Section 86 (1) (e) of the Electricity Act, 2003 provides for promotion of renewable sources of energy including cogeneration by providing suitable measures for connecting with the grid and sale of electricity to any person, as also specify the percentage of total consumption to be purchased in the area of distribution licensees.
In order to achieve this objective, the erstwhile Andhra Pradesh Electricity Regulatory Commission had issued a regulation setting forth the target and other requirements in compliance of the above provisions vide the regulation being the Andhra Pradesh Electricity Regulatory Commission (Renewable Power Purchase Obligation (Compliance by purchase of Renewable Energy / Renewable Energy Certificates) Regulations, 2012 (Regulation 1 of 2012) which was amended from time to time.

Subsequent to the formation of the State of Telangana, this Commission was established and it had adopted all the regulations, orders etc. vide Regulation No. 1 of 2014 including the above mentioned regulation. However, during the course of time, certain changes have taken place on the policy front from the Government of India as well as the State Government. Also the above said regulation was subsisting for the period of five (5) years which ended on 31.03.2017. Therefore, framing of fresh regulation is necessitated to take further steps in the matter of providing mechanism as required under section 86 (1) (e) of the Act, 2003.

In this regard, it may be relevant to notice the relevant provisions of the National Tariff Policy, 2016 as notified by the Government of India exercising powers under section 3 of the Act, 2003.

“(1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with MNRE.

Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs.

(i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy
from the date of notification of this policy which shall be such that it reaches 8% of total consumption of energy, excluding Hydro Power, by March 2022 or as notified by the Central Government from time to time.

(ii) Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Act.

(iii) It is desirable that purchase of energy from renewable sources of energy takes place more or less in the same proportion in different States. To achieve this objective in the current scenario of large availability of such resources only in certain parts of the country, an appropriate mechanism such as Renewable Energy Certificate (REC) would need to be promoted. Through such a mechanism, the renewable energy based generation companies can sell the electricity to local distribution licensee at the rates for conventional power and can recover the balance cost by selling certificates to other distribution companies and obligated entities enabling the latter to meet their renewable power purchase obligations. The REC mechanism should also have a solar specific REC.

(iv) Appropriate Commission may also provide for a suitable regulatory framework for encouraging such other emerging renewable energy technologies by prescribing separate technology based REC multiplier (i.e. granting higher or lower number of RECs to such emerging technologies for the same level of generation). Similarly, considering the change in prices of renewable energy technologies with passage of time, the Appropriate Commission may prescribe vintage based REC multiplier (i.e. granting higher or lower number of RECs for the same level of generation based on year of commissioning of plant).

Accordingly, the Commission had initiated the process of making regulation for the purpose by placing the draft regulation on the website of
the Commission calling for comments, objections and suggestions on
17.01.2018. The last date for submission of comments, objections and
suggestions was fixed as 09.02.2018.

Further, on receipt of comments, objections and suggestions, a public
hearing was held on 28.03.2018. The Commission had considered all the
comments, objections and suggestions thoroughly and finalized the
regulation. One of the core issues is regarding the percentages to be fixed for
solar based renewable energy and non-solar based renewable energy. It has
been noticed by the Commission in the filing for tariff proposals of the
licensees that there are variations in the capacity drawn from the solar
generation than that of non-solar generation.

Some of the stakeholders submitted that bunching of the total
capacity of the renewable energy to be procured would result in haphazard
procurement of renewable sources of energy and also result in procurement
of one type of renewable energy leaving others. If the total percentage of
solar and non-solar renewable energy is bunched together, it may result in
the licensees opting for procuring only solar generation and leave other
sources. Therefore, the Commission has factored in this condition that a
minimum of non-solar capacity is also procured by the licensees.

In exercise of powers conferred under Sections 61, 66, 86 (1) (e) and 181
of the Electricity Act, 2003 and all other powers enabling it in this
behalf, the Telangana Electricity Regulatory Commission hereby makes the
following regulation for prescribing the obligation for purchase of Renewable
Power and its compliance by purchase of Renewable Energy /
Renewable Energy Certificates.

1. Short Title and Commencement.

1.1. This Regulation may be called the TSERC Renewable Power Purchase
Obligation (Compliance by Purchase of Renewable Energy / Renewable

1.2. This Regulation shall come into force with effect from the date of its
publication in the Telangana State Gazette.

1.3. This Regulation shall apply throughout the state of Telangana.

1.4. This Regulation shall be construed harmoniously with the provisions of the Act, Rules and other Regulations of this Commission as amended and in force from time to time. In case of any conflict or inconsistency in this Regulation with the provisions of the Act, Rules and other Regulations of this Commission, the latter shall prevail.

1.5. The Andhra Pradesh General clauses Act shall apply to interpretation of these regulations.

2. Definitions and interpretation.


2.2. “Captive User” means the person or member within the meaning of section 2 (8) of the Act, 2003 being the end user of the electricity generated in captive generating plant primarily for his own use and the term “captive use” shall be construed accordingly.

2.3. “Central Agency” means the agency operating the National Load Dispatch Centre (NLDC) or such other agency as the Central Commission may designate from time to time;

2.4. “Central Commission” means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act, 2003;

2.5. “Certificate” means the Renewable Energy Certificate (REC) 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, 2010 [CERC Regulation, 2010], as amended from time to time;

2.6. “Commission” means the Telangana State Electricity Regulatory Commission as referred to in sub-section (1) of section 82 of the Act, 2003;
2.7. "Floor Price" means the minimum price as determined by the CERC Regulation, 2010, as amended from time to time, at and above which the certificate can be dealt in Power Exchange.

2.8. "Forbearance Price" means the ceiling price as determined by the Central Commission in accordance with the CERC Regulation, 2010, as amended from time to time, within which only the Certificate can be dealt in Power Exchange;

2.9. "MNRE" means the Ministry of New and Renewable Energy;

2.10. "Obligated Entity" is an entity that is mandated to fulfill renewable purchase obligation under this Regulation subject to fulfillment of conditions outlined under clause 3 hereof and for the purposes of this Regulation shall be the following;

(i) Distribution Licensee

(ii) Captive user - Any consumer who owns a grid connected Captive Generating Plant based on conventional fossil fuel with installed capacity of 1 MW and above, or such other capacity as may be stipulated by the Commission from time to time, and consumes electricity generated from such plant for his own use.

(iii) Open Access Consumer in the State - Any person having a contracted demand of 1 MW and above and consumes electricity procured from conventional fossil fuel based generation through open access.

2.11. "Open Access Consumer" means a consumer availing open access under sub- section (2) of Section 42 of the Act, 2003;

2.12. "Pooled Cost of Power Purchase" means the weighted average pooled price at which the distribution licensee has purchased electricity in the previous year from all the long-term energy suppliers excluding the purchases based on liquid fuel.

Provided that the purchases from traders, short-term purchases and purchases from renewable sources shall not be taken into account while determining Pooled Cost of Power Purchase;

2.13. "Power Exchange" means any exchange operating as the power
exchange for electricity in terms of the orders issued by the Central Commission or recognised by the Commission.

2.14. "Renewable Energy Sources (or RES)" means renewable Sources such as Co-generation from renewable sources, Small Hydel, Municipal Waste, Industrial Waste, Biomass, Wind, Solar including its integration with combined cycle, bio-fuel co-generation, Geo-thermal, Tidal and such other sources as recognized or approved by MNRE;

2.15. "RPPO" means Renewable Power Purchase Obligation prescribed under clause (3) of this Regulation;

2.16. "RESCO" means Rural Electricity Supply Co-operative Society.

2.17. "SMALL HYDEL" means Hydro Power projects with a station capacity up to and including 25 MW.

2.18. "State Agency" means the State Load Despatch Centre of the State of Telangana as defined under section 2 (66) of the Act, 2003 or the agency so designated by the Commission under Clause (6.6) of this Regulation to act as the agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under this regulation;

2.19. "Year" means a Financial Year;

2.20. Words and expressions used and not defined in the Regulations but defined in the Act and Reform Act shall have the meanings assigned to them in the Act or Reform Act. Expressions used herein but not specifically defined in the Regulations or in the Act but defined under any law passed by a competent legislature and applicable to the electricity industry in the state shall have the meaning assigned to them in such law. Subject to the above, expressions used herein but not specifically defined in these Regulations or in the Act or any law passed by a competent legislature shall have the meaning as is generally assigned in the electricity industry.

2.21. In the interpretation of these Regulations, unless the context otherwise requires:
a) words in the singular or plural term, as the case may be, shall also be deemed to include the plural or the singular term, respectively;
b) references herein to the ‘Regulation’ shall be construed as a reference to these Regulations as amended or modified by the Commission from time to time in accordance with the applicable laws in force.
c) the headings are inserted for convenience and may not be taken into account for the purpose of interpretation of these Regulations.
d) reference to the statutes, regulations or guidelines shall be construed as including all provisions consolidating, amending or replacing such statutes, regulations or guidelines, as the case may be, referred to.

3. **Renewable Power Purchase Obligation (RPPO)**

3.1. Every Obligated Entity shall purchase from Renewable Energy Sources a minimum quantity (in kWh) of electricity expressed as a percentage of its total consumption of energy, during FY 2018-19 to FY 2021-22 as specified in this table below

<table>
<thead>
<tr>
<th>Year / RPPO</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>5.33</td>
<td>5.77</td>
<td>6.21</td>
<td>7.10</td>
</tr>
<tr>
<td>Non-solar</td>
<td>0.67</td>
<td>0.73</td>
<td>0.79</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6.00</strong></td>
<td><strong>6.50</strong></td>
<td><strong>7.00</strong></td>
<td><strong>8.00</strong></td>
</tr>
</tbody>
</table>

Provided further that the obligation will be on total consumption of electricity by an Obligated Entity excluding consumption met from hydro sources of power other small-hydel sources of power.

3.2. **Roof-top Solar PV System.**

3.2.1. The quantum of electricity generated by the consumer from the Roof-top Solar PV System under the net metering arrangements shall, if such consumer is not an Obligated Entity, qualify towards meeting the Solar RPPO of the Distribution Licensee.

3.2.2. The Distribution Licensee shall install, at its own cost and with the
consent of the consumer, a solar generation meter conforming to the applicable CEA Regulations at an appropriate location to measure the energy generated from the Roof-top Solar PV System if it desires that such energy be counted towards meeting its RPPO. The solar generation meter shall be maintained by the Distribution Licensee at its cost.

3.2.3. The purchases made from solar roof-top projects (gross metering), the unutilised banked energy deemed to have been purchased by the Distribution Licensees from renewable energy projects under open access regulations, purchases made at mutually agreed prices and all such other transactions for which the generator(s) does not claim RECsl shall also be treated as fulfilment of the RPPO prescribed herein;

3.3. The Distribution Licensees shall purchase power from renewable energy sources at the tariff determined by the Commission under Section 62 of the Act, 2003 or at tariffs discovered through transparent process of bidding u/s 63 of the Act, 2003 directly or through traders and adopted by the Commission.

3.4. Captive user means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by any co-operative society or association of persons for generating electricity primarily for use of members of such co-operative society or association.

3.5. The purchase of renewable power by the Distribution Licensee, from other Distribution Licensees in the State of Telangana shall also be taken into account for computing the fulfilment of RPPO by such a Licensee.

3.6. The purchase of REC issued under the CERC Regulation, 2010, as amended from time to time, shall also be treated as fulfilment of the RPPO prescribed herein.

3.7. In the event of the Obligated Entity, fulfilling the RPPO through self-retention of REC as allowed by the CERC Regulation, 2010, as amended from time to time, the application for self-retention shall be
towards fulfilment of RPPO of that financial year only; And the Obligated Entity shall make an application accordingly.

3.8. Distribution Licensees shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State.

3.9. The renewable power procured by the Obligated Entity from renewable energy generating stations bundled with coal / lignite based thermal generation shall be considered as fulfilment of RPPO;

3.10. Distribution Licensee’s RPPO shall include RESCO for the purpose of this Regulation.

3.11. The power from renewable energy sources being purchased by the obligated entity(s) under the existing power purchase agreements shall continue till the validity of the existing agreements, even if the total purchases under such agreements exceed the percentages specified hereinafore.

3.12. The Commission may, either on its own motion or on recommendation of the State Agency or on receipt of an application from the obligated entity(s) or eligible entity(S), revise for any year the percentage targets given herein above or to carry forward to next year as appropriately deemed fit by the Commission.

4. Certificates under the Regulations of the Central Commission.

4.1. The procurement, by the obligated entity(s) of RECs issued under the CERC Regulation, 2010, as amended from time to time, shall be subject to such directions as the Commission may issue from time to time.

4.2. The RECs purchased by the obligated entity from the Power Exchange, or the purchase certificate(s) issued by State Agency in case of self-retention of RECs, shall be deposited by the obligated entity with the State Agency.

4.3. Notwithstanding the above, the State Agency can also independently verify the RECs purchased by the obligated entity from Power Exchange, through Renewable Energy Certificate Registry of India website, and consider the same towards fulfilment of their RPPO.
5. **Obligated Entity**

5.1. **Distribution Licensee.**

5.1.1. Every Distribution Licensee shall, on a yearly basis on or before 15th March, submit to the State Agency under intimation to the Commission, the details of the estimated quantum of purchase from renewable energy sources for the ensuing year. The estimated quantum of such purchase shall be in accordance with clause 3.

5.1.2. The Distribution Licensee shall also submit a detailed statement to the State Agency under intimation to the Commission at the end of each year in respect of compliance of RPPO and also place it on the website of Distribution Licensee.

5.1.3. Despite availability of power from renewable energy sources and certificates, if the Distribution Licensee fails to fulfil its commitment towards minimum purchase from renewable energy sources, it shall be liable to deposit amount into a separate fund as provided in clause 8.

5.2. **Captive User and Open Access Consumer.**

5.2.1. Every captive user and open access consumer shall have to submit in advance necessary details regarding total estimated consumption of electricity and the quantum of power proposed to be purchased from renewable energy sources for fulfilling its RPPO. The details shall be submitted to the State Agency on a yearly basis on or before 15th March under intimation to the Commission.

5.2.2. The captive user and open access consumer shall submit quarterly status to the State Agency in respect of compliance of RPPO in accordance with the procedure as referred to in Clause 6.4.

5.2.3. The captive user and open access consumer shall submit under affidavit a detailed statement in respect of compliance of RPPO to the State Agency at the end of each year under intimation to the Commission.

5.2.4. Captive user and open access consumer shall purchase power
from renewable energy sources in accordance with clause 3. They may also fulfil their RPPO through purchase of RECs. If the captive user or open access consumer is unable to fulfil the minimum purchase criteria, then it shall deposit in to a separate fund the amount as per clause 8 of this regulation.

6. **State Agency.**

6.1. The State Agency shall function in accordance with the directions issued by the Commission and shall act in accordance with the procedures / rules laid down by Central Agency for discharge of its functions under the CERC Regulation, 2010, as amended from time to time.

6.2. The State Agency shall devise an appropriate protocol for collection of information from various sources such as renewable energy generating companies, obligated entity, etc., and compute the compliance of RPPO target by obligated entity.

6.3.1. The summary statement of RE procurement and RPPO compliance by each obligated entity shall be published by the State Agency on a cumulative basis every month on its website.

6.3.2. The summary statement shall cover RE procurement by each obligated entity comprising renewable energy procurement under preferential tariff route or other modality approved by the State Commission with regard to RPPO as well as renewable energy procurement through REC mechanism.

6.4.1. The State Agency shall submit quarterly status to the Commission in respect of compliance of RPPO by the obligated entity(s) in the format as approved by the Commission and may initiate appropriate proceedings before the Commission if required for compliance of the RPPO.

6.4.2. For this purpose, the State Agency shall develop formats for submission of quarterly progress report in respect of compliance of RPPO by the obligated entity(s) and get them approved by the Commission within 90 days of the notification of this regulation.
6.5. **Remuneration and charges:**
The Commission may from time to time based on the proposal in this regard from the State Agency fix the remuneration and charges payable to the State Agency for discharge of its functions under this regulations. The fees and charges paid by the obligated entities and the renewable energy generating companies shall be collected by the State Agency and utilised for its operations in respect of furthering objects of this regulation.
Explanation:- The words for its operation would include both technical and administrative action for carrying out the purpose of this regulation.

6.6. 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.

6.7. In the event of the State Agency functions have been withdrawn from the existing agency and notified the new agency, the entire subsisting apparatus both technical and administrative including finances held for this purpose by the earlier agency shall be transferred to the new agency and the decision in this regard of the Commission shall be final.

7. **Eligibility and Registration for Certificates.**

7.1. The eligibility and registration of certificates shall be governed by the CERC Regulation, 2010, dated 14.01.2010 as amended from time to time.

7.2. For the purpose of this clause (7), determination of pooled cost of power purchase shall be as follows:

7.2.1. DISCOMs shall submit a petition for computation of pooled cost of power purchase to the Commission by 30th April of that year. The Commission shall issue an order relating to pooled cost of power purchase for the particular year as expeditiously as possible after it has been listed for hearing atleast once.
7.2.2. Till the issue of such order the pooled cost of power purchase of the previous year shall continue to operate as provisional pooled cost of power purchase.

7.2.3. After the issue of order for the pooled cost of power purchase by the Commission, the difference between the provisional pooled cost of power purchase and the final pooled cost of power purchase shall be paid / recovered as the case may be in equal instalments in the subsequent bills for the next two months or as decided by the Commission in the order while determining the pooled cost of power purchase for that year.

7.2.4. A draft PPA containing the provisions reflecting the payment of pooled cost of power purchase shall be drafted and submitted by the licensees to the Commission for approval.

7.2.5. Where there is a general PPA and such PPA involves or extends the situation of payment of pooled cost of power purchase, then the licensees shall endeavour to prepare a draft amendment to such agreement on a generic basis and submit the same for approval to the Commission.

7.2.6. After thorough examination and after following the due process under the Conduct of Business Regulation, 2015 as amended from time to time, the Commission may accord approval to the draft PPA or amendments to the subsisting PPA(s).

7.2.7. Each such PPA or amendment PPA shall have to be submitted to the Commission for consent even if there is no deviation from model PPA approved by the Commission.

8. **Consequences of default.**

8.1. If the obligated entity does not fulfil the RPPO as provided in Clause (3) of this regulation during any year, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by the State Agency, such amount on the basis of the shortfall in units of the RPPO and the Forbearance Price decided by the Central Commission;
Provided that the fund so created shall be utilised in the manner as may be specified by the Commission either through general or special order.

8.2. Where any obligated entity fails to comply with the obligation prescribed in clause (3) of this regulation, it shall, in addition to the compliance of the directions under clause 8.1 above, be liable for penalty as may be decided by the Commission under section 142 of the Act, 2003.

8.3. For this purpose, the Commission may initiate proceedings either suo moto or on a representation made by any of the affected parties including but not limited to the State Agency.

8.4. Such proceedings shall be in accordance with the Conduct of Business Regulation, 2015 of the Commission.


9.1. The State Agency shall post the following documents / information on its website in a separate web-page titled “Accreditation of RE Projects”:

   a) This regulation;
   b) Procedure as mentioned in this regulation;
   c) List of applications along with necessary details received by the State Agency for accreditation;
   d) List of accreditation granted, indicating:
      (i) Name of RE generating company / station;
      (ii) Point of injection;
      (iii) Capacity (MW) for which accreditation has been granted.
   e) List of applications where approval for accreditation has not been granted along with reasons thereof;

10. Saving.

10.1. Anything done or any action taken or purported to have been done in pursuance of the provisions of the earlier APERC Renewable Power Purchase Obligation (RPPO) Regulation 1 of 2012 and its amendments shall be in so far as it is not inconsistent with the
provisions of this Regulation, be deemed to have been done or taken under the corresponding provisions of this Regulation.

10.2. Any rights and liabilities arising out of the earlier regulation shall be settled within the applicable provisions as may be appropriately relevant.

11. **Power to remove difficulties.**
The Commission, suo-moto or on an application from any person generating electricity from renewable sources or an entity mandated under clause (e) of sub-section (1) of section 86 of the Act, 2003 to fulfil the RPPO may review, add, amend or alter this regulation and pass appropriate orders to remove any difficulty in exercising the provisions of this regulation.

12. **Miscellaneous.**
12.1. Nothing in this regulation shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary to meet the ends of justice or to prevent abuse of process of the Commission.

12.2. Nothing in this regulation shall bar the Commission from adopting a procedure which is at variance with any of the provisions of this regulation. If the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for so doing with such a matter or class of matters.

12.3. Nothing in this Regulations shall, expressly or impliedly, bar the Commission to deal with any matter or exercise any power under the Act, 2003 or Reform Act, 1998 for which no provisions have been framed, and the Commission may deal with such matters, powers and functions in a manner it deems fit in appropriate case.

13. **Regulations to be in addition to and not in derogation of other laws.**
The clauses in this Regulation are in addition to and not in
derogation of any provision made under the Act, 2003, rules or regulations framed thereunder or under any other laws.

14. **Other provisions.**

14.1. The Telangana State Electricity Regulatory Commission (adoption of previously subsisting regulations, decisions, directions or orders, licenses and practice directions) Regulation, 2014 (Regulation No. 1 of 2014) to the extent relating to:

The Andhra Pradesh Electricity Regulatory Commission (Renewable Power Purchase Obligation (Compliance by purchase of Renewable Energy / Renewable Energy Certificates) Regulations, 2012 (Regulation 1 of 2012) as amended from time to time, stands repealed on and from the date this regulation is published in the Official Gazette for the State of Telangana to the extent relating to the matters covered in this Regulation out of Regulation No. 1 of 2014.

14.2. Anything done or any action taken or purported to have been done or taken including any rule, notification, inspection, order or notice made or issued or any appointment, confirmation or declaration made or any licence, permission, authorization or exemption granted or any document or instrument executed or any direction given under the repealed regulation shall, in so far as it is not inconsistent with the provisions of this regulation, be deemed to have been done or taken under the corresponding provisions of this regulation shall be deemed to be not invalid by virtue of such repeal.

**BY ORDER OF THE COMMISSION**

Hyderabad, 30-04-2018.

UMAKANTA PANDA,  
Commission Secretary (A/C),  
Telangana State Electricity Regulatory Commission.

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