## UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

(Captive and Renewable Energy Generating Plants) Regulations, 2019 dated: 25.07.2019 with amendment dated: 22.01.2020

SI. No.	Description	Summary				
1.	Control Period/Review Period	5 – Years				
2.	Applicability	<ol> <li>These Regulations shall apply to-</li> <li>All the Generating Stations based on Captive generation, renewable sources of generation and co-generation, existing prior to 01.04.2019 in the State of Uttar Pradesh as on the date of notification of these Regulations.</li> <li>All new projects commissioned after 01.04.2019 within Uttar Pradesh for generation based on Captive generation, renewable sources of generation and cogeneration, captive consumption and sale of electricity from such captive plants or plants based on RE sources, to all distribution licensees within Uttar Pradesh or through Open access to a third party.</li> </ol>				
3.	Clean Development Mechanism (CDM)	<ul> <li>100% of gross proceeds on account of CDM shall be retained by the project developer during the first year of commercial operation of the Generating plants.</li> <li>During the second year of commercial operation, the share of the procurer shall be 10% which shall progressively increase by 10% every year till it reaches 50%, where-after the proceeds shall be shared in equal proportion, by the Generating Company and the procurer.</li> </ul>				
4.	Object	<ol> <li>A person shall construct, maintain and operate a Generating Plant and a dedicated transmission line for generation and evacuation of electricity from RE source based Generation, unless otherwise provided in these Regulations or in any other Regulation.</li> <li>The Distribution Licensee shall purchase power from all RE sources only through competitive bidding (except Municipal Solid Waste and rooftop solar covered under RSPV Regulations). The tariff for projects discovered by competitive bidding shall be as per their PPA.</li> <li>The provisions of Deviation settlement mechanism (DSM) shall be implemented for all Renewable Energy based Power Plants, except for Small hydro projects (SHP) and Municipal solid waste (MSW) plants, and the Generating Plants shall be subject to day ahead scheduling.</li> <li>For recovery of full capacity charges for Biomass &amp; Bagasse based plants, the PLF shall be 50%.</li> </ol>				
5.	Grid Discipline	The Generating Plant shall abide by the grid discipline and shall not be entitled for any compensation in the event of grid failure or any interruptions or damage to the plant or its associated sub-stations or transmission line on account of any happening in the grid.				
6.	Environmental and other Clearances	The Generating Plant shall abide by the emission standards, as the case may be, set by the Union/State Government and for that purpose it shall obtain all the required environmental and pollution clearances from the Central / State pollution control authorities and submit copies of Clearance Certificates to the Commission.				
7.	Duties and obligations of Renewable Energy based Power Plants	<ul> <li>The technical standards for construction of electrical plants, electric lines and connectivity with the grid as specified by the Authority.</li> <li>Safety requirements for construction, operation and maintenance of electrical plants and electric lines as specified by the Authority.</li> <li>Be under obligation to comply with the directions issued to it by SLDC and shall pay fee and charges payable to SLDC as specified by the Commission from time to time by order.</li> </ul>				
8.	Sale of Power	<ul> <li>All existing Renewable Energy based Power Plant having PPA approved by the Commission shall be allowed to sell power, to the Distribution Licensee in whose area the plant is located at the rate specified in these schedule, whereas, for sale of power from new Renewable Energy Power Plant (except MSW) to be tied under PPA with Discom shall be at tariff as approved by the Commission through its Orders and under these Regulations.</li> <li>Purchases under these Regulations, shall qualify for meeting the RPO of the Distribution Licensee under terms and conditions of the UPERC (Promotion of Green Energy through Renewable Purchase Obligation) Regulations, 2010 as amended from time to time.</li> </ul>				

9.	Purchase of Electricity by the RE based Generating Plant	<ul> <li>Any person, who establishes, maintains and operates a Generating Plant, may purchase electricity from Distribution Licensee or through Open Access, in case his plant is not in a position to generate electricity to meet the requirement.</li> <li>Demand charges for such supply shall be charged for 15 days if the supply is taken for up to 15 days and shall be charged for the month if the supply is taken for more than 15 days.</li> <li>In case of purchase of power through Open Access by the generator, open access charges shall be payable as determined by the Commission under UPERC Open Access Regulations.</li> <li>The tariff payable by a Renewable Energy based Generating Power Plant to a Distribution Licensee, in case of banking of energy, shall be as per these Regulations only if the plant has an arrangement of banking of energy with such Distribution Licensee.</li> </ul>
	Open Access	
10.	Renewable Energy based Generating Power Plant	<ul> <li>The plant seeking 'Open Access' within or outside the State through the grid shall be regulated under Regulations specified by the Appropriate Commission.</li> <li>The plant or the consumer, seeking 'Open Access' to the State and / or Inter State Transmission Systems and / or distribution system for carrying the electricity generated by it to the destination of use, shall pay the transmission charges, wheeling charges and such other charges for use of such facilities as determined by the Appropriate Commission(s).</li> <li>For large scale stand-alone solar projects set up for sale of power to Electricity distribution Company or Third party or Captive use, there shall be exemption of 50% on Wheeling charges/ Transmission charges on Intrastate Sale of Power and 100% exemption on Intrastate Transmission system on Interstate sale of solar power.</li> <li>In case, the power generated from RE source based generating plant is supplied to a consumer, then such consumer shall pay charges as per the provisions of UPERC Open Access Regulations.</li> <li>For large scale stand-alone solar projects set up for sale of power to Electricity distribution Company or Third party or Captive use, there shall be 100 % exemption from State cross subsidy surcharge for Interstate sale of solar power.</li> </ul>
11.	Evacuation of Power	<ul> <li>The Captive Plants and Renewable Energy based Generating Power Plants shall supply power to the Distribution Licensee of its area through a 33 KV or higher voltage line terminating at the nearest 33 kV (upto 3 MW)/132 KV Sub-station as per the voltage and capacity as given below:         <ul> <li>Contracted capacity up to 3 MW on 11 KV.</li> <li>Contracted capacity above 3 MW and up to 20 MW on 33 KV;</li> <li>Contracted capacity above 20 MW on 132 KV</li> </ul> </li> <li>The Captive Plants and Renewable Energy based Generating Power Plants (except for MSW plant) shall be responsible for construction of the evacuation system for connecting its plant with the substation of the Distribution Licensee or STU / any Transmission Licensee, as per the scheme approved by the Commission in PPA, on its own or through any other agency engaged for that purpose.</li> <li>In case of evacuation through temporary arrangements or in case of additional capacity commissioned under supplementary PPA using existing transmission infrastructure the applicable tariff given in these Regulations shall be reduced by 20 Paise/kWh.</li> <li>In case the Generating Company elects to get the dedicated transmission line constructed by other than STU/ Distribution Licensee, the supervision charges shall be payable to Distribution Licensee or STU or any Transmission Licensee as the case may be.</li> </ul>
12.	Metering Arrangement	The Captive Plants and Renewable Energy Generating Power Plants (except for SHP and MSW plant) shall provide ABT compatible Special Energy Meters (SEM) at the point of injection and point of drawl and shall comply with all metering requirements as notified by the State Transmission Utility.
13.	Energy Accounting and Billing	<ul> <li>SLDC shall do energy accounting and billing and the same shall be communicated to the utilities interacting with the grid as per the scheme framed by SLDC in pursuance of the provisions of UPERC Regulations.</li> <li>In case of sale to the Distribution Licensee not involving the transmission network of the area, joint metering shall be done in such cases.</li> </ul>
14.	Banking of Power	<ul> <li>Renewable Energy source based Generation and Co-Generation Plants/ Captive RE:</li> <li>Banking of energy up to 100%, as agreed between the Renewable Energy Generating Power Plants (except for SHP and MSW plants) and the Distribution Licensee, shall be allowed subject to technical feasibility regarding evacuation.</li> </ul>

Withdrawal of banked power shall be allowed only as per TOD system i.e. withdrawal of power in the peak/off-peak hours shall not be more than the power banked in that respective TOD slot. The Banking as well as withdrawal of banked energy shall be subject to day ahead scheduling. The banked power remaining unutilized on the expiry of the period defined herein would be treated as sale and the financial settlement shall be made at Rs. 2 per unit or the rate approved in the PPA entered with the Distribution Licensee, whichever is less. However, banking charges shall be deducted from such unutilized banked energy. Banking charges shall be 12% of the energy banked except for Solar and Wind Power for which it shall be 6% of the energy banked and should be adjusted against the banked energy before withdrawal. 15. Bagasse based Total Tariff-Bagasse based Existing Projects commissioned during FY 2005-06 to **Generation &** FY 2008-09 (Rs/kWh): **Cogeneration Plants** FY 2019-FY 2020-FY 2021-FY 2022-Year of FY 2023-Commissioning 20 21 22 23 24 FY 2005-06 2.92 3.03 3.16 3.29 3.42 2.94 FY 2006-07 3.05 3.18 3.30 3.44 FY 2007-08 2.95 3.07 3.19 3.32 3.46 FY 2008-09 2.97 3.09 3.21 3.34 3.47 Total Tariff-Bagasse based Existing Projects commissioned during FY 2009-10 to FY 2013-14 (Rs/kWh): FY 2019-FY 2020-FY 2021-Year of FY 2022-FY 2023-Commissioning 20 21 22 24 23 FY 2009-10 2.97 3.08 3.20 3.32 3.44 FY 2010-11 3.54 3.09 3.20 3.32 3.45 FY 2011-12 3.65 3.67 3.21 3.33 3.45 FY 2012-13 3.76 3.81 3.78 3.33 3.45 FY 2013-14 3.87 3.89 3.92 3.95 3.46 Total Tariff-Bagasse based Existing Projects commissioned during FY 2014-15 to FY 2018-19 (Rs/kWh): FY 2019-FY 2021-Year of FY 2020-FY 2022-FY 2023-Commissioning 20 21 24 22 23 FY 2005-06 3.94 3.97 4.01 4.05 4.10 4.06 4.09 4.12 4.21 FY 2015-16 4.16 FY 2016-17 4.18 4.21 4.24 4.28 4.32 FY 2017-18 4.30 4.33 4.36 4.39 4.43 FY 2018-19 4.43 4.45 4.48 4.51 4.55 Tariff for Bagasse based projects commissioned on or after 1st April 2019: The Commission directs the licensee to procure power from Bagasse based generation and co-generation plants commissioned on or after 1st April 2019, through a process of competitive bidding. Electricity (MW/MU) supplied over and above 50% PLF: The Bagasse based generating plants, to generate more power beyond 50% PLF shall be paid incentive @ 50 paise per kWh, along with the variable cost, as applicable. Biomass (rice husk Total Tariff-Biomass Existing (rice husk based) Projects commissioned during 16. based) Generation FY 2008-09 to FY 2013-14 (Rs/kWh): **Plants** Year of FY 2019-FY 2020-FY 2021-FY 2022-FY 2023-24 Commissioning 20 21 22 23 7.23 FY 2008-09 6.30 6.60 6.91 7.57 FY 2009-10 6.31 6.60 6.89 7.21 7.54 FY 2010-11 6.70 6.61 6.91 7.22 7.55 FY 2011-12 6.79 7.01 6.92 7.24 7.57

	T	EV 2042 42	0.07	7.40	7.04	7.05	7.50	
		FY 2012-13	6.87	7.10	7.34	7.25	7.58	
		FY 2013-14 6.96 7.19 7.43 7.68 7.59  Total Tariff-Biomass Existing (rice husk based) Projects commissioned during FY 2014-15 to FY 2018-19 (Rs/kWh):						
		Year of	FY 2019-	FY 2020-	FY 2021-	FY 2022-	FY 2023-	
		Commissioning	20	21	22	23	24	
		FY 2014-15	7.14	7.37	7.61	7.87	8.14	
		FY 2015-16	7.14	7.46	7.70	7.96	8.23	
		FY 2016-17	7.23	7.56	7.70	8.05	8.32	
		FY 2017-18	7.45	7.69	7.94	8.21	8.49	
		FY 2018-19	7.54	7.77	8.00	8.25	8.52	
17.	Municipal Solid Waste based Generation Plants	<ul> <li>April 2019:         <ul> <li>➤ The developers may approach the Commission on a case to case basis for use of any other Biomass based projects.</li> <li>➤ The above tariff shall also be applicable to biomass gasifier based plants on technologies approved by the MNRE which do not avail any subsidy.</li> </ul> </li> <li>Electricity (MW/MU) supplied over and above 80% PLF:         <ul> <li>To provide suitable incentive to biomass (rice husk based) based generating plants to generate more power i.e. above 80%, the generator shall be paid an incentive:</li></ul></li></ul>						
	Pidilis	Year of	FY 2019-	FY 2020-	FY 2021-	FY 2022-	FY 2023-	
		Commissioning	20	21	22	23	24	
		FY 2014-15	6.69	6.83	6.97	7.13	7.29	
		FY 2015-16	6.85	6.98	7.12	7.27	7.44	
		FY 2016-17	7.01	7.14	7.28	7.43	7.59	
		FY 2017-18	7.18	7.31	7.44	7.59	7.75	
		FY 2018-19	7.36	7.48	7.61	7.76	7.91	
		Total Tariff-Municipal Solid Waste New Projects commissioned during FY 2019-20 to FY 2023-24 (Rs/kWh):						
		Year of	FY 2019-	FY 2020-	FY 2021-	FY 2022-	FY 2023-	
		Commissioning	20	21	22	23	24	
		FY 2019-20	8.32	7.08	6.95	6.83	6.71	
		FY 2020-21	-	8.57	7.29	7.16	7.04	
		FY 2021-22		-	8.82	7.51	7.38	
		FY 2022-23			-	9.09	7.74	
		FY 2023-24				-	9.36	
		Electricity (MW/MU) supplied over and above 75% PLF:  To provide suitable incentive to Municipal Solid Waste based generating plants to generate more power i.e. above 75%, the generator shall be paid as below:  Total tariff as applicable; plus  Incentive @ 50 paise per kWh						
18.	Small Hydro based Generation Plants	Total Tariff-Old S	Small Hydro	Plants (Rs/kV	Vh):			
	Generation Fidilis	Year of	FY 2019-	FY 2020-	FY 2021-	FY 2022-	FY 2023- 24	
		Commissioning	20	21	22	23		
		FY 2005-06	1.48	1.51	1.54	1.58	1.62	
		FY 2006-07	1.52	1.56	1.59	1.63	1.67	
		FY 2007-08	1.56	1.60	1.64	1.68	1.72	
		FY 2008-09	1.61	1.65	1.68	1.73	1.77	

		Total Tariff-Small Hydro Projects upto 5 MW commissioned during FY 2014-15 to FY 2018-19 (Rs/kWh):						
		Year of Commissioning	FY 2019- 20	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023- 24	
		FY 2014-15	4.75	4.64	4.53	4.42	4.32	
		FY 2015-16	5.02	4.91	4.79	4.68	4.57	
		FY 2016-17	5.27	5.12	4.98	4.84	4.70	
		FY 2017-18	5.61	5.48	5.35	5.23	5.11	
		FY 2018-19	5.92	5.78	5.65	5.53	5.40	
		Total Tariff-Small Hydro Projects greater than 5 MW and upto 25 commissioned during FY 2014-15 to FY 2018-19 (Rs/kWh):						
		Year of Commissioning	FY 2019- 20	FY 2020- 21	FY 2021- 22	FY 2022- 23	FY 2023- 24	
		FY 2014-15	4.11	3.99	3.88	3.77	3.66	
		FY 2015-16	4.35	4.24	4.12	4.01	3.89	
		FY 2016-17	4.61	4.49	4.37	4.25	4.14	
		FY 2017-18	4.89	4.76	4.64	4.51	4.39	
		FY 2018-19	5.17	5.04	4.91	4.78	4.66	
		Electricity (MW/MU) supplied over and above normative PLF:						
		Capacity Plant Load Factor		Incentive				
		For Old Projects						
		Any Capacity	/ P	PLF above 35% 50 paise/kWh				
		For Projects commissioned on or after 1st April 201				st April 2014		
		Upto 5 MW PLF above 30% 50 paise/kWh					Vh	
		5 MW to 25 M	W P	PLF above 30%		50 paise/kWh		
		Tariff for projects commissioned after FY 2018-19: The Commission shall determine project specific tariff for projects commissioned on or after 1st April 2019.						
19.	Solar based Generation Plants	<ul> <li>Tariff for projects commissioned before FY 2018-19:         The levelized tariff for projects commissioned in FY 2014-15 shall be Rs 7.06/ kWh for 25 years, as provided in UPERC CRE Regulations, 2014.     </li> <li>Tariff for projects commissioned after FY 2018-19:         The tariff for the projects above 5 MW shall be as discovered through competitive bidding.     </li> </ul>						
20.	Wind energy based Generation Plants	Tariff for projects commissioned after FY 2018-19:     The tariff for the projects above 25 MW shall be as discovered through competitive bidding.						
21.	Any other RE source- based generation	For any renewable energy technologies approved by MNRE, other than Bagasse Based Generation & Cogeneration Plants, Biomass (Rice Husk Based) Generation Plants, Municipal Solid Waste Based, Generation Plants, Biogas Based Generation Plants, Biomass Gasifier Based Generation Plants, Small Hydro Generation Plants and Solar Power Generation Plants, tariff shall be the average power purchase cost (APPC) of the last FY as determined by the Commission.						