HARYANA GOVERNMENT
HARYANA ELECTRICITY REGULATORY COMMISSION
Notification
The 3rd February, 2011

Regulation No. HERC/ 23 / 2010: - In exercise of the powers conferred on it by section 181 of the Electricity Act 2003 (Act 36 of 2003) and all other powers enabling it in this behalf, the Haryana Electricity Regulatory Commission, after previous publication, hereby frames the following regulations:-

CHAPTER – 1 : GENERAL

1. Short title, commencement, extent of application and interpretation:-

(1) These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2010.

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

(3) These regulations shall extend to all the renewable energy project developers and obligated entities in the State of Haryana.

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

2. Definitions. –

(1) In these regulations, unless the context otherwise requires,

(1) 'Act' means the Electricity Act, 2003 (36 of 2003);

(2) 'Auxiliary energy consumption' or 'AUX' in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipments of the generating station, and transformer losses within the generating station, expressed as a percentage of gross energy generated at the generator terminal of the generating station;

(3) 'Biomass' means wastes produced during agricultural and forestry operations (for example straws and stalks) or produced as a by-product of processing operations of agricultural produce (e.g., husks, shells, deoiled cakes, etc); wood produced in dedicated energy plantations or recovered from wild bushes/weeds; and the wood waste produced in some industrial operations;

(4) 'Capital cost' means the capital cost as defined in the relevant regulations 11,23,27,33,46,56 and 60;

(5) 'Central Agency' means the agency operating the National Load Dispatch Centre or such other agency as the Central Commission may designate from time to time

(6) “Certificate” means the renewable energy certificate issued by the Central Agency in accordance with the procedures prescribed by it and under the provisions specified in the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2009;

(7) 'Commission' means the Haryana Electricity Regulatory Commission;

(8) ‘Conduct of Business Regulations’ means the Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 as amended from time to time;

(9) ‘Control Period or Review Period’ means the period during which the norms for determination of tariff specified in these regulations shall remain valid; (10) ‘Floor Price’ means the minimum price determined by the Commission in accordance with these regulations at and above which the renewable energy certificate can be traded in the power exchange;

(11) ‘Forbearance price’ means the ceiling price as determined by the Central Commission in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable energy Certificate for Renewable Energy Generation) Regulations, 2009, as amended from time to time, within which only the Certificate can be dealt in power exchange;

(12) ‘Gross calorific value’ or ‘GCV’ in relation to a fuel used in generating station means the heat produced in kCal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;

(13) ‘Gross station heat rate’ or ‘GHR’ means the heat energy input in kCal / kWh required to generate one kWh of electrical energy at generator terminals of a thermal generating station;

(14) ‘Hybrid Solar Thermal Power Plant’ means the solar thermal power plant that uses other forms of energy input sources alongwith solar thermal energy for electricity generation, and wherein not less than 75% of electricity is generated from solar energy component;

(15) ‘Installed capacity' or 'IC’ 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);

(I6) ‘Inter-connection Point’ shall mean interface point of renewable energy generating facility with the transmission system or distribution system, as the case may be:

a) in relation to wind energy projects and Solar Photovoltaic Projects, inter-connection point shall be line isolator on outgoing feeder on HV side of the pooling sub-station;
b) in relation to small hydro power, biomass power and non fossil fuel based cogeneration power projects and Solar Thermal Power Projects the, inter-connection point shall be line isolator on outgoing feeder on HV side of generator transformer;

(17) ‘Infirm power’ means the power generated from renewable sources, the hourly variation of which is dependent upon nature’s phenomenon like sun, cloud, wind, etc., that cannot be accurately predicted;

(18) 'MNRE' means the Ministry of New and Renewable Energy of the Government of India;

(18a) [1]'Municipal solid waste' means and includes commercial and residential wastes generated in a municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes"

(19) 'Non fossil fuel based co-generation' means the process in which more than one form of energy (such as steam and electricity) are produced in a sequential manner by use of biomass including Bagasse provided the project may qualify to be a co-generation project if it fulfils the eligibility criteria as specified in clause (d) of Regulation 3;

(20) 'Obligated entity' means [2][~~distribution licensee, consumer owning the captive power plants and open access consumer~~ entity] in the state of Haryana, which is mandated to fulfil renewable purchase obligation under these Regulations [and include the following:

(i) the distribution licensee,
(ii) open access consumers (other than short term open access consumers) and
(iii) Conventional captive power plant of 5 MW and above capacity];

(21) '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;

(22) "Power Exchange' means any exchange operating as the power exchange for electricity in terms of the orders issued by the Central Commission;

(23) 'Preferential tariff' means the tariff fixed by the Appropriate Commission for sale of energy from a generating station based on renewable energy sources to a distribution licensee;

(24) 'Project' means a generating station or the evacuation system upto inter-connection point, as the case may be, and in case of a small 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;

(25) 'Renewable Energy' means the grid quality electricity generated from renewable energy sources;

(26) 'Renewable Energy Power Plants' means the power plants other than the conventional power plants generating grid quality electricity from renewable energy sources;

(27) 'Renewable Energy Sources' means renewable sources such as small hydro, wind, solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and other such sources as approved by the MNRE;

(28) 'Small Hydro' means Hydro Power projects with a station capacity up to 25 MW;

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[1] Inserted new sub-clause vide fifth Amendment 2016;
[2] Modified as shown vide second Amendment 2011;

(29) 'Solar PV power' means the Solar Photo Voltaic power project that uses sunlight for direct conversion into electricity through Photo Voltaic Cells;

(30) 'Solar Thermal power' means the Solar Thermal power project that uses sunlight for conversion of heat energy into electricity through Concentrated Solar Power technology based on either line focus or point focus principle.;

(31) 'State agency' means the agency in the State of Haryana to be designated by the Commission to act as the agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these regulations.;

(32) 'Tariff period' means the period for which tariff / price for sale of power is determined by the Commission on the basis of norms specified in these Regulations;

(33) 'Useful Life' in relation to a unit of a generating station including evacuation system shall mean the following duration from the date of commercial operation (COD) of such generation facility, namely:

(a) Wind energy power project 25 years
(b) Biomass power project, non-fossil fuel cogeneration 20 years
(c) Small Hydro Plant 35 years
(d) Solar PV/Solar thermal power plants 25 years
[3][(e) Municipal solid waste (MSW) WtE based power projects -20 years]

(31) 'Year' means a financial year.

(2) All other expressions used herein but not specifically defined herein but defined in the Act shall have the meaning assigned to them in the Act. The other expressions used herein but not specifically defined in the regulations or in the Act but defined under Haryana Electricity Reform Act, 1997 (Act 10 of 1998) or the Indian Electricity Grid Code or the Haryana Grid Code or the Haryana Electricity Regulatory Commission (Terms and conditions for determination of Generation Tariff) Regulations, 2008 shall have the meanings assigned to them respectively in the Haryana Electricity Reform Act, 1997 (Act 10 of 1998) or the Indian Electricity Grid Code or the Haryana Grid Code or the Haryana Electricity Regulatory Commission (Terms and conditions for determination of Generation Tariff) Regulations, 2008 as amended from time to time, provided that such definitions in the Haryana Electricity Reform Act, 1997 are not inconsistent with the provisions of the Electricity Act, 2003.

3. Eligibility Criteria. – For the purpose of these regulations a project shall be treated as renewable energy power project only if it meets the following criteria:

(a) Wind power project – located at the wind sites having minimum annual mean Wind Power Density (WPD) of 200 Watt/m2 measured at hub height of 50 meters and using new wind turbine generators

(b) Small hydro project – located at the sites approved by State Nodal Agency / State Government / self identified sites using new plant and machinery, and installed power plant capacity to be lower than or equal to 25 MW at single location.

[3] Inserted a new sub-clause (e) vide fifth Amendment, 2016;

(c) Biomass power project – Biomass power projects using new plant and machinery using biomass fuel sources, provided use of fossil fuel is restricted only to 15% of total fuel consumption on annual basis.

(d) Non-fossil fuel based co-generation project: The project shall qualify to be termed as a non-fossil fuel based co-generation project, if it is using new plant and machinery and is in accordance with the definition and also meets the qualifying requirement outlined below

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

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

Explanation.- For the purposes of this clause

(i) 'Useful power output' is the gross electrical output from the generator. There will be an auxiliary consumption in the cogeneration plant itself (e.g. the boiler feed pump and the FD/ID fans). In order to compute the net power output it would be necessary to subtract the auxiliary consumption from the gross output. For simplicity of calculation, the useful power output is defined as the gross electricity (kWh) output from the generator.
(ii) 'Useful Thermal Output' is the useful heat (steam) that is provided to the process by the cogeneration facility.
(iii) 'Energy Consumption' of the facility is the useful energy input that is supplied by the fuel (normally bagasse or other such biomass fuel).

(e) Solar PV and Solar Thermal Power Projects – Based on Technologies approved by MNRE / HAREDA.

[4][(f) Municipal solid waste WtE based power projects–The project shall qualify to be termed as a Municipal solid waste WtE based power project, if it is using new plant and machinery and using Municipal solid waste as fuel source for generation of electricity."

[4] Inserted a new sub-clause 3(f) vide fifth Amendment, 2016;

Chapter 2 : Norms

4. Control Period or Review Period. - The first Control Period or Review Period under these Regulations shall be of three years, of which the first year shall be the period from the date of notification of these regulations to 31st march, 2011

[5] [The second Control Period or Review Period under these Regulations shall be of four years, of which the first year shall be the FY 2013-14.]

Provided that the benchmark capital cost for Solar PV and Solar thermal projects may be reviewed annually by the Commission.

Provided further that the tariff determined as per these Regulations for the RE projects commissioned during the Control Period, shall continue to be applicable for the entire duration of the Tariff Period as specified in Regulation 5 [6][of the Principal Regulations ~~below~~].

Provided also that the revision in Regulations for next Control Period shall be undertaken at least six months prior to the end of [7][~~the first~~ this] Control Period and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations [8][and the second control period shall be deemed to have been extended up to the date of notification of Regulations for the next control period. ~~subject to adjustments as per revised Regulations~~.]

5. Tariff Period. –

(1) The Tariff Period for Renewable Energy power projects shall generally correspond to their respective project life or reckoned with the period provided in the PPA as the case may be.

(2) [9][The tariff determined by the Commission under these Regulations is for Renewable Energy Power Plants with entirely new plant and machinery. The first year tariff shall be applicable from the COD of the Project and shall continue for 12 months from the COD and thereafter tariff for the second year shall be applicable on year to year basis i.e. for first 12 months from COD, first year tariff shall be applicable, then for next twelve months second year tariff shall be applicable and so on."] ~~Tariff period under these Regulations shall be considered from the date of commercial operation of the renewable energy generating stations.~~

(3) Tariff determined as per these Regulations shall be applicable for Renewable Energy power projects, only for the duration of the Tariff Period as stipulated under Regulation 5(1).

(4) The PPA (s) signed by the distribution licensee (s) on the basis of tariff determined by the Commission in its orders dated15th May, 2007 and 6th November, 2009 on renewable energy before the notification of these regulations shall remain valid for the tariff period as per the PPA. Such cases shall not be reopened in view of the norms provided in these

[5] Inserted vide Fourth Amendment 2015;
[6] Substituted (as shown) vide Fourth Amendment 2015;
[7] Substituted (as shown) vide Fourth Amendment 2015;
[8] Substituted (as shown) vide Fourth Amendment 2015;
[9] Substituted sub-Clause 5 (2) (with new wording as shown) vide Fourth Amendment 2015;

regulations. However, after notification of these regulations, the aforesaid orders of the Commission shall not remain effective.

6. Project Specific tariff. –

(1) Project specific tariff, on case to case basis, shall be determined by the Commission for the following types of projects:

(a) Municipal Solid Waste [10][WtE based power] Projects
(b) Poultry litter
(c) Mixed feed
(d) Any other new renewable energy technologies approved by MNRE
(e) The renewable energy projects which have been commissioned before the notification of these Regulations but for which no power purchase agreement has been signed until the date of notification of these Regulations.
(f) Solar PV and Solar Thermal Power projects, if a project developer opts for project specific tariff: Provided that the Commission while determining the project specific tariff for Solar PV and Solar Thermal shall be guided by the provisions of Chapters 8 of these Regulations.
(g) Hybrid Solar Thermal Power plants
(h) Biomass project other than that based on Rankine Cycle technology application with water cooled / air cooled condenser.
[11][(i) Hydel Power Projects below 25 MW.]

(2) Determination of Project specific Tariff for generation of electricity from such renewable energy sources shall be in accordance with such terms and conditions as stipulated under relevant Orders of the Commission.

Provided that the financial norms as specified under Chapter-3 of these Regulations, except for capital cost, shall be ceiling norms while determining the project specific tariff.

7. Petition and proceedings for determination of tariff:-

(1) The Commission shall determine the generic tariff on the basis of suo-motu petition at least six months in advance at the beginning of each year of the Control period for renewable energy technologies for which norms have been specified under the Regulations.

(2) Notwithstanding anything contained in these regulations, a) the generic tariff determined for Solar PV projects based on the capital cost and other norms applicable for the year 2010-11 shall also apply for such projects during the year 2011-12; and b) the generic tariff determined for Solar thermal projects based on the capital cost and other norms for the year 2010-11 shall also apply for such projects during the years 2011-12 and 2012-13, provided that (i) the Power Purchase Agreements in respect of the Solar PV projects and Solar thermal projects as mentioned in this clause are signed on or before 31st March, 2011; and (ii) the entire capacity covered by the Power Purchase Agreements is commissioned on or before 31st March, 2012 in respect of Solar PV projects and on or before 31st March, 2013 in respect of Solar thermal projects.

[10] Inserted vide Fifth Amendment, 2016;
[11] Inserted new sub-clause (i) vide Fourth Amendment, 2015;

(3) A petition for determination of project specific tariff shall be accompanied by such fee as may be determined by regulations and shall be accompanied by

a) information in forms 1.1, 1.2, 2.1 and 2.2 as the case may be, and as appended to these regulations;
b) detailed project report outlining technical and operational details, site specific aspects, premise for capital cost and financing plan etc.
c) a statement of all applicable terms and conditions and expected expenditure for the period for which tariff is to be determined.
d) a statement containing full details of calculation of any subsidy and incentive received, due or assumed to be due from the Central Government and/or State Government. This statement shall also include the proposed tariff calculated without consideration of the subsidy and incentive.
e) any other information that the Commission requires the petitioner to submit

(4) The proceedings for determination of tariff shall be in accordance with the HERC (Conduct of Business) Regulations 2004.

8. Tariff Structure:-

(1) The tariff for renewable energy technologies shall be single part tariff consisting of the following fixed cost components:

(a) Return on equity;
(b) Interest on loan capital;
(c) Depreciation;
(d) Interest on working capital including margin money;
(e) Operation and maintenance expenses;

Provided that for renewable energy technologies having fuel cost component, like biomass power projects and non-fossil fuel based cogeneration, single part tariff with two components, fixed cost component and fuel cost component, shall be determined. The fuel cost component may be subjected to escalation[12][/ revision as provided in Regulation 43 ~~factor~~.]

9. Tariff Design. –

(1) The generic tariff shall be determined on levellised basis for the Tariff Period.

Provided that for renewable energy technologies having single part tariff with two components, tariff shall be determined on levellised basis considering the year of commissioning of the project for fixed cost component while the fuel cost component shall be specified on year of operation basis.

(2) For the purpose of levellised tariff computation, the discount factor equivalent to weighted average cost of capital or by other appropriate discounting factor shall be considered.

(3) Levellised tariff shall be specified for the period equivalent to the 'Tariff Period'.

10. Despatch principles for electricity generated from Renewable Energy Sources:-

[12] Inserted and omitted vide Fourth Amendment, 2015;

(1) All renewable energy power plants except for biomass power plants with installed capacity of 10 MW and above, and non-fossil fuel based cogeneration plants shall be treated as 'MUST RUN' power plants and shall not be subjected to 'merit order despatch' principles.

(2) The biomass power generating station with an installed capacity of 10 MW and above and non-fossil fuel based co-generation projects [13][and municipal solid waste WtE] shall be subjected to scheduling and despatch code as specified under Haryana Grid Code ~~(HGC)~~ and other relevant regulations including amendments thereto.

[13] Inserted and omitted "(HGC)" vide fifth Amendment, 2016;

Chapter 3: Financial Principles

11. Capital Cost:-

The norms for the Capital cost as specified in the subsequent technology specific chapters shall be inclusive of all capital work including plant and machinery, initial spares, civil work, erection and commissioning, financing and interest during construction, and evacuation infrastructure up to inter-connection point.

Provided that for project specific tariff determination, the generating company shall submit the break-up of capital cost items along with its petition in the manner specified under Regulation 7.

12. Debt Equity Ratio:-

(1) For generic tariff to be determined based on suo motu petition, the debt equity ratio shall be 70 : 30.

(2) For Project specific tariff, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

13. Loan and Finance Charges:-

(1) For the purpose of determination of tariff, loan tenure of 10 years shall be considered.

(2) (a) The loans arrived at in the manner indicated above shall be considered as gross normative loan for calculation for interest on loan. The normative loan outstanding as on April 1st of every year shall be worked out by deducting the cumulative repayment up to March 31st of previous year from the gross normative loan.

(b) For the purpose of computation of tariff, the normative interest rate shall be considered as average long term prime lending rate (LTPLR) / Base Rate of State Bank of India (SBI) prevalent during the previous year.

(c) Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

14. Depreciation:-

(1) The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. 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.

(2) Depreciation per annum shall be based on 'Differential Depreciation Approach' over loan tenure and period beyond loan tenure over useful life computed on 'Straight Line Method'. The depreciation rate for the first 10 years of the Tariff Period shall be 7% per annum and the remaining depreciation shall be spread over the remaining useful life of the project from 11th year onwards.

(3) Depreciation shall be chargeable from the first year of commercial operation.

Provided that in case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

15. Return on Equity:-

(1) The value base for the equity shall be 30% of the capital cost or actual equity (in case of project specific tariff determination) as determined under Regulation

(2) The normative Return on Equity shall be:

a) [14][16% per annum on normative equity capital ~~Pre-tax 19% per annum for the first 10 years~~].

[15]["(b) Applicable MAT/Corporate Tax shall be separately invoiced as per the applicable tax rate as declared by the Income Tax Department. The Generator shall raise the bill for reimbursement of MAT/Corporate Tax applicable on Return on Equity in 12 equal installments which shall be payable by HPPC.]

b) [16][Applicable MAT / Corporate Tax shall be separately allowed in the tariff ~~Pre-tax 24% per annum 11th years onwards~~.]

16. Interest on Working Capital: –

[17](1) The Working Capital requirement in respect of wind energy projects, small hydro power, solar PV, ~~and~~ solar thermal power projects [and Municipal solid waste WtE] shall be computed in accordance with the following:

a) Operation & Maintenance expenses for one month;
b) Receivables equivalent to 2 (Two) months of [fixed and variable] ~~energy~~ charges for sale of electricity calculated on the [the target PLF] ~~normative CUF~~;
c) Maintenance spare @ 15% of operation and maintenance expenses.

(2) The Working Capital requirement in respect of biomass power projects and non-fossil fuel based co-generation projects shall be computed in accordance with the following clause:

a) Fuel costs for four months at normative PLF;
b) Operation & Maintenance expense for one month;
c) Receivables equivalent to 2 (Two) months of fixed and variable charges for sale of electricity calculated on the target PLF;

[14] Modified (inserted and struck-off, as shown) vide Third Amendment, 2014;
[15] New sub-Clause (b) replaced earlier (b) vide Fourth Amendment, 2015;
[16] Modified (inserted and struck-off, as shown) vide Third Amendment, 2014;
[17] Inserted and correspondingly omitted as shown in sub-Clause 16 (1) vide fifth Amendment, 2016;

d) Maintenance spare @ 15% of operation and maintenance expenses.

(3) [18][Interest on Working Capital for any financial year shall be computed at the average of the base rate of SBI prevailing during the first six months of the previous year plus 300 basis points."] ~~Interest on Working Capital shall be at interest rate equivalent to average State Bank of India short term PLR / Base Rate during the previous year.~~

17. Operation and Maintenance Expenses:–

(1) 'Operation and Maintenance or O&M expenses' shall comprise repair and maintenance (R&M), establishment including employee expenses, and administrative and general expenses.

(2) Operation and maintenance expenses shall be determined for the Tariff Period based on normative O&M expenses specified by the Commission subsequently in these Regulations for the first Year of Control Period.

(3) Normative O&M expenses allowed during first year of the Control Period under these Regulations shall be escalated at the rate of 5.72% per annum over the Tariff Period.

18. Rebate: –

(1) For payment of bills of the generating company through letter of credit, a rebate of 2% shall be allowed.
(2) Where payments are made other than through letter of credit within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.

19. Late payment surcharge: –

In case the payment of any bill for charges payable under these regulations is delayed beyond a period of 60 days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the generating company.

20. Sharing of CDM Benefits: –

(1) The proceeds of carbon credit from approved CDM project, [19][after deduction of expenses incurred by the generating company for registration and approval of the project as CDM project,] shall be shared between generating company and concerned beneficiaries in the following manner, namely:

a) 100% of the gross proceeds on account of CDM benefit to be retained by the project developer in the first year after the date of commercial operation of the generating station;
b) 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 and the beneficiaries.

21. Subsidy or incentive by the Central / State Government: –

[18] Sub-Clause 16 (3) replaced with new wordings by Fourth Amendment, 2015;
[19] Inserted in Sub-Clause 20 (1) by Fourth Amendment, 2015;

The Commission shall take into consideration any incentive or subsidy offered by the Central or State Government, including accelerated depreciation benefit if availed by the generating company, for the renewable energy power plants while determining the tariff under these Regulations.

Provided that the following principles shall be considered for ascertaining income tax benefit on account of accelerated depreciation, if availed, for the purpose of tariff determination:

(a) Assessment of benefit shall be based on normative capital cost, accelerated depreciation rate as per relevant provisions under Income Tax Act and corporate income tax rate.

(b) Capitalisation of RE projects during second half of the fiscal year.

Per unit benefit shall be derived on levellised basis at discount factor equivalent to weighted average cost of capital or any other appropriate discounting factor considered by the Commission.

22. Taxes and Duties: –

Tariff determined under these regulations shall be exclusive of taxes and duties as may be levied by the appropriate Government. Any tax on generation shall be allowed as pass through on actual incurred basis subject to production of documentary evidence by the generating company.

Chapter 4 : Technology specific parameters for Wind Energy

23. Capital Cost. –

(1) The capital cost for wind energy project shall include Wind turbine generator including its auxiliaries, land cost, site development charges and other civil works, transportation charges, evacuation cost up to inter-connection point, financing charges and IDC.

(2) [20][The capital cost for wind energy projects shall be Rs. 60.40 million per MW with base year FY 2013-14 and shall be linked to the indexation formula i.e. changes in the Whole Sale Price Index (WPI) for Steel and Electrical Machinery as reported by the Government of India, as outlined under Regulation 24."] ~~The capital cost for wind energy projects shall be ` 5.15 Crores/MW (FY 2010- 11 during first year of Control Period) and shall be linked to indexation formula as outlined under Regulation 24~~.

24. Capital Cost Indexation Mechanism. –

(1) The following indexation mechanism shall be applicable in case of wind energy projects for adjustments in capital cost over the Control Period with the changes in Wholesale Price Index for Steel and Electrical Machinery

$CC_{(n)} = P\&M_{(n)} * (1+F_1+F_2+F_3)$

$P\&M_{(n)} = P\&M_{(0)} * (1+d_{(n)})$

$d_{(n)} = [a*\{(SI_{(n-1)}/SI_{(0)}) - 1\} + b*\{(EI_{(n-1)}/EI_{(0)}) - 1\}]/(a+b)$

Where,

$CC_{(n)}$ = Capital Cost for n^{th} year

$P\&M_{(n)}$ = Plant and Machinery Cost for n^{th} year

$P\&M_{(0)}$ = Plant and Machinery Cost for the base year

Note: $P\&M_{(0)}$ is to be computed by dividing the base capital cost (for the first year of the control period) by $(1+F_1+F_2+F_3)$ i.e. Rs. 5.15 Crores per MW / 1.25 = Rs. 4.12 Crores per MW.

$d_{(n)}$ = Capital Cost escalation factor for year (n) of Control Period

$SI_{(n-1)}$ = Average WPI Steel Index prevalent for calendar year (n-1) of the Control Period

$SI_{(0)}$ = Average WPI Steel Index prevalent for calendar year (0) at the beginning of the Control Period i.e. January 2009 to December 2009.

$EI_{(n-1)}$ = Average WPI Electrical Machinery Index prevalent for calendar year (n- 1) of the Control Period

$EI_{(0)}$ = Average WPI Electrical and Machinery Index prevalent for calendar year (0) at the beginning of the Control Period i.e. January 2008 to December 2008

a = Constant to be determined by Commission from time to time, (In default it is 0.6), for weightage to Steel Index

b = Constant to be determined by Commission from time to time, (In default it is 0.4), for weightage to Electrical Machinery Index

F_1 = Factor for Land and Civil Works (0.08)

F_2 = Factor for Erection and Commissioning (0.07)

F_3 = Factor for IDC and Financing Cost (0.10)

25. Capacity Utilisation Factor. –

(1) CUF norms for this control period shall be as follows

[20] Substituted earlier wordings with new wording by Fourth Amendment, 2015;

Annual Mean Wind Power Density (W/m^2)	CUF
200 – 250	20%
250 – 300	23%
300 – 400	27%
> 400	30%

(2) The annual mean wind power density specified in sub-regulation (1) above shall be measured at 50 meter hub-height.

(3) For the purpose of classification of wind energy project into particular wind zone class, the State-wise wind power density map prepared by Centre for Wind Energy Technology (C-WET) and enclosed as Schedule to these Regulations, shall be considered.

Provided that the Commission may by notification amend the schedule from time to time, based on the input provided by C-WET/ MNRE.

26. Operation and Maintenance Expenses:–

(1) Normative O&M expenses for the first year of the Control Period (i.e. FY 2010- 11) shall be ` 6.50 Lakh per MW.

(2) Normative O&M expenses allowed under these Regulations shall be escalated at the rate of 5.72% per annum over the tariff period to compute the levellised tariff.

Chapter 5: Technology specific parameters for Small Hydro Project

27. Capital Cost:–

(1) The normative capital cost for small hydro projects during first year of Control Period (FY 2010-11) shall be as follows:

Size of project	Capital Cost (In Rs. Crores)
Below 5 MW	5.5
5 MW to 25 MW	5.0

(2) The capital cost for subsequent years shall be determined on the basis of indexation formula as outlined under Regulation 28

28. Capital Cost Indexation Mechanism. –

(1) Same indexation mechanism shall be applicable in case of small hydro power projects for adjustments in capital cost over the Control Period with the changes in Wholesale Price Index for Steel and Electrical Machinery as specified in regulation 24 except the value of 1+F1+F2+F3, which shall be 1.40 as per following details:

F1 = Factor for Land and Civil Work (0.16)
F2 = Factor for Erection and Commissioning (0.10)
F3 = Factor for IDC and Financing Cost (0.14)

29. Capacity Utilisation Factor. - Capacity Utilisation factor for the small hydro projects shall be 56%. The normative CUF shall be net of free power to the State, if any, and any quantum of free power if committed by the developer over and above the normative CUF shall not be factored into the tariff.

30. Auxiliary Consumption. - Normative Auxiliary Consumption for the small hydro projects shall be 1.0%.

31. Operation and Maintenance Expenses. - (1) Normative O&M expenses for the first year of the Control period (i.e. FY 2010- 11) shall be as follows.

Size of project	O&M Expenses (In Rs. Lakhs)
Below 5 MW	17
5 MW to 25 MW	12

(2) Normative O&M expenses allowed under these Regulations shall be escalated at the rate of 5.72% per annum for the Tariff Period for the purpose of determination of levellised tariff.

Chapter 6: Technology specific parameters for Biomass based Power Projects

32. Technology Aspect:–

The norms for tariff determination specified hereunder are for biomass power projects based on Rankine cycle technology application using water cooled condenser.

33. Capital Cost:–

(1) The normative capital cost for the biomass power projects equipped with water cooled condensers shall be Rs. [21]{~~4.50 Crores~~ [540 Lakhs] /MW (FY 2013-14 base year] ~~2010-11 during first year of Control Period~~)} and shall be linked to indexation formula as outlined under Regulation 34.

(2) The normative capital cost for the biomass power projects equipped with air cooled condenser with steam turbine shall be Rs. [22]{~~4.75 Crores~~ [580 lakh] /MW ([FY 2013-14 base year] ~~FY 2010-11 during first year of Control Period~~)} and shall be linked to indexation formula as outlined under Regulation 34.

[23][Provided that the revised capital cost (as mentioned at (1) & (2) above) shall not be applicable for the projects already commissioned or where financial closure has been attained on or before the date of notification of these Regulations.]

34. Capital Cost Indexation Mechanism:–

Same indexation mechanism shall be applicable in case of small hydro power projects for adjustments in capital cost over the Control Period with the changes in Wholesale Price Index for Steel and Electrical Machinery as specified in regulation 24 except the value of 1+F1+F2+F3, which shall be 1.33 as per following details:

F1 = Factor for Land and Civil Work (0.1)
F2 = Factor for Erection and Commissioning (0.09)
F3 = Factor for IDC and Financing Cost (0.14)

35. Plant Load Factor:–

(1) Threshold Plant Load Factor for determining fixed charge component of Tariff shall be:

1. During Stabilisation: 60%
2. During the remaining period of the first year (after stabilization) : 70%
3. From 2nd Year onwards: 80 %

(2) The stabilisation period shall not be more than 6 months from the date of commissioning of the project.

[24]36. Auxiliary Consumption:–

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[21] Modified portion in {} bracket, (addition – [ ] brackets; omission struck-off) vide Fourth Amendment, 2015;
[22] Modified portion in {} bracket, (addition – [ ] brackets; omission struck-off) vide Fourth Amendment, 2015;
[23] Inserted Proviso to sub-clause 33 (2), vide Fourth Amendment, 2015;
[24] Modified Regulation 36, (addition in [ ] bracket; omission struck-off) vide Fourth Amendment, 2015;

The auxiliary power consumption factor ~~shall be 10%~~ for ~~the~~ determination of tariff [shall be taken as under:

1. For the projects using water cooled condenser:-
   a) During first year of operation : 11%
   b) From 2nd Year onwards : 10%

2. For the projects using air cooled condenser:-
   a) During first year of operation : 13%
   b) From 2nd Year onwards : 12%"]

37. Station Heat Rate:–

[25][The Station Heat Rate (SHR) for biomass power projects with travelling-grate boiler shall be 4200 kCal/kWh and for project with AFBC boilers, it shall be 4063 kCal/kWh. The revised SHR norms shall be applicable for the projects commissioned / to be commissioned in the FY 2014-15 onwards] ~~The Station Heat Rate for biomass power projects shall be 3800 kCal / kWh~~

[26][Provided that for the projects commissioned in the FY 2013-14 the revised SHR shall be applicable prospectively from the date of notification of these Regulations. For the period prior to date of notification of these Regulations, SHR shall be as per Principal Regulations.

Provided that the Generator/Distribution Licensee shall approach the Commission for appropriate reduction in the SHR, in case the Biomass based project uses fossil fuel as provided under Regulation 40 of the Principal Regulations.]

38. Operation and Maintenance Expenses:–

(1) [27]Normative O&M expenses {~~for the first year of the Control period (i.e. FY 2010-11)~~ shall be Rs. ~~20.25~~ [40.00] Lakh per MW [(FY 2013-14 base year)]}.

(2) [28] [Normative O&M expenses allowed under these Regulations shall be escalated at the rate of latest available Whole Sale Price Index (WPI) and Consumer Price Index (CPI) as may be published by the Government of India. The weight assigned to the percentage change in the WPI shall be 55% and 45% to the percentage change in CPI of the relevant year.] ~~Normative O&M expenses allowed at the commencement of the Control Period (i.e. FY 2010-11) under these Regulations shall be escalated at the rate of 5.72% per annum.~~

[29][Provided the O&M expenses as per revised norms as above shall be revised prospectively for the plants already commissioned in 2013-14, 2014-15 and 2015-16 from the date of notification of revised Regulations.]

39. Fuel Mix:–

(1) The biomass power plant shall be designed in such a way that it uses different types of non-fossil fuels available within the vicinity of biomass power project such as crop residues, agro-

[25] Inserted shown within [ ] and omitted shown struck-off, vide Fourth Amendment, 2015;
[26] Inserted two (2) Provisos, vide Fourth Amendment, 2015;
[27] Modified sub-Clause 38 (1) – shown (track change), vide Fourth Amendment, 2015;
[28] Inserted new wording for sub-Clause 38 (2) – (shown), vide Fourth Amendment, 2015;
[29] Inserted new Proviso, vide Fourth Amendment, 2015;

industrial residues, forest residues etc. and other biomass fuels as may be approved by MNRE.

(2) The Biomass Power Generating Companies shall ensure fuel management plan to ensure adequate availability of fuel to meet the respective project requirements.

40. Use of Fossil Fuel:–

The use of fossil fuels shall be limited to the extent of 15% of total fuel consumption on annual basis.

41. Monitoring Mechanism for the use of fossil fuel:–

(1) The Project developer shall furnish a monthly fuel usage statement and monthly fuel procurement statement duly certified by Chartered Accountant to the beneficiary (with a copy to appropriate agency appointed by the Commission for the purpose of monitoring the fossil and non-fossil fuel consumption) for each month, along with the monthly energy bill. The statement shall cover details such as –

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

(2) Non-compliance with the condition of fossil fuel usage by the project developer, during any financial year, shall result in withdrawal of applicability of tariff as per these Regulations for such biomass based power project.

42. Calorific Value:–

The Calorific Value of the biomass fuel used for the purpose of determination of tariff shall be [30]{~~3458~~ 3100 (kCal/kg) [for the projects commissioned in FY 2014-15 onwards. For the projects commissioned in FY 2013-14, the revised norms shall be applicable prospectively from the date of notification of revised Regulations.]}.

43. Fuel Cost:–

~~[31]Biomass fuel price during first year of the Control Period shall be 1906 (`/MT) and shall be linked to indexation formulae as specified under Regulation 44. Alternatively, for each subsequent year of the Tariff Period, the normative escalation factor of 5% per annum shall be applicable at the option of the biomass project developer.~~

[30] Modified Regulation 42 – shown (track change), vide Fourth Amendment, 2015;
[31] Omitted vide Fourth Amendment, 2015;

(1) [32] [Biomass fuel price during the control period shall be Rs. 3055 / MT (Base Year FY 2014-15) subject to an escalation of 5% per annum for the projects commissioned/to be commissioned in the FY 2014-15 onwards.

Provided that the revised fuel price shall be applicable to the projects commissioned in FY 2013-14 prospectively from the date of notification of these Regulations.

Provided further that the fuel cost re-determined by the Commission for the first year of next control period shall also be applicable prospectively to the projects commissioned during current control period.

The fuel price Indexation Mechanism given in Regulation 44 shall not apply for Biomass based projects.]

44. Fuel Price Indexation Mechanism:–

(1) In case of biomass power projects, the following indexing mechanism for adjustment of fuel prices for each year of operation will be applicable for determination of applicable variable charge component of tariff, in case developer wishes to opt for indexing mechanism.

$P_{(n)} = P_{(n-1)} * \{a * (WPI_{(n)}/WPI_{(n-1)}) + b * (1+IRC)_{(n-1)} + c * (Pd_{(n)}/Pd_{(n-1)})\}$

Where

$P_{(n)}$ = Price per ton of biomass for the n^{th} year to be considered for tariff Determination

$P_{(n-1)}$= Price per ton of biomass for the $(n-1)^{th}$ year to be considered for tariff determination.

P_1 shall be Biomass price for FY 2010-11 as specified under Regulation 43.

a = Factor representing fuel handling cost

b = Factor representing fuel cost

c = Factor representing transportation cost

$IRC_{(n-1)}$ = Average Annual Inflation Rate for indexed energy charge component in case of captive coal mine source (in %) to be applicable for $(n-1)^{th}$ year, as may be specified by HERC for 'Payment purpose' as per Competitive Bidding Guidelines

Pd_n = Weighted average price of HSD for n^{th} year.

Pd_{n-1} = Weighted average price of HSD for $(n-1)^{th}$ year.

WPI_n = Whole sale price index for the month of April of n^{th} year

WPI_{n-1} = Wholesale price index for month of April of $(n-1)^{th}$ year.

Where a, b & c will be specified by the Commission from time to time. In default, these factors shall be 0.2, 0.6 & 0.2 respectively.

(2) Variable Charge for the n^{th} year shall be determined as under:

$VC_n = VC_1 x (P_n / P_1)$ or $VC_n = VC_1 x (1.05)^{(n-1)}$ (optional)

where,

VC_1represents the Variable Charge based on Biomass Price P_1 for FY 201011 as specified under Regulation 43 and shall be determined as under:

[32] New sub-Clause with two Provisos inserted vide Fourth Amendment, 2015;

$$VC_1 = \frac{\text{Station Heat Rate (SHR)}}{\text{Gross Calorific Value (GCV)}} \times \frac{1}{(1 - \text{Auxiliary Consumption Factor})} \times \frac{P_1}{1000}$$

Chapter 7: Technology specific parameters for Non-fossil fuel based Cogeneration Projects

45. Technology Aspect:–

A project shall qualify as a non-fossil fuel based Co-generation project, if it is in accordance with the eligibility criteria as specified under Regulation 3 (d).

46. Capital Cost:–

The normative capital cost for the non-fossil fuel based cogeneration projects shall be ` 4.45 Crores/MW for the first year of Control Period (i.e. FY 2010-11), and shall be linked to indexation formula as outlined under Regulation 47.

47. Capital Cost Indexation Mechanism:–

Same indexation mechanism shall be applicable in case of small hydro power projects for adjustments in capital cost over the Control Period with the changes in Wholesale Price Index for Steel and Electrical Machinery as specified in regulation 24 except the value of 1+F1+F2+F3, which shall be 1.33 as per following details:

F1 = Factor for Land and Civil Work (0.1)
F2 = Factor for Erection and Commissioning (0.09)
F3 = Factor for IDC and Financing Cost (0.14)

48. Plant Load Factor:–

(1) For the purpose of determining fixed charge, the plant load factor for non-fossil fuel based cogeneration projects shall be computed on the basis of plant availability for number of operating days considering operations during crushing season and off-season as specified under sub regulation (2) below and load factor of 85%.

(2) The number of operating days for the State of Haryana shall be 150 days (crushing) + 60 days (off-season) = 210 days operating days and the Plant Load Factor shall be 53%.

49. Auxiliary Consumption:–

The auxiliary power consumption factor shall be 8.5% for the computation of tariff.

50. Station Heat Rate:–

The Station Heat Rate of 3600 kCal / kWh for power generation component alone shall be considered for computation of tariff for non-fossil fuel based Cogeneration projects.

51. Calorific Value:–

The Gross Calorific Value for Bagasse shall be considered as 2250 kCal/kg. For the use of biomass fuels other than bagasse , calorific value as specified under regulation 42 shall be applicable.

52. Fuel Cost:–

(1) The price of Bagasse shall be 600(`/MT) and shall be linked to indexation formulae as outlined under Regulation 53. Alternatively, for each subsequent year of the Control Period, the normative escalation factor of 5% per annum shall be applicable at the option of the project developer.

(2) For use of biomass other than bagasse in co-generation projects, the biomass prices as specified under Regulation 44 shall be applicable

53. Fuel Price Indexation Mechanism:–

(1) In case of non-fossil fuel based cogeneration projects, the same indexing mechanism for adjustment of fuel prices for each year of operation will be applicable for determination of applicable variable charge component of tariff as specified under regulation 44 above except that the price per tonne shall be as per regulations 52 above, in case developer wishes to opt for indexing mechanism:

54. Operation and Maintenance Expenses:-

(1) Normative O&M expenses during first year of the Control Period shall be ` 13.35 Lakh per MW.

(2) Normative O&M expenses allowed at the commencement of the Control Period under these Regulations shall be escalated at the rate of 5.72% per annum.

CHAPTER 7A: TECHNOLOGY SPECIFIC PARAMETERS FOR POWER PROJECTS USING MUNICIPAL SOLID WASTE /REFUSE DERIVED FUEL AND BASED ON RANKINE CYCLE TECHNOLOGY

45A. Technology Aspect:–

The norms for tariff determination specified hereunder are for power projects which use processed municipal solid waste and are based on Rankine cycle technology application, combustion or incineration, Bio-methanation, Pyrolysis and High end gasifier technologies etc.

46B. Capital Cost:–

The normative capital costs for FY 2016-17, for power projects which use processed municipal solid waste and are based on Rankine cycle technology application shall be Rs 1500 lakh/MW.

47C. Plant Load Factor (PLF):–

(1) Threshold Plant Load Factor for determining fixed charge component of tariff for the municipal solid waste WtE projects shall be as under:

Sr. No.	PLF (%)	MSW WtE
a)	During Stabilisation	65%
b)	During the remaining period of the first year (after stabilization)	65%
c)	From 2nd Year onwards	75%

(2) The stabilization period shall not be more than 6 months from the date of commissioning of the project.

48D. Auxiliary Energy Consumption (AUXe):

The auxiliary power consumption for the Waste to energy power projects using municipal solid waste and shall be 15.5%.

49F. Operation and Maintenance Expenses (O&M)

(1) Normative O&M expenses for FY 2016-17 for the power projects which use processed municipal solid waste fuel shall be 6.5% of normative capital cost.

(2) Normative O&M expenses allowed for FY 2016-17 for the power projects which use processed municipal solid waste under these Regulations shall be escalated @ 5.72% per annum.

Chapter 8: Technology specific parameters for Solar PV Power Project

55. Technology Aspects. - Norms for Solar Photovoltaic (PV) power under these Regulations shall be applicable for grid connected PV systems that directly convert solar energy into electricity and are based on the technologies such as crystalline silicon or thin film etc. as may be approved by MNRE. [33][The PV modules shall conform to the latest edition of IEC/equivalent BIS standard with respect to design, testing and requirements for construction & testing for safety qualification.]

56. Capital Cost. - The normative capital cost for setting up Solar Photovoltaic Power Project shall be [34][Rs. 7.05 crore/MW (PV Poly Crystalline), Rs. 6.81 crore/MW (PV Thin film and Rooftop) and Rs. 8.00 crore/MW (Canal top Solar PV) for FY 2014-15. However for the project commissioned before FY 2014-15, the capital cost shall not be revised.] ~~Rs. 17.00 Crores/MW for FY 2010-11~~.

Provided that the Commission may deviate from above norm in case of project specific tariff determination in pursuance of regulation 6 and regulation 7.

57. [35]Capacity Utilisation Factor. - The Capacity utilisation factor ~~for Solar PV project~~ shall be 19% [for Solar PV projects and 20% for Canal top Solar PV projects].

Provided that the Commission may deviate from above norm in case of project specific tariff determination in pursuance of regulation 6 and regulation 7.

58. Operation and Maintenance Expenses. - (1) The O&M Expenses shall be ` 9 Lakhs/MW for the 1st year of operation.

(2) Normative O&M expenses allowed at the commencement of the Control Period under these Regulations shall be escalated at the rate of 5.72% per annum.

[33] Inserted vide Fourth Amendment, 2015;
[34] Inserted and omitted (as shown) vide Fourth Amendment, 2015;
[35] Inserted and omitted (as shown) vide Fourth Amendment, 2015;

Chapter 9: Technology specific parameters for Solar Thermal Power Project

59. Technology Aspects:–

Norms for Solar thermal power under these regulations shall be applicable for Concentrated Solar Power (CSP) technologies viz. line focusing or point focusing, as may be approved by MNRE, and uses direct sunlight, concentrating it several times to reach higher energy densities and thus higher temperatures whereby the heat generated is used to operate a conventional power cycle to generate electricity. [36][The Solar thermal power plant shall conform to the latest edition of IEC/equivalent BIS standard with respect to its technology, safety, testing and construction.]

60. Capital Cost:–

The normative capital cost for setting up Solar Thermal Power Project shall be Rs. [37][~~13.00~~ 12.00] Crores/MW for FY ~~2010-11~~ 2013-14].

Provided that the Commission may deviate from the above norm in case of project specific tariff determination in pursuance of regulation 6 and regulation 7.

61. Capacity Utilisation Factor:–

The Capacity utilisation factor shall be 23%.

Provided that the Commission may deviate from the above norm in case of project specific tariff determination in pursuance of Regulation 6 and Regulation 7.

62. Operation and Maintenance Expenses:–

(1) The O&M Expenses shall be ` 13 Lakhs/MW for 1st year operation.

(2) Normative O&M expenses allowed at the commencement of the Control Period under these Regulations shall be escalated at the rate of 5.72% per annum.

63. Auxiliary Consumption:–

The auxiliary consumption factor shall be 10%.

Provided that the Commission may deviate from the above norm in case of project specific tariff determination in pursuance of Regulation 6 and Regulation 7.

[36] Inserted vide Fourth Amendment, 2015;
[37] Substituted vide Fourth Amendment, 2015;

Chapter – 10 Renewable purchase obligation (RPO) and Renewable Energy Certificate (REC)

64. Renewable Purchase Obligation:–

(1) Every obligated entity [38]~~including distribution licensee, consumers owning captive power plant and long term open access consumers~~ in Haryana shall purchase from renewable energy sources under the Renewable Purchase Obligation (RPO) not less than [39][the quantum of renewable energy as indicated in the table below ~~1.5% of its consumption of energy during each of the FYs 2010-11 and 2011-12, 2% for the FY 2012-13 and 3% for the FY 2013-14~~].

Financial Year	Total RPO (As a Percentage of Total Consumption)
2013-14	3.00
2014-15	3.25
2015-16	3.50
2016-17	3.75
2017-18	4.00
2018-19	4.50
2019-20	4.75
2020-21	5.00
2021-22	5.50

(2) [40][~~Solar power purchase obligation of every obligated entity shall be 0.05% and 0.10% of its energy consumption for the financial years 2012-13 and 2013-14 respectively~~.] ~~Solar RPO shall be 0.25% of the overall RPO as specified under sub regulation (1) above with an annual increase of 25.~~

(2) [41]Solar power purchase obligation of every obligated entity shall be not less than the quantum of solar renewable energy as indicated in the table below:-

Financial Year	Solar RPO (as a percentage of total consumption)
2013-14	0.10
2014-15	0.25
2015-16	0.75
2016-17	1.0
2017-18	1.25
2018-19	1.50
2019-20	2.00
2020-21	2.50
2021-22	3.00

Provided that solar renewable purchase obligation so specified shall be procured from generation based on solar as renewable energy source only subject to availability of the solar power in the State of Haryana.

[38] Omitted (shown struck-off) by Second Amendment 2011;
[39] Modified (shown inserted/ struck-off) and inserted Table by Third Amendment 2014;
[40] Modified (shown inserted/ struck-off) by Second Amendment 2011;
[41] Modified (shown inserted/ struck-off) and inserted Table by Third Amendment 2014;

Provided further, such obligation to purchase renewable energy shall be inclusive of the purchases, if any, from renewable energy sources already being made by concerned obligated entity

Provided also that the power purchases under the power purchase agreements for the purchase of renewable energy sources already entered into by the distribution licensees and consented to by the Commission shall continue to be made till validity of the Power Purchase Agreement approved by the Commission, even if the total purchases under such agreements exceed the RPO as specified in these regulations.

(3) [42][In case the renewable energy generating company offers to sell energy generated by it from its renewable energy generating station located in Haryana to the distribution licensee at the rates determined by the Commission, the distribution licensee shall not refuse to purchase power from such generating company, without prior approval of the Commission.]

65. Certificates under the Regulations of the Central Commission:–

(1) Subject to the terms and conditions contained in these regulations the Certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 shall be the valid instruments for the discharge of the mandatory obligations set out in these regulations for the obligated entities to purchase electricity from renewable energy sources.

Provided that in the event of the obligated entity fulfilling the renewable purchase obligation by purchase of certificates, the obligation to purchase electricity from generation based on solar as renewable energy source can be fulfilled by purchase of solar certificates only, and the obligation to purchase electricity from generation based on renewable energy other than solar can be fulfilled by purchase of non-solar certificates.

(2) Subject to such direction as the Commission may give from time to time, the obligated entity shall act in consistent with the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 notified by the Central Commission in regard to the procurement of the certificates for fulfillment of the Renewable Purchase Obligation under these regulations.

(3) The Certificates purchased by the obligated entities from the power exchange in terms of the regulation of the Central Commission mentioned in sub regulation (1) of this Regulation shall be deposited by the obligated entities to the Commission in accordance with the detailed procedure issued by the Central Agency.

66. State Agency:–

(1) The Commission designate Haryana Renewable Energy Development Agency (HAREDA) as the State Agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these regulations.

(2) The State Agency shall function in accordance with the directions issued by the Commission and shall act in consistent with the procedures rules laid by Central Agency for discharge of

[42] Inserted Sub-Clause 64 (3) by First Amendment 2011;

its functions under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010.

(3) The State Agency shall submit quarterly status to the Commission in respect of compliance of renewable purchase obligation by the obligated entities in the format as stipulated by the Commission and may suggest appropriate action to the Commission if required for compliance of the renewable purchase obligation.

(4) The Commission may from time to time fix the remuneration and charges payable to the State Agency for discharge of its functions under these regulations.

(5) If the Commission is satisfied that the State Agency is not able to discharge its functions satisfactorily, it may by general or special order, and by recording reasons in writing, designate any other agency to function as State Agency as it considers appropriate.

67. Effect of default:–

(1) If the obligated entities do not fulfill the renewable purchase obligation as provided in these regulations during any year and also does not purchase the certificates, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by such obligated entity, such amount as the Commission may determine on the basis of the shortfall in the RPO determined under these regulations from time to time at the forbearance price decided by the Central Commission.

Provided that the fund so created shall be utilised, as may be directed by the Commission, for purchase of the renewable energy certificates.

Provided further that the Commission may empower an officer of the State Agency to procure from the Power Exchange the required number of certificates to the extent of the shortfall in the fulfillment of the obligations, out of the amount in the fund.

Provided also that the distribution licensee shall be in breach of its licence condition if it fails to deposit the amount directed by the Commission within 30 days of the communication of the direction or within such period as directed by the Commission.

(2) Where any obligated entity fails to comply with the obligation to purchase the required percentage of power from renewable energy sources or the renewable energy certificates, it shall also be liable for penalty as may be decided by the Commission under section 142 of the Act.
Provided that in case of genuine difficulty in complying with the renewable purchase obligation because limited availability of renewable energy or non-availability of certificates, the obligated entity can approach the Commission for relaxation or carry forward of compliance requirement to the next year.

Provided further that where the Commission has consented in writing on an application made by the obligated entity to the carry forward of compliance requirement, the provision of regulation (1) of this regulation or the provision of section 142 of the Act shall not be invoked.

Chapter – 11: Miscellaneous

68. Deviation from norms:–

Tariff for sale of electricity by the generating company may also be determined in deviation from the norms specified in these regulations subject to the conditions that the levellised tariff over the useful life of the project on the basis of the norms in deviation does not exceed the average lifetime levellised generating cost calculated on the basis of the norms specified in these regulations.

Provided that the reasons for deviation from the norms specified under these Regulations shall be recorded in writing.

69. Power to Relax:–

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected may suo moto relax any of the provisions of these regulations or on an application made before it by an interested person.

70. Issue of orders or directions:–

Subject to the provisions of the Act and these regulations, the Commission may, from time to time, issue orders and procedural directions with regard to the implementation of these regulations and specify the procedure to be followed on various matters, which the Commission has been empowered by the regulations to direct and matters incidental thereto

71. Power to amend:–

The Commission may, at any time, add, vary, modify or amend any of the provisions of these regulations.

72. 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, make such provisions, which in the opinion of the Commission are necessary or expedient to do so.

[43][73. Grid connectivity and wheeling charges:–

(1) The State Transmission Utility or the transmission licensee other than STU or the distribution licensee, as the case may be, shall bear the cost of EHV / HV transmission line up to a distance of 10 KM from the interconnection point. In case the distance between the interconnection point and point of grid connectivity is more than 10 KMs then cost of the transmission line for the distance beyond the 10 KMs shall be shared equally between the renewable energy developer and the licensee.

[44][(2) The Wheeling Charges shall not be leviable on the Renewable Energy Generators from the date of notification of these Regulations, if the entire energy injected into the grid is purchased by the distribution licensee.]

~~(2) Unless otherwise exempted by the Commission the wheeling charges shall be levied @ 2% of energy fed to the grid by the renewable energy developer in case the power is purchased by~~

[43] Regulation 73 inserted by first Amendment 2011;
[44] Sub-Clause 73 (2) substituted by fourth Amendment 2015;

~~the distribution licensee. In all other cases wheeling charges or transmission charges, as the case may be, shall be levied at the rates determined by the Commission from time to time~~]

[45][Provided the delivery point of power is the switchyard of the power plant of the IPP and the metering point is also the inter-connection point i.e. the point where the switchyard of the power plant connects with the power evacuation line of the licensee(s).

Provided further that wheeling charge and transmission charge at the rate determined by the Commission from time to time shall be levied in case the power is supplied to a third party i.e. other than the distribution licensee(s) in Haryana.]

[46][~~Provided that the RE Project Developers shall have the option to pay of the actual cost of construction of transmission line (as on date of commissioning) up to a distance of 10 KM from the interconnection point to HVPNL / Discoms, as the case may be, in full or twelve equal monthly installments without any interest cost if the re – payment is made in a staggered manner over a period of 12 months and in the intervening period HVPNL/Discoms shall continue to deduct 2% of the energy fed into the grid by the RE Generator. Once the entire amount has been paid off, levy of wheeling charges @ 2% shall be discontinued. This shall be applicable to the RE Projects already commissioned as well as the future projects. However, those who do not opt for this option shall continue to pay 2% of energy fed by them into the grid as wheeling charge~~.]

By Orders of the Commission

Director (Tariff)

[45] Substituted earlier Proviso to 73 (2) with two new Provisos by Fourth Amendment 2015;
[46] Proviso to 73 (2) inserted by Third Amendment 2014;