

**BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION  
GANDHINAGAR**

**In the matter of:**

**GERC (Procurement of Energy from Renewable Sources) (Third Amendment), Regulations, 2022.**

**CORAM:**

**Anil Mukim, Chairman  
Mehul M. Gandhi, Member  
S.R. Pandey, Member**

**STATEMENT OF REASONS**

**1. BACKGROUND:**

The Electricity Act, 2003 ("Act"), inter-alia, seeks to promote renewable and alternative sources of energy. With this in view, the Act mandates the State Electricity Regulatory Commissions (SERCs) to promote cogeneration and generation from renewable energy sources by providing suitable measures for connectivity with the grid and also to specify for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee.

Ministry of Power, Government of India, has framed various policies including the National Electricity Policy, the Tariff Policy, which provide that power purchase obligation from renewable/non-conventional sources of energy, as envisaged in Section 86(1)(e) of the Electricity Act, 2003 should be specified by the SERCs. Also, progressively, the share of electricity from renewable/non-conventional sources would need to be

increased as prescribed by the State Commission and the same should be reflected in the tariff.

With consideration of the above aspects, the Commission had notified Regulations from time to time specifying that the 'Obligated Entities' should purchase the renewable energy as per percentage target specified by the Commission as a part of their total consumption. The Regulations existing at present is the GERC (Procurement of Energy from Renewable Sources) Regulations, 2010 as amended from time to time by the Commission. Lastly, the Commission has notified GERC (Procurement of Energy from Renewable Sources) (Second Amendment) Regulations, 2018 wherein RPO trajectory was specified for FY 2017-18 to FY 2021-22.

In order to achieve the commitment towards Climate Change and renewable energy, Ministry of Power Government of India and Ministry of New and Renewable Energy have issued a letter to all SERCs stating that the SERCs should set out the minimum percentage for purchase of Solar energy so that it reaches 8% of total consumption of energy excluding Hydro Power by March, 2022. It is also stated that SERCs may notify the RPO trajectory that is aligned with the trajectory notified by Ministry of Power, Government of India, as it would be crucial in achieving the commitment that Government of India has made under Paris Climate Agreement and India being a signatory to Paris Climate Change Convention wherein Government of India has agreed for reducing carbon emission in the economy and also for having 40% electric power installed capacity from clean energy sources so as to achieve target of 175 GW by 2022.

Since the present GERC (Procurement of Energy from Renewable Sources) (Second Amendment) Regulations, 2018 notified by the Commission specify the RPO percentage targets up to FY 2021-22, the Commission decided to specify RPO targets for the period from FY 2022-23 to FY 2023-24 with an objective to achieve the target of solar energy equivalent to 8% of total consumption of energy as envisaged by the Government of India. Accordingly, Draft GERC (Procurement of Energy from Renewable Sources) (Third Amendment) Regulations, 2022 were published by the Commission. Public Notices dated 30<sup>th</sup> January, 2022 were issued in newspapers in order to provide wide publicity and inviting comments/suggestions from the stakeholders.

In response to the above, the Commission received objections/suggestions from 12 stakeholders. The list of the objectors, who submitted their objections/suggestions on this draft Regulations is stated at **Annexure – 1**.

The Commission conducted public hearing for the aforesaid Draft GERC (Procurement of Energy from Renewable Sources) (Third Amendment) Regulations, 2022 on 9<sup>th</sup> March, 2022 (Draft Regulations, 2022). The list of the Objectors who had present and participated in the hearing is stated at **Annexure – 2**.

## **2. VIEWS OF THE STAKEHOLDERS, ANALYSIS AND FINDINGS OF THE COMMISSION THEREON:**

The Commission has considered the comments/suggestions received from the stakeholders on the Draft Regulations, 2022 and the submissions made by the stakeholders who had participated in the

public hearing conducted on 9<sup>th</sup> March, 2022. The Regulations have been finalised after detailed analysis and with due consideration of various issues raised by the stakeholders.

### **3. OBJECTIONS TO THE DRAFT REGULATIONS AND FINDINGS OF THE COMMISSION THERETO:**

#### **(I) Regulation (3) - Amendment of Regulations 2:**

The amendment proposed in Draft Regulations, 2022 reads as under:

*“The clause (p) of Regulations (2) of the Principal Regulations shall be substituted with the following, namely: -*

*(p) “Renewable energy sources” means non-conventional, renewable electricity generating sources such as mini/micro/small hydro power projects upto and including 25 MW capacity, wind, solar, biomass, bagasse, bio-fuel based cogeneration, urban or municipal waste and such other sources as recognized or approved by the Central Government or by the State of Gujarat. The energy generated from Large Hydro Power Projects (LHPs) with an installed capacity above 25 MW which come into commercial operation after 8<sup>th</sup> March, 2019 shall be eligible for fulfilling the Hydro Power Purchase Obligation (HPO) only. However, Solar and other Non-Solar Renewable Power Purchase Obligation can be met from energy of eligible Large Hydro Projects (LHPs), beyond HPO, in case of compliance to the extent of 85% and above, under these obligations.”*

#### **Suggestions from the Stakeholders:**

- (i) Some of the stakeholders have proposed amendment as under:

“(p) “Renewable Energy Sources” means non-conventional, renewable electricity generating sources such as mini/micro/small hydro power projects upto and including 25 MW capacity, wind, solar, biomass, bagasse, bio-fuel based cogeneration, urban or municipal waste and such other sources (which are generally inexhaustible and can be replenished in a short period of time) as recognized or approved by the Central Government or by the State of Gujarat. The energy generated from Large Hydro Power Projects (LHPs) with an installed capacity above 25 MW which come into commercial operation after 8<sup>th</sup> March, 2019 shall be eligible for fulfilling the Hydro Power Purchase Obligation (HPO) only. However, Solar and other Non- Solar Renewable Power Purchase Obligation can be met from energy of eligible LHPs beyond HPO, in case of compliance to the extent of 85% and above, under these obligations.”

- (ii) The sentence ‘*in compliance to the extent of 85% and above under this Obligations*’ lacks clarity in this Draft Regulations and the same needs to be omitted while framing the final Regulations because the sentence is in contrast with Clause (d) of Amendment Regulation 4 (Substitution of para 2 of Principle Regulation 4.1) which reads as under:

“.....

.....

*d. If the above-mentioned minimum quantum of power purchase either from Solar or Wind or Hydro or Others (including Biomass, Bagasse & Bio-fuel based cogeneration, MSW and Small/Mini/Micro Hydro) is not available in a particular year, then in such cases, additional renewable energy available either from Solar or Wind or Hydro or Others shall be utilized for fulfilment of RPO.”*

Based on the above clause, it is proposed that new definition needs to be as under:

*“The energy generated from Large Hydropower Projects (LHPs) including Pumped Storage Projects within an installed capacity of 25 MW which come into commercial operation after 8<sup>th</sup> March 2019 as well as untied capacity (i.e., without PPA) of the commissioned projects shall be eligible for fulfilling the Hydro Power Purchase Obligation (HPO) only. However, solar and other non-solar Renewable Power Purchase Obligation can be met from energy for eligible Large Hydro Projects (LHPs) including pump storage projects, beyond HPO, in case of compliance to the extent of 85% and above, under these obligations.”*

(iii) Some of the stakeholders suggested that Hydro power above 25 MW capacity including pumped storage projects should also be included in the definition of ‘Renewable Energy Sources’.

(iv) Some of the stakeholders have suggested following amendment:

*“(p) “Renewable energy sources” means non-conventional, renewable electricity generating sources such as mini/micro/small hydro power projects upto and including 25 MW capacity, wind, solar, biomass (including cofiring of biomass), bagasse, bio-fuel based cogeneration, urban or municipal waste and such other sources as recognized or approved by the Central Government or by the State of Gujarat.*

(v) Some of the stakeholders suggested that considering the current developments in the sector and in order to provide sufficient flexibility to obligated entities to fulfil their renewable power purchase obligation, there is a need to specify ‘hybrid projects’ and ‘renewable energy projects with storage’ appropriately alongwith renewable energy sources.

- (vi) It is suggested to align the definition of renewable energy sources to include definitions of 'Renewable Energy', 'Renewable Energy Project', 'Renewable Energy with Storage', 'Renewable Hybrid Energy Project' as per CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 to ensure uniformity, while the Commission is incorporating 'biofuel' and 'LHPs' as a RE source.
- (vii) Some of the stakeholders suggested to include Green Hydrogen/Green Ammonia as Renewable Sources to fulfill its RPO in line with Clause 10 of Ministry of Power's Green Hydrogen Policy. It is also suggested to add that renewable energy consumed for the production of Green Hydrogen/Green Ammonia shall also be considered towards RPO compliance of the consuming entity. This renewable energy consumed beyond obligation of the producer shall be counted towards RPO compliance of the DISCOM in whose area the project is located.
- (viii) Some of the stakeholders suggested that the definition of Green Hydrogen/Green Ammonia needs to be incorporated in line with National Hydrogen Policy of Government of India.
- (ix) Some of the stakeholders have suggested that in definition of "Renewable Energy Source" the following provision needs to be deleted since it has no relevance with the definition.

*".....Only. However, Solar and other Non-Solar Renewable Power Purchase Obligation can be met from energy of eligible Large Hydro Projects (LHPs), beyond HPO, in case of compliance to the extent of 85% and above, under these obligations."*

**Commission's decision:**

We have considered the suggestions/objections of the stakeholders on Clause 3 of Draft Regulation regarding Amendment of Regulation 2.

Some of the objectors have suggested that the definition of renewable energy sources be modified with consideration that the energy available above 85% of Large Hydro Power Projects only qualify/eligible to meet the RPO of Solar and Non-solar energy. We note that the HPO is specified to meet out the Renewable Purchase Obligation as one of the sources available from Hydro Power Projects. Further, the aforesaid provision is in accordance with Notification of Ministry of Power. Hence, the contentions of the Objectors are not acceptable.

In so far as the suggestion by Objectors that 'cofiring of biomass' needs to be included and considered as a part of definition of 'Renewable Energy Source' is concerned, the Commission clarifies that the definition of 'Renewable Energy Source' states about the electricity generated from different renewable energy/non-conventional sources, which qualify as renewable sources of energy. Therefore, when 'Biomass' is already considered as the renewable source of energy, there is no need to modify the definition by including 'cofiring of biomass' as renewable energy source. Hence, the contention of Objectors on above aspect is not accepted.

The objections raised by the stakeholders that flexibility be provided for fulfilment of RPO by specifying RPO projection with 'Hybrid projects' and 'renewable energy projects with storage' and further 'renewable energy with storage' and 'renewable energy from Hybrid projects' be defined and added in Renewable Energy Sources as well as the Commission may

also incorporate 'biofuel' and 'Large Hydro Power Projects' as RE sources, we clarify that the renewable purchase obligations specified by the Commission in its Regulations is after due consideration of the energy available from such different sources of renewable energy generators. The renewable energy generation is available from the Wind, Solar, Biomass, Bagasse, Biogas, MSW, Geo-thermal, Tidal and Large Hydro Power Projects. Thus, the energy generation from any of aforesaid technology-based generation or generation based on mix of technology which may be utilized for consumption of energy be qualified as fulfillment of Renewable Purchase Obligation by the concerned entity who utilizes such energy as consumption. Therefore, the mix of technology from above are qualified as 'Hybrid projects' and energy generated from it, also qualifies for fulfilment of RPO.

With regard to suggestion regarding considering energy generation from storage is concerned, the storage of energy is not a source of generation, but it is an equipment/source/product, which stores the energy in one form and supply/transfer in the same form or to another form. In case of wind/solar generator with storage, the energy generated from wind or solar power plant is either partly consumed at same time and partly stored in battery or alternatively, the entire generation from wind or solar generator may be stored in the battery and later on such energy be discharged from the battery and supplied which is consumed at consumer's place. Such energy is a renewable energy, as it is generated from RE source and stored in the battery and thereafter, discharged from the battery for utilization/consumption. Thus, the battery is an intermediate/facilitator equipment to store energy generated from the RE generator for some time and which is later on discharged from it at

the time of utilization/consumption of same. Such utilization of energy is qualified towards fulfillment of RPO. Similarly, in case of Large Hydro Power Projects with pump storage, the energy generated from Large Hydro Power Projects is by utilizing water as source of energy generation and supply for consumption purpose. In such case, the water which is discharged from the dam is stored after running the hydro power plant in a pond. Thereafter, the same water is utilized by lifting it and filling the dam when the water is not discharged from the dam. Such water is reutilized for generation of electricity. Thus, the hydro power plant utilizes the same source as input-output i.e., water, for generation of electricity, which qualifies as RE source. Hence, in such case, there is storage of water in pond and the energy generated by reutilization of same water also qualifies as renewable energy generation. Therefore, it qualifies for fulfillment of RPO. We also note that the battery can also be utilized for storage of energy generated from conventional energy sources and the same energy can be utilized later on by way of discharge from it. Such energy is not qualified for fulfilment of RPO. Similarly in case of Pondage based Large Hydro Power Projects, the conventional energy, if any, utilized to run the pump and lift water from Pond to Dam and later on such lifted water is utilized for energy generation, in such case, energy utilized in pumping mode does not qualify as RE consumption but later on the Hydro energy generated by the water released from the Dam qualifies as generation from renewable energy source and consumption.

The storage of energy is an equipment/product, wherein no generation of electricity is carried out by it but it only functions as storage of energy (electricity) and thereafter, release such stored energy (electricity) as

and when required. Thus, the Energy Storage System is not a generator in terms of the provisions of the Electricity Act, 2003. Hence, the Energy Storage Systems be qualified as renewable energy source of generation is not acceptable.

Considering the above, we are of the view that there is no necessity to modify the definition of the Renewable Energy Sources defined in the Draft Regulations. Moreover, there is no necessity to specify that the energy generated for storage qualifies for RPO compliance.

Some of the objectors submitted that green hydrogen/green ammonia be considered as renewable energy source for fulfilment of RPO. We note that hydrogen/ammonia can be produced by utilization of electricity. The electricity consumed for production of Hydrogen/Ammonia may be from conventional energy sources or renewable (non-conventional) energy sources. When the electricity is utilized for the production of hydrogen/ammonia in an equipment utilized for its production, it qualifies as consumption of energy, which may be either from renewable energy source or conventional source of energy. Accordingly, in case only when there is utilization of renewable energy for production of hydrogen or ammonia, then only it qualifies for fulfilment of RPO by such entity or area of the distribution licensee where such energy is consumed. Further, any surplus energy available after fulfilment of RPO of such entity, it qualifies as fulfilment of RPO of the distribution licensee where such energy is consumed.

Further, the stakeholders have suggested that definition of green hydrogen/green ammonia be incorporated in the Regulations. We note that as stated above, the renewable energy (electricity) utilized

(consumed) for production of green hydrogen /green ammonia by way of electrolysis of water qualifies as renewable energy consumption and the same also qualifies for fulfillment of RPO. Hence, there is no necessity for amendment in the Regulations.

Some of the objectors have suggested that the definitions of Renewable energy sources provided in Clause (p) of Regulation 2 and Regulation 4.1 (2) (d) needs to be aligned since there is some ambiguity/contravention between it.

Some of the stakeholders have also suggested that in definition of “Renewable Energy Source” the following provision needs to be deleted as it has no relevance with the definition.

*“.....Only. However, Solar and other Non-Solar Renewable Power Purchase Obligation can be met from energy of eligible Large Hydro Projects (LHPs), beyond HPO, in case of compliance to the extent of 85% and above, under these obligations.”*

We note that the above suggestions to align and to delete above sentence are valid and accordingly, we decide to delete above sentence from the Regulation 2 (p) of the Regulation and incorporate certain changes in Regulation 4.1 (1) (d)

Accordingly, we decide that clause (p) of Regulation 2 of the Principal Regulations regarding the definition of “Renewable Energy Source” be substituted with following, namely:-

*“2....(p) “Renewable energy sources” means non-conventional, renewable electricity generating sources such as mini/micro/small*

hydro power projects upto and including 25 MW capacity, wind, solar, biomass, bagasse, bio-fuel based cogeneration, urban or municipal waste and Large Hydro Power Plant of capacity above 25 MW and commissioned after 8<sup>th</sup> March, 2019 as per MoP, Government of India Notification No. F. No. 15/2/2016-H-I (Pt.) dated 08.03.2019 and such other sources as recognized or approved by the Central Government or by the State of Gujarat. The energy generated from Large Hydro Power Projects (LHPs) with an installed capacity above 25 MW which come into commercial operation after 8<sup>th</sup> March, 2019 shall be eligible for fulfilling the Hydro Power Purchase Obligation (HPO).”

**(II) Clause (3) Substitution of Table II of Regulation 4.1:**

The amendment proposed in Draft Regulations, 2022 reads as under:

“Table II provided in the Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) (Second Amendment) Regulations, 2018 shall be substituted by following Table - II:

Table – II: Minimum percentage for Renewable Power Purchase Obligation

Year	Minimum Quantum of purchase (in %) from renewable energy sources (in terms of energy in kWh)				
	Wind (%)	Solar (%)	Hydro Power Purchase Obligation (HPO) (%)	Others (Biomass, Bagasse & Bio-fuel based cogeneration, MSW and Small/Mini/Micro Hydro) (%)	Total (%)
(1)	(2)	(3)	(4)	(5)	(6)
2017-18	7.75	1.75		0.50	10.00
2018-19	7.95	4.25		0.50	12.70
2019-20	8.05	5.50		0.75	14.30
2020-21	8.15	6.75		0.75	15.65
2021-22	8.25	8.00		0.75	17.18
2022-23	8.35	9.25	0.05	0.75	18.40
2023-24	8.45	10.50	0.15	0.75	19.85

.....”

### **Suggestions from the Stakeholders:**

- (i) Some of the stakeholders suggested to keep RPO percentage for FY 2022-23 and FY 2023-24 at the same level as specified for FY 2021-22 i.e., 17%. While some objectors have submitted that RPO for 'Others' category may be increased from 0.75% to 4.50% to promote Waste to Energy (WTE) plants as increasing RPO target for 'Others' category assures power purchase from such plants. Some of the stakeholders suggested that Hydro Purchase Obligation (HPO) should be in line with the targets proposed by MoP as (i) 0.18% for year 2021-22 (ii) 0.35% for year 2022-23: (iii) 0.66% for year 2023-24, whereas some of the objectors have suggested that there is no potential generation from Hydro Power Plants in country.
- (ii) It is also suggested that HPO Trajectory shall be trued up and linked up on annual basis depending upon the revised commissioning schedule of the Hydro projects. While some of the objectors stated that the Commission may specify RPO trajectory upto FY 2029-30 in line with the targets specified by MoP and/or beyond so as to meet the additional capacity targets set for the States as well as in the State.
- (iii) MoP vide its Order dated 29.01.2021 has issued RPO trajectory, wherein; the trajectory is specified for Solar RPO, Non-Solar RPO and HPO. It is submitted that the HPO trajectory specified in MoP Order is higher as compared to the HPO trajectory specified in Draft Regulations, 2022 issued by the Commission. In view of that, the Commission may amend the trajectory in line with MoP trajectory as specified in its Order dated 29.01.2021. It is also proposed that RPO trajectory in the Draft Regulations specified for FY 2022-23 at 18.40% is higher in comparison

to FY 2021-22, wherein; total RPO was specified as 17.00% only. Therefore, it is difficult to immediately achieve such increase in percentage of RPO target of 1.40% by the obligated entities.

- (iv) Some of the Objectors suggested that it takes about 18 months for commencement of operations of any Solar projects. For 'Other' RE Sources, the gestation period is even higher. In addition to this, issues/ challenges have been faced due to COVID-19 since last two years in implementation of RE Projects. Also, there are various challenges in terms of availability of land, evacuation infrastructures, substantial increase in the cost of input material etc. which resulted in the delays of the projects under implementation/future projects which are identified to meet the existing RPO targets. Under such circumstances, it is suggested to continue the overall target of 17.00% of FY 2021-22 for FY 2022-23 also and for FY 2023-24 instead of 19.85% it may be 18.35%.
- (v) Further, Hydro Projects requires substantial time for implementation even under normal circumstances. Also, the potential for Large Hydro projects is limited in the State of Gujarat. Hence, in all probability, power will have to be availed through Inter-State Transmission (ISTS). At present, there are constraints in ISTS for sourcing of power from outside the State and addressing it will take time. Therefore, it is suggested to consider HPO at least after three years, i.e., w.e.f. FY 2024-25 onwards only.
- (vi) Some of the stakeholders suggested that in order to have further visibility of RPO and make necessary arrangement thereof, RPO may be included upto FY 2027-28.

- (vii) In the Draft Regulations, 2022, there is an inadvertent typographical error crept in the table in respect to the RPO targets for FY 2021-22, wherein the total RPO percentage is mentioned as 17.18% instead of 17.00% as per the existing trajectory notified by the Commission vide its Notification No. 01 of 2018 dated 21.04.2018.
- (viii) RE potential is location specific and contingent to various factors like availability to RE resources, availability of sites, transmission network, etc. A particular State, rich in Wind resources may contribute more towards Wind energy and vice-versa for other States rich in Solar, etc. The Commission may recognize that unlike other Northern States which are rich in Hydro power, there is hardly any potential for Large Hydro Powers Projects (LHP) in Gujarat.
- (ix) Gujarat is having huge potential for Wind and Solar power but is having significantly less resources for LHPs due to geographical location. Therefore, imposing a separate obligation explicitly for hydro projects, i.e., HPO in Gujarat would have cost implications on the State DISCOMs even though Gujarat is contributing significantly towards other RE sources viz. Wind and Solar energy.
- (x) If separate obligation of HPO is imposed, the same should not be limited to the projects commissioned after 08.03.2019 and the power procurement from existing Large Hydro projects (like SSNNL, Ukai, Hydro, Kadana Hydro etc.) should also be made eligible for HPO compliance.
- (xi) Some of the stakeholders suggested as under:

- (i) Offsetting of one kind of RPO with another kind of RE may not be permitted as it contravenes the very objective of specifying separate RPOs. Even in case Offsetting is allowed, the same may be suspended for WTE along with Hydro Power.
- (ii) A balancing mechanism may be adopted wherein energy from both Hydro and WTE is permitted to offset shortfall in Solar and Wind RPO. However, the system of off-setting shortfall of HPO and WTE RPO with Solar/Wind energy or even offsetting Hydro and WTE with each other may not be permitted.
- (iii) In case this balancing mechanism is adopted, then any deficiency in RPO for WTE may only be permitted to be carry forward instead of being offset in accordance with proviso of Regulation 9.1.
- (iv) If the Commission witnesses a situation of lack of WTE power in the State in the coming year(s), the Commission may exercise its power to revise the RPO as per Regulation 4.2, albeit sparingly. In contrast, immediately adopting the setting off mechanism may not give the same intended impetus to the WTE sector, as envisaged by various policies under the Electricity Act, 2003. The aforesaid mechanism will encourage the WTE sector (and also Hydro in case included) and encourage investor confidence.
- (v) Some of the stakeholders submitted that on 8<sup>th</sup> March 2019, MoP (GoI) had issued an Order detailing various policy measures to promote Hydro-power sector in India declaring LHPs including pumped storage projects with capacity more than 25 MW, coming into commercial operation after 08.03.2019, as Renewable Energy Source and to specify HPO within Non-Solar RPO category. Interchangeability has been allowed above 85% of HPO. Upto 85% of HPO, no interchangeability is allowed.

- (vi) Some of the stakeholders submitted that the proposed two amendments are contradictory. The Commission is requested to align the Clause (p) of Regulation (2) with para 2 (d) of Principal Regulations 4.1 and to allow adjustment i.e., setting-off of HPO, Solar RPO and other Non-solar RPO amongst one another, i.e., to allow utilization of excess HPO/Solar RPO/Non-Solar RPO with shortfall (if any) in Solar RPO/Non-Solar RPO/HPO.

### **Commission's decision**

There is inadvertent typographical error in Total RPO percentage proposed for FY 2021-22 stated in the Draft Regulations, 2022. Hence, we decide to correct the same as 17.00% instead of 17.18%.

Some of the objectors have suggested that RPO trajectory to be kept in line with the trajectory given by Ministry of Power, Government of India which is quite higher than the RPO stated in Draft Regulations, 2022 for FY 2022-23 and FY 2023-24 by the Commission. Moreover, RPO trajectory may be given for longer period i.e. up to FY 2029-30 (as per MoP) so as to enable the obligated entities to carry-out and undertake the necessary planning for achieving the same. While some of the Objectors have stated that the trajectory specified for FY 2022-23 and FY 2023-24 is difficult to be achieved as it requires around 18 months for installation and commencement of operation of the Solar power projects. Moreover, there is delay in some of the existing RE projects during last two years due to COVID-19 pandemic.

The aforesaid suggestions of the stakeholders seems to be valid to some extent as far as proposed trajectory of RPO percentage for FY 2022-23 and FY 2023-24 is concerned as the installation and commissioning of

the renewable project needs certain time period, approximately 15 to 18 months, particularly in case of Solar power projects and it may vary from project to project and also depends on the availability of land, finance, materials, labour etc. It is also a fact that the Renewable Purchase Obligation (RPO) is mandatory for 'Obligated Entities' as per the provisions of the Electricity Act, 2003 and Regulations notified by the Commission from time to time. Further, various Notifications, Policies, Orders of the Government of India and State Government provide for promotion of renewable energy consumption by 'Obligated Entities' by installation of renewable energy based projects and to reduce the dependency on the conventional fuel for requirement of energy. It is the duty of the 'Obligated Entities' like distribution licensees and other obligated entities, who are procuring their power from various sources with consideration of incremental load and requirement of additional power for it. Further, the procurement of renewable energy by way of certain percentage of total consumption needs to be procured by the 'Obligated Entities' made mandatory by the Commission vide its Notification No. 15 of 2005 dated 28.10.2005 which was repealed by the Commission by notifying the GERC (Procurement of Energy from Renewable Sources) Regulations, 2010 and subsequent amendments made therein, specifying the trajectory for renewable procurement by the 'Obligated Entities' in advance. Hence, it is the duty of the 'Obligated Entities' to carryout necessary planning in advance to fulfil RPO specified in the sub-legislation by the Commission. No sufficient action taken for it is not a ground to relax RPO percentage specified by the Commission.

Some of the Objectors have suggested that the trajectory to be kept in line with the RPO trajectory specified by MoP up to FY 2029-30. In this

regard, we note that the amendment proposed in RPO percentage target specified by the Commission is for the ensuing year upto FY 2023-24 and endeavouring to link up it with the power procurement of the licensee specified and approved by the Commission in its Tariff Orders/ARR Orders. With regard to the RPO trajectory for FY 2024-25 onwards, it may be linked with the power procurement from the renewable energy source as per MYT Regulations and Order of the Commission.

Considering the above, the Commission decides to amend the RPO trajectory for FY 2022-23, FY 2023-24 and further to also add RPO trajectory for FY 2024-25 in the final Regulations regarding 'Substitution of Table-II of Regulation 4.1' instead of Table-II proposed in the Draft Regulations-2022. Accordingly, Table II provided in the Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) (Second Amendment) Regulations, 2018 shall be substituted by following Table - II:

*Table – II: Minimum percentage for Renewable Power Purchase Obligation*

Year	Minimum Quantum of purchase (in %) from renewable energy sources (in terms of energy in kWh)				
	Wind (%)	Solar (%)	Hydro Power Purchase Obligation (HPO) (%)	Others (Biomass, Bagasse & Bio-fuel based cogeneration, MSW and Small/Mini/Micro Hydro) (%)	Total (%)
(1)	(2)	(3)	(4)	(5)	(6)
2017-18	7.75	1.75		0.50	10.00
2018-19	7.95	4.25		0.50	12.70
2019-20	8.05	5.50		0.75	14.30
2020-21	8.15	6.75		0.75	15.65
2021-22	8.25	8.00		0.75	17.00
2022-23	8.25	8.00		0.75	17.00
2023-24	8.40	9.50	0.05	0.75	18.70
2024-25	8.55	11.25	0.10	0.80	20.70

Also, since the RPO trajectory is now being specified up to 2024-25 it is necessary to appropriately modify proviso pertaining to continuing of targets specified for Obligated Entities. Hence, we decide that in final Regulations, the same to read as under:

*“Provided further that the targets specified for Obligated Entities for FY 2024-25 shall be continued beyond for FY 2025-26 and onwards unless specified by the Commission separately.”*

Some of the Objectors have stated that HPO trajectory specified by the Commission should be in line with the trajectory proposed by MoP for FY 2021-22 to FY 2023-24 because the trajectory specified by the Commission is quite lower as compared to proposed trajectory of the MoP, Government of India. It is also suggested that trajectory of HPO shall be trued up and verified on annual basis with consideration of commissioning of hydro projects.

In so far as suggestions with regard to HPO percentage trajectory to be kept in line with MoP Notification is concerned, the Commission is of the view that it is necessary to ensure the availability of the generation from such plants. As per the MoP's Notification/Circular, the hydro power plants that come into commercial operation after 08.03.2019 and having capacity of more than 25 MW be qualified for RPO compliance. With regard to aspect of such Large Hydro Power stations is concerned, there are no such power plants in the State which have come in commercial operation after 08.03.2019. However, there are Large Hydro Power plants which have come into commercial operation after 08.03.2019 in other States of the country capable to supply the power to the Obligated Entities. The obligated entities of the State need to carry out power

procurement planning and process in advance with consideration of provisions of the Electricity Act 2003, Rules, Regulations and their requirement of power, transmission system availability to transmit such power and necessary approval thereon, which needs certain time to achieve the aforesaid aspect. Considering the above, we decide the HPO percentage as 0.05% for FY 2023-24 and 0.10% for FY 2024-25. In respect of true up of HPO trajectory on annual basis proposed by the objectors/stakeholders is concerned, we clarify that the Commission is monitoring the compliance of RPO on annual basis either on the Petition filed by the Obligated entities or by Suo-Motu proceedings initiated by the Commission and thereafter, appropriate Order is passed on it by the Commission. Hence, the true-up of RPO percentage as proposed by the stakeholders are to be verified and complied in such proceedings before the Commission.

Some of the objectors have suggested that Hydro projects require substantial time for implementation even under normal circumstances. The potential for large hydro is limited in the State of Gujarat and accordingly, in all probability power will have to be availed through Inter-State (ISTS). There are constraints in ISTS in sourcing of power which will take time to get redressed. Therefore, it is suggested to consider HPO at least after three years, i.e., w.e.f. FY 2024-25 onwards. In this regard, we note that the potential of hydro power projects is limited. Moreover, the addition of hydro power projects after Notification dated 08.03.2019 of the Ministry of Power, GoI is also nil in the State of Gujarat. However, the addition of the Hydro Power Plant in other States of the country as well as the addition of pump storage Hydro Power Plants in the other States needs to be considered with consideration that the

Renewable Energy generation in the State as well as other States of the country needs to be promoted in achieving the national target of RPO specified by the Central Government. As far as constraints in the Inter-State Transmission System (ISTS) are concerned, the same may not continue for long period as it is the duty of CTU to plan out and to construct the transmission system in the country so that the congestion on the transmission system can be removed. Considering the above, we decide to keep the HPO percentage as stated in table above.

Some of the objectors have suggested that only single RPO percentage needs to be specified by the Commission instead of specifying separate RPO percentages for different types of renewable energy sources. Some of the objectors have suggested that the RPO percentage is to be specified only with consideration of the potential of renewable energy sources in the State. We clarify that the purpose of specifying Renewable Purchase Obligation by the Commission to be fulfilled by the 'Obligated Entities' is to promote the renewable energy generation available/potential in the State and optimum utilization of it and to avoid the utilization of energy generated from conventional sources. The separate RPO specified in the Regulations with consideration of the different potential of such sources available in the State and optimum utilization of such sources and overall growth of the renewable energy generation in the State. Moreover, the potential of different renewable energy sources is different in different parts of the State and by specifying the percentage of energy generated from such renewable energy sources is beneficial in different parts of the State as socio-economic improvement in that part of the State. Further, the different renewable energy sources have different efficiency parameters, cost of power procurement and per unit generation cost, etc.

Therefore, the specified percentage of energy from different sources enables the obligated entities of the State to meet out the overall requirement of RPO percentage target specified by the Commission. Merely specifying only single percentage target as RPO compliance leads to a situation that the obligated entities try to set up or procure the energy available only from one or two type of renewable energy sources such as Wind/Solar/Small hydro projects and not to procure and consume the energy available from Biomass, Bagasse, MSW, Large Hydro, pump-storage projects etc. Thus, the renewable energy generation potential available within the State with consideration of the overall development and promotion of renewable energy generation as envisaged in the Act as well as in policies framed thereunder may not be achieved. Therefore, the aforesaid contentions of the objectors are not acceptable and rejected.

The contention of the objectors that the RPO percentage specified by the Commission for one type of RE y to be allowed to be offset with other types of RE is contravention of the objective of the Act to promote the renewable energy source. In this regard, we note that the Commission has specified the RPO percentage after due consideration of potential of such RE generation in the State, its gestation period, availability of resources, CUF/PLF of the plants etc. The purpose is to provide the flexibility of inter-changeability of RPO percentage be considered for fulfillment of RPO with a view to see that (a) the obligated entities fulfill their RPO with different available sources, (b) allow the inter-changeability of RPO fulfillment with consideration of various reasons advanced by the obligated entities during the verification and monitoring of the RPO percentage by the Commission on annual basis. Further, in

case the renewable energy from one type of technology is not available due to any reason during the year but the energy from other type of technology is available, in that case, the renewable energy available from other type of energy be factored for compliance of RPO of the obligated entities so that overall development of renewable energy generation for purpose of its consumption is not defeated. In case of denial of the RPO fulfillment from one technology based energy sources though it is not available may lead to a situation that the shortfall in RPO compliance of particular technology-based energy by the obligated entity(ies) and in order to meet out its compliance, the obligated entity(ies) either requires to purchase the RECs of Solar and Non-Solar which is burdensome on the obligated entities as no energy is available for its compliance and no benefit of surplus energy purchased or consumed from other RE sources by the obligated entities, be factored for fulfillment of RPO. It is against the very purpose of promotion of Renewable Energy based generation.

With regard to the objections of the stakeholder that the power procurement from existing Large Hydro power projects, like SSNNL, Ukai-Hydro, Kadana-Hydro, etc. which were commissioned prior to 08.03.2019 to be considered/qualified for fulfilment of HPO compliance, we note that the cut-off date is specified by the Ministry of Power, Government of India that the Large Hydro Power projects having capacity of more than 25 MW and which commence the commercial operation after 08.03.2019 and generate and supply electricity consumed by obligated entity be qualified for such RPO percentage specified by the Commission. The purpose of cut-off date specified in the proposed Draft Regulation by the Commission is to align the Regulations in line with the MoP's Notification. Therefore, the amendment

suggested/proposed to allow the energy generated and consumed from aforesaid hydro power projects i.e., Ukai, Kadana, SSNNL, which were commissioned prior to 08.03.2019 be allowed to qualify for HPO percentage is not accepted and rejected.

Further, the energy available from renewable energy sources are uncertain because the primary source for generation of such energy is uncertain and affect the total generation from such source in variance to anticipated generation. In such condition, the energy available from one type of renewable source in less quantum than specified in the Regulations is allowed to be made available from other sources with a view to achieve overall Renewable Purchase Obligation by the 'Obligated Entities' after consideration of such resources in a particular year. Further, by specifying minimum quantum for fulfillment of RPO/HPO from only one technology-based energy generation may lead to a situation that due to any shortage in availability of such generation from that source of energy, on one hand the obligated entity will not be able to achieve its RE obligation, whereas; on other side, surplus energy available from other type of renewable energy source(s) may not qualify for fulfilment of RPO/HPO, if such surplus energy is not allowed to be offset against said shortfall. Moreover, in such situation, the shortfall needs to be complied by the 'Obligated Entities' by purchasing Renewable Energy Certificate (REC) or other such instruments having financial implication, which may affect the procurement cost of the 'Obligated Entities'. Therefore, the aforesaid contention of the Objectors is not acceptable and rejected.

Some of the objectors have contended that the off-setting of one kind of RPO of one RE technology with another kind of RPO of RE technology may not be permitted, if any, shortfall in such percentage that may be suspended by energy generated from Waste to Energy and/or hydro energy. In case of shortfall in energy available from WTE may not be compensated with other RE sources of energy but such shortfall be carried forward or in alternative such shortfall be treated in accordance with 5<sup>th</sup> proviso of Regulation 9.1 of the Principal Regulations. The separate RPO for WTE and Hydro based energy generation is to be provided to encourage investor's confidence.

The suggestion of stakeholders that shortfall for RPO specified for any specific technology-based energy generation, is allowed to meet out only through the surplus energy, if any, available from WTE projects or Hydro Power Projects but in case of shortfall in the RPO specified for WTE or Hydro Projects the same may not be allowed to meet out through surplus energy, if any, available from Wind or Solar and such RE source based generation to encourage the aforesaid based energy generation. The aforesaid contention of the objectors is not acceptable because the Commission has specified the Renewable Purchase Obligation after due consideration of different technology and potential available in the State. Moreover, the technology which are in nascent stage or availability of energy from such sources are limited, in that situation, the shortfall in availability of energy from such source may not lead to situation that the obligated entities be qualified for non-compliance of RPO percentage specified by the Commission. Further, the percentage of total consumption of RE by obligated entities will be defeated as the obligated entities may not procure power of shortfall in energy.

Further, the potential generation from WTE projects is negligible in the State in comparison to total consumption of energy. Similarly, the potential of Large Hydro Power projects commissioned after 08.03.2019 in the State is 'Nil' at present. In that situation where the availability of energy from Large Hydro Power Projects is 'Nil' in initial years and therefore, off set of energy specified by the Commission from above sources if not allowed may lead to a situation that the obligated entities may not fulfill their obligations specified in the Regulations though it is a fact that the available renewable source is not adequate for fulfilling RPO. Similarly, the percentage of obligations specified are quite lower in total consumption with consideration to align the Regulations with MoP Notification and promote such technology based generation. Hence, the contentions of the objectors are not acceptable.

Some of the objectors have contended that the surplus energy available only above 85% of hydro power projects be permitted for fulfilment of shortfall of energy of other RE generation. The said contention of the stakeholder is not accepted on the ground that the surplus energy, if any, available of any RE generation of different technology be permitted for fulfilment of shortfall of RE energy of other category so that the adjustment of surplus energy be given effect in compliance of RPO, otherwise it leads to condition that overall RE consumption by the obligated entities is higher. However, for the RPO compliance, the consumption of energy be factored lower than actual energy, which is not correct and valid. Further, the shortfall of energy which is beyond the control of the obligated entities be compensated or fulfilled by way of procurement of RECs affects the cost to the obligated entities.

### **(III) Regulation (4) - Substitution of para 2 of Principal Regulation 4.1**

The amendment proposed in Draft Regulations, 2022 reads as under:

*“Provided that:*

*(a) Hydro power Purchase Obligation (HPO) shall be met from the power procured from eligible large hydro power projects (LHPs) including pump storage projects having capacity of more than 25 MW commissioned on and after 08.03.2019 and upto 31.03.2024 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. Free power to be provided as per the agreement with the State Government and that provided for Local Area Development Fund (LADF), shall not be included within this limit of 70% of the total generated capacity.”*

#### **Comments from the Stakeholders:**

- (i) It is suggested that following line must be added to the existing clause in line with MoP Order dated 29<sup>th</sup> January, 2021:

*“Provided also that hydro power imported from outside India shall not be considered for meeting HPO”.*

#### **Commissions’ decision:**

The suggestions made by the stakeholders is in consonance with the decision of Ministry of Power, Government of India. Hence, we decide to add the aforesaid provision in the final Regulations to read as under:

*“Provided that:*

*(a) Hydro power Purchase Obligation (HPO) shall be met from the power procured from eligible large hydro power projects*

*(LHPs) including pump storage projects having capacity of more than 25 MW commissioned on and after 08.03.2019 and upto 31.03.2024 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. Free power to be provided as per the agreement with the State Government and that provided for Local Area Development Fund (LADF), shall not be included within this limit of 70% of the total generated capacity.*

*Provided also that hydro power imported from outside India shall not be considered for meeting HPO.”*

#### **(IV) Regulation (4) - Substitution of para 2 of Principal Regulation 4.1**

The amendment proposed in Draft Regulations, 2022 reads as under:

*“Provided that:*

*.....*

*b. Further to facilitate compliance of HPO, Hydro Energy Certificate mechanism as available to be utilized by Distribution Licensees.”*

#### **Comments from the Stakeholders:**

- (i) Some of the stakeholders submitted that the clarification needs to be given as to whether HPO is applicable only to Distribution Licensee or all ‘Obligated Entities’. In case, HPO is applicable to all ‘Obligated Entities’, Hydro Energy Certificate (HEC) mechanism ought to be available for all obligated entities to meet HPO.

- (ii) Further HPO targets should be made applicable only when HEC trading is fully enforced through exchange or in the alternative, Solar REC / Non-Solar REC at least for obligated entities other than DISCOMs should be allowed to be procured for meeting HPO Targets (till the time HPO REC mechanism is fully not in place).

**Commission's decision:**

The HPO specified in the Regulations be applicable to all 'Obligated Entities'. It is also clarified that the HEC mechanism be available to all 'Obligated Entities', as and when it is introduced. With regard to the objections that HPO target be made applicable only after HEC trading is started, we clarify that the HPO target be met out by the 'Obligated Entities' with consideration of availability of the same. In case such availability is not there then the same may be met out through the other renewable sources as stated in the Regulations. Accordingly, we decide to replace the word '*Distribution Licensees*' by '*Obligated Entities*' in aforesaid proviso (b) in the final Regulations to read as under:

*"b. Further to facilitate compliance of HPO, Hydro Energy Certificate mechanism as available to be utilized by Obligated Entities."*

**(V) Regulation (4) - Substitution of para 2 of Principal Regulation 4.1**

The amendment proposed in Draft Regulations, 2022 reads as under:

*"Provided that:*

*.....*

.....

*d. If the above-mentioned minimum quantum of power purchase either from Solar or Wind or Hydro or Others (including Biomass, Bagasse & Bio-fuel based cogeneration, MSW and Small/Mini/Micro Hydro) is not available in a particular year, then in such cases, additional renewable energy available either from Solar or Wind or Hydro or Others shall be utilised for fulfilment of RPO.”*

**Suggestions from the Stakeholders:**

- (i) Renewable energy is available either from ‘Solar’ or ‘Wind’ or ‘Hydro’ or ‘Others’ shall be utilized for fulfillment of RPO but RPO deficit of WTE, should not be permitted to be offset using the excess purchase from any other RE source. The following suggestions are made for substitution of para 2 (d) of Principal Regulation 4.1:

*“d. If the above-mentioned minimum quantum of power purchase either from Solar or Wind or Hydro or Others (including Biomass, Bagasse & Bio-fuel based cogeneration, MSW and Small/Mini/Micro Hydro) is not available in a particular year then in such cases, the following mechanism may be adopted:*

- (a) Shortfall in RPO of ‘Others’ in a particular year may be carried forward to the next year in accordance with Regulation 9.1”.
- (b) Some of the stakeholders have submitted that without prejudice, in case, offsetting is permitted, then the minimum quantum of power purchase i.e., RPO of Solar or Wind or Hydro or Others may be allowed to be offset only in case such RE source is not available. DISCOMs may be required to comply with a strict

proof of non-availability. The DISCOMs should demonstrate a genuine case of shortfall.

In addition, it is submitted that the Commission may consider the compliance of RPO as prescribed in the Gujarat Waste to Energy Policy, 2016, which is as follows:

*“The difference between the power purchase rate (either at the rate determined by GERC or at the rate determined through competitive bidding process) from USW power project as mentioned in the PPA and APPC charges to Local Distribution Company shall be considered as cost of Renewable Attribute. On payment of this cost, the Distribution Company shall be eligible for allotment of equivalent number of units of Renewable Attribute.”*

The above condition should be incorporated in the GERC (Procurement of Energy from Renewable Sources) (Third Amendment) Regulations, 2022 for the benefit of DISCOMs claiming RPO by purchasing electricity from MSW power plants.

**Commission’s decision:**

The suggestions of objectors are that the RPO specified for Wind, Solar, or Hydro be utilized / fulfilled through the other sources i.e. Solar, Wind or Hydro excluding Waste to Energy Projects i.e. MSW, Biomass, Bagasse based generation. In case of non-availability of Waste to Energy based projects, the same should be carried forward in next year and no offset against such energy requirement from other sources i.e. Wind, Solar, or Hydro based generation be allowed. Further, the obligated entities need to prove non-availability of energy generation from such sources. The aforesaid suggestions are not acceptable on the ground that

the purpose of this Regulations is for promotion of renewable energy generation and consumption of same with consideration of availability of such energy generation in the State. In case of non-availability of one source of generation, the same will be met out through other sources. Hence, the contentions of the Objectors are not accepted for not allowing of off-set of surplus energy, if any, available from other sources against the energy requirement.

In Order to provide more clarity regarding non-availability of one source of generation then same can be met through other sources aforesaid proviso (d) of Regulation 4.1 to read as under in the final Regulations:

“.....  
(d) *If the above-mentioned minimum quantum of power purchase either from Solar or Wind or Large Hydro Power Plant of capacity above 25 MW and commissioned after 8<sup>th</sup> March, 2019 as per MoP, Government of India Notification No. F. No. 15/2/2016-H-I (Pt.) dated 08.03.2019 or Others (including Biomass, Bagasse & Bio-fuel based cogeneration, MSW and Small/Mini/Micro Hydro) is not available in a particular year, then in such cases, additional renewable energy available either from Solar or Wind or Large Hydro Power Plant of capacity above 25 MW and commissioned after 8<sup>th</sup> March, 2019 as per MoP, Government of India Notification No. F. No. 15/2/2016-H-I (Pt.) dated 08.03.2019 or Others shall be utilised for fulfilment of RPO.”*

**(VI) Other comments submitted by the Stakeholders:**

- (i) Relaxation for Distribution Licensees whose supply area/demand base is small (i.e. having energy sales less than 50 Mus):**

If the distribution licensee is having small demand-based / sales less than 50 MUs and are not able to meet their RPO targets due to nature and characteristics of the licensee area or non-availability of renewable energy sources due to supply constraints or high price discovery on power exchanges, then the Commission should exempt such small distribution licenses from RPO compliance for that particular year after verifying the facts of the case as sourcing renewable energy is quite challenging for small distribution licensees due to intermittent / variable generation pattern of renewables.

**Commission's decision:**

The Regulations are notified with intent to promote the renewable energy based generation as specified in the Electricity Act, 2003. While framing the Regulations it is decided by the Commission to promote the renewable energy based generation without any discrimination amongst the 'Obligated Entities'. The obligated entities are the distribution licensees, open access users and captive users. The open access consumers, captive users may be consuming quite less energy. However, they are liable to procure the renewable energy as specified in the Regulations without any discrimination. The suggestions made by the Objectors leads to a condition that there is discrimination amongst the 'Obligated Entities' which is illegal and arbitrary and not permissible. Hence, the aforesaid suggestions of the objectors are not acceptable and rejected.

- (ii) Request to recognize “Hydro Energy Certificate” (HEC) issued under the relevant Regulation as and when notified by the Central Commission.**

**Commission’s decision:**

The suggestions made by the stakeholders be considered by the Commission as and when Regulation on “Hydro Energy Certificate” (HEC) Regulations, will be notified by the Appropriate Commission:

- (iii) Request for introducing new clause with respect to consumption by obligated entity from solar-wind energy fed pumped Hydro Storage to qualify for meeting Solar, Non-Solar RPO as well as HPO.**

**Proposed additional clause:**

The power consumed by ‘Obligated Entity’ for Pumped Hydro Storage Project, commissioned after 08.03.2019, if utilizing Wind and/or Solar or any renewable energy resources, shall be eligible for meeting Non-Solar and/or Solar RPO compliance along with HPO compliance, to the extent of electricity supplied/consumed by such Pumped Hydro Storage.

**Commission’s decision:**

As clarified above, any electricity generation from the renewable energy sources defined in the Regulations, consumed at consumption place is qualified for fulfillment of RPO. Thus, there is

no need of any further clarification required in this regard or to add additional clause in the Regulations.

**(iv) Para 2 of the Principal Regulations 4.1 of the Draft GERC (Procurement of Energy from Renewable Sources) Regulations, 2010:**

*If the above mentioned minimum quantum of power purchase from solar and other renewable energy sources is not available in a particular year, then in such cases, additional wind or other energy, over and above that shown in column 3 and 5, shall be utilized for fulfilment of the RPO in accordance with column 2*

**Proposed Amendment:**

*.... Further, 100% HPO compliance has to be met from hydro power/HEC for that particular year.*

**Commission's decision:**

The suggestion of the stakeholder is not acceptable as stated in earlier para that the percentage of RPO specifying Wind, Solar, Hydro, MSW based generation specified in the Regulations and provision for interchangeability or off-set of surplus energy, if any, available after compliance of RPO provided in the Regulations for overall promotion of renewable energy generation and consumption of renewable energy in the State. In such situation, the contentions of the Objectors that in case of any shortfall in hydro power generation due to non-availability, the same can be carried forward and not allowed to be compensated or off-set

through other sources is not correct and acceptable. Hence, the same is rejected.

**(v) For CPPs, all provisions as per the directions from MoP, Government of India vide letter dated 01.02.2019 is to be incorporated under the proposed amendment for RPO Regulations by appropriately inserting therein.**

**Commission's decision:**

The suggestion made by the objectors are not accepted as there is no hearing kept on the aforesaid subject matter by issuing public notices and inviting the objections in the aforesaid subject matter before existing Coram of the Commission. Further, the Commission heard the Petition No. 1933 of 2021 filed by ONGC Limited on the aforesaid subject matter, wherein the Commission has invited objections / suggestions from the public and final hearing on aforesaid subject is pending. In the absence of any hearing on the subject matter, it is prematured to discuss and decide the issue in the present proceedings, which is beyond the scope of this proceedings. Hence, the same is not accepted.

**(vi) Proposed definition:**

“Hybrid Sources” A hybrid energy source means two or more Renewable Energy Sources used together or any single Renewable Energy Source coupled with any Storage Technology (Battery, Pumped Storage etc.,) to provide increased system efficiency as well as greater balance in energy supply.

**Commission's decision:**

The aforesaid objections with regard to “hybrid source” is already clarified in the earlier para of this Order. Hence, not repeated here.

**(vii) Request to add Clause (e) in Sub-Regulation (4.1)**

In case of power procured from Hybrid Sources, the renewable energy generated is to be considered for Solar RPO, Non-solar RPO and HPO shall be based on relative proportion of energy contributed by each source, calculated based on the ratio of declared capacities of each source in the Power Purchase / (Sale) Agreement.

**Commission's decision:**

The RPO specified in the Regulations is with consideration of the different technology-based availability of renewable energy. Hence, whenever the energy available from hybrid source, in that situation, the renewable energy available from such individual source/mixed sources be considered for fulfilment of RPO of individual source/mixed sources.

**(viii) Clause 3 of Principle Regulations 4.1 of the draft GERC (Procurement of Energy from Renewable Sources) Regulations, 2010:**

**Applicability of Renewable Purchase Obligation:**

It is requested that the Commission to incorporate relevant provisions for consideration of green hydrogen/green ammonia as one of the ways to off-set RPO obligations by obligated entities. It is requested to the Commission to amend Regulation 2 (p) of this

Regulations and accordingly, to accommodate the appropriate changes as mentioned below.

**Add:** - Renewable Energy consumed for the production of Green Hydrogen/Green Ammonia shall count towards RPO compliance of the consuming entity. The renewable energy consumed beyond Obligation of the Hydrogen/Green Ammonia producer shall be counted towards RPO compliance of the DISCOM in whose area the project is located.

**Commission's decision:**

The aforesaid suggestions/objections with regard to Renewable Energy consumed for the production of Green Hydrogen/Green Ammonia shall count towards RPO compliance of the consuming entity is already clarified in the earlier para of this Order. Hence, not repeated here.

**(ix) If the Pumped Storage Power (PSP) is being sold to third party and Solar/Wind power is used for charging of PSP, then such Solar/Wind power shall qualify for meeting RPO liability for that third-party.**

**Commission's decision:**

With regard to aforesaid objection with regard to the Pumped Storage Power being sold to third party and Solar/ Wind power is used for charging of PSP, then such Solar/ Wind power shall qualify for meeting RPO liability for that third-party, it is clarified that such consumption of energy by third-party as procurement of

renewable energy from the generator and consumption is qualified as fulfilment of RPO of such entity to that extent.

**(x) For open access consumers buying fossil fuel-based power from third-party/exchange, a composite RPO liability (Solar + Wind + Others) should be applicable in place of separate RPO for different sources.**

**Commission's decision:**

The aforesaid Objections do not fall within the scope of the proposed amendment in Draft Regulations and hence, the same are not considered in this Order. The suggestion of the stakeholder is not acceptable as it leads to discrimination amongst the Obligated entities. Hence, the same is rejected.

The Commission directs that the Third Amendment in the GERC (Procurement of Energy from Renewable Sources) Regulations, 2010 be published in the Official Gazette after incorporating the changes as decided and indicated in the foregoing paragraph of this Order.

**Sd/-**  
**[S. R. Pandey]**  
**Member**

**Sd/-**  
**[Mehul M. Gandhi]**  
**Member**

**Sd/-**  
**[Anil Mukim]**  
**Chairman**

Place: Gandhinagar.

Date: 08/04/2022.



## **Annexure – I**

The Commission has received objections/suggestions from the following stakeholders pursuant to public notice dated 30.01.2022, in the matter of Draft Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) (Third Amendment) Regulations, 2022:

<b>Sr. No.</b>	<b>Name of Objectors</b>
1.	Gujarat Urja Vikas Nigam Limited (GUVNL)
2.	Indian Energy Exchange (IEX)
3.	GIFT Power Company Limited (GIFTPCL)
4.	Greenko Energies Pvt. Limited (GEPL)
5.	Reliance Industries Limited (RIL)
6.	Torrent Power Limited (TPL)
7.	Hygenco India Pvt. Limited (HIPL)
8.	Indian Wind Energy Association (InWEA)
9.	Adani Power (Mundra) Limited (APL)
10.	Abellon Clean Energy Limited (ACEL)
11.	National Solar Energy Federation of India (NSEFI)
12.	Ambuja Cements Limited (ACL)

## **Annexure – II**

The following stakeholders were present during the hearing on 09.03.2022, in the matter of Draft Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) (Third Amendment) Regulations, 2022:

<b>Sr. No.</b>	<b>Name of Objectors</b>
1.	Gujarat Urja Vikas Nigam Limited (GUVNL)
2.	GIFT Power Company Limited (GIFTPCL)
3.	Torrent Power Limited (TPL)
4.	Hygenco India Pvt. Limited (HIPL)
5.	Adani Power (Mundra) Limited (APL)
6.	Abellon Clean Energy Limited (ACEL)
7.	Ambuja Cements Limited (ACL)