CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010

Statement of Objects and Reasons

1. **Introduction**

- 1.1 The Electricity Act, 2003 entrusts on the appropriate commission the responsibility of promotion of co-generation and generation based on renewable energy sources. The policy framework of the Government of India also stresses on the encouragement of renewable energy sources keeping in view the need for energy security of the country.
- 1.2 Contribution of renewable energy sources in the total portfolio of capacity as well as gross generation is still very low. As on 31st July, 2009, the renewable energy sources constituted only about 8.5% of the total generation capacity in the country. In terms of actual generation, the share of renewable is estimated to be in the range of 3.5% of the total generation.
- 1.3 The National Action Plan of Climate Change (NAPCC) has set the target of 5% renewable energy purchase for FY 2009-10 which will increase by 1% for next 10 years. The NAPCC further recommends strong regulatory measures to fulfill these targets.
- 1.4 In this context, it would be relevant to discuss the inducements as they exist in the statute and the policies framed under the statute for renewable energy sources. The Electricity Act, 2003 requires in section 86(1)(e), the state commission to specify renewable purchase obligation (RPO) for the obligated entities. The relevant provisions are quoted below:

- "86. (1) The State Commission shall discharge the following functions, namely: -
- (a)
- (e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
- *(f)*"
- 1.5 The National Electricity Policy further reiterates that the purchase obligation as envisaged in section 86(1)(e) of the Electricity Act should be made applicable for the tariffs to be determined by SERCs at the earliest and that progressively the share of electricity from non-conventional sources would need to be increased as prescribed by the state commission. The relevant provision of the National Electricity Policy is quoted below:

"5.12 COGENERATION AND NON-CONVENTIONAL ENERGY SOURCES

5.12.1 Non-conventional sources of energy being the most environment friendly there is an urgent need to promote generation of electricity based on such sources of energy. For this purpose, efforts need to be made to reduce the capital cost of projects based on non-conventional and renewable sources of energy. Cost of energy can also be reduced by promoting competition within such projects. At the same time, adequate promotional measures would also have to be taken for development of technologies and a sustained growth of these sources.

- 5.12.2 The Electricity Act 2003 provides that co-generation and generation of electricity from non-conventional sources would be promoted by the SERCs by providing suitable measures for connectivity with grid and sale of electricity to any person and also by specifying, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee. Such percentage for purchase of power from non-conventional sources should be made applicable for the tariffs to be determined by the SERCs at the earliest. Progressively the share of electricity from non-conventional sources would need to be increased as prescribed by State Electricity Regulatory Commissions. Such purchase by distribution companies shall be through competitive bidding process. Considering the fact that it will take some time before non-conventional technologies compete, in terms of cost, with conventional sources, the Commission may determine an appropriate differential in prices to promote these technologies.
- 5.12.3 Industries in which both process heat and electricity are needed are well suited for cogeneration of electricity. A significant potential for cogeneration exists in the country, particularly in the sugar industry. SERCs may promote arrangements between the co-generator and the concerned distribution licensee for purchase of surplus power from such plants. Cogeneration system also needs to be encouraged in the overall interest of energy efficiency and also grid stability."
- 1.6 While the Electricity Act, 2003, the policies framed under the Act, as also the NAPCC provide for a roadmap for increasing the share of renewable in the total generation capacity in the country, there are constraints in terms of availability of RE sources evenly across different parts of the country. This inhibits the state commissions, especially in those states where the potential of RE sources is not that significant, from specifying higher renewable purchase obligation. For example, given the fact that Delhi does not have sufficient

renewable energy potential, the State Commission of Delhi has specified RPO of 1% for the distribution licensees in the State. There are states like Madhya Pradesh where the SERC has fixed the RPO of 10% but actual achievement of RPO is less than 1%. On the other hand, we also have states like Rajasthan and Tamil Nadu where there is very high potential of RE sources and the State Commissions have specified higher RPO. In fact, in such states there are avenues for harnessing the potential beyond the RPO level fixed by the State Commissions. However, the fact that the cost of generation from RE sources is high, discourages the local distribution licensees from purchasing RE generation beyond the RPO level mandated by the State Commission.

- 1.7 It is in this context that the concept of Renewable Energy Certificate (REC) assumes significance. This concept seeks to address the mismatch between availability of RE sources and the requirement of the obligated entities to meet their renewable purchase obligation. The Forum of Regulators deliberated on this concept in detail and evolved a framework for implementation of this mechanism. It was also felt that it would be necessary for both the CERC and the SERCs to frame suitable regulations for giving effect to the REC framework. Salient features of the REC framework are enclosed as **Annexure-I.**
- 1.8 Section 66 of the Act provides that the Appropriate Commission shall endeavour to promote the development of a market (including trading) in power in such manner as may be specified and shall be guided by the National Electricity Policy. In exercise of the mandate in section 66 of the Act, the Central Commission issued Draft Regulation on Terms and Conditions for recognition and issuance of Renewable Energy Certificate (REC) for Renewable Energy Generation, 2009 along with an explanatory memorandum. Subsequently, public hearing was held on 15th December, 2009 to hear views of all the stakeholders and consumers, if any. The list of participants in the public hearing held on 15th December, 2009 is enclosed as **Annexure-II**.

2. Consideration of the views of the stakeholders and analysis and findings of the Commission on important issues

2.1 The Commission considered the comments of the stakeholders on the draft regulations, views of the participants in the public hearing as well as their written submissions received during and after the public hearing. The regulations have been finalized after detailed analysis and due consideration of the various issues raised. The analysis of the important issues and findings of the Commission thereon are discussed in the subsequent paragraphs. Other comments of the stakeholders and observations thereon are enclosed as Annexure-III.

3. Preliminary Objections to the Regulations and Findings of the Commission.

3.1 Jurisdiction

- 3.1.1 Some Stakeholders (like TRILEGAL) have raised the issue of jurisdiction of the Commission to introduce or regulate instruments in the nature of renewable energy certificates (REC) on the ground that there is no provision under the Electricity Act 2003 which expressly or impliedly confers such power to the Commission. PTC has submitted that under Section 86(1)(e) of the Electricity Act 2003, promotion of Renewable Energy sources is in the domain of, State Electricity Regulatory Commission and as such it would be more appropriate for the Hon'ble Central Electricity Regulatory Commission to issue guidelines or orders in the matter to SERCs/market participants rather than issue regulations.
- 3.1.2 The Commission has carefully considered these comments and would like to reiterate that the framework of renewable energy certificate (REC) is meant to facilitate and promote the development of market in electricity based on renewable energy sources and as such the Commission is well within its

jurisdiction to specify regulations in this regard under Sections 66 of the Act. **This** also goes with the vision enshrined in the Preamble to the Act - the vision of "promoting efficient and environmentally benign policies". Development of market with suitable mechanism for promotion of renewable energy sources is essential to facilitate the new investment in this vital segment of the electricity The constraints in development of market in electricity based on renewable energy sources have been explained in detail in para 1.6. The Commission would like to underscore that the framework of REC would help overcome these constraints and facilitate harnessing of renewable sources in the locations where there is potential for such sources of energy. This will at the same time also enable the obligated entities in other places to meet their renewable purchase obligation. The Commission would also like to emphasize that the Act and the policies envisage coordinated efforts of CERC and SERCs in promotion of renewables in the country. The SERCs have specific responsibility under section 86(1)(e) of the Act and the Forum of Regulators (FOR) has already evolved a model regulation to be framed by the SERCs under the said provision to facilitate inter alia implementation of the REC framework. The need for regulations by CERC was also felt by the FOR to facilitate the dealing of REC at national level as part of the market based instrument for promotion of renewable energy in the country. The scheme envisages inter alia central level registry, dealing of certificates in the platforms of power exchange which can be facilitated only through a regulation by the Central Commission.

3.2 Definitions and Interpretation:

3.2.1 Some stakeholders (like PTC India etc.) have observed that definition of 'Central Agency' could be more specific to convey the intention of the Commission as to whether there will be only one central agency.

3.2.2 The Commission would like to highlight that the scheme of REC as explained in the Explanatory Memorandum attached to the draft regulations already provided that there would be one central agency. However, **definition of the term 'Central Agency' has been reworded to further clarify this point.**

3.3 Functions and Role of Central agency:

- 3.3.1 The following major comments have been received on the functions and role of central agency:
 - Criteria should be specified for appointment of central agency. (PTC India)
 - Central agency cannot sub-delegate the functions. It is a settled law that statutory powers cannot be sub-delegated. (TRILEGAL)
 - Registration should be done at the state level. (CLP)
 - Whether Central agency should be any company or only government company.
- 3.3.2 The Commission has considered the views of the stakeholders and would like to clarify that as per the REC framework evolved, accreditation of a RE project is to be undertaken at the state level, followed by registration at central level. It is more appropriate to undertake registration at the central level which will process all the details that would be required for transaction of RECs in the power exchanges approved by the CERC. On the question of delegation of functions by central agency, the Commission would like to clarify that there is no such intention of delegation of regulation making powers as such delegation is prohibited under section 97 of the Act. **Suitable modification has been made in regulations to remove any ambiguity in this regard.** In so far as the criteria for designation of a central agency is concerned, the Commission would like to reiterate that only such agency will be designated as central agency by the Commission, which in the opinion of the Commission will have the necessary technical and other capabilities

for discharging the functions of such agency provided in the regulation. Suitable provision has been made in the final regulations to clarify this aspect. On the question as to whether the central agency to be designated by the Commission will be any company or only a government company, the Commission feels that the existing provision which authorizes the Central Commission to designate any agency as the central agency is adequate. The regulations provide specifically for regulatory control of the Commission over the central agency to ensure that it discharges the functions in accordance with the scheme of regulations.

3.4 Categories of Certificates:

- 3.4.1 The following major comments have been received from the stakeholders on this aspect:
 - Under the Electricity Act 2003, there is no provision for source specific RPO. (PSERC, Govt. of Punjab.)
 - Solar RPO may be given higher weightages in terms of issuance of REC. (Reliance Power,)
 - Categorization of certificates into solar and non-solar will adversely affect liquidity. Multiplier can be used for issuing RECs for different technologies. (Dr. Anoop Singh, IIT Kanpur,)
 - Categorization of certificates should be based on type of energy supplied i.e. peak and off-peak. (Ispat Energy Ltd.)
 - There could be three categories of certificates namely solar, wind and RE sources other than solar and wind. (Power Grid)
- 3.4.2 The Commission has noted these comments and is of the opinion that the Electricity Act 2003 does not specifically prohibit stipulation of source specific renewable purchase obligation (RPO). In fact, some State Commissions have already specified source specific RPOs under section 86(1)(e) of the Act.

Moreover, the National Solar Mission as also the Forum of Regulators (FOR) have recommended a separate RPO for solar based generation. As regards higher weightages for solar generation, the Commission would like to highlight that RECs have to be issued on the basis of electricity generated. For meeting the RPO compliance, the obligated entity as to either buy electricity at preferential tariff or buy equivalent RECs representing the generation of electricity from renewable energy sources. Assigning more weightages may result in meeting compliance at lower generation levels (i.e. one MWh generated from solar may form 4 MWh in RECs if a weightage of 4 is assigned) and would not meet the requirement of section 86(1) (e) of the Act. On the question of the basis for categorization of certificates, the Commission would like to point out that the categorization of certificates into solar and non-solar RECs is based on the fact that cost of solar technology is substantially higher in comparison to non-solar RE technologies. Any further categorization would only lead to fragmentation of the REC market which is not desirable.

3.5 Eligibility and Registration for Certificates:

- 3.5.1 The following comments have been received from the stakeholders:
 - The process of registration should be automatic after accreditation without any further requirement of application for registration. (NDPL, CLP etc.)
 - There should be a provision for de-accreditation. (Dr. Anoop Singh, IIT Kanpur, PXIL etc.)
 - In cases where the RE generator sells electricity to any licensee or through power exchange or through open access and this price is more than the preferential tariff, such sale should not be eligible for REC. (PSERC and Govt. of Punjab etc.)
 - Cost of renewable energy generation should be excluded from the pooled power purchase cost. (Dr. Anoop Singh, IIT Kanpur)

- Distribution licensees procuring RE power more than its RPO target should also be qualified for selling RECs. (Tata Power Trading, IEX, PTC India etc.)
- Existing RE generators tied up under long term PPAs can be given a onetime exit option to participate in the REC scheme. (Tata Power Trading, Moser Baer, PTC, India, IREDA, Ispat Energy Ltd. Reliance Power etc.)
- The surplus power generated from captive power plants (CPPs) over and above the self consumption should be allowed to participate in REC scheme. (Reliance Power, Moser Baer, AMR infrastructure etc.)
- 3.5.2 The Commission has considered the comments. The Commission would like to clarify that the regulations provide for issuance of REC only to renewable energy (RE) generators. The REC mechanism seeks to promote additional investment in the RE projects and is meant to provide to RE generators an alternative mode for recovery of their costs. The issuance of REC to obligated entities may result in forcing the RE developers to engage in PPAs only with the local utility which in turn may affect new investment in renewable energy sources. Regarding eligibility criteria for CPPs, the Commission would like to clarify that if a captive RE power project meets the eligibility criteria, sale of electricity from such project over and above the captive consumption will qualify for RECs. As regards the eligibility for existing RE generators tied up under long term PPAs, the Commission would like to underscore that the regulation cannot make any provision which directly or indirectly encourages breach of existing contracts.
- 3.5.3 The suggestion of excluding RE generation cost from the pooled power purchase cost has, however, been endorsed by the Commission and suitable modification has been made in the draft regulations. This has been considered necessary to avoid putting additional burden on the utility which has already procured power from renewable energy sources to meet its renewable purchase obligation (RPO). As regards the suggestion of automatic registration after

accreditation, the Commission appreciates the underlying concern around procedural delays. However, the Commission does not endorse the idea of complete removal of the processes from accreditation to registration. Checks and balances are required to ensure proper implementation of any scheme, more so when it is a new concept. To allay the apprehension in this regard, the Commission has made suitable provision in the final regulations requiring the Central Agency to accord registration within fifteen days from the date of application for registration, if the applicant fulfills all eligible criteria for registration. The Central Agency can also reject the application by recording reasons in writing. Suitable modification has also been made in the draft regulations to bring about clarity in regard to sale of electricity through power exchange at market determined price. A separate provision has also been made providing for the circumstances under which registration of an eligible entity can be revoked. An opportunity of appeal before the Commission against the order of rejection of application for registration and revocation of registration has also been provided in the final regulation.

3.5.4 On the suggestion that - in the event of sale of electricity component through open access etc resulting in recovery of cost higher than the preferential tariff, such sale should not be eligible for REC – the Commission would like to articulate that the price of electricity sold through traders, Power Exchange or open access is market determined and involves risks and returns of varying nature. As such, it would not be desirable to put restriction as suggested on such transactions.

3.5.5 As regards the suggestion of de-accreditation, the Commission would like to clarify that the relevant provision in this regard may be made in the regulations by SERCs in the regulations under section 86(1)(e) of the Act. The Commission has, however, made suitable provision in the final regulations providing for revocation of 'registration' and the circumstances under which registration can be revoked.

3.6 **Denomination and issue of Certificates:**

- 3.6.1 The following major observations have been made by the stakeholders:
 - There should be a time limit for issuance of REC by the central agency.(CLP India)
 - Denomination of REC should be in kWh instead of MWh.(NDPL, Ispat Energy Ltd., Dr. Anoop Singh IIT Kanpur)
 - Periodicity of application for REC should be provided in the regulations.
- 3.6.2 The Commission has taken note of the above observations. As regards the denomination of REC, the Commission is of the opinion that there will be operational complications in lowering the denomination of the REC. This may, at the same time, result in increase in transaction cost. Moreover, denomination of REC in MWh is also an established practice internationally where the instruments of REC are in operation. The Commission has therefore decided to continue with the existing provision of denomination of REC in MWh. The Commission has however accepted the suggestions on the need for providing time limit for issuance of REC, periodicity of application of REC and made necessary modifications to provide the following.
 - The eligible entities may make application for issuance of certificates on fortnightly basis i.e. on the first day of the month or on the 15th day of the month.
 - The certificate shall be issued within fifteen days from the date of application by the eligible entity.

The Commission would like to clarify that the electricity generated in quantity less than MWh in phases can be accumulated to make the total quantum equivalent to or more than one MWh while making application for issuance of certificates under the regulations.

3.7 **Dealing in the certificates:**

- 3.7.1 The following comments have been received on this issue:
 - Trading of REC should be allowed outside the exchange. (GE Energy, PTC India, Tata Power Trading etc.)
 - Price discovery mechanism for REC should be provided in the regulations.(PXIL)
- 3.7.2 The Commission has noted the observations and would like to reiterate that provision in the Regulation that REC shall be dealt only in the Power Exchange is adequate and also legally sustainable. The nature of operation of Power Exchange (which essentially is a platform where buyers and sellers buy and sell at the price discovered by matching aggregate demand and supply) is conducive to the development of the new and emerging concept of REC. The Commission is well within its jurisdiction under Section 66 of the Act to provide for the specific manner in which this new concept should be evolved. In any case this mechanism does not debar the traders from facilitating transactions in REC as Members of the Power Exchanges. The final regulations provide that the bye-laws of power exchange to be approved by the Commission should include price discovery mechanism.

3.8 **Pricing of Certificates**

- 3.8.1 The following comments have been received:
 - Minimum price for RECs should also be incorporated. (InWEA, Tata Power Trading, MERC, Reliance Power etc.)
 - Pricing of REC may be left to the market forces. (PTC India)
 - Criteria for forbearance price should be specified in the regulations.
 - The forbearance price should be high enough to deter obligated entity from being non-compliant. (GE Energy India)

3.8.2 The Commission has noted the observations. As regards the need for forbearance price, the Commission would like to emphasize that forbearance price is necessary to avoid price volatility which may defeat the very purpose of facilitating the RPO compliance by utilities through REC mechanism. The Commission has, however, acceded to the suggestion of providing for minimum price for REC along with forbearance price, to ensure the threshold level of revenue certainty. This is considered necessary to instill confidence in the investors towards REC mechanism. The Commission has also agreed to the suggestion of providing for broad guiding principles which the Commission would bear in mind while determining the forbearance price. Suitable modifications have accordingly been made in the draft regulations.

3.9 **Validity of Certificates:**

- 3.9.1 The following comments have been received:
 - Validity should be three years and not 365 days. (Mahavir Energy & Coal Benification Ltd., Reliance Power, GFL etc.)
 - Treatment of REC when the underlying energy sources are de-recognised in the middle of the year should be clarified. (Dr. Anoop Singh IIT Kanpur)
 - Process time for issuance of certificates should be specified in the regulation and should be kept as low as possible to avoid cash flow problem for RE generators. (PTC India, Reliance Power, etc.)
- 3.9.2 The Commission has noted the observations. As regards the validity period of REC, the Commission would like to state that the longer validity period may result in hoarding of RECs, low availability of RECs to meet the current year's obligation, more uncertainty in market, accounting issues. The final regulations clarify that the REC generated at a time when the RE generator fulfils eligibility criteria will remain valid even if such RE generator becomes ineligible at a later date. The Commission has, however, accepted the suggestions regarding the process time for issuance of

certificates etc. and suitable provision has been made in the final regulations regarding validity and extinction of certificates.

3.10 Fees and Charges:

- 3.10.1 The following comments have been received:
 - Regulation should provide for fees and charges for the obligated entities as well. (PXIL)
 - Any fee or charge will further reduce the REC price. There should therefore be no fee and charge. (PXIL, Reliance Power, GFL, etc.)
- 3.10.2 The Commission has noted the observations. The Commission would like to clarify that the regulations do not envisage registration of obligated entities with the central registry. This is based on the fact that RECs are being issued only to the RE generators and hence only the RE generator need be registered. Hence, no fees and charges have been provided for the obligated entities. As regards the need for levying fees and charges, the Commission would like to state that the fees and charges are required to be specified to cover the operation cost and develop a sustainable mechanism.

3.11 Funding for capacity building of State Agency:

- 3.11.1. The following comments have been received:
 - The levy of fees and charges and the idea of funding for capacity building of state agency will create additional burden on participants. (PXIL, GFL, etc.)
- 3.11.2. The Commission has noted the observation. The Commission would like to reiterate that given the crucial role of the state agency, capacity building of the state agency is important for proper implementation of the REC framework. Obviously, the Commission will take care of the interest of the participants while earmarking percentage of proceeds from sale of certificates for capacity building.

3.12 Appointment of compliance auditors:

- 3.12.1 The following comments have been received:
 - It will be a time consuming and complex process to confirm compliance continuously by the RE generators, located in specific state, by appointing a compliance auditor by an entity which is located at national level. (In WEA, MERC)
 - Appointment of compliance auditors will lead to duplication of efforts.(MERC)
- 3.12.2. The Commission would like to clarify that the auditing shall be done on sample basis for all the processes involved in REC mechanism. Compliance auditors should be seen as mechanism to facilitate compliance of the REC framework evolved with the combined efforts of the Regulatory Commissions of the Central and States.
- 4. We direct that the regulations published in draft form be published in the official Gazette after incorporating the changes as decided in the forgoing paragraphs.

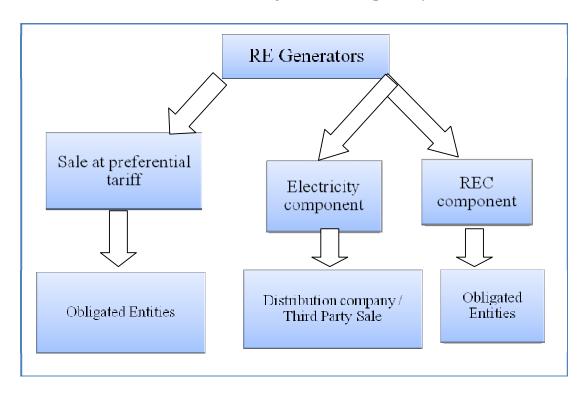
Sd/(V.S. VERMA)
MEMBER

Sd/-(DR. PRAMOD DEO) CHAIRPERSON

New Delhi, dated the 14th of January, 2010

Salient Features of REC framework

- Renewable Energy Certificate (REC) mechanism is a market based instrument to promote renewable energy and facilitate renewable purchase obligations (RPO)
- REC mechanism is aimed at addressing the mismatch between availability of RE resources in state and the requirement of the obligated entities to meet the renewable purchase obligation (RPO).
- Cost of electricity generation from renewable energy sources is classified as
 cost of electricity generation equivalent to conventional energy sources and
 the cost for environmental attributes.
- RE generators will have two options i) either to sell the renewable energy at preferential tariff or ii) to sell electricity generation and environmental attributes associated with RE generations separately.



- The environmental attributes can be exchanged in the form of Renewable Energy Certificates (REC).
- REC will be issued to the RE generators for 1 MWh of electricity injected into the grid from renewable energy sources.
- REC would be issued to RE generators only.
- REC could be purchased by the obligated entities to meet their RPO under section 86 (1) (e) of the Act. Purchase of REC would be deemed as purchase of RE for RPO compliance.
- Grid connected RE Technologies with minimum capacity of 250 KW and approved by MNRE would be eligible under this scheme.
- RE generations with existing PPAs are not eligible for REC mechanism.
- SERC to recognize REC as valid instrument for RPO compliance.
- SERC would define open access consumers, captive consumers as obligated entities along with distribution companies.
- SERC to designate State agency for accreditation for RPO compliance and REC mechanism at State level.
- CERC to designate Central Agency for registration, repository, and other functions for implementation of REC framework at national level.
- Only accredited project can register for REC at Central Agency.
- Central Agency would issue REC to RE generators for specified quantity of electricity injected into the grid.
- REC would be exchanged only in the CERC approved power exchanges.

- Price of electricity component of RE generation would be equivalent to the weighted average power purchase cost of the discom including short term power purchase but excluding renewable power purchase.
- REC would be exchanged within the forbearance price and floor price. This
 forbearance and floor price would be determined by CERC in consultation
 with Central agency and FOR from time to time.
- In case of default SERC may direct obligated entity to deposit into a separate fund to purchase the shortfall of REC at forbearance price.
- However, in case of genuine difficulty in complying with the renewable purchase obligation because of non-availability of certificates, the obligated entity can approach the Commission for carry forward of compliance requirement to the next year.

/ ANNEXURE – II /

Clause No.	Stakeholder	Comments of Stakeholder	Observations
Draft CE	RC REC regulati	on	
Section 2	1 : Short title & o	commencement	
1 (1)	PXIL	 Draft regulation have been termed "The central Electricity Regulatory Commission (Terms and conditions for Recognition and issuance of renewable energy certificate for renewable energy generation) Regulations,2009". However the process of transaction/dealing of these RECs have also been laid down in these draft regulations. It may therefore be useful to modify the name of the regulation to "The Central Regulatory Commission (Terms and conditions for recognition, issuance and Transaction of renewable Energy Certificate for Renewable Energy Generation) regulation, 2009". 	Issuance of Certificate envisages the process of transaction/dealing of the RECs also.
Section 2	2 : Definition &	interpretation	
2 (1)(m)	PTC India	 Provision limiting accreditation by "State Agency" may act as a barrier for the development of market, more so if such accreditation is unduly delayed or out rightly refused by the State Agency under certain state-specific circumstances thus forcing the generating company to accept the preferential tariff model and sale within the state. Appropriate to identify and circulate recommended list of national level accrediting agencies (both public and private), with mandate to also undertake accreditation at state level. 	 Undertaking the accreditation process at state level is necessary to keep lower transaction cost & will require understanding of the State specific issues. The detailed procedure to be issued by the Central Agency would capture the process, timelines, and criteria for registration to have better transparency. Model Regulation for SERCs under section 86

Clause No.	Stakeholder	Comments of Stakeholder	Observations
			(1) (e) of the Act as evolved by FOR provides that State Electricity Regulatory Commissions (SERCs) may designate any agency as State Agency for accreditation based on the state specific issue.
2(1) (m)	TRILEGAL	 From the regulation it is not clear to what functions State Agency undertake under Section 86 (1) (e) of the Act. The act entrust regulation making powers to the State commission by requiring it to specify the renewable purchase obligation for the Obligated Entity. Thus, State Commission cannot delegate its regulation making powers to any other entity (Also borne out in Section 97). 	 As per the REC framework which has already been explained in the Explanatory Memorandum, the State Agency will be as designated by SERC. The functions of State Agency, as envisaged in REC framework evolved by FOR, would therefore, from part of the regulations to be framed by SERCs under Section 86 (1)(e) of the Act. There is no provision seeking to delegate the regulation making functions of SERC to anybody.
2(1) (j)	TRILEGAL	Definition of Preferential tariff: SERCs fix generic tariff orders and there is no preferential tariff for renewable energy projects.	It is true that the Appropriate Commission determines 'tariff' for RE sources and definition of the term 'preferential tariff' also recognizes this fact. The tariffs for RE sources are based on norms which are generally preferential compared to norms for tariff for conventional sources. Hence, the usage of the term. The Tariff Policy also uses the expression "preferential" tariff.
2(1) (i)	PXIL	 As Power Exchange has been defined as "Power Exchange means the exchange registered under these regulation" under CERC (Power Market) Regulations 2009. The terminologies and definitions should be kept uniform in all the regulations. 	The provision is considered adequate as registration would obviously involve approval of the Commission.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
		Should be changed to "Power Exchange " means an exchange registered with the commission".	
2(1) (k)	PXIL	It would be helpful if it is clarified as to the treatment of RECs when the underlying energy sources are derecognized in the middle of the year.	Suitable provision has been made in the final regulation to clarify that REC issued at a time when the RE generator met eligibility criteria, would remain valid even if such RE generator is de-recognized at a later date.
2(1) (k)	Vanya Venturs	 'Solar including its integration with combined cycle'. Kindly note that Solar plant can also be integrated with other fuels plants viz Coal or Lignite which is infect 'Hybrid Solar Thermal Power Plant'. The definition of 'Hybrid Solar Thermal Power Plant' is given in CERC notification dated 16th September, 2009 for Terms and Conditions for tariff determination from Renewable Energy Sources Regulation, 2009, which states that it means 'The solar thermal power plant that uses other forms of energy input sources along with solar thermal energy for electricity generation' Therefore, kindly arrange to change the definition from 'Solar including its integration with combined cycle' to 'Hybrid Solar Thermal Power Plant'. 	• Regulation 2 (2) takes care of this concern.
2(1) (n)	PXIL	 Definition of state commission: Joint Commission is included in the definition clause at sub-section (64) of section 2 of the Electricity Act 2003. It may be useful to add another reference to the specific clause related to the joint commission at sub-section (1) of section 83 of the Act. Suggested: "State Commission" means the commission referred to in sub-section (64) of section 2 read with sub-section (1) of section 83 of the Act. 	Suitable provision has been made in final regulation.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
Section 3	3 : Functions & I	Role of Central Agency	
3(1)	PTC India	No criteria have been specified for appointing such Central Agency (s).	 As per the provisions of the regulation, the Commission will designate the Central Agency. Reference para 3.3.2.
3(1)	PSERC and Govt. of Punjab, Dept. of Science Tech. and Environment & non- conventional energy	 Based on accreditation by a State Agency, registration of eligible NRSE generators has been entrusted to a Central Agency at all India level. Such an arrangement is not desirable. It is suggested that registration should also be effected-at State level and necessary information passed, on to the Central Agency. In order to ensure uniformity, registration will be effected strictly in accordance with the detailed procedure which the Central Agency is required to draw up with the approval of the CERC. 	 It is more appropriate to have registration at the central level which will process all the details that would be required for transaction of RECs. Only one central agency at national level is authorized to recognize attributes from renewable generation to avoid double counting.
3 (1)	PXIL	The regulation should specify the linkages/interfaces that the power Exchange would be required to maintain with the central agency or should mention that such interfaces/linkages shall be detailed in the detailed procedure issued by the central agency.	 The Commission has the powers to direct Central Agency in regard to its function from time to time. The function of the Central Agency also includes maintaining accounts, settlement and repository. Hence, the detailed procedure to be developed by the Central Agency will provide linkages/interfaces that the power exchange would be required to maintain with the central agency.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
3 (2)	IEX	 Accreditation and verification at state level may be vetted by CERC so that generation and validation of RECs and should be as per International standards. This would ensure conversion of RECs to CERs. 	 A panel of auditors will be formed to audit all the processes in the REC mechanism. Conversion of REC to CER is not envisaged in the regulation.
3 (4)	TRILEGAL	 Regulation 3 (4): Central Agency can delegate such functions as it may consider appropriate – Commission is delegating to Central Agency, Central Agency cannot sub-delegate the functions. It's a settled law that statutory powers cannot be sub-delegated (Section 97). 	Please Refer Para No. 3.3.2.
3(1)	Dr. Anoop Singh, IIT Kanpur	Registration should also be allowed to non-REC generators also. They may participate in future. It will help in creating good RE database also.	 Accreditation is required before registration of projects. Inclusion of non-REC generators may dilute the focus of the mechanism. It is not envisaged in the regulations. Separate initiative should be undertaken to create a database.
• Secti	on 4 : Categorie	es of Certificates	
4(1)	Reliance Power	 High price of solar RECs and uncertainty over their demand/supply situation makes solar projects more risky. If they are not uniformly priced obligatory entities tend to have aversion towards RECs based from solar power project as they are highly priced compared to RECs based from other renewable and hence avoid meeting the RPO related to solar power even if there is a separate RPO for solar based power. 	Separate RPO for solar and non- solar would be mutually exclusive and would have separate treatment for compliance.
4(1)	Dr. Anoop Singh, IIT Kanpur	There is no need for categorization of certificates into solar and non-solar RECs. It will impact liquidity. Multipliers can be used for issuing RECs for different technologies.	Please Refer Para No. 3.4.2

Clause No.	Stakeholder	Comments of Stakeholder	Observations
• Secti	on 5 : Eligibility	of Certificates	
	PTC India	This limitation of sale to distribution licenses at a price not exceeding pooled cost need to be removed so as to encourage the renewable energy resources.	This is the premise on the basis of which electricity component is being distinguished from the environmental attributes.
	GE Energy	Distributed generation and stand alone captive RE power plants (with capacity > 1 MW) be included in the list of eligible entities.	 There will be issues related to energy accounting for distributed generation and hence not envisaged under the regulation. Captive RE power plants selling over and above their captive consumption will be issued RECs if such plants meet the eligibility criteria specified in the regulation.
	PSERC and Govt of Punjab, Dept of Science Tech. and environment & non- conventional energy	 In cases where the RE generator sells electricity to any licensee (other than a distribution licensee) or through power exchange or to open access consumers at a mutually agreed price and this price is more than the 'Preferential Tariff such sale should not be eligible for REC. 	Please Refer Para No. 3.5.4.
	NDPL, CLP	 Accreditation by State Agency and registration by the Central Agency should be clubbed together .i.e. once entity is accredited by the state agency then it should automatically get registered at the central level without any separate registration process. 	Please Refer Para No. 3.5.3.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	TRILEGAL	The Commission has not given any reason or justification for excluding existing PPAs – unreasonable & arbitrary.	Please Refer Para No. 3.5.2.
	Tata Power Trading	 Renewable Energy Project which are already commissioned and PPA of which have expired should be given option to go for either Preferential tariff determined by respective SERC or REC based mechanism. Commission may consider the above mentioned case for adopting REC mechanism. 	 The option of adopting a particular model is up to the developer after expiry of PPA. If such developers meet the eligibility criteria, they will be issued RECs. Eligibility criteria provides options for RE developers to choose options if they do not have any PPA.
	Moser Baer	• Eligibility criteria should also include the Captive Renewable Energy generation such as Captive Small Hydro electric Plant (CSHEP). The surplus power generated from CSHEP over the self consumption should be tradable as REC.	Please Refer Para No. 3.5.2.
	Moser Baer	Large Run of River hydro Power Electric should also fall into the eligibility criteria of REC.	 As per the MNRE guideline and the recent CERC's guideline of tariff determination for renewable energy projects only up to 25 MW of hydro plants are considered to be renewable in nature. Hence, large Run of River hydro over 25 MW do not qualify as RE.
	Moser Baer, PTC India, IREDA. ISPAT Energy Ltd.	Renewable Energy developers who have had to necessarily execute a power purchase agreement with concerned state Government / Utilities on Preferential tariff should also be eligible for the RECs.	 PPAs at preferential tariff are already viable and the consumers are bearing the extra cost for the environmental benefits. As such, RE generators having PPAs are not eligible for RECs.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	IREDA,	• Existing RE generators, tied up under long-term PPA, can be given a one-time exit option from their existing agreements to participate in the REC scheme.	Please Refer Para No. 3.5.2
	AES	 On date, most of the developers are under preferential tariff category. If RPOs are issued to all the states so that few states/obligated entities don't feel penalized, the REC market will be imbalanced with huge demand and meager supply. How does the regulation solve this concern? 	It is envisaged that all the States would come out with appropriate level of RPO. The FOR has assigned study to assess RE potential and suggest RPO for SERCs.
	AES	Sale of electricity component is capped for distribution licensee but not for sale through OA. This will ensure that sale to distribution licensee will not be as rewarding as sale through OA.	Please Refer Para No. 3.5.4.
	PXIL	 Preferential tariff is already defined. It may be appropriate to use it seamlessly in this regulation rather than introducing another price system in the form of "pooled cost of purchase" Additionally calculating the "pooled cost of purchase" may become an exercise in itself. It may actually be more useful to have a similar process nationwide for arriving at the preferential tariff for electricity generated through renewable energy source which if required be linked to the pooled cost of purchase in some form. 	Pooled cost of purchase is not the same as preferential tariff. The two concepts are different and hence have been used in relevant provisions in the regulations.
	Reliance Power	 RE generator shall be allowed to opt for any model of his choice be it preferential tariff, REC framework etc. while getting into any power purchase agreement. Since such procurement (where RE generation opts for REC framework) by the distribution utilities will also be considered in meeting their RPO, Utilities may not prefer to sign PPAs with preferential tariffs. There shall be a provision for the existing Renewable Energy generators to join the REC framework after the expiry/termination of the present PPA with preferential tariff. 	 The regulation is not obligating RE generators to adopt any specific model. They are free to opt for any kind of model. However, REC will be issued only when they meet the eligibility criteria. Procurement of only electricity component from RE projects by the distribution utilities will not be considered for the purpose of compliance of RPO by such DISCOM.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
			After the expiry/termination of the present PPA with preferential tariff, RE projects can be issued RECs only when they meet the eligibility criteria.
	Reliance Power	 In proposed regulation, it is not mentioned whether the RE project established for captive purpose can take part in REC framework. We would like to suggest that since captive RE generators are not selling energy to utility under any PPA with preferential tariff they shall also be considered as eligible entities. 	Please Refer Para No. 3.5.2
	IEX	An obligated entity should be issued RECs for its excess consumption and should also be allowed trade those additional RECs in open market.	Please Refer Para No. 3.5.2.
	IEX	 Are the proposed regulations applicable for off-grid/distributed renewable power plants? Are such plants eligible to get RECs for their renewable electricity generation? 	 Not envisaged in the regulation due to the requirement of a robust monitoring and accounting infrastructure.
	B R Vasantha Kumar	Whether the RE generators who are already supplying power under PPA can switch over to this mechanism on expiry of their PPAs.	Please Refer Para 3.5.2.
	Tata Power Trading	 Electricity generated based on Biomass includes a combination of fuel i.e. biomass and coal. There should be a maximum of 25% coal usage in overall fuel mix and the issuance of REC should also be in that ratio only. There should be a monitoring mechanism to restrict the percentage of coal usage. 	 MNRE recognizes biomass as renewable energy upto 15% usage of coal in the projects as RE sources. The same will be applicable under REC mechanism. The preferential tariff determination also considers the coal usage cost. However, the monitoring mechanism needs to be devised at state level to monitor coal usage (not only for REC issue but also while providing preferential tariff to such plants)

Clause No.	Stakeholder	Comments of Stakeholder	Observations
			The audit panel may also supervise the usage of fossil fuel on a sample basis.
	TRILEGAL	 Pooled power purchase cost: There is no reason why RE generators should not be eligible for having higher tariff more than pooled cost of power. RE generators with tariff more than pooled power purchase cost should also be eligible for the Regulation. Flexibility to sell at higher price should be provided for selling to discoms as is for selling through OA/ power exchange 	The provisions provided in the Regulations for Eligibility Criteria for issuance of Certificate is adequate.
	Dr. Anoop Singh, IIT Kanpur	 Market mechanism such as power exchange are not mutually agreed price It should be replaced as market determined or mutually agreed price 	Suitable provision has been made in the final regulation to clarify the issue.
	Dr. Anoop Singh, IIT Kanpur	Standalone systems should be allowed to participated in REC market	At present, the aim is to involve only grid connected capacity (say 250 KW) having adequate visibility for energy accounting.
	Dr. Anoop Singh, IIT Kanpur	 Pooled power purchase should exclude the cost of renewable energy. Inclusion will result in higher purchase cost and hence may penalize utilities further 	Refer Para No. 3.5.3.
	Kerala State Electricity Board (KSEB)	 KSEB is developing generation projects including renewable sources of its own for meeting a part of energy requirement of the State of Kerala. Similarly, many of the unbundled utilities are developing generation projects to meet their energy requirement. If such utilities have exceeded the RPO from its own RE sources, they may be allowed to 	Please Refer Para 3.5.2.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
		 exchange renewable energy as REC. Hence, the draft regulation may be modified as, the SEBs/ distribution utilities/ its successor generator companies with excess generation from RE over the RPO is also eligible to get REC. 	
	AMR infrastructure s pvt ltd.	Cogeneration power projects based on fossil fuel should also be allowed in REC mechanism as there is no separation of co-generation based on the type of fuel.	 REC is the market mechanism to consider environmental attributes from RE generation. Further, CERC regulations on RE tariff recognize co-generation based on non- fossil fuel only.
Section 6	6 : Denominatio	on & issue of Certificates	
	InWEA	 At times, a number of projects are connected to same point and joint meter is taken. Regulations may include suitable enabling provisions to recognise the joint Meter Readings by the utility which can form basis for issuance of RECs 	 Even when a number of projects are connected to the same point, there are meters installed at individual WEG. This will help calculate contribution of individual WEG of the total injection. Joint meter reading can be taken only for those projects which are accredited together.
6(1)	PTC India	It appears that only the scheduled energy will be accounted for issuing REC. Unscheduled renewable energy injected into the grid should also be considered	 Energy accounting for Renewable energy projects will be as per existing practice. The regulation provides for energy input information based on written communication of distribution licensee to the concerned State Load Dispatch Centre. Moreover, issuance of REC will be based on actual injection of power into grid. Therefore, whether RE is scheduled or

Clause No.	Stakeholder	Comments of Stakeholder	Observations
			unscheduled will not matter in so far as REC is concerned.
	MAHAVIR ENERGY & COAL BENIFICATION LIMITED	 Those eligible RE entities who have already completed 3 months on the day of the draft Notification i.e. 10.11.2009 or would be completing 3 months before issuance of final notification would not be eligible for REC. Concerned authorities may consider relaxing the time limit of 3 months for validity of RECs to 6 months from the date of issues of final notification as one time relief. 	The provision is considered adequate. Three months period would be reckoned only after the eligible entity has been accredited / registered.
6(1)	Dr. Anoop Singh, IIT Kanpur	REC should be issued on the net energy injected into the grid. It is to avoid inflating renewable energy injection by purchasing grid electricity and injecting it in the gird.	 REC will be issued only on the actual energy generated from RE projects and injected into the grid. This aspect can be covered in the detailed procedures
6(1)	MERC	 RE projects are typically connected at 11 kV or at sub-transmission level and have little or no visibility with SLDC. The process is time consuming and much beyond the control of RE developer and prone to discretion of the distribution licensee. With advancement of metering and communication technology, it may be feasible to introduce 'Metering arrangement and protocol for accredited RE generators to ensure secured metered energy data is available at SLDC end in timely manner with limited intervention of RE developers/ distribution licensees. It is suggested that Regulations should have suitable enabling provisions to introduce such Metering Arrangement and protocol along with third party independent agencies, which would go a long way in implementation of REC mechanism. 	These could be considered while detailing the procedure of issuance of Certificates by Central Agency.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
6(3)	NDPL, Ispat Energy Ltd, Dr. Anoop Singh, IIT Kanpur	 REC should be kept equivalent to 1 Kwh or 1 unit of electricity, in order to link the rate with each unit of electricity generated and avoid any confusion over the rate. REC should be issued for KWh of energy and not MWh and it could be stipulated that the minimum certificates issued would be one hundred. There should be lower denomination of REC. It should be 100kWh to promote smaller installation, corporate & institutions buying RECs to meet CSR objectives, enhance liquidity and participation from retail investors. 	Please Refer Para no. 3.6.2
	CLP India	Timeframe should be fixed for issuing certificates and it should be kept minimum	Please Refer Para no. 3.6.2.
Section 7 : Dealing in Certificates			
7(1)	GE Energy PTC India	 Certificate shall be dealt only through the power exchange - discriminatory provision. The market participants need to have choice to use the different platforms such as OTC trade, direct bilateral, banking etc. Trading of REC should be allowed outside the exchange as well via trading licensees. 	Please Refer Para No. 3.7.2.
	Tata Power Trading	REC trading on the Exchange should be allowed via traders as similar in case of bilateral power trading.	

Clause No.	Stakeholder	Comments of Stakeholder	Observations
7(2)	PXIL	 "Dealing in Certificates" the SL.No. (ii) of the second provision above may lead to some confusion. It may be deemed that transaction of RECs can also be done outside the exchanges, in case there are direct sales made at mutually agreed prices to traders or other licensees or open access consumers. In such a case, a parallel trading system may get developed where. 	The regulation clearly specifies that the REC transaction will take place only through power exchanges.
7	PXIL	The draft regulations have not clarified if trade can be done only between same type of non-conventional sources only (expect for differentiation between solar and non-solar) or it can be trade across the RECs irrespective of the source.	 The regulation clearly provides that Solar RECs will be sold to meet solar obligation and non-solar RECs to meet the obligation for purchase from RE sources other than solar.
7(2)	PXIL	The draft Regulation is silent about the Price discovery and Matching Mechanism to be followed by power exchange for trade of REC. The Commission should predefine the matching mechanism and price discovery process to be followed by the power exchange for allowing transactions in these RECs or whether the power exchange are free to choose the same with the final approval.	 The by-laws and rules of Power Exchange would also include the price discovery mechanism with the approval of the Commission. Suitable provision has been made in the final regulation to specifically mention about inclusion of price discovery mechanism also in the by-laws and rules of Power Exchanges.
7	Reliance Power	 Identity of buyers/Eligibility criteria with regard to holder of certificate shall be ascertained. Clarity shall be provided with regard to eligibility criteria for participants related to trading of certificates on exchange platform. 	 The Central Agency would maintain the record of REC transactions and would also provide Sate wise / Utility wise transaction details. The detailed procedure to be framed by the Central Agency with the approval of the Commission would take care of this aspect.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
7(1)	IEX	It is highly recommended the REC trade is executed through power exchanges	The same is specified in the regulation.
Section 8	: Pricing of Certif	icates	
	In WEA , Tata Power Trading, MERC , Reliance Power	 Commission should also introduce minimum price for Renewable Energy Certificates. Commission may modify the clause accordingly to introduce floor price as well as ceiling price (forbearance price) for Renewable Energy Certificates. 	Please Refer Para No. 3.8.2.
	PTC India	If Hon'ble Commission considers it necessary to fix the `forbearance price (ceiling), it should be on case-to-case basis and need to be kept at much higher level than the -highest priced renewable energy resources	 It cannot be done on case to case basis. The forbearance price will be fixed by the Commission from time to time to ensure adequate returns to developers through RECs after sale of electricity while at the same time avoiding price volatility. Suitable provision has been made in the final regulation to provide for principles on the basis of which forbearance price shall be fixed by the Commission.
	GE energy India	The ceiling price for distributed renewable energy units-not connected to the grid could also include the opportunity costs resulting from savings from avoiding grid extensions.	Distributed RE units are currently not envisaged in the regulation.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	GE energy India	The forbearance price or the non-compliance penalty should also be high enough to deter obligated entities from being non-compliant. The penalties should increase for repeat non-compliance by obligated entities.	 The forbearance price will be fixed by the Commission from time to time to ensure adequate returns to developers through RECs after sale of electricity while at the same time avoiding price volatility. Suitable provision has been made in the final regulation to provide for principles on the basis of which forbearance price shall be fixed by the Commission. Penalty mechanism will be dealt through SERC regulations.
	Moser Baer	Forbearance Price should not be imposed for Renewable Energy Sources.	Forbearance price is just a ceiling and thus the price is not imposed under the regulation.
	Ispat energy Itd., NDPL, GFL	 Forbearance price would not be a good idea. It should be left completely to the market. There should not be any forbearance price. It will limit the true price discovery of REC price in Price discovery may be left to the market. There should not be any forbearance price as the penalty/ enforcement charges may act as ceiling price. 	Please Refer Para No. 3.8.2.
Section 9	: Validity of Certi	ficates	
9(1)	PTC India	The process time for issuance of certificates should be kept as low as possible to avoid cash flow problem to RE generators.	Please Refer Para No. 3.9.2.3 months period is considered adequate.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	Reliance Power	Eligible entities shall apply for certificates within 6 months after generation instead of 3 months.	
9(2)	Mahavir Energy & Coal Benification Ltd., Reliance Power, GFL	 Validity should be 3 years and not 365 days, will provide more flexibility to investors. Validity of the Certificates should be year based instead of 365 days from the date of issue. 	Please Refer Para No. 3.9.2.
		There should not be any limit on the validity of RECs	
Section 1	0 : Fees & Charge	s	
10(1)	PXIL , Reliance Power, GFL	 The draft regulation has mentioned the rights, responsibilities and charges towards Eligible entities only yet the fees and charges and other rights and responsibilities have not been described for the obligated entities. Fees and charges shall be specified. 	 Please Refer Para No. 3.10.2. Fee and charges need to be specified to cover the operational cost and develop a sustainable mechanism.
		Any fee or charges will further reduce the REC price. Hence no fees and charges should be specified.	

Clause No.	Stakeholder	Comments of Stakeholder	Observations
10(3)	Dr. Anoop Singh, IIT Kanpur	The fees and charges collected should be shared with the state agencies for undertaking different tasks assigned under regulation.	The role & responsibilities, remuneration for state agencies will be dealt separately in SERC regulations.
10 (2& 3)	MERC	 A onetime registration fee and an annual fee for each entity participating in the REC mechanism is in order and may be made payable to the state level agency where the entity is registered. A portion of the same may be transferred to the central agency to cover the cost incurred by the central agency. Transaction cost in the power exchange may be payable to such exchange as a fixed brokerage per certificate and not as a percentage of the value of the transaction. 	 The registration for REC mechanism is proposed to be at Central level and hence the registration fee for Central Agency. The charges & remunerations for State Agency are detailed in the draft Model SERC regulation.
Section 1	11 : Funding of (Capacity building of State Agency	
	PSERC and Govt of Punjab, Dept of Science Tech. and environment & non- conventional energy	There is no provision in the draft regulations for the funding of the 'State Agency'.	This will from part of SERC regulation.
	PXIL, GFL,	 The levy of fees and charge on the eligibility entities for the purpose of capacity building of state agencies would create additional burden for participating entities. Such levies would act as deterrent towards participating in the RECs mechanism. Such capacity building programs 	Please Refer Para No. 3.11.2.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	MERC	 can be undertaken pursuant to funding from various other sources. There should not be any deductions from the proceeds of REC for capacity building of REC. Specific provision of capacity building of the State Agency. Similar provisions may also be proposed for the Central Agency. 	
Section 2	12 : Appointmei	nt of Compliance auditors	
	InWEA	 A number of conditions needs to checked before issuance of the certificates as well as while reporting on the compliance by the state agency. It will be a time consuming and complex process to confirm compliance continuously by the renewable energy generators, located in specific state, by appointing an entity which is located at national level. Thus, this function may also be undertaken by the state agency. 	Please Refer Para No. 3.12.2.
	MERC	 It will be a cumbersome process to confirm compliance of the said regulations by the renewable energy generators, located in specific state, by appointing an entity which is located at national level. Further, the auditors appointed at the national level will have to coordinate with the state level entities such as State Agency, State Load Despatch Center etc. Appointing the auditors may also be viewed as creating vigilance over the decisions of the state level entities involved in recommending the generators for registration and issuance of REC. It is feared that the appointment of said compliance auditors will lead to 	Please Refer Para No. 3.12.2

Clause No.	Stakeholder	Comments of Stakeholder	Observations
		 duplication of efforts. The purpose and role of Compliance Auditors needs to be clarified further within overall Monitoring framework. 	
Others Is	ssues		
	PTC India	The obligated entity for buying renewable energy certificates should be those entities or industry or organizations, who are either emitting more CO2 or are at the higher end of consumption at a high load factor.	 The Commission does not envisage linking REC with CO2 emissions. REC mechanism is linked with only RPO compliance. It is beyond the scope of the regulations.
	PTC India	 Some flexibility to the renewable energy developers to exercise their option whether to go fully for preferential tariff determined by the Appropriate Commission or to partly trade under preferential tariff and partly trade in the market would go a long way in speedily promoting the renewable energy sources. 	The developers can adopt any options and only if RE developers opt REC option and are eligible that such developers would be issued RECs.
	PTC India	Since it is expected that trading of renewable energy certificates will not be done - the Central Agency and entities who organize trade of renewable energy certificates would have to carry out settlement of the same, the term 'settlement' among the functions of Central Agency needs to be clarified.	 The Central Agency would issue REC and the same would be dealt in the Power Exchanges approved by the Commission. The regulation is clear in this respect.
	GE Energy India Moser Baer	 RPO obligations be enforced and there should be noncompliance penalties, if REC mechanism is to be successful. Without Mandatory implementation of Purchase obligation across all states, RECs will be insignificant. 	A model regulation has been evolved by the Forum of Regulators (FOR) to bring uniform approach about compliance mechanism under RPO.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	GE Energy India	We are certain that the upcoming regulations would provide clarity on the details regarding (a) the ownership of RECs, including for projects that pre-exist REC market creation. (b) whether offsetting of RPO is based on the year in which the REC is traded or on the year in which the REC is issued (c) definitive timeline for the issuance of the RECs from the date of submission by the RE generators and (d) processes of accreditation with the state agency), registration (with the central agency), issuance of REC (by REC registry) etc. would be transparent and easily accessible to RE generators.	The same will be covered in the detailed procedure to be developed by the Central Agency.
	PSERC, Govt of Punjab, Dept of Science Tech. and environment & non- conventional energy	 Under the EA 2003, there is no 'provision for source specific RPO as is being provided in the Regulations for Solar power. Many states such as Punjab may either not be well endowed with high solar insolation or may lack land at reasonable prices. In that event, the provision of solar specific RPO would not be justified and would put an unnecessary burden on the obligated entities of that state. In the Circumstances, it is best that there be no source specific RPO. It may not be appropriate to specifically mention the policies of the Govt. of India in the Regulations itself, such policies are drawn up from time to time are subject to modification and are being constantly finetuned. The RPO to 10% in each case will pose difficulties and place licensees located in less endowed states at a disadvantage. 	Please Refer Para No. 3.4.2.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	CLP India	Tax holiday under section 80 IA is not applicable to revenue accrued from CERs, GBI. Need to check for RECs as it will have significant impact on returns.	This is beyond the scope of this regulation.
	IREDA	 It would be more meaningful if power generation details from all RE generators are collated & maintained by the proposal central agency. This would help in monitoring of RPO compliance and ascertaining the share of RF in power mix of the country. Under the GBI (IREDA) has been assigned the task for issuance of Unique Identification Number (UID) to all upcoming wind power projects in the country. IREDA can take up the responsibility for project registration and monitoring. 	 The proposed mechanism is meant to monitor generation for entities eligible for REC only for the moment. The framework of accreditation and registration has been evolved by FOR after a lot of deliberations.
	IREDA	 In the event of default, obligated entities would be directed to deposit the amount required for purchase shortfall of REC at forbearance price (i.e. maximum price) of REC. SERC's have notified state-wise RPO along with separate enforcement charges. This may create confusion. 	A model regulation has been evolved by the Forum of Regulators (FOR) to bring uniform approach about compliance mechanism under RPO.
	IREDA	Obligated entities prefer long-term PPA. Utilities may influence RE generators located under their jurisdiction to sell their power to them under a long-term PPA, rather than selling it to 3rd parties.	This is only an apprehension.
	AES	What is the point of injection? Different states have different metering points for RE.	It will be as per the existing injection arrangements across states.
	AES	 In Maharashtra and Gujarat OA and captive customers have also be defined as obligation entities. CERC should issue common definition for obligated Entities. 	 This has been covered suitably in the model regulation under Section 86 (1)(e) of the Act. Given the fact that the framework has been

Clause No.	Stakeholder	Comments of Stakeholder	Observations
		 Not all States will implement the mechanism at one time developers of RE project will face an issue that have a market at all or the market lacks - depth for them to find buyers. 	agreed in FOR, it is expected that the mechanism would implemented by SERCs.
	Reliance Power	 Period for regulation review shall be established so as to provide a regulatory certainty. Providing a period for regulatory review not only helps in addressing limitations of the model if any but also strengths the aspect of regulatory certainty 	The authority issuing a regulation has the powers to review the regulation whenever it considers appropriate to meet the demands of change.
	IEX	 IEX expressed its willingness to extend its technical support to the central agency for providing an electronic platform for REC registration & issuance, account maintenance settlement repository and other functions. 	Detailed procedure would be evolved by the Central Agency with the approval of the Committee.
	B R Vasantha Kumar	Distribution entities who have renewable power obligation can buy the energy component at weighted average power purchase price. It is not clear whether they have also obligation to purchase the REC which is an environment attribute.	REC will be utilized to meet RPO obligation only
	B R Vasantha Kumar	 It should be clear whether any entity which has environmental obligation can buy these attributes. There is no mention about carbon credits under CDM. Do the REs under consideration have choice of opting for RECs or the CERS. Is it mandatory that these REs have to adopt the REC mechanism under the regulation being issued in this regard. If they have option then the forbearance may be influenced by the price of CERs. whether RECs are similar to carbon credits under cdm. 	REC and CDM are different mechanisms. CDM is beyond the scope of this regulation.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	Dr. Anoop Singh, IIT Kanpur	Accreditation can be linked with CDM process.	Not envisaged in the regulation and is aimed for meeting RPO compliance only though RECs.
	Dr. Anoop Singh, IIT Kanpur	The qualification criteria should be detailed for Central Agency and State agencies.	Please Refer Para 3.3.2.
	Dr. Anoop Singh, IIT Kanpur	Regulation should clarify the sharing of REC benefit with discoms.	REC benefit will remain with the developers only.
	Dr. Anoop Singh, IIT Kanpur	Banking of RECs should be allowed.	 Banking is not allowed under the regulation. A validity of 365 days is provided for REC rather than limiting it up to a particular financial year. Hence it provides adequate flexibility. The aim is to keep the REC framework simple in the beginning. Banking provision may lead to speculation and hoarding of RECs.
	Kerala State Electricity Board (KSEB)	 KSEB as a generator developing more medium hydro projects with installed capacities above 25 MW with no storage or limited storage with minimum impact on environment. Generation from such projects with least impact on environment may please be included in the RPO. 	Hydro capacity above 25 MW is not defined as renewable energy and, hence, cannot be included in the RPO.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	Kerala State Electricity Board (KSEB)	 Commission proposes to pass on the additional liability on account of purchase of REC as pass through in tariff. But it will ultimately lead to increase in Annual Revenue Requirement of the Distribution Utilities and additional financial burden on the ultimate consumers. 	 Obligated entities are already purchasing RE at preferential tariff to meet their obligation. By introducing REC mechanism, electricity component & environmental benefits have been segregated. REC represents the environmental benefits; hence by purchasing REC the obligated entities would only be paying for the environmental attributes to meet their obligation under the Act.
	Kerala State Electricity Board (KSEB)	 State Utilities who are required to procure the REC is physically not receiving any energy but has to bear the additional liability in the form of environmental attributes for the energy utilized by other State utilities. Thus the proposed regulation is actually imposing penalty on state utilities with limited renewable sources in their state. 	 REC represents the environmental benefits; hence by purchasing REC the obligated entities would only be paying for the environmental attributes to meet their obligation under the Act.
	Kerala State Electricity Board (KSEB)	 RE is not evenly distributed across the country. Hence considering the availability of the renewable potential, the percentage of RPO may be decided. But most of the SERC has been fixing a uniform percentage of RPO across the country in the absence of the present proposal. Necessary direction/ guidelines may be issued to fix realistic percentage of RPO. 	 A separate study has already been commissioned by FOR to assess the resource in different states and propose appropriate level of RPOs for all states. This aspect is beyond the scope of the present regulation.
	Kerala State Electricity Board (KSEB)	 Draft regulation is silent on the role of the State Government in promoting renewable and hence it is to be properly addressed. 	This is beyond the scope of the regulation.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
	InWEA	 It is preferred to make the State Agency responsible for submission of the quarterly compliance reports of RPO compliance of the various obligated entities. Further, such compliance reports may be made available at the SERC and CERC websites. 	This is beyond the scope of CERC regulation.
Explanat	tory Memorand	um	
	PTC India	 Penalty at Forbearance price would not be a deterrent for non-compliance of RPO. It is essential to introduce a strong deterrent mechanism by making obligate entities to pay for the shortfall at the rate of the highest cost of renewable energy. 	 This is beyond the scope of CERC regulation. There is a provision of compliance charge as well as penalty mechanism under section 142 of the Act which aim to bring discipline towards the compliance of RPO. Penalty at forbearance price will ensure that obligated entities pay the highest REC price which can be utilized for purchasing RECs to meet RPO obligation.
	CLP India	Kindly clarify the role of monitoring panel. Not clear whether they will monitor RPO compliance or performance of exchange.	 Named as Compliance auditor in the regulation: will be responsible for verifying compliance of all the processes under REC mechanism. Detailed in Clause 12 (1) of the regulation.
	AES	 Penalties proposed in the draft RE regulation are welcome but the enforcement mechanism for the ensuring that the obligated entities comply with their respective RPOs has not been clearly laid out. 	 This is beyond the scope of this regulation. The compliance mechanism would be dealt in State Regulations by SERCs. FOR has evolved a Model regulations under

Clause No.	Stakeholder	Comments of Stakeholder	Observations
			Section 86 (1) (e) of the Act for SERCs to bring uniformity in the approach for RPO compliance and entrust REC as valid instrument for RPO compliance.
	AES	Since different states have different power purchase costs, does that mean that forbearance price of REC will vary according to States?	 The Forbearance price would not vary across the State. There would be separate forbearance price and floor price for solar and non- solar RECs. Suitable provision has been made in the final regulation to provide for the principles for fixation of forbearance price and floor price.
3.2 (Step 7)	Kerala State Electricity Board (KSEB)	 Commission has proposed to impose penalty on Distribution Utilities, who have not met the RPO obligation as stipulated by the SERCs. But, most of the State Distribution Utilities are only procurer of electricity. Suitable measures shall be initiated at Central and State level to promote energy from renewable sources at most competitive price 	 This is beyond the scope of this regulation. The enforcement charge will be levied when the obligated entities are not able to meet their obligation. The regulation, however, provides that in case of genuine difficulty in complying with the RPO because of non-availability of certificates, the obligated entity can approach the Commission for carry forward of compliance requirement to the next year (Model SERC Regulation).
3.2	Kerala State Electricity Board (KSEB)	The potential renewable sources such as SHP and Wind are only seasonal. In South India, the generation from SHP's and Wind are limited only for three to four months, i.e. during monsoon months. All the RPO obligation of KSEB in terms of percentage shall be met from the energy generated during a few months in a year.	 This is beyond the scope of this regulation. The RPO targets are on yearly basis.

Clause No.	Stakeholder	Comments of Stakeholder	Observations
3.2 (Step 7)	MERC	 It is understood that Central Registry i.e. the Central Agency shall furnish details of REC purchase and redemption to respective SERCs. Draft Model SERC regulation states that certificates purchased by the obligated entities from the power exchange shall be deposited to the respective SERCs (and not the Central Agency). Further, it will be the State Agency which will submit the quarterly status report (and not the Central Agency) to the respective SERC in respect of compliance of renewable purchase obligation by the obligated entity. It is preferred to provide more clarity as regards role of State Agency, Central Agency in monitoring and reporting of RPO compliance of the various obligated entities. 	The Explanatory clarifies the roles of different agencies.
3.2	NDPL	Provide strict timelines for each process of operational framework in order to avoid any bureaucratic government agencies delays during entire chain of getting the REC issued by the Central Agency.	Suitable provision has been made in the final regulation to provide that RECs shall be issued within 15 days from the date of application.

List of Participants in Orla hearing on CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2009, dated 15th December 2009

Sr. No.	Name of Organisation
1	Gujarat Urja Vikas Nigam Ltd.
2	Indian Wind Energy Association
3	PTC India Limited
4	Indian Energy Exchange Ltd.
5	Punjab State Electricity Board
6	Punjab State Electricity Regulatory Commission
7	ABPS Infrastructure Advisory Pvt Ltd.
8	Mumbai Grahak Panchyat, Mumbai
9	North Delhi Power Ltd. (NDPL)
10	Power Exchange India Ltd. (PXIL)
11	Dalmia Chilli Mills New Delhi
12	Athena Power Pvt Ltd.
13	Energy Infratech Pvt Ltd.
14	THDC India Ltd.
15	Abellon Clean Energy Ltd.
16	SJVNL
17	PricewaterHouse Cooper
18	World Institute of Sutainable Energy (WISE) Pune
19	TERI
20	NLDC
21	Jupitar Solar Pvt Ltd.
22	ERPC, Kolkata
23	NVVL
24	NTPC
25	NHPC
26	RETL
27	TNEB
28	CLP Wind Forums (India) Pvt. Ltd.
29	Tata Power Trading Co. Ltd.
30	Trilegal
31	Reliance Power Limited
32	AES India Pvt. Ltd.
33	Mahavir Energy & Coal Benefication Limited
34	Guttaseema Wind Energy Co. Pvt. Ltd.

35	Moserbaer Projects Pvt. Ltd.
36	Indian Renewable Energy Development Agency Limited
37	Gensol Consultant Pvt Ltd.
38	Indian Institute of Technology, Kanpur
39	Kerala State Electricity Board
40	Torrent Power Pvt Ltd.
41	DSCL sugar
42	Government of Punjab
43	Maharashtra Electricity Regualatory Commission (MERC)
44	Gujarat Fluorochemicals Ltd.