the face of the record.
- (b) On being satisfied that there is a need to review the tariff of any generating company or the licensee, the Commission may on its own initiate process of review of the tariff of any generating company or the licensee. The Commission may also, in its own motion review any tariff order to correct any clerical error or any error apparent of the face of the record.

3.7 Amendment to Tariff :

The tariff determined and notified as above may not be amended more frequently than once in any financial year, except that tariff rates shall be adjusted in accordance with any adjustment formulae, including variable cost adjustment formula, incorporated in the tariff order or in any order of the Commission.

Provided that the consequential orders, which the Commission may issue to give effect to the subsidy by the State Government shall not be constructed as amendment of the tariff notified.

3.8 Adherence to Tariff Order :

- (a) If any Generating Company or Transmission Licensee or SLDC or Distribution Licensee recovers a price or charge exceeding the tariff determined under Section 62 of the Act and in accordance with these Regulations, the excess amount shall be payable to the person who has paid such price or charge, along with interest equivalent to the Bank Rate of the Reserve Bank of India without prejudice to any other liability incurred by such Generating Company or Transmission Licensee or SLDC or Distribution Licensee.
- (b) The Licensees shall submit periodic returns as may be required by the Commission, containing operational and cost data to enable the Commission to monitor the implementation of its Order.

3.9 Determination of Generation Tariff :

- (1) **Existing generating station**
 - (a) Where the Commission has, at any time prior to the date of effectiveness of these Regulations, approved a power purchase agreement or arrangement between a Generating Company and a Distribution Licensee or has adopted the tariff contained therein for supply of electricity from an existing generating Unit/Station, the tariff for supply of electricity by the

Generating Company to the Distribution Licensee shall be in accordance with tariff mentioned in such power purchase agreement or arrangement for such period as may be so approved or adopted by the Commission.

- (b) Where, as on the date of effectiveness of these Regulations, the power purchase agreement or arrangement between a Generating Company and a Distribution Licensee for supply of electricity from an existing generating station has not been approved by the Commission or the tariff contained therein has not been adopted by the Commission or where there is no power purchase agreement or arrangement, the supply of electricity by such Generating Company to such Distribution Licensee after the date of effectiveness of these Regulations shall be in accordance with a power purchase agreement approved by the Commission:

Provided that an application for approval of such power purchase agreement or arrangement shall be made by the Distribution Licensee to the Commission within a period of three (3) months from the date of notification of these Regulations:

Provided further that the supply of electricity shall be allowed to continue under the present agreement or arrangement, as the case may be, until such time as the Commission approves of such power purchase agreement and shall be discontinued forthwith if the Commission rejects, for reasons recorded in writing, such power purchase agreement or arrangement.

(2) **New generating stations :**

The tariff for the supply of electricity by a Generating Company to a Distribution Licensee from a new generating Unit/Station shall be as per power purchase agreement approved by the Commission in line with the provision contained in para 5.5 of National Tariff Policy that came into effect on 28th January, 2016.

(3) **Own generating stations :**

- (a) Where the Distribution Licensee also undertakes the business of generation of electricity, the transfer price at which electricity is supplied by the Generation Business of the Distribution Licensee to his Retail Supply Business shall be determined by the Commission.
- (b) The Distribution Licensee shall maintain separate records for the Generation Business and shall maintain an Allocation Statement so as to enable the Commission to clearly identify the direct and indirect costs relating to such business and return on equity accruing to such business:
- (c) The Distribution Licensee shall submit, along with the separate application for determination of tariff for retail supply of electricity, the information required under **Chapter-6** of these Regulations relating to the Generation Business.

3.10 Determination of Tariff for Transmission, Distribution Wires Business, Retail Supply Business and SLDC Fees and Charges :

- (1) The Commission shall determine the tariff for Transmission Business, Distribution Wires Business, Retail Supply Business and the SLDC fees and charges based on an application made by the Licensees and SLDC in accordance with the procedure contained in these Regulations.
- (2) The Commission shall determine the tariff for:
- (a) Transmission of electricity, in accordance with the terms and conditions contained in **Chapter 7** of these Regulations;
- (b) SLDC Fees & Charges, in accordance with the terms and conditions contained in **Chapter - 8** of these Regulations
- (c) Distribution Wire Business, in accordance with the terms and conditions contained in **Chapter - 9** of these Regulations; and
- (d) Retail Supply Business, in accordance with the terms and conditions contained in **Chapter - 10** of these Regulations.

3.11 True-Up Order :

- (1) The Commission Shall True-Up expenses either as part of the Tariff order or issue Order/s for True-Up of expenses preceding the Tariff order of ensuing year on annual basis, if required.
- (2) Truing-up shall be carried out based on the actual/audited information and prudence check by the Commission:

Provided that if such variations are large, and it is not feasible to recover in one year alone, the Commission may take a view to create a regulatory asset, as per the guidelines provided in clause 8.2.2 of the National Tariff Policy.

- (3) Where audited books of account are not available at the time of true-up provisional books of accounts shall be used for the True-Up process.

CHAPTER-4- FINANCIAL PRINCIPLES :

4.1 Financial Prudence

- (1) The Generating Company or Licensee is required to manage its finances in an optimum and prudent manner.
- (2) In determining the Aggregate Revenue Requirement during Tariff and Mid-Term Review of the Generating Company or Licensee, the Commission shall assess the financial prudence exercised with regard to the following factors:
- (a) revenue earned;
 - (b) revenue expenditure;
 - (c) capital expenditure:

Provided that the Commission may disallow a part of the Aggregate Revenue Requirement, as efficiency measure, if it finds the exercise of such prudence to have been deficient.

- (3) The financial prudence with respect to revenue shall be assessed in terms of the following parameters:
- (a) whether category-wise and voltage-wise sales projections are based on realistic estimates, and whether adequate justification has been provided for any anomalous increase in sales projected by the Distribution Licensee;
 - (b) reduction in arrears receivable from Beneficiaries/consumers;
 - (c) percentage of bills raised on the basis of assessed consumption out of the total number of bills raised by the Distribution Licensee;
 - (d) whether revenue collected is in line with the projections made in the Petition and approved by the Commission.
- (4) The financial prudence with respect to revenue expenditure shall be assessed in terms of the following parameters:
- (a) monitoring of the revenue expenditure as against the revenue earned, such that the expenses and payment obligations of the Generating Company or Licensee to other entities are met in a timely manner;
 - (b) mechanism put in place for monitoring adherence with the approved revenue expenditure, including schedule of interest payments for long-term loans and working capital;
 - (c) transparent method of power procurement, with the objective of optimizing the power purchase expenses, as specified in Regulations 14, 27, 28 and 29;
 - (d) sale of incidental surplus power in optimum manner;

Provided that the Generating Company or Licensee shall submit a detailed cash flow statement for the respective business, showing the various sources of revenue, the actual amount of cash collected against the amount billed to different consumer categories for sale of electricity, the comparison of the actual revenue expenditure and capital expenditure with the projected and approved revenue expenditure and capital expenditure:

Provided also that in case the payment obligations of the Generating Company or Licensee to other entities are not regularly met, the Generating Company or Licensee shall provide justification for such shortfall with reference to the cash flow statement.

- (5) The financial prudence with respect to capital expenditure shall be assessed in terms of the following parameters:
- (a) mechanism put in place for monitoring the physical progress of projects with respect to their original schedule;

- (b) Optimum drawal of loans in accordance with the physical progress of the capital expenditure schemes and efficient utilization of such loans. For this purpose equity portion is to be inducted proportionately;
- (c) in case the actual capital expenditure and capitalization exceeds that approved by the Commission, the Generating Company or Licensee shall submit detailed justification for such excess along with the Petition for True-up;
- (d) In case any scheme has not been commenced during the year despite the Commission's approval for the same, detailed justification shall be submitted for the same along with the Petition for True-up. If the Commission does not satisfy with the justifications, so submitted Commission may direct to refund any excess recovery with carrying cost equivalent to average rate of interest permitted to the petitioner during truing up.

4.2 Debt-equity ratio :

For the purpose of determination of tariff, debt-equity ratio as on the date of commercial operation in case of a new generating station, transmission or distribution line or substation commissioned or capacity expanded after 1.4.2019, shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual equity shall be considered:

Provided that in case of the Generating Company, Transmission Licensee and Distribution Licensee, if any fixed asset is capitalised on account of capital expenditure project prior to April 1 2019, debt-equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2019 shall be considered:

Provided further that in case of retirement or replacement of assets, the equity Capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of the retired or replaced asset:

Provided further that for the Generating Company or the Transmission Licensee or the Distribution Licensee formed as a result of a transfer scheme, the date of the transfer scheme shall be the effective date for the determination of equity capital.

4.3 Capital Cost and Capital Structure :

- (1) Capital Cost for a project shall include:

- (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange rate variation on the loan during construction up to the date of commercial operation of the project, as admitted by the Commission after prudence check;
- (b) capitalised initial spares subject to the ceiling rates specified in these Regulations;
- (c) additional capitalisation:

Provided that the assets forming part of the project but not put to use or not in use, shall be taken out of the capital cost.

- (2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost overrun and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.

- (3) If sufficient justification is provided for any escalation in the Capital Cost, the same may be considered by the Commission subject to the prudence check:

Provided that in case the actual capital cost is lower than the approved capital cost, then the actual capital cost will be considered for determination of tariff of the Generating Company or Transmission Licensee or Distribution Licensee.

- (4) The actual capital expenditure on COD for the original scope of work based on audited accounts of the Company limited to original cost may be considered subject to the prudence check by the Commission.

- (5) Where the power purchase agreement or bulk power transmission agreement provides for a ceiling of capital cost, the capital cost to be considered shall not exceed such ceiling.
- (6) The capital cost may include Initial Spares capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:
 - (a) Hydro-generating stations- 4%
 - (b) Transmission and Distribution Line- 1.5%
 - (c) Transmission and Distribution Substation- 4%
 - (d) Communication System- 3.5%
- (7) Impact of revaluation of assets shall be permitted during the Control Period, provided it does not result in increase in tariff of Generating Company, Transmission Licensee, SLDC and Distribution Licensee.
- (8) Any benefit from such revaluation shall be passed on to persons sharing the capacity charge in case of a Generating Company and to long-term intra-State open access customers of transmission licensee or distribution licensee, or retail supply consumers in case of distribution licensees, at the time of annual truing up.
- (9) Any expenditure on replacement, renovation and modernization or extension of life of old fixed assets, as applicable to Generating Company, Transmission Licensee, SLDC and Distribution Licensee, shall be considered after writing off the net value of such replaced assets from the original capital cost and will be calculated as follows:

Net Value of Replaced Assets = OCFA – AD – CC;

Where;

OCFA: Original Capital Cost of Replaced Assets;

AD: Accumulated depreciation pertaining to the Replaced Assets;

CC: Total Consumer Contribution pertaining to the Replaced Assets.

4.4 Additional capitalization :

- (1) The following capital expenditure, actually 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 the prudence check:
 - (a) Due to Un-discharged liabilities within the original scope of work;
 - (b) On works within the original scope of work, deferred for execution;
 - (c) To meet award of arbitration and compliance of final and un-appealable order or decree of a court arising out of original scope of works;
 - (d) On account of change in law;
 - (e) On procurement of initial spares included in the original project costs subject to the ceiling norm specified;
 - (f) Any additional works/services, which have become necessary for efficient and successful operation of a generating station or a transmission system or a distribution system but not included in the original capital cost:

Provided that original scope of work along with estimates of expenditure shall be submitted as a part of Capital Investment Plan Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating Unit/Station or transmission system or distribution system. Provided further that the assets forming part of the project but not put to use, shall not be considered.

- (2) Impact of additional capitalization on tariff, as the case may be, shall be considered during Truing Up of each financial year of the Control Period.

4.5 Consumer contribution, Deposit Work and Grant :

The following nature of work carried out by the Transmission Licensee and Distribution Licensee shall be classified under this category:

- (a) Works after obtaining a part or all of the funds from the users in the context of deposit works;

- (b) Capital works undertaken by utilising grants received from the State and Central Governments, including funds under RGGVY/ DDUGJY, APDRP/R-APDRP etc.
- (c) Any other grant of similar nature and such amount received without any obligation to return the same and with no interest costs attached to such subvention.

4.6 Return on Equity :

- (1) Return on equity shall be computed in rupee terms, on the equity capital determined in accordance with Regulation 4.2.
- (2) Return on equity shall be computed at the base rate of 15% for run of the river hydro generating station, at the base rate of 14% for transmission system or element thereof, and at the base rate of 16% for storage type hydro generating stations including pumped storage hydro generating stations and run of the river generating stations with pondage and for distribution licensees.
- (3) For embedded generating station of any distribution licensee, the computation of return on equity shall be similar to that of a generating company.
- (4) In case of projects approved as per these regulations, commissioned on or after 1st April, 2019, an additional return of 0.50 % shall be allowed, if such projects are completed within the specified time schedule of the investment approval by the Commission.
- (5) 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 or transmission system or distribution system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMo)/ Free Governor Mode Operation (FGMO), meter (with AMR facilities), data telemetry and communication system up to concerned load dispatch centre or protection system.

4.7 Tax on Return on Equity :

- (1) The base rate of return on equity as allowed by the Commission under Regulation 4.6 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the licensee, as the case may be. The actual tax on income from other business streams including deferred tax liability (i.e. income on business other than business of generation, transmission or distribution wire, as the case may be shall not be considered for the calculation of "effective tax rate".
- (2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where "t" is the effective tax rate in accordance with regulation 42.1 and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation, non-transmission or non-distribution business, as the case may be, and the corresponding tax thereon. In case of generating company or the licensee, paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

Illustration:-

- (a) In case of the generating company or the licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess:

$$\text{Rate of return on equity} = 15.00 / (1 - 0.2096) = 18.977\%$$

- (b) In case of generating company or the licensee paying normal corporate tax including surcharge and cess:

- (i) Estimated Gross Income from generation or transmission or distribution business for FY 2017-18 is ₹ 1000 crore.
- (ii) Estimated Advance Tax for the year on above is ₹ 240 crore.
- (iii) Effective Tax Rate for the year 2017-18 = ₹ 240 Crore / ₹ 1000 Crore = 24%
- (iv) Rate of return on equity = $15.00 / (1 - 0.24) = 19.737\%$

- (3) The generating company or the licensee, as the case may be, shall claim for true up the grossed up rate of return on equity based on actual tax paid or the normative tax computed on its core business based on profits such earned based on the norms of these regulation whichever is lower 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 any base year or ensuing year.

Provided that any penalty arising on account of delay in deposit of tax amount shall not be claimed by the generating company or the licensee as the case may be during the true up.

- (4) Any under-recovery or over-recovery of grossed up rate on return on equity shall be adjusted during the truing up process.

4.8 Interest and finance charges on loan capital :

- (1) The loans arrived at in the manner indicated in these Regulations shall be considered as Gross normative loan for calculation of interest on loan:

Provided that interest and finance charges on capital works in progress shall be excluded.

Provided further that in case of retirement or replacement of assets, the loan capital approved as mentioned above, shall be reduced to the extent of outstanding loan component of the original cost of the retired or replaced assets, based on documentary evidence.

- (2) The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2019, from the gross normative loan.
- (3) The repayment for the year during the tariff period from FY 2019-20 to FY 2021-22 shall be deemed to be equal to the depreciation allowed for that year.
- (4) Notwithstanding any moratorium period availed by the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, 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.
- (5) 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 Generating Company or the Transmission Licensee or the Distribution Licensee:

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 Company, the Transmission Licensee, or the Distribution Licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the Generating Company or the Transmission Licensee or the Distribution Licensee as a whole shall be considered.

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

Provided that at the time of Truing-up, the normative average loan of the year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the year

- (7) The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Grants or Deposit Works carried out by Transmission Licensee or Distribution Licensee or Generating Company, as the case may be.

- (8) The Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, in the ratio of 2:1.

Provided that the changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

- (9) Interest shall be allowed on the amount held as security deposit held in cash from Transmission System Users, Distribution System consumers at the Bank Rate as on 1st April of the financial year in which the Petition is filed.

4.9 Depreciation :

- (1) Land other than the 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.
- (2) The 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.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

- (3) In case of the existing projects, the balance depreciable value as on April 1, 2019, shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto March 31, 2019, from the gross value of the assets.
- (4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix- I of these Regulations.
- (5) In case of projected commercial operation of the asset for part of the year, depreciation shall be calculated based on the average of opening and closing value of asset, approved by the Commission:

Provided that depreciation will be re-calculated during truing-up for assets capitalised at the time of Truing Up of each year of the Control Period, based on documentary evidence of asset capitalised by the applicant, subject to the prudence check of the Commission, such that the depreciation is calculated proportionately from the date of capitalisation.

4.10 Operation and Maintenance Expenses(O&M) :

- (1) The O&M for generating company, transmission licensee and SLDC shall be determined as per procedure given in subsequent chapters of these Regulations.
- (2) The O&M Expense for the Distribution licensee shall be determined as follows:

- (a) The O&M expenses for the first year of the Control Period shall be approved by the Commission taking into account the actual O&M expenses for last five years until Base Year subject to prudence check and any other factors considered appropriate by the Commission.
- (b) The O&M expenses for the nth year and also for the year immediately preceding the Control Period, shall be approved based on the formula given below:-

$$a. \quad O\&M_n = R\&M_n + EMP_n + A\&G_n$$

b. Where –

- $O\&M_n$ – Operation and Maintenance expense for the nth year;
- EMP_n – Employee Costs for the nth year;
- $R\&M_n$ – Repair and Maintenance Costs for the nth year;
- $A\&G_n$ – Administrative and General Costs for the nth year;

- (a) The above components shall be computed in the manner specified below:

$$EMP_n = (EMP_{n-1}) \times (1+G_n) \times (\text{CPI inflation})$$

$$R\&M_n = K \times (GFA_{n-1}) \times (\text{WPI inflation}) \text{ and}$$

$$A\&G_n = (A\&G_{n-1}) \times (\text{WPI inflation}) + \text{Provision}$$

Where -

- EMP_{n-1} – Employee Costs for the (n-1)th year;
- $A\&G_{n-1}$ – Administrative and General Costs for the (n-1)th year;
- Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.
- 'K' is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-a-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;
- CPI inflation – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;
- WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;
- GFA_{n-1} --- Gross Fixed Asset of the transmission licensee for the n-1th year;
- G_n is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, and any other factor that the Commission feels appropriate.

4.11 Interest on Working Capital :

(1) Generation:

In case of hydropower generating stations, working capital shall cover:

- (a) Operation and maintenance expenses for one (1) month;
- (b) Maintenance spares at 15% O&M expenses as specified in Regulations 4.8; and
- (c) Receivables equivalent to two (2) months of Annual fixed charges:

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.

Interest on working capital shall be allowed at a rate interest rate equivalent to the normative interest rate of three hundred and fifty (350) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff.

(2) Transmission :

The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

- (a) Operation and maintenance expenses for one (1) month; plus
- (b) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
- (c) Receivables equivalent to two (2) month of transmission charges calculated on target availability level;

Minus,

- (a) Amount, if any, held as security deposits except the security deposits held in the form of Bank Guarantee from Transmission System User.

(3) SLDC

- (a) The SLDC shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

- (v) Operation and maintenance expenses for one month; plus
- (vi) Maintenance spares at one (1) per cent of the historical cost; plus

- (vii) Receivables equivalent to two (2) months of the expected revenue from SLDC Charges;
 - (b) Interest shall be allowed at a rate equal interest rate equivalent to the normative interest rate of three hundred and fifty (350) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff.
- (4) **Distribution Wire Business& Retail Supply of Electricity**
- (a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wire Business& Retail Supply of Electricity for the financial year, computed as follows:
 - (a) Operation and maintenance expenses for one month; plus
 - (b) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
 - (c) Receivables equivalent to two (2) month of the expected revenue from charges for use of Distribution Wires or from sale of electricity at the prevailing tariffs;

Minus.

- (b) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Distribution System Users or consumers except the security deposits held in the form of Bank Guarantees.
 - (i) Interest shall be allowed at a rate interest rate equivalent to the normative interest rate of three hundred and fifty (350) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff.

4.12 Deviation Settlement(DS) charges/Unscheduled interruption (UI) :

- (1) Generation Company or Licensee shall make every effort to inject or draw power to/from the grid in accordance with its injection / drawl schedule as specified by SLDC.
- (2) The generating station of a generation company or licensee shall make every effort to generate power in accordance with its schedule as specified by SLDC. If there is any net DS charge receivable on actual basis for any financial year the generating station shall retain the amount. Similarly, if there is any net DS charge payable on actual basis for any financial year the generating station shall not consider it as expense for determination of ARR.
- (3) Distribution licensee for its supply business shall make every effort to draw power from the grid in accordance with its drawl schedule. If there is any net DS charge payable on actual for any financial year by the distribution licensee on account of its distribution supply business, then such net payable DS charge will be considered as expenditure subject to maximum 0.5% of the total power purchase cost during that year. However if there is net DS charge receivable on actual for any financial year by the distribution licensee on account of its distribution supply business, then such amount will be shared between the distribution licensee and its consumer in a ratio of 1:3 during the truing up.

4.13 Rebate :

- (1) For payment of bills of Generation tariff or Transmission charges or SLDC charges within 7 days of presentation of bills, through Letter of Credit or otherwise or through NEFT/RTGS, a rebate of 2% on billed amount, excluding the taxes, cess, duties, etc., shall be allowed.
- (2) For payment of bills of generation tariff or Transmission charges or SLDC charges on any day within a period of 30 days of presentation of bills, a sliding rebate upto 1% on billed amount, excluding the taxes, cess, duties, etc., shall be allowed.
- (3) All impacts of rebates earned / paid by the Generating Company or Licensee or SLDC shall be borne by the Generating Company or Licensee or SLDC and will have no impact in the tariff or ARR.

- (4) Penalties paid, if any, by the Generating Company or Licensee shall not be allowed as an expense for the Generating Company or Licensee.

4.14 Delayed Payment Surcharge :

- (1) In case the payment of bills of generation Tariff or transmission charges by the Beneficiary is delayed beyond a period of 60 days from the date of billing, delayed payment Surcharge at the rate of 1.50% per month on the billed amount shall be levied by the Generating Company or the Transmission Licensee, as the case may be, for the period of delay reckoning from the due date. The amount so due will be compounded on yearly basis:

Provided that in case a different rate of Delayed Payment Charge has been agreed in the Power Purchase Agreement or Arrangement entered into with the Generating Company or the Bulk Power Transmission Agreement with the Transmission Licensee, and such Agreement or Arrangement has already been approved by the Commission, then the rate of Delayed Payment Charge stipulated in such Agreement or Arrangement shall continue to be applicable.

4.15 Foreign Exchange Rate Variation :

- (1) The Generating Company, the Transmission Licensee, or the Distribution Licensee, as the case may be, 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 system or distribution system, in part or full, at their discretion.
- (2) Every Generating Company and Transmission Licensee and Distribution Licensee 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.
- (3) To the extent the Generating Company or the Transmission Licensee or the Distribution Licensee is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible provided it is not attributable to the Generating Company or the Transmission Licensee or the Distribution Licensee or its suppliers or contractors.

4.16 Recovery of cost of hedging Foreign Exchange Rate Variation :

Every Generating Company, the Transmission Licensee, SLDC and the Distribution Licensee shall recover the cost of hedging and foreign exchange rate variation on year-to-year basis as income or expense in the period in which it arises.

4.17 Regulatory Asset :

- (1) Only in extraordinary circumstances, the Commission may allow creation of Regulatory Asset, in case, the Revenue Gap is very substantial and is on account of onetime factors such as natural causes or force majeure conditions beyond control of the generating company or the licensee and its full recovery in a single year will result in tariff shock for the consumers:
- (2) The Regulatory Asset so created along with carrying cost shall be liquidated in maximum 7 years' period immediately following the year in which it is created. The carrying cost of the regulatory asset shall be in line with interest rate equivalent to the normative interest rate of three hundred (300) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff.
- (3) The use of the facility of regulatory asset should not be repetitive.

CHAPTER 5- REVENUES

5.1 Tariff income :

Income of the Generating Company, Transmission Licensee, Distribution Licensee and SLDC arising out of all the charges determined by the Commission for generation, transmission, wheeling and retail supply of electricity, SLDC charges, as the case may be, shall be considered as tariff income.

5.2 Other revenue :

- (1) All revenues including charges for unauthorized use of electricity and money realized through compounding, other than tariff revenue shall be grouped as other revenue.

- (2) For the electricity supply to the housing colonies or townships for its operating staff drawn from the Power Station/Sub-Station bus bar, a separate account shall be maintained by the Generating Company/Transmission Licensee/Distribution Licensee/SLDC for such energy supply and revenue thereof recognised at the rate as per applicable tariff shall be reported annually to the Commission in the ARR/tariff petition, wherever applicable.
- (3) While determining the generation/transmission tariff, revenue so realised, i.e. the consumer category wise tariff of Distribution Licensee in case of a generating company or where the sub-station is situated in respect of Transmission Licensee, shall be considered by the Commission as one of the components of other income of the Generating Company/Transmission Licensee/SLDC and the same shall be reduced from the Annual Fixed Charges.

5.3 Surcharge and additional surcharge :

Surcharge and additional surcharge under Sections 39, 40 and 42 of the Electricity Act, 2003 shall be considered as income and treated in the manner as may be specified by the Commission.

5.4 Income from Other Business :

- (1) Revenue from other business shall be treated as income to the extent authorized by the Commission under Sections 41 and 51 of the Electricity Act, 2003.
- (2) The Generating Company, Transmission Licensee, Distribution Licensee and SLDC shall submit the following information along with the Petition to the Commission:

Whether the Generating Company or SLDC or the Licensee is engaged in any Other Business within the meaning prescribed under Sections 41 and 51 of the EA 2003. If yes, then the Applicant should submit the following information :

- (a) Name and description of all Other Business that the Applicant is engaged in;
- (b) For each such Other Business, amount of revenue generated in the previous year, estimated during the current year and projected for the ensuing year;
- (c) Assets of the business used by the Applicant to generate the above revenue;
- (d) Expenses incurred to generate the above revenue, separately for each Other Business;
- (e) Whether these expenses have already been included in the ARR of the Applicant fully or partly? If partly, proportion and basis of apportionment to be submitted.

5.5 Sharing of Clean Development Mechanism (CDM) credit :

The proceeds of carbon credit from approved CDM project shall be shared in the following manner, namely-

- (1) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first year after the date of commercial operation of the generating station or the transmission system, as the case may be;
- (2) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after, the proceeds shall be shared in equal proportion, by the generating company or the transmission licensee, as the case may be, and the beneficiaries.

CHAPTER 6- GENERATION

6.1 Applicability :

- (1) The Regulations specified in this Chapter shall apply for determining the tariff for supply of electricity to a Distribution Licensee from hydro generation stations of capacity more than 25 MW:
- (2) The Commission shall be guided by the Regulations contained in this Chapter in determining the tariff for supply of electricity by a Generating Company to a Distribution Licensee in the following cases:

- (a) where such tariff is pursuant to a power purchase agreement or arrangement entered into subsequent to the date of effectiveness of these Regulations; or
- (b) where such tariff is pursuant to a power purchase agreement or arrangement entered into prior to the date of effectiveness of these Regulations and either the Commission has not previously approved such agreement/arrangement or the agreement/ arrangement envisages that the tariff shall be based on the APSPERC Tariff Regulations; or
- (c) where the Distribution Licensee is engaged in the business of generation of electricity, in determining the transfer price at which electricity is supplied by the Generation Business of the Distribution Licensee to its Retail Supply Business;

Provided that the Commission may deviate from the norms contained in this Chapter or specify alternative norms for particular cases, where it so deems appropriate, having regard to the circumstances of the case: Provided further that the reasons for such deviation(s) shall be recorded in writing.

6.2 Petition for determination of generation tariff :

- (1) A Generating Company/utility is required to file a Petition for determination of tariff for supply of electricity to Distribution Licensees in accordance with the provisions of Chapter 3 of these Regulations.
- (2) The tariff for Hydroelectric projects is determined in accordance with the provisions contained in para 5.7 of the National Tariff Policy, dated 28.01.2016.
- (3) Tariff in respect of a Generating Station under these Regulations may be determined Stage-wise, Unit-wise or for the whole Generating Station. The terms and conditions for determination of tariff for Generating Stations specified in this Part shall apply in like manner to Stages or Units, as the case may be, as to Generating Stations.
- (4) Where the tariff is being determined for a Stage or Unit of a Generating Station, the Generating Company shall adopt a reasonable basis for allocation of capital cost relating to common facilities and allocation of joint and common costs across all Stages or Units, as the case may be:

Provided that the Generating Company shall maintain an Allocation Statement providing the basis for allocation of such costs, which shall be duly audited and certified by the statutory auditors, and submit such audited and certified statement to the Commission along with the application for determination of tariff.

- (5) A Generating Company may file a Petition for determination of provisional tariff in advance of the anticipated Date of Commercial Operation of the Unit or Stage or Generating Station as a whole, as the case may be, based on the capital expenditure actually incurred up to the date of making the Petition or a date prior to making of the Petition, duly audited and certified by the statutory auditors and the provisional tariff shall be charged from the date of commercial operation of such Unit or Stage or Generating Station, as the case may be.
- (6) A Generating Company shall file a fresh Petition in accordance with these Regulations, for determination of final tariff based on actual capital expenditure incurred up to the date of commercial operation of the Generating Station duly certified by the statutory auditors based on Annual Audited Accounts.
- (7) Any difference in provisional tariff and the final tariff determined by the Commission and not attributable to the Generating Company may be adjusted at the time of determination of final tariff for the following year as directed by the Commission.

- (8) In relation to multi-purpose, hydroelectric Projects, with irrigation, flood control and power components, the capital cost chargeable to the power component of the Project only shall be considered for determination of tariff.

6.3 Components of Tariff :

The tariff for sale of electricity from a Hydro Generating Station shall comprise of two parts, namely, the recovery of Capacity Charge and Energy Charge.

6.4 Annual Fixed Charges :

The fixed cost of a generating station eligible for recovery through the Annual Fixed Charges and shall comprise of the following elements:

- (a) Return on Equity Capital;
- (b) Interest on Loan Capital;
- (c) Depreciation;
- (d) Operation & Maintenance Expenses;
- (e) Interest on Working Capital;

Less :

- (a) Non-Tariff Income.

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Hydro Generating Stations shall be allowed in accordance with the provision specified in Chapter 4 of these Regulations.

6.5 Capital Cost :

- (1) The Commission shall issue guidelines for:
 - (a) Verifying the capital cost of Hydroelectric projects by an independent agency or expert and in such a case, the capital cost as vetted by such agency or expert may be considered by Commission while determining the tariff for hydro generating station.
 - (b) Scrutiny and approval of commissioning schedule for hydroelectric power projects of a developer, not being a state controlled or owned company as envisaged in the National Tariff policy dated 28.1.2016.
- (2) 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 the capital cost in case of such hydro station shall include: Cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity of National R&R policy and (R&R) package as approved.

6.6 Renovation and Modernisation :

- (1) 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 submit such detailed 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 for approval of the Commission.
- (2) Where generating company makes such application for approval of its proposal for renovation and modernization the Commission shall give its approval after due consideration of reasonableness of cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost benefit analysis and such other factors which the Commission may consider relevant.

- (3) Any expenditure incurred or projected to be incurred and admitted by the Commission after prudent check, based on estimates for renovation and modernization already recovered from original project cost, shall form the basis for determination of tariff.

6.7 Computation and Payment of Energy and Capacity Charges :

Capacity Charges

- (1) The Capacity Charges of a Hydro Generating Station shall be computed on annual basis, 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 share in the capacity of the generating station.

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 payment during such period.

- (2) The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be -

$$= [AFC \times 0.5 \times (NDM / NDY) \times (PAFM / NAPAFA)] \text{ (in Rupees)}$$

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAFA = 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

- (3) The PAFM shall be computed in accordance with the following formula:

$$PAFM = \frac{10000 \times \sum_{i=1}^N DC_i}{\{N \times IC \times (100 - AUX)\}} \%$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

DC_i = 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 month.

Energy Charges

- (4) The 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:

$$= (\text{Energy charge rate in Rs. / kWh}) \times \{\text{Scheduled energy (ex-bus) for the month in kWh}\} \times (100 - FEHS) / 100.$$

- (5) Energy 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

$$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - AUX) \times (100 - FEHS)\}$$

Where,

DE = Annual design energy specified for the hydro generating station, In MWh, subject to the provision in Regulations below.

% of free energy charges, FEHS = Free energy for home State as Free energy for home State, in per cent, as defined in Regulation 42.

- (6) In 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:
- (a) in case the energy shortfall occurs within ten 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 these regulations 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;
 - (b) in case the energy shortfall occurs after ten years from the date of commercial operation of a generating station, the following shall apply:
 - (c) 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 years are A1 and A2 MWh respectively, A1 being less than DE. Then, the design energy to be considered in the formula in 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.
 - (d) Actual energy generated (e.g. A1, A2) shall be arrived at by multiplying the net metered energy sent out from the station by $100 / (100 - AUX)$.
- (7) In case the energy charge rate (ECR) for a hydro generating station, as computed above, exceeds **eighty (80) 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 (80) 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 (80) paise per kWh** after the energy charge shortfall of the previous year has been made up.

- (8) The 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.

The State Load Despatch Centre shall certify the declared capacity of the generating stations on daily basis and shall also issue a Certificate at the end of the year, validating the PAFM during the year, to the generating company.

6.8 Demonstration of declared capacity :

- (1) The Generating Company may be required to demonstrate the declared capacity of its generating station as and when asked by the Arunachal Pradesh State Load Despatch Centre. In the event of the Generating Company failing to demonstrate the declared capacity, the capacity charges due to the Generating Company shall be reduced as a measure of penalty.
- (2) The quantum of penalty for the first mis-declaration for any duration/block in a day shall be the charges corresponding to two days' fixed charges. For the second mis-declaration, the penalty shall be equivalent to fixed charges for four days and for subsequent mis-declarations in the year, the penalty shall be multiplied in the geometrical progression.
- (3) The operating logbooks of the generating station shall be available for review by the Arunachal Pradesh State Load Despatch Centre. These books shall keep record of machine operation and maintenance.

6.9 Non-Tariff Income :

The amount of Non-Tariff Income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Cost in determining the Annual Fixed Charge of the Generation Company:

Provided that the Generation Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non-tariff income shall be as under:

- (a) Income from rent of land or buildings, sale of scrap, statutory investments, sale of Ash/rejected coal, hire charges from contactors and others, advertisements etc.
- (b) Interest on advances to suppliers/contractors, on investments fixed and call deposits and bank balances;
- (c) Rental from staff quarters, from contractors;
- (d) Deferred Income from grant, subsidy, etc., as per Annual Accounts;
- (e) Excess found on physical verification;
- (f) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the regulated business of the Company shall not be included in Non-Tariff Income.

6.10 Interest and finance charges on loan capital :

- (1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the lending rate prevailing therein.

Provided that the outstanding loan capital shall be adjusted to be consistent with the loan amount determined in accordance with these Regulations.

- (2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.
- (3) The generating company shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.
- (4) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the generating company in a ratio as may be specified by the Commission as envisaged in these Regulations.
- (5) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

6.11 Operation and Maintenance Expenses :**(1) For Existing Stations :**

- (a) The Operation and Maintenance expenses including insurance shall be derived based on the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2018, subject to prudence check by the Commission.
- (b) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2017 and shall be escalated at the escalation factor of 6.04% to arrive at operation and maintenance expenses for the base year commencing April 1, 2018.
- (c) The O&M expenses for each subsequent year shall be determined by escalating the base expenses determined above for FY 2018-19, at the escalation rate of 6.64% to arrive at permissible O&M expenses for each year of the Control Period:

(2) For New 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 subsequent year will be determined by escalating the base expenses determined above, at the escalation factor of 6.64%.

6.12 Unscheduled Interchange (UI) charges (Intra State ABT scenario) :

- (1) UI charges for intra-state transactions will arise after intra-state ABT is notified by the Commission and becomes effective.
- (2) Variation between actual generation and scheduled generation shall be accounted for through Unscheduled Interchange (UI) Charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI shall be worked out for each 15 minutes' time block. Charges for all UI transactions shall be based on average frequency of the time block and rates as specified by CERC from time to time.

6.13 Norms of operation for Hydro Generating Stations :

- (1) The following Normative annual plant availability factor (NAPAF) shall apply to hydro generating station:
 - (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) In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF.
 - (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.
- (2) A 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 limitations.
- (3) A further allowance of 5% may be allowed for difficulties in North East Region.
- (4) **Auxiliary Energy Consumption**
 - (a) *Surface Hydroelectric Power Generating Stations*
 - (i) With rotating exciters mounted on the generator shaft - 0.7%.
 - (ii) With static excitation system: 1%.
 - (b) *Underground hydro Generating Station*
 - (i) With rotating exciters mounted on the generator shaft - 0.9%.
 - (ii) With static excitation system: 1.2%.
- (5) **Transformation losses**
From generation voltage to transmission voltage - 0.5% of energy generated.
- (6) **General use of Plant and Equipment**
For general use of Plant and Equipment, the Company should refer to their O&M Manual and for preventive maintenance it should restrict to the CEA recommendations of best practices in Operation and maintenance of hydro power plants- best practices in Operation and Maintenance of Hydro power plants.pdf.

6.14 Connectivity and SLDC Charges :

Connectivity charges and SLDC charges as determined by the Commission shall be considered as expenses. SLDC and transmission charges paid for energy sold outside the state shall not be considered as expenses for determining generation tariff.

6.15 Sale of Infirm Power :

Supply of infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the regional or State UI pool account at the applicable frequency-linked UI rate;

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.

6.16 Incentive :

- (1) Incentive shall be payable at a flat rate of 50.0 paise/kWh for actual energy generation in excess of ex-bus energy corresponding to target Plant Load Factor.

Provided that the actual generation shall also consider the generation loss on account of any backing down instruction from the State Load Despatch Centre.

- (2) The Incentive amount shall be computed and billed on monthly basis based on the cumulative Plant Load Factor till the respective month in a Year, subject to adjustment at the end of the year.

6.17 Scheduling, Accounting and Billing :

- (1) **Scheduling:** The methodology for scheduling and dispatch for the generating station shall be in accordance with the provisions of the State Grid Code.
- (2) **Metering and Accounting :** The provisions of the State Grid Code shall be applicable.
- (3) **Billing and Payment of Charges:** The Billing and Payment of Capacity Charges and Energy Charges for Hydro Generating Stations including pumped storage, shall be done on a monthly basis.
- (4) Payment of capacity charge and energy charge for a hydro generating station shall be shared by the beneficiaries of the generating station in proportion to their shares (inclusive of any allocation out of the unallocated capacity) in the saleable capacity (to be determined after deducting the capacity corresponding to free energy to home State as per Note 2 herein).

Note -1

Notwithstanding anything contained contrary to any regulation of the Commission, if there is some unallocated generation capacity in the state, any distribution licensee in the state to meet its demand may request SLDC to allocate such unallocated generation capacity against it. SLDC shall in consultation with the beneficiaries and depending upon network conditions allocate the quantum of energy and the duration of such power to the distribution licensee upon their request.

Note- 2

FEHS = Free energy for home State, in percent and shall be taken as 12% +1%.

Provided that in cases where the site of a hydro project is awarded to a developer, by the State Government by following a two-stage transparent process of bidding, the “free energy” shall be taken as 12% +1%, in addition to energy corresponding to 100 units of electricity to be provided free of cost every month to every project affected family for a period of 10 years from the date of commercial operation of the generating station:

Provided further that the generating company shall submit detailed quantification of energy corresponding to 100 units of electricity to be provided free of cost every month to every project affected family for a period of 10 years from the date of commercial operation.

CHAPTER 7- INTRA-STATE TRANSMISSION**7.1 Applicability :**

- (1) The Regulations contained in this Chapter shall apply to determination of tariff for Access and use of the intra-State transmission system in the State of Arunachal Pradesh.

Provided that the Commission may deviate from the norms contained in this Part or

stipulate alternative norms for particular cases, where it so deems appropriate, having regard to the circumstances of the case: Provided further that the reasons for such deviation shall be recorded in writing.

- (2) The Commission shall be guided by the Regulations contained in this Chapter in specifying the rates, charges, terms and conditions for use of intervening transmission facilities pursuant to an application made in this regard by a Licensee under the proviso to Section 36 of the Act.

7.2 Petition for determination of Transmission tariff :

The Transmission Licensee may make an application for fixation of tariff for its Intra-State Transmission System in accordance with the historical performance of such transmission system and on the basis of Order of the Commission on the Business Plan Petition submitted as per Regulation 2.3, in such formats and along with such information which the Commission may require from time to time, complying with provision of these Regulations.

7.3 Components of tariff :

- (1) The Annual Transmission Charges for each financial year of the Control Period Shall provide for the recovery of the Aggregate Revenue Requirement of the Transmission Licensee for the respective financial year of the Control Period, as reduced by the amount of Non-Tariff Income, income from Other Business and short-term transmission charges of the previous year, as approved by the Commission:

Provided that in case of competitively awarded transmission system projects in pursuance of Section 63 of the Act and in accordance with guidelines for competitive bidding for transmission, the annual transmission charges shall be as per the annual Transmission Service Charges (TSC) quoted by such competitively awarded transmission projects.

- (2) The Annual Transmission Charges of the Transmission Licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the Transmission Licensee in accordance with Chapter-2 of these Regulations.

7.4 Annual transmission Charges :

- (1) The Annual Transmission Charges (ATC) for each year of the Control Period shall provide for recovery of the Aggregate Revenue Requirement of the Transmission Licensee for the respective Year of the Control period, as approved by the Commission and comprising the following components:

- (a) Operation and maintenance expenses;
- (b) Depreciation;
- (c) Interest on Loan Capital;
- (d) Interest on working capital;
- (e) Expenditure for Research & Development, if any;
- (f) Return on Equity Capital;

minus:

- (g) Non-Tariff income;
- (h) Income from Other Business, to the extent specified in these Regulations;
- (i) Income from Short-Term Open Access charges;
- (j) Transmission charges received as the Point of Connection (PoC) transmission charges for flow of inter-state power in accordance with the Regulations and Orders of the Central Electricity Regulatory Commission.

Provided that Depreciation, Interest on Loan Capital, Interest on working capital, Expenditure on Research & Development and Return on Equity for Transmission Licensees shall be allowed in accordance with the provisions specified in Chapter 4 of these Regulations:

Provided that in case of competitively awarded transmission projects in pursuance of Section 63 of the Act and in accordance with the guidelines for competitive bidding for transmission issued by the Central Government, Commission shall adopt the Annual Transmission Charges quoted by such competitively awarded transmission projects.

- (2) The Annual Transmission Charges of the Transmission Licensee shall be determined by the Commission on the basis of a Petition for determination of Aggregate Revenue Requirement or

Petition for adoption of Annual Transmission Charges in case of competitively awarded transmission system Project, as the case may be, filed by the Transmission Licensee in accordance with these Regulations.

7.5 Capital Investment Plan :

- (1) The Transmission Licensee shall submit a detailed capital investment plan, financing Plan and physical targets for each year of the Control Period for meeting the requirement of load growth, improvement in quality of supply, reliability, metering, reduction in congestion, etc., to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period:

Provided that the Capital Investment Plan shall be submitted for each year of the Control Period :

Provided further that the Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required including but not limited to the information such as number of bays, name, configuration and location of grid substations, substation capacity (MVA), transmission line length (ckt-km) showing the need for the proposed investments, alternatives considered, cost/benefit analysis and other aspects that may have a bearing on the transmission charges.

- (2) The Capital Investment Plan of the Transmission Licensee shall be consistent with the transmission system plan for the intra-State transmission system.

7.6 Renovation and Modernisation :

A transmission licensee shall make an application before the commission for approval of a proposal for meeting expenditure on renovation and modernization (R&M) in accordance with Regulations 6.6 meant for a Generating Company and Commission shall accord approval as per the above mentioned Regulations.

7.7 Norms for operation :

- (1) **Auxiliary Energy Consumption in the Sub-Station.**

The cost of auxiliary consumption in the sub-station for the purpose of air conditioning, lighting, and consumption in other equipment shall be borne by the transmission licensee and considered as part of Operation and Maintenance expenses under the head General and Administration Overhead.

- (2) **Target availability for full recovery of annual transmission charges**

The Normative Annual Transmission Availability Factor (NATAF) of the Transmission System shall be as follows:

- (a) AC system: 98 %.
- (b) HVDC bi-pole links & HVDC back to back stations: 95 %.

For incentive consideration:

- (a) AC system: 98.5 %.
- (b) HVDC bi-pole links & HVDC back to back stations: 96 %.

Provided that for new HVDC station NATAF shall be considered as 95% for first three years of operations for the purpose of incentive:

Provided that no incentive shall be payable above the availability of 99.75%:

Provided further that the computation of incentive/disincentive shall be undertaken during annual performance review and at the end of Control Period.

7.8 Operation and Maintenance expenses :

- (1) The norms for O&M expenses on the basis of circuit kilometres of transmission lines, transformation capacity and number of bays in substations shall be submitted for approval of the Commission.
- (2) The Commission shall verify the budget estimates and projections and allow the expenditure depending on its views about the reasonableness of the projections.
- (3) Increase in O& M expenses due to natural calamities or insurgency or other factors not within its control may be approved by the Commission.

7.9 Non-Tariff Income :

Non-tariff income in relation to the Transmission Business as approved by the Commission shall be in accordance with the provisions of the clause of Non - Tariff Income applicable for Generating Business of these Regulations.

7.10 Income from Other Business :

Where the Transmission Licensee is engaged in any Other Business, an amount equal to two-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the ARR in calculating the annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Transmission Business and the Other Business and shall submit the Allocation Statement, duly audited and certified by the Statutory Auditor, to the Commission along with his application for determination of tariff:

Provided further that where the sum total of the direct and indirect costs of such Other Business exceeds the revenues from such Other Business, no amount shall be deducted from the ARR of the Transmission Licensee on account of such Other Business.

7.11 Transmission Charges :

- (1) The fixed cost of the transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users, who shall share these charges in the manner specified in these Regulations.
- (2) The transmission charge (inclusive of incentive) payable for a calendar month for a transmission system or part thereof shall be

$$\text{AFC} \times (\text{NDM} / \text{NDY}) \times (\text{TAFM} / \text{NATAF})$$

Where,

AFC= Annual fixed cost specified for the year, in Rupees

NATAF= Normative annual transmission availability factor, in per cent

NDM = Number of days in the month

NDY = Number of days in the year

TAFM = Transmission system availability factor for the month, in Percent (%). The procedure for calculation of TAFM is shown in Annexure II.

- (3) The transmission licensee shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM.

7.12 Sharing of Transmission Charges for Intra-State Transmission Network :

In case of more than one beneficiaries of the transmission system, the monthly.

Transmission charges leviable on each beneficiary shall be computed as per the following formula:

Transmission charges for transmission system payable for a month by the beneficiary of that transmission system = $[\text{TC}/12 - \text{TRSC}] \times \text{CL}/\text{SCL}$.

Where,

TC = Annual Transmission Charges computed in accordance with Regulation 64.

CL = Allotted Transmission Capacity to the beneficiary.

SCL = Sum of the Allotted Transmission Capacities to all the beneficiaries of the State transmission system.

TRSC = Total recovery of transmission charges for the month from short term transmission customers.

7.13 Incentive :

- (1) The Transmission Licensee shall be entitled to incentive for increase in annual availability beyond the target availability prescribed under these Regulation, in accordance with the following formula:

$$\text{Incentive} = \text{ATC} \times [\text{Annual availability achieved} - \text{Target Availability}] / \text{Target Availability}$$

Where;

ATC= Annual Transmission Charges determined by the Commission for the transmission system of the Transmission Licensee for the concerned year.

- (2) Incentive shall be shared by the long-term and medium-term customers in the ratio of their average allotted Transmission capacity for the year.

7.14 Open Access Transactions :

All the matters related to Open Access Transactions shall be dealt in accordance with Arunachal Pradesh State Electricity Regulatory Commission (Terms and Condition for Open Access) Regulations, 2012 as applicable and as amended from time to time.

7.15 Transmission losses :

The energy losses in the transmission system of the Transmission Licensee, as determined by the State Load Despatch Centre, shall be borne by the Transmission System Users in proportion to their usage of the intra-State transmission system.

Provided that the Commission shall make a periodical review of the reduction in transmission losses with reference to the norms fixed by it.

Provided that in the case of failure to achieve the target for loss reduction, the Commission will not allow the excess over the norm as a pass through.

7.16 Payment Modalities :

- (1) State Transmission Utility (STU) shall raise monthly bill for Intra-State Transmission Charges on every Transmission System User (TSU) on 1st working day of the Month for the Transmission Charges of preceding month.
- (2) The monthly bill for transmission tariff for each calendar month shall be payable on 14th day of subsequent calendar month by the TSUs.

7.17 Scheduling and Metering :

All the provisions, including the methodology for scheduling, dispatch and metering for the generating station shall be as specified in the State Grid Code Regulations as amended from time to time.

CHAPTER 8- SLDC FEES AND CHARGES

8.1 Applicability :

The Regulations in this part shall apply to the users of intra-State transmission system (i.e. Generating Companies, Licensees (i.e. Transmission, Distribution & Trading Companies) and Open Access Customers), who are monitored/serviced by the State Load Despatch Centre (SLDC) and utilized for determination of Fees and Charges to be collected by the SLDC.

8.2 Application for Registration with SLDC :

- (1) Each of the users of intra-State transmission system, i.e. all generating stations, distribution licensees, intra-State transmission licensees, traders and the buyers and sellers intending to avail the Grid Access, shall register themselves with the SLDC, within a month of coming into force of these Regulations, by filing an application to the SLDC along with the fee as specified by the Commission from time to time.

Provided that the generating companies, licensees, buyers and sellers who have been registered as per Arunachal Pradesh State Electricity Regulatory Commission (Multi Year Tariff) Regulations, as amended time to time shall be deemed to have been registered with the SLDC, under these Regulations and they shall not be required to pay the registration fee as required under Sub-Regulation (1) above.

- (2) The new users of intra-State transmission system coming under the purview of SLDC, shall submit an application to the SLDC, at least one month before the proposed date of connection to the Intra-State transmission system, along with the above-mentioned Fee.
- (3) After being satisfied with the completeness and correctness of the information furnished in the application, the SLDC, shall register the application in its records and duly intimate the applicant regarding such registration.

- (4) The SLDC shall maintain consolidated information about all the users connected to the Intra-State transmission system and being monitored / serviced by it, on their web-site.

8.3 Capital Investment Plan :

The SLDC shall submit a detailed capital investment plan, financing plan and physical targets for each year to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period as specified in Chapter 2 of these Regulations.

8.4 Levy and Collection of Charges from Generating Companies, Licensees and MTOA beneficiaries :

- (1) All expenses incurred by the SLDC shall be accounted separately.
- (2) Expenses incurred by the SLDC in the discharge of its functions as specified in Section 32 of the Electricity Act shall be recovered from the Generating Companies, Licensees and MTOA beneficiaries through Charges.
- (3) The Charges to be recovered from Generating Companies, Licensees and MTOA beneficiaries shall be determined taking into account the following expenses
 - (a) Return on Equity Capital;
 - (b) Depreciation;
 - (c) Operation and maintenance expenses;
 - (d) Interest and finance charges; and
 - (e) Interest on working capital

Minus :

- (f) Non-Tariff Income; and
- (4) Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for the Distribution Wires Business shall be allowed in accordance with the provisions specified in **Chapter - 4** of these Regulations.

8.5 Operation and Maintenance Expenses :

- (1) The Operation and Maintenance expenses including insurance shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2017, subject to prudence check by the Commission.
- (2) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2016 and shall be escalated at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21.

8.6 Determination of SLDC Fees and Charges :

- (1) Upon the Commission being satisfied that all the information and clarification sought for by it have been produced and that sufficient opportunity has been afforded to all the parties concerned, the Commission shall pass appropriate orders on the estimated expenses and determine the Fees and Charges recoverable from the Generating Companies, the Licensees and MTOA beneficiaries.
- (2) The Fees and Charges so determined by the Commission shall be valid till the approval of next revision.
- (3) The SLDC Fees and Charges shall be determined by the Commission on the basis of application made by SLDC, for determination Fees and Charges, in accordance with **Chapter - 4** of these Regulations.
- (4) Open access users of the Grid shall pay such scheduling and system operation Charges as may be stipulated by the Commission.

8.7 Billing and Collection of SLDC Charges :

- (1) The SLDC shall furnish necessary monthly bills to the users of intra State Transmission System , the Generating Companies, Licensees and MTOA beneficiaries for each billing month within seven days after the last day of the preceding month, on the basis of the following formula:

$$\text{SLDC Charges payable for a month} = (\text{SC}/12) * (\text{AC}_i/\text{SAC}_i)$$

where,

SC = Approved SLDC Aggregate Revenue Requirement for the year;

AC_i = Actual installed capacity in case of generating stations/long term and medium term contracted capacities in case of sellers/aggregated allocated capacity and contracted capacity in case of distribution licensee/long term contracted capacity in case of buyer for the month 'i';

SAC_i = Sum of Actual installed capacity in case of generating stations, long term and medium term contracted capacities in case of sellers, aggregated allocated capacity and contracted capacity in case of distribution licensee and long term contracted capacity in case of buyer for the month 'i'.

CHAPTER 9- TARIFF FOR DISTRIBUTION WHEELING BUSINESS

9.1 Separation of accounts :

The distribution licensee shall segregate the accounts of the licensed business into Wheeling Business and Retail Supply Business and submit separate ARR for respective business. The ARR for wheeling business shall be used to determine wheeling charges recoverable from open access consumers and the ARR for Retail Supply Business to determine retail supply tariff for sale of electricity to different categories of consumers of the licensee, which will be inclusive of wheeling charges.

9.2 Applicability :

The Regulations contained in this Chapter shall apply to the determination of tariff payable for usage of distribution wires of a Distribution Licensee by a Distribution System User.

Explanation: Distribution system users for the purpose of this regulation shall mean consumers using the distribution network of a Distribution Licensee, including consumers taking supply from other sources through open access.

9.3 Estimate of Energy Requirement :

Based on the estimated energy sales and the proposed distribution losses, the Licensee may determine the quantum of electricity required to meet the estimated sales and shall submit to Commission which may approve the power purchase requirement with such modifications, as it deems fit, for the ensuing year or for the tariff period.

9.4 Components of ARR for Distribution Wheeling Business :

- (1) The Wheeling Charges for Distribution Wires Business of the Distribution Licensee shall provide for the recovery of the ARR, which shall comprise of the following:
 - (a) Return on Equity Capital;
 - (b) Interest on Loan Capital;
 - (c) Depreciation;
 - (d) Operation and maintenance expenses;
 - (e) Interest on working capital and deposits from Distribution System Users; and
 - (f) Provision for Bad and doubtful debts.

Minus :

- (g) Non-Tariff Income; and
 - (h) Income from Other Business, to the extent specified in these Regulations;
- (2) Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for the Distribution Wires Business shall be allowed in accordance with the provisions specified in **Chapter - 4** of these Regulations:

Provided further that prior period the Commission at the time of truing up shall allow income/expenses based on audited accounts, on a case-to-case basis, subject to prudence check.

(3) Operation and Maintenance expenses:

- (a) The Operation and Maintenance expenses shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ended on March 31, 2017, subject to prudence check by the Commission.

- (b) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2016 and shall be escalated year on year at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21:

Provided that in case the Distribution Licensee has been in operation for less than three (3) years as on the date of effectiveness of these Regulations, the O&M Expenses shall be determined on case to case basis.

- (4) The wheeling charges of the Distribution Licensee shall be determined by the Commission based on an application for determination of tariff made by the Distribution Licensee in accordance with these Regulations.

Provided that the Wheeling Charges may be denominated in terms of Rupees/kWh or Rupees/kW/month, for the purpose of recovery from the Distribution System User, or any such denomination, as stipulated by the Commission from time to time.

9.5 Allocation Matrix :

The Wheeling Charges of the Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Distribution Wires Business:

Provided that where the Distribution Licensee is not able to submit audited and certified separate accounts for Distribution Wires Business and Retail Supply Business, the following Allocation Matrix shall be applicable:

Table - 1 Allocation matrix for segregation of expenses between Distribution Wires Business and Retail Supply Business

Particulars	Wires Business (%)	Retail Supply Business (%)
Power Purchase Expenses	0	100
Intra-State Transmission Charges (Intra and Inter both)	0	100
SLDC Charges	0	100
Open Access Charges	0	100
Employee Expenses	60	40
Administration & General Expenses	50	50
Repair & Maintenance Expenses	90	10
Depreciation	90	10
Interest on Long-term Loan Capital	90	10
Interest on Working Capital and on consumer security deposits	10	90
Bad Debts Written off	0	100
Income Tax	90	10
Contribution to contingency reserves	100	0
Return on Equity	90	10
Non-Tariff Income	10	90

9.6 Capital Investment Plan :

- (1) The Distribution Licensee shall submit a detailed capital investment plan, financing plan and physical targets for each year of the Control Period in the manner as specified in Chapter 2 of these Regulations.
- (2) The Distribution Licensee shall be required to ensure optimum investments to enhance efficiency, productivity and meet performance standards prescribed by the Commission.

9.7 Bad and Doubtful Debts :

The Commission may after the distribution licensee gets the receivables audited, allow a provision for bad debts not exceeding an amount equal to 1 percent receivables in the revenue requirement of the licensee. (Information furnished as per Formats for Distribution Licensee).

9.8 Revenue Gap :

- (1) For the tariff year, the difference between the net Annual Revenue Requirement and the expected Revenue at the prevailing tariff shall be the 'Revenue Gap'.
- (2) The revenue gap shall be bridged by measures such as improvements in internal efficiency, utilization of reserves, tariff changes etc. as may be approved by the Commission.

9.9 Non-Tariff Income :

Non-tariff income in relation to the Distribution Business as approved by the Commission shall be in accordance with the provisions of the clause of Non - Tariff Income applicable for Generating Business of these Regulations.

9.10 Income from Other Business :

Where the Distribution Licensee has engaged in any Other Business, an amount equal to one-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the Aggregate Revenue Requirement in determining the wheeling charges of Distribution Wheeling Business of the Distribution Licensee:

Provided that the Distribution Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Distribution Business and the Other Business and shall submit the Allocation Statement to the Commission, duly audited and certified by the Statutory Auditor, along with its application for determination of wheeling charges:

Provided further that where the sum total of the direct and indirect costs of such Other Business exceed the revenues from such Other Business, no amount shall be allowed to be added to the Aggregate Revenue Requirement of the Distribution Licensee on account of such Other Business.

Provided further that nothing contained in these Regulations shall apply to a local authority engaged, before the commencement of the Act, in the business of distribution of electricity.

9.11 Wheeling Charges :

The Commission shall specify the Wheeling Charge of Distribution Wires Business of the Distribution Licensee in its Tariff Order passed under sub-section (3) of Section 64 of the Act:

Provided that the Wheeling Charges payable by a Distribution System User, other than the retail consumers getting electricity supply from the same Distribution Licensee, may comprise any combination of fixed/demand charges, and variable charges, as may be stipulated by the Commission in such Order:

Provided further that the revenue from Wheeling Charges paid by the Distribution System Users under the above proviso shall be used to reduce the Aggregate Revenue Requirement of the Wires Business to be recovered from the retail consumers of the concerned Distribution Licensee, in accordance with the Regulations in **Chapter 9**.

Wheeling charges so worked out shall be apportioned supply voltage- wise.

9.12 Wheeling losses :

The Distribution Licensee shall be allowed to recover, in kind, the approved level of wheeling losses arising from the operation of the distribution system, as stipulated in the respective Tariff Order.

Provided that any variation between the actual level of wheeling losses and the approved level shall be dealt with, as part of the Annual Performance Review, in accordance with the mechanisms provided in these Regulations.

CHAPTER 10- TARIFF FOR RETAIL SUPPLY BUSINESS

10.1 Applicability :

These Regulations shall apply for determination of tariff for retail supply of electricity by a Distribution Licensee to its consumers.

10.2 Components of Tariff :

- (1) The tariff for retail supply by a Distribution Licensee shall provide for recovery of the Aggregate Revenue Requirement of the Distribution Licensee for the financial year, as approved by the Commission and comprising the following:

- (a) Return on Equity Capital;
- (b) Interest on Loan Capital;
- (c) Depreciation;
- (d) Cost of own power generation /power purchase expenses;
- (e) Inter-State Transmission Charges;
- (f) Intra-State Transmission Charges;
- (g) Charges for intervening transmission facilities, if any;
- (h) Fees and charges of NLDC/RLDC/SLDC etc.;
- (i) Operation and Maintenance expenses;
- (j) Interest on working capital and on consumer security deposits; and
- (k) Provision for Bad and doubtful debts.

Minus :

- (l) Non-tariff income;
 - (m) Income from wheeling charges recovered from open access customers;
 - (n) Income from Other Business, to the extent specified in these Regulations;
 - (o) Receipts from cross-subsidy surcharge from open access consumers; and
 - (p) Receipts from additional surcharge on charges of wheeling from open access consumers.
 - (q) Any revenue subsidy or grant received from the State Government other than the subsidy under Section 65 of the Electricity Act, 2003.
- (2) Provided that Depreciation, Interest and finance charges, Interest on Working Capital and Return on Equity for the Retail Supply Business shall be allowed in accordance with the provisions specified in **Chapter - 4** of these Regulations:
- The tariff for retail supply by a Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Retail Supply Business:
- (3) Provided that where the Distribution Licensee is not able to submit audited and certified separate accounts for Distribution Wires Business and Retail Supply Business, the Allocation Matrix as given in Table-1 shall be applicable:
- (4) The tariff for retail supply by the Distribution Licensee shall be determined by the Commission on the basis of an application for determination of tariff made by the Distribution Licensee in accordance with **Chapter - 3** of these Regulations.
- (5) The Distribution Licensee shall be allowed to offer a rebate to the consumers on tariff and charges determined by the Commission:

Provided that the Distribution Licensee shall submit details of such rebates to the Commission every quarter, in the manner and format, as stipulated by the Commission from time to time.

Provided that the impact of such rebates on the Distribution Licensee shall be borne entirely by the Distribution Licensee and impact of such rebate shall not be allowed by the Commission to be passed through to the consumers, in any form.

Provided that such rebates should not to be offered selectively to any consumer/s, and shall have to be offered to the entire consumer category/sub-category/consumption slab in a non-discriminatory manner.

10.3 Power Purchase Cost :

- (1) The Licensee shall procure power from approved sources. Additional energy required after taking into account the availability of energy from such approved sources, shall be reasonably estimated well in advance and procurement arrangements made for such long and medium term purchases, by following standard contractual procedures.
- (2) For purchase of electricity from sources outside the state, the transmission loss level agreed to in the Power Purchase Agreement (PPA) or worked out from energy accounts of RLDC/ SLDC shall be taken into account for purchase of power from such sources.
- (3) The cost of power purchased from the central generating companies shall be worked out based on the tariff determination by the Central Electricity Regulatory Commission (CERC).
- (4) Where power is purchased by the licensee from State-owned existing generating stations, the cost of power purchase shall be worked out based on the price determined by the State Commission and in case of power purchased from Renewable energy sources the quantum and the cost shall be as per the policy approved by the State Commission / Central Commission.
- (5) The cost of power purchase from IPPs shall be considered based on existing Power Purchase Agreement if any, till the agreement period is over.
- (6) In case of short-term power purchase necessitated based on unprecedented development, the licensee may resort to short term procurement.
- (7) Power purchased by the licensee in excess of the approved requirement of power, the Commission shall consider the need for such additional power at the time of truing up of the approved tariff.

10.4 Transmission Charges :

The Distribution Licensee shall be allowed to recover transmission charges payable for access to and use of the intra-State transmission system in accordance with the tariff approved by the Commission under **Chapter 7** of these Regulations.

10.5 Unscheduled Interchange (UI) Charges :

Variation between actual drawl and scheduled drawl shall be accounted for through Unscheduled Interchange (UI) Charges. UI shall be worked out for each 15 minutes' time block. Charges for all UI transactions shall be based on average frequency of the time block and rates as specified by CERC from time to time.

10.6 Capital Investment Plan :

- (1) The Distribution Licensee shall submit a detailed Capital investment plan, financing plan and physical targets for each year of the Control Period for meeting the requirement of load growth, reduction in distribution losses, increase in collection efficiency, metering, consumer services, etc. to the Commission in accordance with Regulation 2.3.
- (2) The Commission shall approve the Capital investment plan in accordance with the principles specified in these Regulations.

10.7 Power procurement plan :

- (1) The Distribution Licensee shall prepare a plan for procurement of power to serve the demand for electricity in its area of supply and submit such plan to the Commission for approval:

Provided that the power procurement plan submitted by the Distribution Licensee may include long-term, medium-term and short-term power procurement sources of power, in accordance with these Regulations. However, the distribution licensee should as far as possible, not plan for short-term purchases except for conditions specified in Regulations 10.9 and should endeavour to meet its requirement from long term and medium term power procurement and make a plan accordingly.

- (2) The power procurement plan of the Distribution Licensee shall comprise of the following:
 - (a) A quantitative forecast of the unrestricted demand for electricity for each tariff category, within its area of supply over the Control Period;
 - (b) An estimate of the quantities of electricity supply from the identified sources of generation and power purchase;
 - (c) An estimate of availability of power to meet the base load and Peak load requirement.

Provided that estimate should be monthly estimation of demand and supply expressed both in Mega-Watt (MW) as well as in Million Units (MUs).

- (d) Standards to be maintained with regard to quality and reliability of supply, in accordance with the **APSERC (Standards of Performance) Regulations, 2016**, as amended from time to time;
- (e) Measures proposed to be implemented as regards energy conservation and energy efficiency;
- (f) The requirement for new sources of power generation and/or procurement, including augmentation of generation capacity and identified new sources of supply, based on (a) to (d) above;
- (g) The plan for procurement of power including quantities and cost estimates for such procurement:

Provided that the forecast/estimate contained in the long-term procurement plan shall be separately stated for peak and off-peak periods, in terms of quantities of power to be procured (in millions of units of electricity) and maximum demand (in MW / MVA):

Provided further that the forecasts/estimates shall be prepared for each month of the Control Period:

Provided also that the long-term procurement plan shall be a cost-effective plan based on available information regarding costs of various sources of supply.

- (3) The forecasts/estimates shall be prepared using forecasting techniques based on past data and reasonable assumptions regarding the future:

Provided that the forecasts/estimates shall take into account factors such as overall economic growth, consumption growth of electricity-intensive sectors, advent of competition in the electricity industry, trends in captive power, impact of loss reduction initiatives, improvement in Generating Station Plant Load Factors and other relevant factors.

- (4) Where the Commission has stipulated a percentage of the total consumption of electricity in the area of a Distribution Licensee to be purchased from co-generation and renewable sources of energy, the power procurement plan of such Distribution Licensee shall include the plan for procurement from such sources at least upto the stipulated level.
- (5) The Distribution Licensee shall be required to forward a copy of the power procurement plan to the State Transmission Utility for verification of its consistency with the transmission system plan for the intra-State transmission system;

Provided that the Distribution Licensee may also consult the State Transmission Utility at the time of preparation of the power procurement plan to ensure consistency of such plan with the transmission system plan.

- (6) The Distribution Licensee may, as a result of additional information not previously known or available to him at the time of submission of the procurement plan under sub-Regulation (1) above, apply for a modification in the power procurement plan, for the remainder of the Control Period, as part of the application for Annual Performance Review:
- (7) The Commission may, as a result of additional information not previously known or available to the Commission at the time of submission of the procurement plan under sub-Regulation (1) above, if it so deems, either on suo motu basis or on an application made by any interested or affected party, modify the procurement plan of the Distribution Licensee, for the remainder of the Control Period, as part of the Annual Performance Review.
- (8) The Commission shall review the power procurement plan of the Distribution Licensee, or any proposed modification thereto, and upon such review being completed, the Commission shall either-
 - (a) Issue an order approving the power procurement plan, or modifications thereto, subject to such modifications and conditions as it may deem appropriate; or
 - (b) Reject the power procurement plan or application for modification thereto, for reasons recorded in writing, if such plan is not in accordance with the guidelines contained in this Part, and direct the Distribution Licensee to submit a revised plan based on such considerations as it may specify:

Provided that the Distribution Licensee shall be given reasonable opportunity of being heard before rejecting its power procurement plan.

10.8 Approval of power purchase agreement/arrangement :

- (1) Every agreement or arrangement for power procurement by a Distribution Licensee from a Generating Company or Licensee or from other source of supply entered into after the date of effectiveness of these Regulations shall come into effect only with the prior approval of the Commission:

Provided that the prior approval of the Commission shall be required in respect of any agreement or arrangement for power procurement by the Distribution Licensee from a Generating Company or Licensee or from any other source of supply on a standby basis:

Provided further that the prior approval of the Commission shall also be required for any change to an existing arrangement or agreement for power procurement, whether or not such existing arrangement or agreement was approved by the Commission.

- (2) The Commission shall review an application for approval of power procurement agreement/arrangement having regard to the approved power procurement plan of the Distribution Licensee and the following factors:
 - (a) Requirement for power procurement under the approved power procurement plan;
 - (b) Adherence to a transparent process of bidding in accordance with guidelines issued by the Central Government;
 - (c) Adherence to the terms and conditions for determination of tariff specified under these Regulations where the process specified in (b) above has not been adopted;
 - (d) Availability (or expected availability) of capacity in the intra-State transmission system for evacuation and supply of power procured under the agreement/arrangement;
 - (e) Need to promote co-generation and generation of electricity from renewable sources of energy.

10.9 Additional Short-term power procurement :

- (1) The Distribution Licensee can undertake additional short-term power procurement during the year, over and above the power procurement plan for the Control Period approved by the Commission, in accordance with this Regulation.
- (2) Where there has been a shortfall or failure in the supply of electricity from any approved source of supply during the financial year, the Distribution Licensee may enter into additional short-term arrangement or agreement for procurement of power (short-term means upto period of one year):

Provided that if the total power purchase cost or quantum for any block of six months including such short-term power procurement exceeds 105% of the power purchase cost or quantum as approved by the Commission for the respective block of six months, the Distribution Licensee shall have to obtain prior approval of the Commission;

- (3) Where the Distribution Licensee has identified a new short-term source of supply from which power can be procured at a tariff that reduces its approved total power procurement cost, the Distribution Licensee may enter into a short-term power procurement agreement or arrangement with such supplier without the prior approval of the Commission.
- (4) The Distribution Licensee may enter into a short-term arrangement or agreement for procurement of power without the prior approval of the Commission when faced with emergency conditions that threaten the stability of the distribution system or when directed to do so by the State Load Despatch Centre to prevent grid failure.
- (5) Within fifteen (15) days from the date of entering into an agreement or arrangement for short-term power procurement for which prior approval is not required, the Distribution Licensee shall provide the Commission, full details of such agreement or arrangement, including quantum, tariff calculations, duration, supplier details, method for supplier selection and such other details as the Commission may require with regard to such agreement/arrangement to assess that the conditions specified in this Regulation have been complied with:
 Provided that where the Commission has reasonable grounds to believe that the arrangement or agreement entered into by the Distribution Licensee does not meet the criteria specified in sub-Regulation (2) to sub-Regulation (4) above, the Commission may disallow any increase in the total cost of power procurement (net of additional revenue) over the approved level arising there from or any loss incurred by the Distribution Licensee as a result, from being passed through to consumers.
- (6) Subject to the cases specified in sub-Regulation (2) to sub-Regulation (4) above, where the Distribution Licensee enters into any agreement or arrangement for short-term power procurement without the approval of the Commission, any increase in the total cost of power procurement (net of additional revenue) over the approved level arising there from shall be deemed to be a variation in performance attributable entirely to controllable factors.

10.10 Sales forecast :

- (1) The accurate projection of category-wise sales is very essential for the assessment of energy input requirement to determine the quantum of generation and quantum of energy to be purchased for the correct assessment of revenue requirement for generation and power purchase.
- (2) The licensee may adopt a suitable methodology like CAGR to arrive at the category wise sales for the base year i.e., for the current year.
- (3) The licensee shall submit the restricted demand due to system constraints (in MW), unrestricted demand (in MW) and sale of electricity (in MU) for different categories of consumers in its area of supply for previous year, estimated for the current year and forecast for ensuing year.

Provided where the category-wise unrestricted / restricted demand is not available, these figures may be supplied for the area as a whole. The likely date, by which such data are likely to be available and the steps taken in this regard shall be furnished.
- (4) The forecast for the ensuing year shall be on monthly basis to properly capture the seasonality in demand.
- (5) The Commission shall examine the estimate of sales for reasonableness based on growth in number of consumers and consumption and demand of electricity in previous years and anticipated growth in the next year and any other factor, which the Commission may consider relevant and approve sale of electricity to consumers with such modifications as deemed fit.
- (6) The distribution licensee shall also indicate the particulars of open access consumers, traders and other licensees category wise using its system. The demand and energy wheeled for them shall be shown separately for,
 - (a) supply within the area of supply and
 - (b) Supply outside the area of supply.
- (7) The licensee shall assess and estimate sales to unmetered category of consumers, on the basis of the consumption norms sample study or on any other basis determined, or otherwise found reasonable by the Commission.
- (8) The licensee shall develop a reliable database of each of the consumer categories such as their demand, energy consumption etc. so as to facilitate accurate forecasting of energy sales for ensuing year.
- (9) In case additional electricity is required by any particular consumer category not considered by the commission the licensee shall make an application any time during the year, to the Commission for approval. The application shall indicate the need for such change in consumer mix, the additional supply required and the manner in which the licensee proposes to meet the cost of supply for such change of consumer mix.

10.11 Non-Tariff Income :

The amount of Non-Tariff Income relating to the Retail Supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of his forecast of Non-Tariff Income to the Commission along with his application for determination of tariff.

10.12 Income from Other Business :

To be considered as specified in Chapter- 5 of these Regulations.

Provide also that nothing contained in this Regulation shall apply to a local authority engaged, before the commencement of the Act, in the business of distribution of electricity.

10.13 Receipts on account of cross-subsidy surcharge& Additional surcharge :

The cross-subsidy surcharge &Additional surcharge received by the Distribution Licensee in accordance with the Arunachal Pradesh State Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2012, as amended from time to time, at the rate approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by such Distribution Licensee, at the time of truing up.

10.14 Aggregate Technical and Commercial (AT&C) Losses :

The Distribution Licensee shall recover the approved level of AT&C losses arising from the Retail Supply of electricity:

While filing a Tariff Application, the licensee shall provide complete information of the total AT&C Losses during the previous year and that projected for the year for which the application is being made, including the basis on which such losses have been worked out. (Information to be furnished as per the Format of Distribution Licensee in given in Annexure III):

Provided that it shall be obligatory on the licensee whose AT&C losses during the previous year are in excess of 30 percent, to project reduction of such losses by a minimum of **5 percent** during the year for which a Tariff Application is made. Any shortfall in the projected level of AT&C losses for such year, in this regard, shall be penalized by an amount equivalent to the cost of the quantum of energy to be lost due to inability of the licensee to plan and achieve reduction of AT&C losses by a minimum of 5 percent from the previous year's level. Such amount shall be calculated at the average \square over \square all \square unit \square cost of sale of power, as approved by the Commission for such year.

Provided further that failure of a licensee to reduce the AT&C losses during the previous year by **5 percent** would be penalized on the same basis as stated against clause (a) above.

Provided also that in the case of a licensee whose AT&C losses during the previous year were less than 30 percent, it would be obligatory for such licensee to reduce such AT&C losses by a minimum of **3 percent** only during the year for which a Tariff Application is made. Failure to achieve this level of reduction would be penalized in the same manner as set out in clause (a) above.

10.15 Determination of Tariff :

- (1) The Commission may categorize consumers on the basis of their load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.
- (2) The retail supply tariff for different consumer categories shall be determined on the basis of the average cost of supply, computed as the ratio of the aggregate revenue requirement of the Distribution Licensee for the financial year calculated in accordance with these Regulation to the total sales of the Distribution Licensee for the respective financial year.
- (3) The Commission shall endeavour to reduce gradually the cross-subsidy between consumer categories with respect to the average cost of supply in accordance with the provisions of the Act.
- (4) While determining the tariff the Commission may also keep in view the cost of supply at different voltage levels and the need to minimise tariff shock to any category of consumers.

CHAPTER 11- MISCELLANEOUS

11.1 Hearing :

- (1) The Commission may hold hearing(s) on the ARR/tariff filing and hear such persons as the Commission may consider appropriate to decide on such ARR/tariff filing.
- (2) The procedure of hearing on the ARR/Tariff filing shall be as per the provisions of the APSERC (Conduct of Business) Regulations, 2011 as amended from time to time or in the manner as the Commission may decide from time to time.

11.2 Issue of Orders and Directions :

Subject to the provision of the Act and these regulations, the Commission may, from time to time, issue orders and directions in regard to the implementation of these regulations and procedure to be followed on various matters.

11.3 Interpretation :

If a question arises relating to the interpretation of any provision of these regulations, the decision of the Commission shall be final.

11.4 Norms of operation to be ceiling norms :

Norms of operation specified in these regulations are the ceiling norms and shall not preclude the generating company or the transmission licensee or the distribution licensee, as the case may be,

and the beneficiaries and the long-term transmission and distribution customers from agreeing to the improved norms of operation and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff.

11.5 Power to Amend :

The Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations.

11.6 Power to remove difficulties :

If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, by general or special order, do or undertake or direct the licensees to do or undertake things, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.

11.7 Power to Relax :

The Commission may in public interest and for reason recorded in writing, relax any of the provision of these regulations

11.8 Saving of Inherent Powers of the Commission :

- (1) Nothing in these regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for ends of justice to meet or to prevent abuses of the process of the Commission.
- (2) Nothing in these regulations shall bar the Commission from adopting, in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of these regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.
- (3) 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 or codes have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit in the public interest.

11.9 Review of Regulations :

The Commission at the end of three years from the date of publishing these regulations or even earlier, if considered just, proper and desirable by it considering the circumstances then prevailing shall undertake a comprehensive review of these regulations with the objective of improvement in the principles, procedures and methodologies.

Annexure- I Depreciation Schedule

Sl. No.	Asset Particular	Depreciation (%) (SLM), (Salvage Value= 10%)
A	Land under full ownership	-
B	Land held under lease	
(a)	for the purpose of creation of assets	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 & Machinery in generating stations	
(i)	Hydro Electric	5.28
(ii)	Steam electric NHRB & waste heat recovery boilers	5.28
(iii)	Diesel electric and gas plant	5.28
(b)	Cooling towers & circulating water systems	5.28
(c)	Hydraulic works forming part of the Hydro-	

Sl. No.	Asset Particular	Depreciation (%) (SLM), (Salvage Value= 10%)
(i)	Dams, Spillways, Weirs, Canals, Reinforced concrete flumes and siphons	5.28
(ii)	Reinforced concreted pipelines and surge tanks, steel pipelines, sluice gates, steel surge tanks, hydraulic control valves and hydraulic works.	5.28
(d)	Building & Civil Engineering works of a	
(i)	Offices and showrooms	3.34
(ii)	Containing thermo-electric generating plant	3.34
(iii)	Containing hydro-electric generating plant	3.34
(iv)	Temporary erections such as wooden structures	100
(v)	Roads other than kutcha roads	3.34
(iv)	Others	3.34
(e)	Transformers, Kiosk, Sub-station equipment & other fixed apparatus (including plant)	
(i)	Transformer including foundations having rating of 100 KVA and over	5.28
(ii)	Others	5.28
(f)	Switchgear including cable connections	5.28
(g)	Lightning arrestor	
(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	5.28
(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 on reinforced concrete support	5.28
iv	Lines on treated wood support	5.28
(j)	Meters	5.28
(k)	Self- Propelled Vehicles	9.5
(l)	Air Conditioning Plants	
(i)	Static	5.28
(ii)	Portable	9.5
(m)	Office furniture and furnishing	6.33
(ii)	Office equipment	6.33
(iii)	Internal wiring including fittings and apparatus	6.33
(iv)	Strret Light fiittings	5.28
(n)	Apparatus let on hire	
(i)	Other than motors	9.5
(o)	Communication equipment	
(i)	Radio and high frequency carrier system	6.33
(ii)	Telephone lines and telephones	6.33

Sl. No.	Asset Particular	Depreciation (%) (SLM), (Salvage Value= 10%)
(p)	I. T Equipment including software	15.0
(q)	Any other assets not covered above	5.28

Annexure - II

- (1) The transmission elements under outage due to following reasons not attributable to the Transmission Licensee shall be deemed to be available:
- (a) Shut down of Transmission Licensee’s transmission elements availed by other agency/ agencies for maintenance or construction of their transmission system.

(b) Manual tripping of Transmission Licensee’s line due to over voltage and manual tripping of switched bus reactor as per the directions of SLDC/RLDC.
- (2) Outage time of Transmission Licensee’s transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.
- (a) Outage of elements due to acts of God and force majeure events beyond the control of the Transmission Licensee. However, onus of satisfying the SLDC that element outage was due to aforesaid events and not due to design, failure shall rest on the Transmission Licensee. A reasonable restoration time for the element shall be allowed by SLDC and any additional time taken by the Transmission Licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the Transmission Licensee. SLDC may consult the Transmission Licensee or any expert for intimation of restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.

(b) Outage caused by grid incident/disturbance not attributable to the Transmission Licensee, e.g. faults in substation or bays owned by other agency causing outage of Transmission Licensee’s elements, tripping of lines, ICTs, HVDC back-to-back stations etc. due to grid disturbance. However, if the element is not restored on receipt of direction from SLDC/RLDC while normalizing the system following grid incident/ disturbance within reasonable time, the element will be considered not available for whole period of outage and outage time shall be attributable to the Transmission Licensee.
- (3) If the outage of any element causes loss of generation at Central/State Sector Station(s) then the outage period for that element should be deemed to be twice the actual outage period for the day(s) on which such loss of generation has taken place.
- (4) If the outage of any element causes power cut in the area of supply of the distribution licensee, then the outage period for that element shall be deemed to be twice the actual outage period for that day(s) on which such power cut has taken place.
- (5) In case of delay in commissioning of any transmission element beyond the scheduled date given while getting investment plan approved from the Commission, the transmission element shall be deemed to be commissioned from such date and shall be considered to be unavailable due to forced outage for the purpose of calculating the overall availability of the transmission system.

Provided that in exceptional Force Majeure cases where the licensee produces evidence/ reasons to the satisfaction of the Commission that the delay was for reasons beyond its control the delay may be condoned by the Commission to the extent deemed fit by it.

Procedure for Calculation of Transmission System Availability Factor for a Month

- (1) Transmission system availability factor for a calendar month (TAFM) shall be calculated by the respective transmission licensee, got verified by the concerned RLDC and certified by the Member-Secretary, Regional Power Committee (RPC) of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges.
- (2) TAFM, in percent, shall be equal to $(100 - 100 \times \text{NAFM})$, where NAFM is the non-availability factor in per unit for the month, for the transmission system / sub-system.
- (3) NAFM for A.C. systems / sub-systems shall be calculated as follows:

L

T

$$NAFM = \left[\sum_{i=1} (OH_i \times Ckt \text{ km}_i \times NSC_i) + \sum_{t=1} (OH_t \times MVA_t \times 2.5) \right]$$

$$\frac{\sum_{r=1}^R (OH_r \times MVAR_r \times 4)}{\sum_{r=1}^R (MVAR_r \times 4)} \div THM \times \left[\sum_{i=1}^L (Ckt \text{ km}_i \times NSC_i) + \sum_{t=1}^T (MVA_t \times 2.5) \right]$$

Where,

i= identifies a transmission line circuit

t= identifies a transformer / ICT

r= identifies a bus reactor, switchable line reactor or SVC

L= total number of line circuits

T= total number of transformers and ICTs

R= total number of bus reactors, switchable line reactors and SVCs

OH= Outage hours or hours of non-availability in the month, excluding the duration of outages not attributable to the transmission licensee, if any, as per regulations.

Ckt km= Length of a transmission line circuit in km

NSC= Number of sub-conductors per phase

MVA = MVA rating of a transformer / ICT

MVAR = MVAR rating of a bus reactor, switchable line reactor or an SVC (in which case it would be the sum of inductive and capacitive capabilities).

THM = Total hours in the month.

- (4) NAFM for each HVDC system shall be calculated separately, as follows:

$$NAFM = \left[\sum (TCR \times \text{hours}) \right] \div \left[THM \times RC \right]$$

Where,

TCR = Transmission capability reduction of the system in MW

RC = Rated capacity of the system in MW.

For the above purpose, the HVDC terminals and directly associated EHV / HVDC lines of an HVDC system shall be taken as one integrated system.

- (5) The transmission elements under outage due to following reasons shall be deemed to be available:
- Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the transmission licensee, the Member- Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved.
 - Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of RLDC.
- (6) Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.
- Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, onus of satisfying the Member Secretary, RPC that element outage was due to aforesaid events and not due to design failure shall rest with the transmission licensee. A reasonable restoration time for the element shall be considered by Member Secretary, RPC and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert for estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.
 - Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in substation or bays owned by other agency causing outage of the transmission licensee's elements, and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing

the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration.

Annexure – III

Formats for Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business are prepared herewith which are separately shown in Excel Sheets. The index file of those formats are shown herewith.

(1) MYT Petition, True-up Petition Formats – Generation

Sl. No.	Title	Reference
1	Aggregate Revenue Requirement - Summary Sheet	Form 1
2	Summary of Tariff Proposal	Form 1.1
3	Salient Features of Hydroelectric Project	Form 1.2
4	Operational Parameters - Hydro Generation	Form 2.1
5	Capacity Charge & Energy Charge Rate - Hydro Generation	Form 2.2
6	Interest on Working Capital - Hydro Generation	Form 2.3
7	Planned & Forced Outages	Form 2.4
8	% Annual Availability of Generating Stations	Form 2.5
9	Summary of Operations and Maintenance Expenses	Form 3
10	Normative O&M Expenses	Form 3.1
11	Employee Expenses	Form 3.2
12	Administration & General Expenses	Form 3.3
13	Repair & Maintenance Expenses	Form 3.4
14	Summary of Capital Expenditure and Capitalisation	Form 4
15	Capital Expenditure Plan	Form 4.1
16	Capitalisation Plan	Form 4.2
17	Capital Work in Progress	Form 4.3
18	Assets & Depreciation	Form 5
19	Interest Expenses	Form 6
20	Return on Regulatory Equity	Form 7
21	Non-Tariff Income	Form 8
22	Formats for New Projects	Form 9.A to 9.I

(2) MYT Petition, True-up Petition Formats – Transmission

Sl. No.	Title	Reference
1	Aggregate Revenue Requirement - Summary Sheet	Form 1
2	Normative Operation and Maintenance Expenses	Form 2
3	Operations and Maintenance Expenses	Form 2.1
4	Transmission Network Details	Form 2.2
5	Employee Expenses	Form 2.3
6	A&G Expenses	Form 2.4
7	R&M Expenses	Form 2.5
8	Summary of Capital Expenditure & Capitalisation	Form 3
9	Capital Expenditure Plan	Form 3.1
10	Capitalisation Plan	Form 3.2
11	Capital Work-in-Progress	Form 3.3

Sl. No.	Title	Reference
12	Assets & Depreciation	Form 4
13	Interest Expenses	Form 5
15	Interest on Working Capital	Form 6
16	Return on Regulatory Equity	Form 7
17	Non-tariff Income	Form 8
18	Contribution to contingency reserves	Form 9
19	Transmission Losses	Form 10
20	Transmission Availability	Form 11
21	Truing Up Summary	Form 12
22	Break-up of Revenue	Form 12.1
23	Formats for New Projects	Form 13.A to 13.I

(3) MYT Petition, True-up Petition Formats- Fee and Charges forSLDC

Sl. No.	Title	Reference
1	SLDC Charges - Summary Sheet	Form 1
2	O&M Expenses -Summary Sheet	Form 2
3	O&M Expenses for Control Period	Form 2.1
4	Employee Expenses	Form 2.2
5	A&G Expenses	Form 2.3
6	R&M Expenses	Form 2.4
7	Summary of Capital Expenditure and Capitalisation	Form 3
8	Capital Expenditure Plan	Form 3.1
9	Capitalisation Plan	Form 3.2
10	Capital Work-in-Progress	Form 3.3
11	Assets & Depreciation	Form 4
12	Interest & Finance Charges	Form 5
13	Interest on Working Capital	Form 6
14	Return on Regulatory Equity	Form 7
15	Non-tariff Income	Form 8
16	Revenue from Transmission System Users and others	Form 9

(4) MYT Petition, True-up Petition Formats-Distribution & Retail Supply

Sl. No.	Title	Reference
1	Aggregate Revenue Requirement - Summary Sheet	ARR-Summary
2	Customer Sales Forecast	Form 1
3	Transmission & Distribution (T&D) Losses	Form 2
4	Power Purchase Expenses	Form 3
5	Summary of Operations and Maintenance Expenses	Form 4
6	Normative O&M Expenditure	Form 5
7	Employee Expenses	Form 6
8	A&G Expenses	Form 7
9	R&M Expenses	Form 8
10	Summary of Capital Expenditure & Capitalisation	Form 9
11	Capital Expenditure Plan	Form 10

12	Capitalisation Plan	Form 11
13	Assets & Depreciation	Form 12
14	Return on Regulatory Equity	Form 13
15	Non-tariff Income	Form 14
16	Revenue for True Year	Form 15
17	Expected Revenue at Existing Tariff - FY 2017-18	Form 16
18	Truing Up Summary	Form 17
19	Cross-subsidy Trajectory	Form 18
20	Wheeling and Open Access Charges	Form 19
21	Aggregate Technical & Commercial (AT&C) losses	Form 20
22	Energy Requirement and Energy Balance	Form 21

Annexure - IV

(For Hydro based Generating Stations)
[Refer to Regulation 3(20)(b)(v)]

It is to certify that the **(Name of the Station)** has fulfilled all the key provisions as prescribed below in accordance with Regulation 3(20)(b)(v) of these Regulation;

- (1) All documents as prescribed in Regulation 3(8) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations - 2010 have been retained at site and are available at site.
- (2) All requirements as per Regulation 5 of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010 have been complied.
- (3) The unit operating capability shall be in conformity to Regulation 14 (2), 14(3), 14(4), 14(5) and 14(7) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010.
- (4) All requirements as per Regulation 17 and Regulations 9(2), 9(4), 9(9), 9(15), 9(16), 9(18) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations 2010 have been complied for the Steam Turbine.

Name : (CMD/CEO/MD)

Annexure - V

Business Plan Format and Structure

Sl. No	Particulars
1	Executive Summary
2	Introduction-
2.1	Power Scenario of Arunachal Pradesh
2.2	Inception of APDOP
2.3	Licensee's Profile
2.4	Vision and Mission
3	Past Performance
4	Background of Business Plan
5	Energy Demand Forecast-
5.1	Key driving factors, Methodology
5.2	Energy sales

5.3	No. of Consumers and Connected Sales
5.4	Estimation of Revenue at Existing Tariff
5.5	Collection efficiency
6	Power Purchase-
6.1	AT&C Loss and its Trajectory
6.2	Energy Requirement
6.3	Load Curve
6.4	Power Availability
6.5	Power Purchase Cost- Cost of power from various Stations and firm sources
6.6	Transmission Charges- PGCIL charges, Open Access charges, State Transmission
6.7	charges
6.8	Energy Balance
6.9	Procurement and Sale of Surplus Power
6.10	Renewable Purchase Obligation (RPO)
6.11	Total Power Purchase Cost
7	Operation and Maintenance Expenses
7.1	Overview- Components of O&M Expenses, Base year for projection
7.2	Projection Methodology for O&M Expenses, Key Drivers
7.3	Employee Expenses- Projection methodology, Efficiency in Employee Expenses
7.4	Administrative & General (A&G) - Projection methodology, Efficiency in A&G Expenses
7.5	Repair & Maintenance Expenses- Projection methodology, Efficiency in Repair &
7.6	Maintenance Expenses
7.6	O&M Expenses for MYT period 2016-17 to 2020-21- Efficiency in O&M Expenses
8	Capital Investment Plan-
8.1	Background
8.2	Components of Capital Expenditure- Description, Performance Obligation, Power
8.3	Reliability, Infrastructure, Capex Summary, Smart Meters, Interventions Required.
8.4	Capitalization
8.5	Consumer Contribution and Grant
8.6	Depreciation
8.7	Computation of Loan Balance and Interest
8.8	Equity Base and Return on Equity
8.9	Non-Tariff Income
8.9	Working Capital
9	Aggregate Revenue Requirement (ARR)

Secretary,
APSERC,
Government of Arunachal Pradesh,
Itanagar.