



# KERALA STATE ELECTRICITY REGULATORY COMMISSION

## TENDER NOTICE (No.1/2011)

Kerala State Electricity Regulatory Commission (KSERC) invites separate sealed tenders from reputed Professional Consultancy Firms for carrying out below mentioned consultancy assignments.

1. Developing Regulations and norms for determination of tariff for Generation, Transmission and Distribution
2. Separation of Common expenses, determination of regulatory ratebase for returns and treatment of depreciation of small distribution licensees in Kerala

The detailed Terms of Reference (ToR) and application formats (annexure I & II) for the above assignments are available in website of the Commission [www.erckerala.org](http://www.erckerala.org)

Last date for receipt of Tenders : 02-05-2011 before 15.00 hours

Opening of Technical bid : 02-05-2011 at 16.00 hours.

Separate offers may be submitted for the two assignments. The Earnest Money Deposit shall be Rs.20,000/- each which shall be in the form of Demand draft in favour of the Secretary, KSERC, Thiruvananthapuram. The successful bidder shall execute an agreement with the Commission with a security deposit of 10% of the bid amount, which can be in the form of bank guarantee also. The payment for the selected agency will be as per the progress of work, which shall be 15% at the time of submitting the inception report, 45% at the time of submitting the draft report/regulations, 35% at the time of final report and the balance 5% along with return of security deposit within one month of satisfactory completion of assignment. The Commission reserves the right to award the assignment either to one agency or more than one. It also reserves the right to amend or withdraw any of the terms and conditions contained in the tender document or to reject any or all the tenders without giving any notice or assigning any reason. The decision of the Commission in this regard shall be final and binding on all. Financial Offer and Technical Offer for each assignment should be submitted to the undersigned in two different envelopes superscribing the name of the Assignment.

Sd/-  
(K.S.Premachandra Kurup)  
Secretary

Date : 25-3-2011

Place : Thiruvananthapuram

## **1. TERMS OF REFERENCE FOR DEVELOPING REGULATIONS AND NORMS FOR DETERMINATION OF TARIFF FOR GENERATION, TRANSMISSION AND DISTRIBUTION**

### ***Introduction***

As per Section 61 of the Act, the appropriate Commissions have to specify terms and conditions for determination of tariff. Based on a petition from Kerala State Electricity Board for specifying norms for determination of tariff, the Kerala State Electricity Regulatory Commission in its order dated 1-12-2010 had decided to engage consultants for preparing the draft regulation and norms for determination of terms and conditions of tariff applicable to Generation, Transmission and Distribution entities of Kerala State Electricity Board. Accordingly this ToR is issued for inviting proposals on the following:

### ***Objectives***

- a) To study the historical technical and financial performance of generation, transmission and distribution of KSEB*
- b) To formulate appropriate norms reflecting efficient performance based on historical data for determination of tariff for generation, transmission and distribution functions of KSEB as per the provisions of Electricity Act 2003 and National Electricity Policy and Tariff Policy*
- c) To formulate appropriate incentive disincentive mechanism for linking performance norms and efficiency*

### ***Scope of work***

- a) Suggest appropriate principles, norms and methodologies for determination of tariff for generation, transmission and distribution functions considering the provisions in the Electricity Act 2003, and based on the experiences in various states and Central Commission taking into account the favourable and unfavourable conditions peculiar to the power sector of Kerala.*
- b) Evolve appropriate methodology for determining performance linked norms for various expenditure items in Generation, Transmission and Distribution*

- c) Study the historical financial and technical performance of KSEB and prepare baseline data for evolving norms and also prepare a benchmark study based on comparable entities*
- d) Suggest performance linked norms reflecting efficiency in line with the principles and methodologies as noted in item (a) for generation, transmission & distribution of KSEB, considering historical data and efficiency and based on benchmarking with performance with comparable entities*
- e) Suggest suitable incentive disincentive mechanism for norms*
- f) Prepare appropriate regulatory formats and reporting mechanism*
- g) Evolve standards of performance indices/parameters that can be made applicable for generation, transmission distribution .*
- h) Prepare draft regulations incorporating the above for generation, transmission and distribution functions of KSEB*
- i) Analyse the comments and suggestions received from the stakeholders on the draft Regulations, and recommend actions to be taken to the Commission*
- j) Modify the draft Regulations for notification, considering the comments received on the published draft Regulations and based on discussions with the Commission on the desired approach*
- k) Prepare an estimate of likely impact of new regulations on retail tariff*

*The scope of work also includes the following*

- a) Baseline data for T&D losses, loss reduction trajectory*
- b) Capital expenditure approval norms, monitoring capital expenditure*
- c) Expenditure norms for various expenses - employee costs, R&M, A&G, Interest and financing charges etc, treatment of depreciation, working capital and rate of return etc.,*
- d) Operational Performance norms for G/T/D functions and criteria for linking performance to cost recovery*
- e) Determining nature (controllable and uncontrollable) of various expenses and its treatment*

- f) Incentive/disincentive mechanism and sharing mechanism for efficiency parameters*
- g) Appropriate methodology for separation of distribution and retail supply business*

*Necessary field studies may be undertaken by the consultant as required.*

The study recommendations shall also be amenable to multiyear tariff regime.

### **Duration of assignment**

The study shall be completed within 6 months from the date of award

### **Deliverables**

- Inception report at the end of one month
- Draft Discussion Paper at the end of 4th month
- Draft Tariff Regulations at the end of the 5th month
- Final Modified Discussion Paper and draft Tariff Regulations report at the end of the 6th month, after incorporating the Commission's suggestions on the draft Discussion Paper and draft Tariff Regulations
- Technical and financial reporting formats for regulatory compliance
- Summary of comments and suggestions received from the stakeholders on the published draft Tariff Regulations and Discussion Paper
- Modified Tariff Regulations after incorporating changes based on discussions with the Commission

Six hard copies of the report Discussion Paper and draft Regulations along with a soft copy shall be submitted to this Commission.

### **Qualification criteria**

The Consultants shall have adequate experience in matters of relating to the electricity sector in should India and should have carried out at least two assignments in the last three years for different Regulatory Commissions or for licensees in the matter of tariff or ARR&ERC determination in single year or multiyear framework. The proposed members of the team for the assignment shall have at least two persons having adequate experience in the relevant field. The proposed team members shall necessarily work for the assignment as proposed and no substitution shall be permitted without prior concurrence.

**Evaluation criteria**

The consultants shall be required to submit separate bids for Technical and Financial Offers in duly sealed envelopes. The technical components will carry 70% weightage and balance 30% is assigned for financial component. The weights assigned for different items in the technical components are as follows

The consultants' relevant experience for the assignment	:	20%
The quality of the methodology proposed	:	40%
The qualification and experience of staff proposed	:	40%

Technical bids scoring less than 70 basis points will not be considered and the financial bids of such bidders will be returned unopened. The proposal with the lowest cost will be given the financial score of 100% and other proposals will be given financial scores inversely proportional to their prices.

The selection shall be based on the total score obtained by adding the weighted technical and financial scores.

**DETAILED PROPOSAL FOR CONSULTANCY**

*(Five copies of the proposal along with summary to be submitted to the Secretary, KSERC).*

**I. GENERAL INFORMATION**

1. Title of the proposed assignment
2. Name and address of the Organisation/Institution
3. Name and designation of the Key person
4. Contact address of the Key person (email/fax/telephone)
5. Networth/turn over of the organization/Institution

**II TECHNICAL SPECIFICATIONS**

6. Organization/Institution(s) where the assignment will be carried out
7. Details of Collaboration with other institutions if any proposed for the assignment
8. Brief review of the State of art in the field (national and international)
9. Detailed Approach and methodology for undertaking the assignment
10. Duration of the assignment and work plan
11. Facilities available for the proposed assignment in the applicant's Organization
12. Details of assignments undertaken/Previous experience of the proposer in this or related field
13. Biographical sketch of the proposed team
  - a. Name
  - b. Designation
  - c. Date of birth
  - d. Academic qualifications and experience
  - e. Field of major interest
  - f. Contribution in the proposed assignment
  - g. Additional information (if any)

(Signature of key person/principal investigator/head of the team)

**DETAILED PROPOSAL FOR STUDY  
(FINANCIAL)**

**I. GENERAL INFORMATION**

1. Title of the proposed study
2. Name and address of the organisation /institution
3. Name and designation of the key person
4. Contact address of the key person (email/fax/telephone)
5. Networth /turn over of the organization

**II FINANCIAL**

6. Total cost of the assignment
  - a. Consultancy charges
  - b. Travel & per diem
  - c. Others (give details)
  - d. Total

(Rupees \_\_\_\_\_ )

Signature of key person/principal investigator/head of the team)

## **2. TERMS OF REFERENCE for Separation of Common expenses, determination of suitable regulatory ratebase for returns and treatment of depreciation of small distribution licensees in Kerala**

### **Introduction**

The Kerala State Electricity Regulatory Commission is regulating 7 distribution licensees other than the Kerala State Electricity Board in the State of Kerala. These licensees are purchasing power from the Kerala State Electricity Board in bulk for retail supply. The following are the licensees:

1. Thrissur Corporation
2. Kinesco Power and Utilities Private Limited
3. Rubberpark India (P) Limited
4. Cochin Special Economic Zone
5. Kanan Deven Hill Plantations Company Limited
6. Cochin Port Trust
7. Technopark

As far as some of these licensees are concerned, electricity distribution is a subsidiary business along with their major business. As per the provisions of the Electricity Act 2003, the Commission has to determine the tariff of the distribution licensees. Every year the Aggregate Revenue Requirements of the licensees are analysed and based on which the adequacy of tariff is determined. It is a practice that, these licensees use the resources of the main /subsidiary business for carrying out the business of distribution of electricity and hence, some expenses are jointly incurred for the electricity business and other business. It is observed that since the nature of operations of each of the licensees is different, a uniform procedure is not feasible. It is also to be ascertained on what basis return is to be allowed for these licensees, since most of the licensees are non-company entities which are funded by the Government for developing distribution assets. The Commission in its order dated 13-12-2010 considered these matters and decided to institute an independent study on these issues. Accordingly, the Terms of Reference is issued for inviting suitable proposals from reputed consultants.

### **Objectives**

- a) Study the financial operations of the distribution licensees mentioned and determine the level of equity or appropriate ratebase to be considered for providing return.



- (b) Study the claim of depreciation on assets including those created out of grants and contribution and its treatment
- (c) Study the nature of joint costs and propose suitable methodology for isolating the costs for electricity distribution business from parent institution's business.

### **Scope of work**

- a) Study the operations of the licensees and identify the areas where costs are incurred jointly with the parent organisation
- b) Study and report whether such joint costs can be incurred and accounted separately in an economical manner
- c) Suggest suitable methodology for segregation of such costs if the separation of costs are not possible
- d) Study the capital structure of the licensees and suggest appropriate ratebase for allowing returns
- e) Identify the assets which are developed with contribution/grant from Government or any such agencies including consumers
- f) Estimate the depreciation on assets which are developed out of contribution/grants and other assets
- g) Suggest suitable methods for treatment of depreciation already claimed on assets developed with contribution/ grants
- h) Suggest appropriate norms for allowable expenses for distribution business
- i) Suggestions for introducing differential Bulk Supply Tariff/Retail Supply Tariff in the case of small licensees

The proposed work is basically a desktop study. However, the selected consultant may undertake necessary field studies if required. Profiles of the licensees are given separately in the Annexure.

### **Duration of assignment**

The study shall be completed within 6 months from the date of award

### **Deliverables**

1. Inception report at the end of one month
2. Periodic reporting on the progress of work to the Commission
3. Draft Discussion report at the end of 5th month
4. Final Modified Discussion report at the end of the 6th month, after incorporating the Commission's suggestions on the draft Discussion Paper

5. Technical and financial reporting formats for regulatory compliance
6. Summary of comments and suggestions received from the stakeholders on the published Discussion Paper
7. Amendments/modifications to the regulations after considering the changes in the discussion paper based on discussions with the Commission

Six hard copies of the report along with a soft copy shall be submitted to this Commission.

### **Qualification criteria**

The Consultants should have adequate experience in matters relating to the electricity sector in India and should have carried out at least two assignments in the last three years for different Regulatory Commission or for licensees in the matter of tariff or ARR&ERC determination in single year or multiyear framework. The consultant should also have experience in company accounting principles and practices. The proposed members of the team for the assignment shall have at least two persons having adequate experience in the relevant field. The proposed team members shall necessarily work for the assignment as proposed and no substitution will be permitted without prior concurrence of the Commission.

### **Evaluation criteria**

The consultants shall be required to submit separate bids for Technical and Financial Offers in duly sealed envelopes. The technical components will carry 70% weightage and balance 30% is assigned for financial component. The weights assigned for different items in the technical components are as follows:

The consultants' relevant experience for the assignment	:	20%
The quality of the methodology proposed	:	40%
The qualification and experience of staff proposed	:	40%

Technical bids scoring less than 70 basis points will not be considered and the financial bids of such bidders will be returned unopened. The proposal with the lowest cost will be given the financial score of 100% and other proposals will be given financial scores inversely proportional to their prices.

## PROFILE OF SMALL DISTRIBUTION LICENSEES IN KERALA<sup>1</sup>

### 1. Cochin Port Trust (CPT)

Cochin Port Trust is a deemed distribution Licensee for distribution of electricity in the Cochin Port Trust area under the provisions of the Electricity Act 2003. The area of supply of CPT was extended by including the Special Economic Zones (SEZ) at Vallarpadom and Puthuvypeen by the Kerala State Electricity Regulatory Commission in the month of January 2010.

CPT receives power at 110 kV from the Kerala State Electricity Board (KSEB) for its distribution and supply within the licence area in Willingdon Island and at 11kV for meeting the requirements at Vallarpadom and Puthuvypeen. A brief consumer profile of CPT is given below:

Profile of CPT (FY 2008-09)

Consumer category	No of Consumers	Energy sold(MU)	Revenue (Rs.lakhs)
HT	22	14.439	825.41
LT-I domestic	720	1.466	32.28
LT-II colonies	2	0.223	13.08
LT-III Industry	1	0.002	0.13
LT-Others	24	0.251	12.65
LT-Commercial	254	10.81	675.02
Self consumption		4.220	161.16
<b>Total</b>	<b>1023</b>	<b>31.411</b>	<b>1719.73</b>

The aggregate revenue requirement for the financial year 2010-11 approved is Rs 1836.51 lakhs and the expected income from charges is Rs 1783.4 lakhs.

### 2. Kanan Deven Hill Plantations Company Private Limited (KDHPCL)

Kanan Deven Hill Plantations Company Private Limited is a distribution licensee supplying electricity in Munnar. The KDHPCL obtained the Licence for distribution through the transfer of licence from M/s Tata Tea limited as per the order dated 9-1-2007 of the Commission.

Profile of KDHPCL (FY 2008-09)

Category of Consumers	No of Consumers	Energy Sales (MU)	Revenue (Rs.lakhs)
HT I industrial	8	8.50	345.82
HT IV commercial	6	0.90	46.06
LT I Domestic	11696	4.25	61.72

<sup>1</sup> The profile of licensees other than KSEB is given for information purpose only. The figures are not final.

LT II Colonies	8	1.14	71.11
LT IV Industries	35	0.28	11.83
LT V Agriculture	1	0.03	0.19
LT VI Non-domestic	346	0.72	59.51
LT VII Commercial	944	2.10	174.90
Street lighting	2	0.23	9.71
KDHPCL(own consumption)		16.42	579.29
<b>Total</b>	<b>13046</b>	<b>34.57</b>	<b>1360.14</b>

The total ARR approved by the Commission for the year 2010-11 is Rs.1410.90 lakhs and the revenue from tariffs and non-tariffs is Rs.1417.13 lakhs, with a net revenue surplus estimated as Rs.6.23 lakhs.

### 3. Thrissur Corporation

Thrissur Corporation is a deemed distribution Licensee under the provisions of Section 14 of Electricity Act 2003. The licence area includes ten miles radius from the Vadakkumnathan temple in Thrissur which come under the former Thrissur Municipality. Presently, Thrissur Corporation (TC) receives power at 66 kV from the Kerala State Electricity Board (KSEB) for supplies to the consumers within the Corporation area.

Profile of Thrissur Corporation (FY 2008-09)

Consumer Category	No of consumers	Energy Sold(MU)	Revenue(Rs.lakhs)
Domestic	17600	29.13	670.00
Non Domestic	14940	36.78	2974.00
Agricultural	521	0.14	2.00
Industry	1092	21.60	949.00
<b>Total</b>	<b>34153</b>	<b>87.66</b>	<b>4595.00</b>

The ARR for the year 2009-10 is Rs 51.04 Crore and the expected revenue from charges is Rs 56.28 Crore. Thus surplus is Rs.5.24 Crore.

### 4. KINESCO Power And Utilities Private Limited (KPUPL)

KINFRA Export Promotion Industrial Parks Limited (KEPIP) was a deemed distribution Licensee under the first provision of Section 14 of Electricity Act, 2003 for supplying electricity to various establishments within the park area. As per the order G.O.(MS) No.88/2008/ID dated 27th June 2008 a joint venture company between KINFRA and NTPC Electric Supply Company Ltd (NESCL) was formed and the licence for distribution of electricity in the Industrial Parks, SEZ and other industrial

projects was transferred to the new entity. The Order approving the transfer of Licence for distribution of electricity in the Industrial Parks of Kinfra at Kakkanad, Kalamassery and Palakkad from KEPIP to KPUPL was issued by the Commission on 30-11-2009.

**Profile of KPUPL (FY 2008-09)**

Category of Consumers	No of Consumers	Energy Sold(MU)	Revenue (Rs.lakhs)
HT consumers	24	29.41	1,327.91
LT consumers	75	3.77	174.77
Temporary connections	08	00.31	34.18
<b>Total</b>	<b>107</b>	<b>33.49</b>	<b>1,536.86</b>

In the FY 2009-10, the approved gross ARR was Rs 2689.11 lakhs and the revenue from tariffs and non-tariffs estimated is Rs. 2781.5 lakhs. Thus the net revenue surplus provisionally estimated as Rs.92.39 lakhs.

## **5. Technopark**

Government of Kerala had issued a licence for distribution of electricity to Technopark, Thiruvananthapuram as per G.O.(P) No. 19/99/PD dated 12th July 1999 for distribution of power to various establishments within the Technopark Campus, Thiruvananthapuram. As per the provisions of the Electricity Act 2003, Technopark became a deemed distribution licensee.

Technopark was receiving electricity through three 11kV feeders from the Kazhakuttom 110kV substation of the Kerala State Electricity Board (KSEB). The Licensee has subsequently commissioned a 110/11 kV substation at the Kazhakuttom campus in the month of August 2009 for meeting the additional load in Phase II and Phase II areas.

**Profile of Technopark (FY 2008-09)**

Category of Consumers	No of Consumers	Energy Sold((MU)	Revenue (Rs.lakhs)
HT consumers	10	10.18	536.99
LT consumers	259	30.02	1543.32
Self Consumption		1.28	048.051
<b>Total</b>		<b>41.48</b>	<b>2128.361</b>

The aggregate revenue requirement for the financial year 2010-11 is Rs 2481.25 lakhs and the estimates income from charges is Rs.2556.37 lakhs. The gap for the year is Rs 75.12 lakhs.

## 6. Cochin Special Economic Zone (CSEZ)

Cochin Special Economic Zone comprises of 105 acres in Kakkanad in Kochi. Distribution Licence was granted to CSEZ by Government of Kerala vide G.O (Rt) No.118/02/PD dated 20-06-02, which became a deemed licensee as per the provisions of the Act. CSEZ receives power at 110 KV from KSEB.

**Profile of CSEZ (FY 2008-09)**

Category of Consumers	No of Consumers	Energy Sales (MU)	Revenue(Rs.lakhs)
HT consumers	29	25.270	1457.25
LT consumers	97	05.740	224.48
Temporary	01	00.030	09.870
Total	127	031.04	1691.6

In the FY 2010-11, the approved gross ARR was Rs.1725.76 lakhs and the revenue from tariffs and non-tariffs estimated as Rs.1880.89 lakhs. Thus the net revenue surplus is about Rs.155.13 lakhs.

## 7. Rubber Park India (P) Ltd

Rubber Park India [P] Limited (RPIL) is a deemed distribution Licensee under the Electricity Act, 2003. The original licene was granted by the Government for supplying electricity to various establishments in the park area, vide G.O. (P) No: 20/2003/PD dated 17 June 2003. Presently, the Rubber Park India [P] Limited receives electricity at 110 kV from the Kerala State Electricity Board and supply to the establishments/industrial units within the park area through prepaid meters at tariff rates of the KSEB.

**Profile of RPIL (FY 2010-11)**

Category	No of consumers	Consumption MU	Revenue (Rs.lakhs)
HT	14	21.05	947.04
LT	10	1.20	56.64
Temporary	10	00.09	10.21
Rubber Park Utilities	01	00.11	06.88
Total	35	22.45	1020.77

The aggregate revenue requirement for the financial year 2010-11 approved by the Commission is Rs 954.29 lakhs and the estimated income from charges is Rs. 1053.77 lakhs. The gap is Rs 99.48 lakhs.

**DETAILED PROPOSAL FOR CONSULTANCY**

*(Five copies of the proposal along with summary to be submitted to the Secretary, KSERC).*

**I. GENERAL INFORMATION**

1. Title of the proposed assignment
2. Name and address of the Organisation/Institution
3. Name and designation of the Key person
4. Contact address of the Key person (email/fax/telephone)
5. Networth/turn over of the organization/Institution

**II TECHNICAL SPECIFICATIONS**

6. Organization/Institution(s) where the assignment will be carried out
7. Details of Collaboration with other institutions if any proposed for the assignment
8. Brief review of the State of art in the field (national and international)
9. Detailed Approach and methodology for undertaking the assignment
10. Duration of the assignment and work plan
11. Facilities available for the proposed assignment in the applicant's Organization
12. Details of assignments undertaken/Previous experience of the proposer in this or related field
13. Biographical sketch of the proposed team
  - a. Name
  - b. Designation
  - c. Date of birth
  - d. Academic qualifications and experience
  - e. Field of major interest
  - f. Contribution in the proposed assignment
  - g. Additional information (if any)

(Signature of key person/principal investigator/head of the team)

**DETAILED PROPOSAL FOR CONSULTANCY  
(FINANCIAL)**

**I. GENERAL INFORMATION**

1. Title of the proposed study
2. Name and address of the organisation /institution
3. Name and designation of the key person
4. Contact address of the key person (email.fax/telephone)
5. Networth /turn over of the organization

**II FINANCIAL**

6. Total cost of the assignment
  - a) Consultancy charges
  - b) Travel & per diem
  - c) Others (give details)
  - d) Total

(Rupees \_\_\_\_\_ )

(Signature of key person/principal investigator/head of the team)