

UTTRAKHAND ELECTRICITY REGULATORY COMMISSION

(Tariff and other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-Generating Stations) Regulations – 2013 Dated 15-04-2013 with Amendments dated 15.10.2013 and 5.7.2014

Sl. No.	Description	Summary
1.	Short Title, Extent and Commencement	<p>(i) Uttrakhand Electricity Regulatory Commission (Tariff and other Terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-Generating Stations) Regulations 2013 notification dated 15-04-2013.</p> <p>(ii) First amendment Regulations 2013 dated 15th October 2013.</p> <p>(iii) Second amendment Regulations 2014 dated 5.7.2014</p> <p>Regulations shall come into effect from 01-04-2014 and shall remain in force for a period of 5 years from the date of commencement.</p> <p>With coming into force these Regulations, UERCC (Tariff and other terms for supply of electricity from non-conventional and Renewable Energy Sources) Regulations 2010 shall stand repealed.</p>
2.	Scope and Extent of Application	<p>Regulations shall apply in all cases where supply of electricity is being generated from Renewable Energy Sources and fossil fuel based Co-generating Stations, Commissioned after coming in effect of these Regulations, to the distribution licensees or local rural grids within the State of Uttrakhand.</p> <p>(i) Regulations shall apply to above mentioned sources subject to fulfillment of eligibility criteria specified in Regulation 4 of these Regulations</p> <p>(ii) Provision of normative levelised tariff of 12 paise/unit over and above generic tariff for solar Thermal/PV generating stations as specified in Regulation 15 (1) (b) shall also be applicable to such stations commissioned prior to coming into effect of these Regulations.</p> <p>(iii) The existing projects supplying power to third party shall have the option to switch over to supply the distribution licensee or local rural grid at generic tariff as was applicable at the time of the commissioning of their project or seek determination of project specific tariff from the Commission. The option shall be for the balance life of the project and shall not be allowed to be changed once it is exercised.</p>
3.	Definitions	As per Regulations
4.	Eligibility Criteria for qualifying as Generating Station based on non-conventional/ Renewable Energy sources	<p>Plants using new Plant and Machinery and Small Hydro Plants lower than or equal to 25 MW at single location.</p> <p>(i) Wind Power Project located at Wind sites having minimum annual mean Wind Power Density (WPD) of 200 watt/m² measured at hub height of 50 m and using new wind turbine generators.</p> <p>(ii) Solar PV/Thermal and grid interactive rooftop and small Solar PV Power projects based on MNRE approved technologies</p> <p>(iii) Biomas/Biogas Power projects based on Rankine cycle and where use of fossil fuel is restricted to 15% of total fuel consumption on annual basis.</p> <p>(iv) Non-fossil fuel based Co-generating stations using non-fossil fuel input for 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 of thermal output be greater than 45% of the utility's energy consumption during the season.</p> <p>(v) Bio-mass Gasifier based Power project having a grid connected system that uses 100% producer gas engine coupled with gasifier technologies approved by MNRE.</p> <p>(vi) Biogas based power project using 100% Biogas fired engine coupled with Biogas technology for Co-digesting agriculture residues, manure and other bio-waste as may be approved by MNRE.</p>

5	Environmental and other Clearances	RE based Generating Stations and Co-generating Stations shall abide by emission standards as may be set by Union/State Govt. and for that purpose it shall obtain all required environmental and pollution clearances from the Central/State Pollution Control authorities wherever applicable and clearance from UREDA wherever necessary																		
6	Obligation and Duties of the Generating Station	RE Based generating stations and Co-generating Stations shall supply the necessary information, data and documents to the concerned authorities and shall abide by IEGC/ Staten Grid Code, EA 2003, CEA/CERC Standards and guidelines as prescribed in Regulations.																		
7	Sale of Power	(i) All RE Based Generating Stations and Co-generating Stations shall be allowed to sell Power over and above the capacity required for their own use to the Distribution licensee or to the local rural grids at the rates determined by the Commission or to any consumer allowed Open Access or to any person within the state or outside the state at mutually agreed rates. (ii) The Distribution licensee who is offered this power shall sign PPA within 2 months failing which generating Co. can approach the Commission for suitable remedy. This PPA shall be got approved from the Commission.																		
8.	Open Access	Non-discriminatory Open access in State Transmission/ Distribution system shall be allowed to RE based Generating Stations and Co-generating Stations for Captive use and to those covered under Regulation 7(i) which shall be subject to the provisions of Open Access Regulations. Such open access is subject to payment of transmission/ wheeling charges and adjustment of average transmission/distribution losses in kind.																		
Renewable Purchase Obligation																				
9.	Minimum Quantum of Electricity to be purchased by distribution licensee from non-fossil fuel based Co-generation and generation of electricity from RE Sources	(i) RPO of the obligated Entities shall be as follows: <table border="1" data-bbox="591 915 1320 1178"> <thead> <tr> <th>Year</th> <th>Renewable Purchase Obligation – Non-solar</th> <th>Renewable Purchase Obligation – solar</th> </tr> </thead> <tbody> <tr> <td>2013-14</td> <td>6.00%</td> <td>0.050%</td> </tr> <tr> <td>2014-15</td> <td>7.00%</td> <td>0.075%</td> </tr> <tr> <td>2015-16</td> <td>8.00%</td> <td>0.100%</td> </tr> <tr> <td>2016-17</td> <td>9.00%</td> <td>0.300%</td> </tr> <tr> <td>2017-18</td> <td>11.00%</td> <td>0.500%</td> </tr> </tbody> </table> <p>Percentage RPO as stipulated above denotes Minimum Quantum of purchase from non-fossil fuel based Co-generation and generation of electricity from RE sources as a percentage of total energy purchased from all sources/generated by the obligated Entity during the year for own consumption.</p>	Year	Renewable Purchase Obligation – Non-solar	Renewable Purchase Obligation – solar	2013-14	6.00%	0.050%	2014-15	7.00%	0.075%	2015-16	8.00%	0.100%	2016-17	9.00%	0.300%	2017-18	11.00%	0.500%
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2017-18	11.00%	0.500%																		
10	Tariff	(i) Tariff determined under these Regulations shall be applicable for sale of electricity to the distribution licensees and to local grids only. (ii) RE Based Generating Stations and Co-generating Stations except those mentioned under provision 2 to sub-regulation (1) of Regulation 2, may opt for the generic tariff or for project specific tariff. (iii) Generating stations shall give its option to Distribution Licensee at least 3 months before commissioning of First unit. (iv) Option once exercised shall be final during the validity of PPA. (v) Project Specific Tariff: On case to case basis, shall be determined by Commission in following cases. (a) For projects opting to have their tariff determined on actual capital cost basis; (b) projects having old plant and machinery. (c) Other hybrid projects include RE-RE or RE-conventional sources for which RE technology is approved by MNRE.																		
11	Control period or Review Period	(i) 5 years, first year being 2013-14 and the tariff determined under these Regulations for projects commissioned during control period shall be valid for the entire Tariff Period (Useful Life of the Plant) (ii) The benchmark capital cost of solar (PV/Thermal), Grid interactive rooftop and small solar PV projects may be reviewed annually by the Commission.																		

12	Tariff & PPA Period	<p>(i) The tariff period for RE Power Projects shall be equal to useful life of project.</p> <p>(ii) Tariff period to be considered from date of commercial operation or Commissioning of plant.</p> <p>(iii) PPA to be signed with Distribution Licensee for entire Tariff Period.</p>
13	Petition and Proceedings for determination of Project Specific Tariff	<p>(i) Application may be made based on actual capital cost incurred upto date of application based on which provisional tariff shall be decided by the Commission.</p> <p>(ii) RE Based Generating Stations and Co-generating Stations shall file a fresh application based on capital expenditure incurred upto the date of Commissioning or commercial operation for determination of final tariff.</p>
14	Tariff Structure	<p>(i) Single Part Tariff (Rs./kWh) and ex-bus i.e. after auxiliary consumption and transformation losses at the inter-connection. For renewable energy technologies having tariff (in Rs./ kWh) with two components, for fixed component, tariff may be determined on levelised basis considering the year of commissioning of the project while the fuel cost component shall be specified on year of operation basis.</p> <p>(ii) Tariff from the date of Commissioning upto commercial operation shall be 50% of tariff fixed and in case of two part tariff, fuel cost shall be added.</p> <p>(iii) Provided that any additional expenditure of capital nature which becomes necessary on account of damages caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) after prudence check by the Commission shall be allowed as additional capitalization after adjusting the proceeds from the insurance scheme for all the generating stations covered under these Regulations. For additional capital expenditure admitted as above, appropriate adjustment in tariff shall be allowed for balance life of that project based on the norms given in Chapter 4 & 5 of the Regulations. Provided additional capitalization may be allowed if appropriate and adequate insurance cover was available at the time of occurrence of the natural calamities.</p>
15	Financial Principals (i) Capital cost	<p>(a) The norms for Capital Cost shall include the expenditure incurred or projected to be incurred, initial spaces, interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on loans arrived in the manner specified in sub Regulation (ii) below upto the date of commercial operation or commissioning of the project, shall include expenditure on evacuation infrastructure, upto the point of inter connection Expenditure towards additional capitalization shall be included.</p> <p>(b) In case generating company opts to construct the evacuation infrastructure from point of inter-connection to the nearest sub-station of transmission or distribution licensee to which the generating station is connected, it shall be allowed a normative levelised tariff of 5 paise/kWh over and above the generic tariff determined at the point of inter-connection.</p> <p>(c) However, in case of a solar generating company a normative levelised tariff of 12 paise/unit over and above the generic tariff determined at the point of interconnection shall be allowed which has been worked out based on following cost:</p> <p>(i) Upto 3 MW, 11 kV S/C – Rs. 44 lakh</p> <p>(ii) Above 3 MW and upto 33 kV – S/C Rs. 85 lakh</p> <p>(iii) Above 3 MW and upto 25 MW, 33 kV, 2 x SC or DC - Rs. 170 lakh</p>
	(ii) Debt Equity Ratio	<p>(i) The debt equity ratio for generic and project specific tariff shall be as follows:</p> <p>(a) For generic tariff, debt equity ratio shall be 70:30.</p> <p>(b) For project specific tariff following provisions shall apply:</p> <ul style="list-style-type: none"> - If equity above 30%, extra equity as normative loan - If equity less than 30%, then actual equity - Equity in foreign exchange to be designated in Indian rupees on the date of investment.
	(i) Subsidy	<p>MNRE subsidy to reduce debt, tariff to be calculated on 30% equity and balance as reduced loan. In case of any reduction or increase in subsidy by MNRE tariff would be corrected by the Commission provided reduction in subsidy amount is not due to inefficiency of the generating company.</p>

16	Interest on Loan Capital	<p>(i) The loans arrived at in the manner indicated in Regulation 15 (2) shall be considered as gross normative loan for calculation of interest on loan. The loan outstanding as on 1st April of every year shall be worked out by deducting the cumulative repayment upto 31st March of previous year from the gross normative loan.</p> <p>(ii) For the purpose of computation of generic tariff, the normative interest rate shall be considered as average SBI base rate prevailing during the first six months of previous year plus 300 basis points. For project specific tariff, this interest rate or actual interest payable to the financial institutions shall be considered.</p> <p>(iii) The repayment of loan is being considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.</p> <p>(iv) For project specific tariff, the repayment of loan is being considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed or actual repayment made whichever is higher.</p> <p>(v) Normative period of loan repayment shall be taken as 12 years.</p>
17	Depreciation	<p>For Tariff, Depreciation shall be computed in following manner</p> <p>(i) The value base for the purpose of depreciation shall be the Capital Cost of the project admitted by the Commission.</p> <p>(ii) Salvage value as 10%</p> <p>(iii) 5.83% pa for first twelve years and remaining depreciation to be spread over remaining useful life from 13th year onwards.</p> <p>(iv) To be charged from 1st year of commercial operation, for part of the year, depreciation shall be pro rata basis for computation of Project Specific Tariff</p> <p>(i) 75% of the capital subsidy received by Generator to be reduced from Capital Cost.</p>
18	Return on Equity	<p>(ii) 20% Pretax per annum for 10 years</p> <p>(iii) 24% Pretax per annum 11th year onwards</p>
19	Interest on Working Capital	<p>(a) Working Capital for Wind, SHP, Solar PV/Thermal grid interactive rooftop and small PV Power Projects shall be computed in accordance with-</p> <p>(i) O&M expenses for one month</p> <p>(ii) Receivables equal to 2 months energy charges based on normative CUF, for project specific tariff normative CUF or CUF mentioned in DPR whichever is higher.</p> <p>(iii) Maintenance spares @ 15% of O&M expenses</p> <p>(b) Working capital requirement in case of biomass power projects and non-fossil fuel based co-generation projects shall be computed in accordance with:</p> <p>(i) Components in (a) above</p> <p>(ii) Fuel Cost for 4 months equivalent to normative CUF with normative escalation factor of 5%.</p> <p>For project specific tariff, CUF as per DPR or normative whichever is higher</p> <p>(c) Interest on working capital shall be at interest rate equivalent to average SBI rate prevalent during first six months of the previous year plus 350 basis points.</p>
20	Operation & Maintenance Expenses	<p>(i) For first year of commissioning, as specified by the Commission under Technology Specific Parameters for different technologies for the year 2013-14, escalated @ 5.72% p.a.</p> <p>(ii) Normative O&M expenses allowed for the year of commissioning shall be escalated @ 5.72% pa to determine O&M expenses for different years of Tariff Period.</p>
21	CDM Benefits	<p>(i) 100% to be the project developer in first year of COD</p> <p>(ii) From second year, share of beneficiary shall be 10% to be progressively increased by 10% ever year till it reaches 50% after which it will be shared equally by generating Co. and beneficiary.</p> <p>(iii) CDM benefits not to be considered for tariff calculation but shall be handed over by generating Co. to distribution licensee within one month of receipt.</p>
22	Rebate	<p>(i) 2% for payment through LC</p> <p>(ii) Payment by a mode other than LC but within one month of presentation of bill, rebate of 1%.</p>

23	Late Payment Surcharge	For payment delayed beyond 60 days, surcharge @ 1.25% per month																					
24	Subsidy or Incentive by Central/State Govt.	<p>(i) Commission to take into account any incentive or subsidy by Central or State Govt. including accelerated depreciation benefit if availed by generating company for determining tariff.</p> <p>(ii) Only 75% of subsidy during financial year of Commissioning as per MNRE scheme.</p> <p>(iii) For ascertaining income tax benefit on account of accelerated depreciation, as per Regulation</p> <p>If Generation based Incentive (GBI) scheme is notified by Central/ State Govt., the same shall be assumed to be availed and tariff automatically treated as reduced by amount of GBI / unit</p>																					
25	Taxes and Duties	<p>(i) Tariff shall be including direct taxes on income but exclusive of other taxes and duties.</p> <p>(ii) For generic tariff determination, the tax rate for first 10 years shall be 18.50% and 30% for balance period along with 5% surcharge and 3% education cess.</p> <p>(iii) Provided taxes & duties levied by appropriate Govt. other than direct taxes shall be allowed as pass through on actual incurred basis.</p>																					
26	Applicability of Tariff	<p>The tariff shall be allowed to be recovered as under: For generators offering generic tariff.</p> <p>(i) Till actual CUF is less than or equal to annual CUF of 40%, tariff based on normative CUF of 40%</p> <p>(ii) For generation beyond 40% CUF,</p> <p>(a) CUF 40% to 45%, tariff shall be Rs. 1.50/kWh</p> <p>(b) For generation beyond annual CUF 45%, incentive equal to levelised generic rates, reduced by 0.75 per kWh, reduction in subsequent bill till CUF reaches 55%. For CUF beyond 55% incentive equal to levelised generic rates at CUF of 45%</p> <p>(c) For Generators opting for project specific tariff, tariff beyond applicable CUF shall be at generic tariff specified in Regulations.</p>																					
27	Applicability of Merit Order	Not applicable. RE generators must be run.																					
TECHNOLOGY SPECIFIC PARAMETER																							
28	Small Hydro Generating Plant	<p>The technology specific parameters for determination of generic tariffs for Small Hydro Generating Stations shall be as below:</p> <p style="text-align: center;">Projects commissioned on or after 01-04-2013</p> <table border="1" data-bbox="548 1308 1448 1661"> <thead> <tr> <th data-bbox="548 1308 732 1419">Project Size</th> <th data-bbox="732 1308 915 1419">Capital Cost</th> <th data-bbox="915 1308 1127 1419">O&M Expenses for year of commissioning</th> <th data-bbox="1127 1308 1279 1419">Capacity Utilization Factor</th> <th data-bbox="1279 1308 1448 1419">Auxiliary Consumption</th> </tr> <tr> <td></td> <td data-bbox="732 1419 915 1461">Rs. Lakh/ MW</td> <td data-bbox="915 1419 1127 1461">Rs. Lakh/ MW</td> <td data-bbox="1127 1419 1279 1461">(%)</td> <td data-bbox="1279 1419 1448 1461">(%)</td> </tr> </thead> <tbody> <tr> <td data-bbox="548 1461 732 1503">Upto 5 MW</td> <td data-bbox="732 1461 915 1503">785</td> <td data-bbox="915 1461 1127 1503">26.43</td> <td data-bbox="1127 1461 1279 1661" rowspan="3" style="text-align: center; vertical-align: middle;">40</td> <td data-bbox="1279 1461 1448 1661" rowspan="3" style="text-align: center; vertical-align: middle;">1</td> </tr> <tr> <td data-bbox="548 1503 732 1583">>5 MW & upto 15 MW</td> <td data-bbox="732 1503 915 1583">750</td> <td data-bbox="915 1503 1127 1583">22.43</td> </tr> <tr> <td data-bbox="548 1583 732 1661">> 15 MW & upto 25 MW</td> <td data-bbox="732 1583 915 1661">715</td> <td data-bbox="915 1583 1127 1661">19.03</td> </tr> </tbody> </table>	Project Size	Capital Cost	O&M Expenses for year of commissioning	Capacity Utilization Factor	Auxiliary Consumption		Rs. Lakh/ MW	Rs. Lakh/ MW	(%)	(%)	Upto 5 MW	785	26.43	40	1	>5 MW & upto 15 MW	750	22.43	> 15 MW & upto 25 MW	715	19.03
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29	Biomass Power Projects based on Rankine Cycle Technology (with Water Cooled Condenser)	<p>The technology specific parameters determination of generic tariffs for Biomass Power Projects based on Rankine Cycle Technology using water cooled condenser shall be as below:</p> <p>Projects commissioned on or after 01-04-2013</p> <table border="1" data-bbox="548 317 1458 722"> <thead> <tr> <th>Capital Cost</th> <th>O&M Expenses for year of commissioning</th> <th>Station Heat Rate</th> <th>Calorific value of Fuel</th> <th>Auxiliary consumption</th> <th>Capacity Utilisation Factor</th> </tr> <tr> <th>Rs. Lakh/ MW</th> <th>Rs. Lakh/MW</th> <th>kCal/kWh</th> <th>kCal/Kg</th> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>445</td> <td>25.37</td> <td>4000</td> <td>3300</td> <td>10</td> <td>(i) During first year- 65% (ii) From 2nd year onward 80%</td> </tr> </tbody> </table>	Capital Cost	O&M Expenses for year of commissioning	Station Heat Rate	Calorific value of Fuel	Auxiliary consumption	Capacity Utilisation Factor	Rs. Lakh/ MW	Rs. Lakh/MW	kCal/kWh	kCal/Kg	%	%	445	25.37	4000	3300	10	(i) During first year- 65% (ii) From 2nd year onward 80%
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445	25.37	4000	3300	10	(i) During first year- 65% (ii) From 2nd year onward 80%															
		<p>(i) Fuel Mix</p> <p>(a) 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 project such as crop residues, agro-industrial residues, forest residues etc and other Biomass fuels as may be approved by MNRE.</p> <p>(b) The Generator shall ensure fuel management to ensure adequate fuel supply.</p> <p>(ii) Use of Fossil Fuel: The use of Fossil fuels shall be limited to the extent of 15% of total fuel consumption on annual basis</p> <p>(iii) Monitoring Mechanism for the use of fossil fuel – As per Regulations</p>																		
30	Non fossil fuel based Co-generation projects	<p>The technology specific parameters for determination of generic tariffs for non-fossil fuel based co-generation projects shall be as below:</p> <p>Projects commissioned on or after 01-04-2013</p> <table border="1" data-bbox="548 1146 1458 1350"> <thead> <tr> <th>Capital Cost</th> <th>O&M Expenses for year of Commissioning</th> <th>Station Heat</th> <th>Calorific value of fuel</th> <th>Auxiliary Consumption</th> <th>Capacity Utiliza-tion Factor</th> </tr> <tr> <th>Rs. Lakh/ MW</th> <th>Rs. Lakh/ MW</th> <th>(Kcal/ kWh)</th> <th>Kcal/kg)</th> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>420</td> <td>16.92</td> <td>3600</td> <td>2250</td> <td>8.5</td> <td>45</td> </tr> </tbody> </table>	Capital Cost	O&M Expenses for year of Commissioning	Station Heat	Calorific value of fuel	Auxiliary Consumption	Capacity Utiliza-tion Factor	Rs. Lakh/ MW	Rs. Lakh/ MW	(Kcal/ kWh)	Kcal/kg)	%	%	420	16.92	3600	2250	8.5	45
Capital Cost	O&M Expenses for year of Commissioning	Station Heat	Calorific value of fuel	Auxiliary Consumption	Capacity Utiliza-tion Factor															
Rs. Lakh/ MW	Rs. Lakh/ MW	(Kcal/ kWh)	Kcal/kg)	%	%															
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31	Biomass Gasifier Power Projects	<p>The technology specific parameters for determination of generic tariffs for Bio-mass Gasifier Power projects shall be as below:</p> <p>Projects commissioned on or after 01-04-2013</p> <table border="1" data-bbox="548 1472 1458 1646"> <thead> <tr> <th>Capital Cost</th> <th>O&M Expenses for year of Commissioning</th> <th>Specific Fuel Consumption</th> <th>Auxiliary Consumption</th> <th>Capacity Utiliza-tion Factor</th> </tr> <tr> <th>Rs. Lakh/ MW</th> <th>Rs. Lakh/ MW</th> <th>(Kg/kWh)</th> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>550</td> <td>42.29</td> <td>1.25</td> <td>10</td> <td>85</td> </tr> </tbody> </table> <p>Fuel Mix</p> <p>(a) 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 project such as crop residues, agro-industrial residues, forest residues etc and other Biomass fuels as may be approved by MNRE.</p> <p>(b) The Generator shall ensure fuel management to ensure adequate fuel supply.</p>	Capital Cost	O&M Expenses for year of Commissioning	Specific Fuel Consumption	Auxiliary Consumption	Capacity Utiliza-tion Factor	Rs. Lakh/ MW	Rs. Lakh/ MW	(Kg/kWh)	%	%	550	42.29	1.25	10	85			
Capital Cost	O&M Expenses for year of Commissioning	Specific Fuel Consumption	Auxiliary Consumption	Capacity Utiliza-tion Factor																
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32	Biogas based Power Projects	<p>The norms for tariff determination specified hereunder are for grid connected bio-mass power projects that uses 100% biogas fired engine coupled with biogas technology for co-digesting agriculture residues, manure and other bio waste as may be approved by MNRE. The technology specific parameters for determination of generic tariffs for biogas based Power Projects shall be as below:</p> <p style="text-align: center;">Projects commissioned on or after 01-04-2013</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Capital Cost</th> <th style="width: 20%;">O&M Expenses for year of Commissioning</th> <th style="width: 20%;">Specific Fuel Consumption</th> <th style="width: 20%;">Auxiliary Consumption</th> <th style="width: 20%;">Capacity Utilization Factor</th> </tr> <tr> <th>Rs. Lakh/ MW</th> <th>Rs. Lakh/ MW</th> <th>(Kg/kWh)</th> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1100</td> <td style="text-align: center;">42.29</td> <td style="text-align: center;">3.00</td> <td style="text-align: center;">12</td> <td style="text-align: center;">90</td> </tr> </tbody> </table>	Capital Cost	O&M Expenses for year of Commissioning	Specific Fuel Consumption	Auxiliary Consumption	Capacity Utilization Factor	Rs. Lakh/ MW	Rs. Lakh/ MW	(Kg/kWh)	%	%	1100	42.29	3.00	12	90					
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Rs. Lakh/ MW	Rs. Lakh/ MW	(Kg/kWh)	%	%																		
1100	42.29	3.00	12	90																		
33	Solar PV Power Project	<p>Norms for Solar 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 crystallize silicon or their film etc. as may be approved by MNRE. The technology specific parameters for determination of generic tariff for solar PV Power Projects shall be as under:</p> <p style="text-align: center;">Projects commissioned on or after 01-04-2013</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Capital Cost</th> <th style="width: 30%;">O&M Expenses for year of Commissioning</th> <th style="width: 30%;">Capacity Utilization Factor</th> </tr> <tr> <th>Rs. Lakh/ MW</th> <th>Rs. Lakh/ MW</th> <th>%</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1000</td> <td style="text-align: center;">11.63</td> <td style="text-align: center;">19</td> </tr> </tbody> </table>	Capital Cost	O&M Expenses for year of Commissioning	Capacity Utilization Factor	Rs. Lakh/ MW	Rs. Lakh/ MW	%	1000	11.63	19											
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34	Solar Thermal Power Project	<p>Norms for Solar Thermal Power shall be applicable for concentrated Solar Power (CSP) technologies viz line focusing as may 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. The technology specific parameters of generic tariff for Solar Thermal Power Projects shall be as under:</p> <p style="text-align: center;">Projects commissioned on or after 01-04-2013</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Capital Cost</th> <th style="width: 25%;">O&M Expenses for year of Commissioning</th> <th style="width: 20%;">Capacity Utilization Factor</th> <th style="width: 30%;">Auxiliary Consumption</th> </tr> <tr> <th>Rs. Lakh/ MW</th> <th>Rs. Lakh/ MW</th> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1300</td> <td style="text-align: center;">15.86</td> <td style="text-align: center;">23</td> <td style="text-align: center;">10</td> </tr> </tbody> </table>	Capital Cost	O&M Expenses for year of Commissioning	Capacity Utilization Factor	Auxiliary Consumption	Rs. Lakh/ MW	Rs. Lakh/ MW	%	%	1300	15.86	23	10								
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38	Transmission Charges Wheeling Charges and Losses	<p>(i) Transmission Charges: - For non-discriminatory 'Open Access' to the intra-state transmission system for carrying the electricity generated by the RE based Generating Stations or Co-generating Stations to the destination of use the RE generator or the consumer as the case may be shall have to pay the transmission and wheeling charges for use of intra-state transmission system and distribution system which shall be calculated based on the principles specified in UERC (Terms and Conditions of Intrastate Open Access) Regulations 2010.</p> <p>(ii) No Transmission and Wheeling Charges are payable for sale of electricity to distribution licensee or local grid within the State.</p> <p>(iii) Where a generating company proposes to supply electricity/outside the State, such generating Company, in addition to transmission/wheeling charges specified above shall have to bear the transmission and wheeling charges determined by the Commission on a case to case basis for the dedicated lines and substation of the transmission and distribution licensee used only for evacuation of such power.</p> <p>(iv) Where more than one generating company proposed to supply electricity outside the state over common dedicated transmission distribution system of transmission/distribution licensee for evacuation of their power such generating company in addition to transmission/wheeling charges determined by the Commission on case to case basis for such dedicated lines and sub-station of the transmission/distribution licensee used only for evacuation of such power on pro-rata basis of installed capacity.</p> <p>(v) In addition to Transmission and Wheeling charges, the losses in the intra-State transmission/ distribution System and dedicated lines and substations if applicable as above shall be adjusted in kind based on the principles specified in UERC (Terms & Conditions of Intra-State Open Access) Regulations 2010.</p> <p>(vi) No losses shall be adjusted in kind for sale of electricity to distribution licensee within the state or to local rural grid.</p>																													
39	Evacuation of Power	<p>(i) Transmission Licensees and Distribution Licensees shall endeavour to provide connectivity to the RE Based Generating Stations and Co-generating Stations at nearest possible substation within a range of 10 km from the location of such generating station. They may further mutually agree to provide connectivity at appropriate voltage level subject to technical feasibility and technical standards for construction of electrical lines and connectivity with the grid as may be specified by CEA.</p> <p>(ii) In case of generating company opts to construct the evacuation system including the transmission/ distribution line into the nearest substation of Transmission/Distribution Licensee, the required bay, terminal equipments and associated synchronization equipment etc., the cost of such evacuation system shall be borne by the generating station.</p> <p>(iii) The generating station may also get the work of construction of power evacuation system carried out by state transmission/distribution licensee. Provided further that the land for extending the bay shall be provided by the owner of the substation free of cost.</p>																													
40	Maintenance of Transmission Lines and Equipment	The maintenance of terminal equipment and transmission lines shall be carried out by the owners of these lines/equipments.																													
41	SLDC Charges	For sale to person other than the Distribution licensee or to the local rural grid, the owner of generation station shall pay SDLC charges as may be fixed by the Commission.																													

42	Connectivity and Metering arrangement for grid interactive roof top and small solar PV plants	Roof-top Solar PV sources shall be allowed connectivity at the following voltage level in the distribution system of the licensee: (i) Load upto 4 kW: low voltage single phase supply (ii) Load >4 kW and upto 75 kW: low voltage three phase supply (iii) Load >75 kW and upto 1.5 MW: at 11 kV (iv) Load >1.5 MW and upto 3 MW: at 11/33 kV or as per site condition.
43	Metering Arrangement	(1) For sale to State Distribution Licensees or Local rural Grid, RE based Generating Station and Co-generating Stations shall provide meters at the point of interconnection. (2) For sale to person other than the State Distribution Licensees or Local Rural Grid RE based Generating Station and Co-generating Stations shall provide ABT compatible Special Energy Meters at the point of interconnection.
44	Energy Accounting and Billing	(i) The State Load Dispatch Centre shall carry out scheduling and accounting of energy sent out by the generators and the same shall be communicated to the utilities interacting with the grid as per the scheme framed by SLDC. (ii) Billing for open access transactions shall be done in accordance with the Open Access Regulations.
45	Purchase of Electricity by the Generating station/Start up Power	(1) Any person, who establishes, maintains and operates a generating station and normally does not need power from the licensee round the year, may purchase electricity from a generating company or a distribution licensee in case his plant is not in a position to generate electricity to meet the requirement of his own use or for start up and consequently power is required to be drawn from distribution licensee. (2) In case electricity generated from the plant is being exclusively sold to the State Distribution Licensee, the electricity (in kWh) procured by the Generating Station from the State Distribution Licensee to meet its requirement of his own use or for startup power, will be adjusted from the electricity sold to the Distribution Licensee on month to month basis. The Distribution Licensee shall make the payment for net energy sold to it by the Generating Company. (3) In case electricity generated from the plant is sold to third party other than the State Distribution Licensee, then such purchase of electricity by the generating company from the State distribution licensee, shall be charged as per the tariff determined by the Commission for temporary supply under appropriate "Rate Schedule of tariff" for Industrial Consumers considering maximum demand during the month as the contracted demand for that month.
46	Banking of Power (Applicable only in case of Captive Generating Plants & Non-fossil fuel based Co-generating Stations)	The Generating Stations shall be allowed to bank power within a period of one calendar month, for the purpose of withdrawal of the banked power in the event of emergency or shut down or maintenance of the plant, subject to following conditions: (a) Banking of energy upto 100%, as agreed between the plant and the distribution licensee, shall be allowed during the period declared by the Commission as peak hours from time to time in its Tariff Orders. (b) Withdrawal of power shall be allowed only during the period other than the period declared by the Commission as peak hours from time to time in its Tariff Orders. (c) Banking charges shall be 12.5% of the energy banked.
47	Deemed Generation	(Applicable only in case of Small Hydro Generating Plants & Solar PV & Solar Thermal Projects) (i) After the COD of the Project, loss of generation at the Station on account of reasons attributed to the following, or any one of the following, shall count towards Deemed Generation: - Non availability of evacuation system beyond the Interconnection Point; and - Receipt of backing down instructions from the SLDC. (ii) Provided that the following shall not count towards Deemed Generation: The loss of generation at the Station on account of aforesaid factor(s) but attributed to the Force Majeure event(s);

		<p>(iii) The distribution licensee shall pay for the saleable deemed generation, on annual basis, for small hydro projects and solar PV and solar thermal projects worked out on the basis of the deemed generation on the above lines, at the generic/project specific tariffs under the provisions of RE Regulations, as amended from time to time by the Commission. The settlement of payment towards deemed generation charges shall be carried out within 3 months of the completion of the financial year.</p> <p>(iv) Any charges paid by the Distribution Licensee towards deemed generation shall not be allowed as an expense to be pass through in tariffs. The distribution licensee will have to bear surcharges.</p>
48	Savings, Power to Remove Difficulties and Power to Relax	Vested with the Commission