

Empanelment of Laboratories for Check Testing under Standards & Labelling Programme – Round II

Request for Expression of Interest

Last Date of Submission: 16/08/2019

Bureau of Energy Efficiency

Ministry of Power, Government of India,

4th Floor Sewa Bhawan, R. K. Puram,

New Delhi - 110066

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Critical Information

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1. Introduction

1.1 About BEE

The mission of Bureau of Energy Efficiency (BEE) is to develop policy and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act (EC Act), 2001 with the primary objective of reducing energy intensity of the Indian economy. This will be achieved with active participation of all stakeholders, resulting in accelerated and sustained adoption of energy efficiency in all sectors.

The setting up of Bureau of Energy Efficiency (BEE) provides a legal framework for energy efficiency initiatives in the country. The Act empowers the Central Government and in some instances the State Governments to:

- 1. Notify energy intensive industries, other establishments, and commercial buildings as designated consumers.
- 2. Establish and prescribe energy consumption norms and standards for designated consumers.
- 3. Direct designated consumers to designate or appoint certified energy manager in charge of activities for efficient use of energy and its conservation.
- 4. Get an energy audit conducted by an accredited energy auditor in the specified manner and intervals of time.
- 5. Furnish information with regard to energy consumed and action taken on the recommendation of the accredited energy auditor to the designated agency.
- 6. Comply with energy consumption norms and standards, and if not so, to prepare and implement schemes for efficient use of energy and its conservation.
- 7. Prescribe energy conservation building codes for efficient use of energy and its conservation in commercial buildings State Governments to amend the energy conservation building codes to suit regional and local climatic conditions.
- 8. Direct owners or occupiers of commercial buildings to comply with the provisions of energy conservation building codes.
- 9. Direct mandatory display of label on notified equipment and appliances.
- 10. Specify energy consumption standards for notified equipment and appliance.
- 11. Prohibit manufacture, sale, purchase and import of notified equipment and appliances not conforming to standards.

The Energy Conservation Act, 2001 defines the powers of the State Government to facilitate and enforce efficient use of energy and its conservation. The State Governments have to designate State Designated Agencies in consultation with the Bureau of Energy Efficiency to coordinate, regulate and enforce the provisions of the Act in the State. Thus, the State Designated Agencies are the strategic partners for promotion of energy efficiency and its conservation in the country.

1.2 Organization

BEE is a multi-disciplinary body with a sanctioned strength of 19 personnel. Under the provisions of the Energy Conservation Act, 2001, Bureau of Energy Efficiency has been established with effect from 1st March, 2002 by merging into it, the erstwhile Energy Management Centre, being a society registered under the Societies Registration Act, 1860, under the Ministry of Power.

The mission of the Bureau of Energy Efficiency is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of reducing energy intensity of the Indian economy.

1.3 Functions of BEE

BEE co-ordinates with designated consumers, designated agencies and other organization; recognizes, identifies and utilizes the existing resources and infrastructure, in performing the functions assigned to it under the E.C Act, 2001. The Act provides for regulatory and promotional functions. The major functions of BEE include:

- Develop and recommend to the Central Government the norms for processes and energy consumption standards.
- Develop and recommend to the Central Government minimum energy consumption standards and labeling design for equipment and appliances.
- Develop and recommend to the Central Govt. specific energy conservation building codes.
- Recommend the Central Government for notifying any user or class of users of energy as a designated consumer.
- Take necessary measures to create awareness and disseminate information for efficient use of energy and its conservation.

1.4 The Energy Conservation Act, 2001

The Energy Conservation Act, 2001 (ECA) forms the core of the legal framework put in place by India to promote energy efficiency and conservation. ECA came into force with effect from March 1, 2002. Some important sections of ECA relevant to BEE are:

- Section 1 Short title, extent and commencement
- Section 2 Definitions
- Section 3 Bureau of Energy Efficiency-creation, administration
- Section 12 Transfer of Assets and Liabilities of Energy Management Center to BEE
- Section 13 Powers and functions of the BEE
- Section 14 Power of Central Government to Facilitate and Enforce Efficient use of Energy and its Conservation
- Section 15 -Power of State Government to Facilitate and Enforce Efficient use of Energy and its Conservation
- Section 16 Constitution of State Energy Conservation Fund
- Section 17 Power of Inspection
- Section 18 Power of Central Government to issue directions
- Section 41 Restriction on Civil Courts
- Section 42 -Appeal to High Court
- Section 44 Offences triable by Special Courts
- Section 48 -Authorities under the Act
- Section 26 Penalties and Adjudication
- Section 30 Appellate Tribunal for Energy Conservation
- Section 48 Default by Companies
- Section 52 Power to obtain Information
- Section 56 Power of Central Government to make rules
- Section 57 Power of State Government to make rules
- Section 58 Power of BEE to make regulations
- Section 62 Power to remove difficulties

1.5 Standards and Labeling Scheme

The key objective of this programme is to provide the consumer an informed choice about the energy saving and thereby the cost saving potential of the relevant marketed product. The scheme was launched on 18th May 2006 and is presently invoked for 23 equipment/appliances, i.e. Room Air Conditioner (Fixed Speed), Colour Television, Direct Cool Refrigerator, Distribution Transformer, Frost Free Refrigerator, Stationary Type Water Heater, Tubular Fluorescent Lamps, RAC (Cassette, Floor Standing Tower, Ceiling, Corner AC) Room Air Conditioner (Variable Speed), Led Lamps, Ceiling Fan, Computer, Domestic Gas Stove, General Purpose Industrial Motor, Agricultural Pump Set, Washing Machine, Ballast, Solid State Inverter, Office

Automation Products, Chillers, Microwave Oven, Diesel Engine Driven Mono-set pumps for Agricultural Purposes and Diesel Generator Set, of which the first 10 appliances have been notified under mandatory labeling. The other appliances are presently under voluntary labeling phase. The energy efficiency labeling programs under BEE are intended to reduce the energy consumption of appliance without diminishing the services it provides to consumers.

The S&L program of BEE has advanced at a rapid pace. From Preparatory stage to Mandatory stage, testing has been identified as a key component of S&L program. Effective testing helps to assess the actual performance of products in the preparatory stage, thus helping in setting realistic standards to transform the market. Testing also plays a key role in voluntary/mandatory phase to ensure authentic compliance to standards.

Considering the growing penetration of S&L program in India and the increasing number of products for check testing, BEE has decided to empanel test laboratories to conduct check test as per the scheme parameters.

1.6 Objective of Check Testing

Check testing is one of the activities carried out by BEE as a verification process to establish compliance of the displayed label appliances/equipment with respect to the energy performance standards. The verification process has started since 2009. BEE has been doing this verification in two stage i.e., 1st check testing and 2nd check testing (for the failed products) in the check testing.

To increase the check testing activity of star label appliances, BEE is planning to carry out testing of appliances registered under S&L program in government/private laboratories (independent third-party lab NABL accredited) for all-star labelled appliances.

2. Terms of Reference

2.1 Scope of Work & Deliverables

- 2.1.1. Testing shall be done as per the test parameters defined in BEE schedules/Gazette notification (as applicable) for the appliances mentioned in Annexure 1.
- 2.1.2. BEE shall provide appliance wise sampling plan (auto generated on web portal) to IAME for carrying out check testing.
- 2.1.3. The samples (equipment / appliances) will be randomly picked from market by the IAME (Independent Agency for Monitoring and Evaluation) on behalf of BEE and subsequently will be transported to the test laboratories.
- 2.1.4. The sample will be delivered to the laboratories by IAME in packed condition and shall be opened at the laboratories in presence of lab officials and IAME official.
- 2.1.5. On the receipt of sample(s), laboratory shall check for presence of hologram (pasted by IAME before transportation), star label on the sample, the physical condition of the sample, availability of product manual for the sample and complete sub-parts accessories for the sample (if they exists).
- 2.1.6. Laboratories shall ensure that transporter must handover the original purchase reciept or invoice to the laboratory representative while sample delivery.
- 2.1.7. Laboratory shall always give priority to BEE samples for testing due to importance of check testing activity.
- 2.1.8. BEE shall provide online access to Standard & Labeling's web portal to laboratories for updating the status/details of sample physical fitness, sample receiving date, testing & completion date, test conformance details along with the test reports & its testing values etc.

- 2.1.9. Additionally BEE shall provide a training to lab personnels on functionality of web portal regarding check testing.
- 2.1.10. Laboratory shall upload the details in the web portal on time to time basis and also shall ensure to provide accurate information.
- 2.1.11. Before the testing of the sample, if the appliance is not fit for testing, sample shall be discarded and a Sample Non-Conformance report shall be prepared jointly by IAME and laboratory. The report shall be forwarded to BEE.
- 2.1.12. All the tests for the check testing of the BEE star labeled appliances should be performed in the presence of IAME's inspecting engineer. Laboratory shall coordinate with the IAME to depute the inspecting engineers as per the testing schedule.
- 2.1.13. Laboratory representative shall handover the original purchase reciept of the sample to the inspecting engineer of IAME who shall witness the test.
- 2.1.14. Laboratory representative and inspecting engineer from IAME will jointly sign the test report.
- 2.1.15. Laboratory shall submit the test reports within two weeks of the completion of the testing. Also laboratory shall submit product wise monthly status of the first and second check testing activities details to BEE.
- 2.1.16. Laboratory shall update details of 2nd check testing information on BEE star label web portal for two samples inline with the format specified.
- 2.1.17. In case of 2nd check testing, Laboratory shall give preference to the testing for 2nd check test (2 samples) over all its commitments to Bureau and elsewhere. 2nd Check testing shall be initiated within 21 days of receipt of sample by the laboratory. And also laboratory shall inform BEE and IAME about exact date for testing so that BEE/IAME can inform manufacturer to witness second test. In no case, laboratory can delay 2ndcheck testing beyond 21 days of receiving of sample.

- 2.1.18. BEE would like to track and record the entire verification testing activity through S&L e-portal. The portal has a provision for creating an online account for laboratories. Laboratory shall be given an e-platform for the submission of the test results online through BEE's portal.
- 2.1.19. BEE reserves the right to alter any of the condition mentioned in this document or add more conditions in the scope of work while awarding the final work order.

2.2 Pre-Qualifying Criteria:

- 2.2.1 The test labotatory must have been registered in India and accredited by NABL.
- 2.2.2 The validity of the NABL certificate must not be less than one year from the date of the application.
- 2.2.3 The laboratory should have been in the testing activity for not less than 6 months.
- 2.2.4 The test lab must have adequate skilled and non skilled people to conduct the test.
- 2.2.5 The test lab should not have been blacklisted by any agency from India or abroad.
- 2.2.6 The test lab should have adequate spare space storage to store the tested samples upto the disposal time which may be one year from the date of reciept of the sample.
- 2.2.7 The laboratory should be an NABL Accredited Independent third party lab for BEE empanelment process. In house accredited labs of the Manufacurers will not be considered for the process.

2.3 Preparation of proposal:

Technical Proposal: While preparing the technical proposal the laboratories are expected to examine the annexure for list of appliances along with their reference standards. The technical proposal shall be submitted alongwith following desirables:

- 1. Brief description about the laboratory.
- 2. An outline of experience on similar assignments under taken.
- 3. NABL accreditation certificate of the laboratory.

- 4. Certificate of Registration/incorporation in India.
- 5. List of authorised representatives from the lab who shall coordinate for check testing activity. Dedicated contact number of the personnel for coordination shall be provided. Information for atleast 2 representatives shall be provided in the attached format. (Annexure -2)
- 6. Declarations letters for 2.2.3, 2.2.4, 2.2.5, 2.2.6 as per the specified formats enlosed as Annexure -2, 3, 4, 5, 6.
- 7. The proposal shall be submitted in original (signed hardcopies) prepared with indelible ink. It shall not contain any over-writing.
- 8. Financial Proposal There is no need for financial proposal as BEE intends to empanel the labs at the lowest price discovered during the first round of empanelment. A declaration in the letter head as per Annexure 7 is required.

2.4 Submission of proposal:

- The envelope shall be clearly marked as "PROPOSAL FOR EMPANELMENT OF TEST LABORATORIESFOR CHECK TESTING UNDER STANDARDS & LABELLING PROGRAMME ROUND II". This envelope shall be sent to The Secretary, Bureau of Energy Efficiency, 4th Floor, Sewa Bhavan, R.K. Puram, New Delhi-110066.
- 2. The last date for receiving the proposal document is 16th August 2019 upto 1500 hours.
- 3. The completed Proposal must be delivered at the submission address on or before the time and *date* stated above. Any Proposal received after the closing time for submission of proposals shall be returned unopened. BEE does not take any responsibility for the delay and any explanation for the same.

2.5 Evaluation Criteria:

- Preliminary scrutiny of the proposal will be made to determine whether the applications
 are complete, whether the documents have been properly signed, and whether the bids
 are generally in format. Proposals not conforming to such preliminary requirements will
 be rejected prima facie.
- 2. After qualifying the technical proposal requirement the contract shall be awarded upon acceptance of the check testing cost annexed at Annexure 7.

3. The work order of 1 year would be awarded to the successful empaneled laboratories. The contract may then be further extended depending upon the performance with mutual consent.

2.6 Confidentiality:

Information relating to evaluation of proposals and recommendations concerning awards shall not be disclosed to the applicants.

2.7 Payment terms:

- 1. BEE is undertaking this exercise for rate fixation of check testing of different appliances and empanellment of NABL accredited labs for the purpose of complying to the check testing targets of the scheme. The exercise of check testing shall be carried out through IAME or the agency designated by the BEE. The labs will have to enter into an agreeement with the BEE before carrying out the work. The work order shall be issued by the IAME or the BEE. The empaneled labs will have to enter into an agreement with BEE for providing continuous services for a period of one year period from the 01.09.2019 to 31.08.2020 upon the successful signing of contract. BEE may extend contract at BEE's complete discretion.
- 2. Payment authority will be IAME or designated agency by Bureau.
- 3. For billing purpose, Labotatory shall submit the original invoice along with the test reports as soon as the test are completed to IAME or designated agency by Bureau.

2.8 Other Terms & Condition:

- 1. BEE will empanel the laboratories among the bidders, in accordance with the method of evaluation set by BEE. The conclusion based on the judgment by BEE committee shall be considered as the final result.
- 2. BEE reserves the right to reject any or all the bids received at its discretion, without assigning any reason whatsoever, and no costs would be paid to bidder for the same.
- 3. In case of any dispute during process of verification / check testing in the laboratory, the decision by DG, BEE, will be considered as final decision.

- 4. L/D Clause: The L/D applicable as per the extant rules of BEE.
- 5. Acceptance of the Proposal will rest with the Competent Authority of the BEE. No reasons will be given for acceptance or rejection of the contract thereof.
- 6. The BEE reserves the right to cancel this EOI before the contract is awarded. Any and all proposals may be rejected in whole or in part when it is in the best interest of the BEE.
- 7. Bureau may on its own, or on receipt of a complaint regarding any error or inconsistency or misrepresentation within one year from date of submission of the test report initiate action as deemed appropriate for review of test report.
- 8. If for any reason the laboratory, after empanelment, is holding or stopping its services for any anticipated reason, the same shall be intimated to BEE at least 45 days in advance.

2.9 Penalty terms:

The panelty terms shall be part of the agreement between the lab and IAME or the designated agency.

2.10 Disclaimer

BEE and its officers, employees disclaim all liability from any loss or damage, whether foreseeable or not, suffered by any person acting on or refraining from acting because of any information including statements, information, forecasts, estimates or projections contained in this document or conduct ancillary to it whether or not the loss or damage arises in connection with any omission, negligence, default, lack of care or misrepresentation on the part of BEE and/or any of its officers, employees.

Except where otherwise specified in the contract, the decision of BEE shall be final, conclusive and binding on all transporters to the contract upon all questions relating to the meaning of the RFQ proposal informations, scope of work, terms & conditions etc. here in before mentioned and as to the trustworthiness of measurement & suggestions, or as to any other question, claim, right, matter, or thing whatsoever in any way arising or relating to the contract, specifications, terms & conditions, orders, or otherwise concerning the works or the execution or failure to execute the same, whether arising, during the progress of the work or after the completion or abandonment thereof.

2.11. Bid Processing Fee

All bids must be accompanied by a bid processing fee of INR 6,000 (INR Six Thousand only) in the form of a crossed demand draft drawn on any nationalized/ scheduled bank payable at par in New Delhi, in favour of "Bureau of Energy Efficiency, New Delhi" for applying for the task.

Data Sheet:

| SL. No. | Check Points | Information |
|---------|--|--|
| 1 | Type of Proposal Required | Technical Proposal |
| 2 | Name of Assignment | Empanelment of Test Laboratories for Check Testing Under S&L Scheme |
| 3 | Proposal should be submitted in following languages | English |
| 4 | No. of copies of Technical proposal | Laboratory must submit original and one extra copy of Technical proposal both. |
| 6 | Proposal must be submitted no later than following date and time | 16 th August 2019 (1500 hrs IST) |
| 7 | Proposal submission address | The Secretary, Bureau of Energy Efficiency, 4 th Floor, Sewa Bhawan, Sector – 1, R. K. Puram, New Delhi, Pin – 110066 |
| 8 | Lead time for commencement of work | 1 week from the date of intimation of the award of contract upon receipt of acceptance of the contract. |
| 9 | Bid Processing Fee | Rs. 6000/- |

| S. No | Appliance Name | Check Testing Cost (inclusive of GST) | Scope of Work | Relevant Standards | Schedule |
|----------|--|--|---|--|-------------|
| 1 | Ballast Electronic | ₹ 27,010/- | 1 Total Circuit Power 2 Total Lamp Power 3 Ballast efficiencies 4 THD 5 THD with Capacitor 6 Power factor 7 Power Factor with capacitor 8 Designed life in burning hours at defined ambient temperature | IS 13021(Part 1 & 2): 1991 for electronic ballasts | Schedule 15 |
| 2 | Ballast Electro- magnetic | ₹ 19,470/- | 1 Total Circuit Power 2 Total Lamp Power 3 Ballast efficiencies 4 THD 5 THD with Capacitor 6 Power factor 7 Power Factor with capacitor 8 Designed life in burning hours at defined ambient temperature | IS 1534 (Part 1): 1977 for electro- magnetic ballasts | Schedule 15 |
| 3 | Ceiling Fans | ₹ 4,130/- | 1 Air delivery & service Value 2 Fan speed and power input 3 Sweep (mm) | IS 374 :1979* | Schedule 8 |
| 4 | Colour Television | ₹ 7,670/- | 1 Standby mode Power Consumption 2 On mode Power Consumption 3 Maximum Annual energy Consumption (kWh/year) 4 Picture level adjustment | IEC 62301 Ed. 2.0 for Standby Mode & IEC 62087 Ed. 3.0 for On Mode | Schedule 8 |
| 5 | Direct Cool Refrigerator | ₹ 54,280/- | 1.Energy consumption 2.Volume measurement test (storage and gross) 3.Pull down test 4 Operating Temperature Performance Test | IS 15750 & IS 1476 | Schedule 5 |
| 6 | Diesel Engine Driven Monoset Pumps for Agricultural Purposes | ₹ 23,600/- | Measurement of nominal volume rate of flow Nominal head Fuel consumption in g/hr of the pump set at the nominal duty point 4 Specific Fuel Consumption (SFC) in g/h/m/l/s | IS 11501:1986 IS 11170 :1985 IS 11346: 2002 | Schedule 13 |

| 7 | Frost Free Refrigerator | ₹ 54,280/- | 1.Energy consumption 2.Volume measurement test (storage and gross) 3.Pull down test 4 Operating Temperature Performance Test | IS 15750 & IS 1476 | Schedule 1 |
|----|----------------------------------|--|--|---|-------------|
| 8 | Distribution Transformer | Upto 100 kVA – ₹ 67,390 Above 100 kVA upto 250 kVA – ₹ 73,428/- Above 250 kVA upto 500 kVA – ₹ 84,928/- Above 500 kVA upto 630 kVA – ₹ 1,18,890/- Above 630 kVA upto 1000 kVA – ₹ 1,80,690/- | 1 Measurement of winding resistance 2 Measurement of impedance voltage / short circuit impedance and load loss (at 50% & 100%) 3 Measurement of no load loss and current 4 Temperature rise test 5 short-circuit test 6 Total losses (at 50% & 100%) | IS 1180 (Part 1)& IS 2026 (part 1 & 2) ad IS 2500 part 1): 2000 | Schedule 4 |
| 9 | Induction Motor | Actual PII method $0.18-5.5 \text{ kW} - ₹ 13,166/-5.51-11 \text{ kW} - ₹ 17,191/-11.1-22 \text{ kW} - ₹ 33,190/-22.1-45 \text{ kW} - ₹ 49,088/-45.1-75 \text{ kW} - ₹ 59,590/-75.1-110 \text{ kW} - ₹ 79,226/-$ Assumed PII $0.18-5.5 \text{ kW} - ₹ 8,701/-5.51-11 \text{ kW} - ₹ 11,560/-11.1-22 \text{ kW} - ₹ 21,942/-22.1-45 \text{ kW} - ₹ 34,928/-45.1-75 \text{ kW} - ₹ 38,350/-75.1-110 \text{ kW} - ₹ 60,416/-$ | 1 Measurement of winding resistance 2 No load test at rated voltage (determine input current power and speed) and at different voltages to compute windage losses 3 Full load test 4 Efficiency at 75% and 100% load 5 Efficiency class (eff 1, eff 2 & eff 3) | IS 12615:2011; IS 4029 - 1967; IS 325 : 1996 IS/ IEC 60034-2-1/ IS15999- 2011 | Schedule 6 |
| 10 | Laptop/ Notebooks Computer | ₹ 5,900/- | 1 Power consumption levels of Laptop/ Notebook computers for compliance with the Off, Sleep, and Idle levels. 2 Typical Energy Consumption (TEC) as per the equation given in the schedule 14 | ENERGY STAR Test Procedure for Determining the Power Use of Computers | Schedule 14 |
| 11 | LED Lamps | ₹ 41,300/- | 1 Power Consumption (Watts) 2 Initial Luminous flux (Lumens) 3 Luminous flux at 1000 hours 4 Luminous flux at 6000 hours 5 Life (hours) 6 Luminous Efficacy (Lumen/Watt) 7 Power factor 8 CRI 9 Harmonics | IS 16102 (part 2) | Schedule 10 |

| | Liquefied | | | | |
|----|--|---|--|--|-------------------|
| 12 | Petroleum Gas Stoves/ burner | ₹ 1,534/- | Thermal efficiency Total gas consumption | IS 4246 : 2002 | Schedule 9 |
| 13 | Office Equipment | ₹ 11,800/- | Standby Mode Power Consumption (Lowest power among the Ready, Sleep, Auto-off, off mode) for OM products Typical Energy Consumption for TEC products | ENERGY STAR Program IEC 62301 | Schedule 16 |
| 14 | Submersible Pump Set | 0.37 – 7.5 kW - ₹ 7,080/- 7.51 – 11 kW - ₹ 7,080/- 11.1 – 20 kW - ₹ 7,080/- 20.1 – 45 kW - ₹ 7,080/- 45.1 – 75 kW - ₹ 18,880/- 75 – 110 kW - ₹ 28,320/- | 1 Nominal Volume rate of flow 2 Nominal Head 3 Overall Efficiency 4 Performance Curve | IS 14220:1994, IS 8034: 2002, IS 9079: 2002, IS 11346: 2004 | Schedule 7 |
| 15 | Open well Submersible Pump -Sets | 0.37 – 5.5 kW - ₹ 7,080/- 5.51 – 11 kW - ₹ 7,080/- 11.1 – 22 kW - ₹ 7,080/- 22.1 – 45 kW - ₹ 7,080/- 45.1 – 75 kW - ₹ 18,880/- 75 – 110 kW - ₹ 28,320/- | 1 Nominal Volume rate of flow 2 Nominal Head 3 Overall Efficiency 4 Performance Curve | IS 14220:1994, IS 8034 : 2002, IS 9079 : 2002, IS 11346: 2004 | Schedule 7 |
| 16 | Mono Set - Pump -Sets | 0.37 – 5.5 kW - ₹ 7,080/- 5.51 – 11 kW - ₹ 7,080/- 11.1 – 22 kW - ₹ 7,080/- 22.1 – 45 kW - ₹ 13,570/- 45.1 – 75 kW - ₹ 16,284/- 75 – 110 kW - ₹ 20,355/- | 1 Nominal Volume rate of flow 2 Nominal Head 3 Overall Efficiency 4 Performance Curve | IS 14220:1994, IS 8034 : 2002, IS 9079 : 2002, IS 11346: 2004 | Schedule 7 |
| 17 | Room Air Conditioner Fixed Speed | ₹ 1,22,720/- | 1 Cooling capacity 2 Power consumption 3 Max operating condition test | IS 1391 (Part 1 & Part 2) | Schedule 3 & 3(A) |
| 18 | Room Air Conditioner Variable Speed | ₹ 2,00,600/- | 1 Cooling capacity (50 & 100 % load) 2 Power consumption (50 & 100 % load) Rated Frequency (50 & 100% load) 3 Max operating condition test | IS 1391 (Part 1 & Part 2) & ISO 16358 | Schedule 19 |
| 19 | Solid State Inverter | ₹ 9,440/- | No-Load Test Output Power Factor Total Harmonic Distortion Capacity Test Efficiency Range (DC to AC) | IS 13314:1992 | Schedule 17 |

| 20 | Tubular Fluorescent Lamp | ₹ 32,450/- | 1 Visual examination and marking 2 Lamp & Cap dimension 3 Torsion test 4 IR measurement test 5 Burning test 6 Starting test 7 Lamp elect 8 Lumen characteristics 9 Colour characteristics 10 Lumen maintenance & life test (at100, 2000 hrs) 11 Lumen maintenance& life test (at 3500 hrs) | IS 2418 (Part I) , (Part II), (Part III) and Part(IV) – 1977 | Schedule 2 |
|----|--------------------------------|------------|--|--|-------------|
| 21 | Washing Machine | ₹ 96,760/- | 1 Energy and Water consumption 2 Determination of Wash Performance 3 Water Extraction Efficiency 4 Rinsing efficiency 5 Water extraction performance | IS 14155 & IEC 60456, IS 302:2:7 | Schedule 12 |
| 22 | Water Heater / Electric Geyser | ₹ 3,540/- | 1 Standing losses (kwh/24hrs/45C)2 Rated/Input Power3 Rated Capacity (litres) | IS 2082:1993; IS 302-2-21 | Schedule 10 |

Technical Proposal Formats

| Name of the Lab | : |
|---|---|
| Address | ÷ |
| Does this lab come under any Ministry/State Govt./Deptt. | ; |
| If yes, please mention | : |
| Year of Incorporation in India | a: |
| Total number of Staff | : |
| Year of NABL accreditation | : |
| NABL Account No. | : |
| Date of Expiry of NABL Accreditation | <u>:</u> |
| | |
| Whether this lab has participa BEE's Capacity Developmen | |
| | |
| BEE's Capacity Developmen Technical (test related) Have you ever participated in | S&L scheme of BEE? : Y/N s and time since the testing have been carried on: /Year |
| Technical (test related) Have you ever participated in If yes, give details of product Product Month | S&L scheme of BEE?: Y/N s and time since the testing have been carried on: /Year |
| Technical (test related) Have you ever participated in If yes, give details of product Product Month | S&L scheme of BEE? : Y/N s and time since the testing have been carried on: /Year |

Bureau of Energy Efficiency

| | Product | Skilled | | Non-skilled | |
|----|--|---------|----------|-------------|--|
| | | | | | |
| | | | | | |
| | | | | | |
| C. | Communication Do | etails | | | |
| 1. | Name of the Organi | zation | : | | |
| 2. | Name of the Author Representative to w Communications sh | hom all | : | | |
| 3. | Designation | | : | | |
| 4. | Phone | | : | | |
| 5. | Fax | | : | | |
| 5. | Email-ID | | <u>:</u> | | |

(Information for at least 2 representatives shall be provided & relevant documents enclosed)

Declaration Letter {Refer clause 2.2.3}

| Experience in testing: | (Please submi | t this declaration separately | for different Products) | |
|------------------------|------------------|-------------------------------|-------------------------------|---|
| То, | | | | |
| | | | | |
| | | (Product Name) as per _ | | |
| This is true to the | he best of my ki | nowledge and belief. | | |
| DI. | | | | |
| Place: Date: | | | () Head of the Laboratory | 7 |

Declaration Letter {**Refer clause 2.2.4**}

| То, | | | | |
|-------------------|-------------------|---|--|-----|
| | | | | |
| as per | the check testing | fy that below mentione g requirements of BEE etails may be given. | d skilled and non skilled people shall be enga | ged |
| | Product Product | Skilled | Non-skilled | |
| | | | | |
| | This is true to t | he best of my knowled | ge and belief. | |
| Place:_ Date:_ | | | () Head of the Laboratory | |

Declaration Letter {Refer clause 2.2.5}

| To, | |
|---|-------------------------------|
| This is to certify that M/sany agency in India or abroad. This is true to the best of my knowledge and belief. | has not been blacklisted by |
| Place: Date: | () Head of the Laboratory |

Declaration Letter {**Refer clause 2.2.6**}

| То, | |
|--|---|
| This is to certify that M/sstore the samples up to the disposal time | has adequate spare space to which may be one year from date of receipt of sample. |
| This is true to the best of my know | wledge and belief. |
| Place: Date: | () Head of the Laboratory |

Annexure – 7

Check Testing Cost Acceptance Format (On Letter head of the Laboratory) To, Sir, With reference to the sample testing as per the requirement of S&L scheme of the Bureau of Energy Efficiency, Ministry of Power, Government of India, M/s. is pleased to accept the check testing cost of the following appliances as discovered during the first round of lab empanelment of S&L.

Product Name:-

| Sl NO | Appliances | Testing Cost (INR) Inclusive of GST |
|-------|--|-------------------------------------|
| 1 | Ballast Electronic | |
| 2 | Ballast Electro-magnetic | |
| 3 | Ceiling Fans | |
| 4 | Colour Television | |
| 5 | Direct Cool Refrigerator | |
| 6 | Diesel Engine Driven Monoset Pumps for Agricultural Purposes | |
| 7 | Frost Free Refrigerator | |
| 8 | Distribution Transformer | |
| 9 | Induction Motor | Mention the |
| 10 | Laptop/ Notebooks Computer | corresponding cost |
| 11 | LED Lamps | of check testing as |
| 12 | Liquefied Petroleum Gas Stoves | per Annexure 1 |
| 13 | Office Equipment | |
| 14 | Submersible Pump Set | |
| 15 | Open well Submersible Pump -Sets | |
| 16 | Mono Set - Pump -Sets | |
| 17 | Room Air Conditioner Fixed Speed | |
| 18 | Room Air Conditioner Variable Speed | |
| 19 | Solid State Inverter | |
| 20 | Tubular Fluorescent Lamp | |
| 21 | Washing Machine | |
| 22 | Water Heater / Electric Geyser | |

There are no other additional costs involved thereon

| Place: | () |
|--------|------------------------|
| Date: | Head of the Laboratory |