### FORM IV
(Refer regulation 7(2))
Bureau of Energy Efficiency
REGISTER CONTAINING NAMES OF OFFICES AND FIRMS OF ACCREDITED
ENERGY AUDITORS

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>AEA-0055</th>
<th>As on</th>
<th>26 February 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Name of accredited energy auditor</td>
<td>J. K. Ghosh (alias Jiban Krishna Ghosh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Father's name</td>
<td>Late Dr. S. R. Ghosh</td>
<td></td>
<td>Photograph of the energy auditor</td>
</tr>
<tr>
<td>3 Date of certification as Energy Manager</td>
<td>02.11.2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Date of passing the examination in “Energy Performance Assessment for Equipment and Utility Systems”</td>
<td>Not Applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Examination Registration Number of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Energy Manager</td>
<td>EA 2479</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Certificate Registration Number of</td>
<td>N.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Energy Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Date of issue of accreditation certificate</td>
<td>(to be filled by BEE)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### B. Information in respect of trade name or firms' name

<table>
<thead>
<tr>
<th>8 Trade name / firms name under which energy audit is proposed to be conducted</th>
<th>Bicon Consultants Pvt. Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Date of accreditation as accredited energy auditor</td>
<td>(to be filled by BEE)</td>
</tr>
<tr>
<td>10 Type of firm/ private/ Government / NGO etc.</td>
<td>Private Limited.</td>
</tr>
</tbody>
</table>

**Note:** Please refer to Enclosure-2 of my original Application dated 07.12.2010 Letter no. 19/01/2002-DLH/ dated 17th March 2005 from 'BEE' to our firm Bicon Consultants Pvt. Ltd. (BICON) stating “the Accreditation Committee constituted by the Government, after evaluating institutional and energy auditing capabilities of your agency has recommended the name of your agency for temporary accreditation. The Executive Committee of the Bureau of Energy Efficiency has accepted the recommendation of the Accreditation Committees.” Accordingly, the name of 'BICON' was uploaded in the website of 'BEE' - http://www.bee.india.nic.in with code 54, under list of Temporary Accredited Energy Auditors—2005 updated for the year 2006.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 11 | Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address (All details compulsory) | a. Contact persons' name, designation, with mobile no.:  
  
  i. J.K. Ghosh – Director.  
  Mo.: 098310 70078  
  
  ii. R. B. Chaudhuri – Director.  
  Mo.: 098306 61115.  
  
  b. Address: 59/A, Puddapukur Road, Kolkata – 700 020.  
  
  c. Tel. No.: 033-2485 2293, 2486 3200.  
  
  d. Fax No.: 033-2840 4813.  
  
  e. Email: bicon01@dataone.in; or, bicon59a@gmail.com |
| 12 | Professional postal address with Pin Code of the accredited energy auditor | 59/A, Puddapukur Road, Kolkata – 700 020, West Bengal, India |
| 13 | E-mail address | bicon01@dataone.in or, bicon59a@gmail.com |
| 14 | Telephone numbers with STD Code (R) (O) Mobile no: | 033 2377 0666  
  033 2486 3200  
  09831070078 |
| 15 | Year of establishment of the trade name / firms' name for undertaking the energy audit | 2001 |
| 16 | Year of commencement of energy audit of the firm | 2002 |
| 17 | Whether any certificate to support the excellence in the system has been obtained (ISO etc.) | Not available. |
| 18 | No. of branch offices | None |
| C | Details of Associated Energy Experts |   |
| 19 | Number of resource persons available | 13 (including 1 support staff) |
| 20 | I. Number of full-time energy auditors in position with work experience of all energy auditors associated with the firm | 2  
  Experience in brief: in Attachment : 1 (as under) |
| 21 | Sectors in which the energy auditor has conducted energy audits since inception | a. Automobile,  
  b. Chemical & Process Industry,  
  c. Commercial Buildings, Hospitals, Hotels,  
  d. General Engineering, Fabrication,  
  e. Iron & Steel- Metallurgical & Process,  
  f. Railways,  
  g. Rubber Belting,  
  h. Tea,  
  i. Thermal Power Plant etc.  
  Please refer list in Attachment – 2 (as under). |

|   | II. No. of part-time energy auditors in position during the current year / previous year associated with the energy auditor / energy auditor's firms. | 11  
  Experience in brief: in Attachment : 1 (as under) |
### Subject wise expertise

**(a) Energy audit process system (list sectors)**
- If no energy audit has been carried out of the process system and parameters, please list nil. Bureau of Energy Efficiency will be calling for detailed information in case agency has listed its energy audit expertise in the process systems.

There are six industry specialists in the team of Bicon Consultants Pvt. Ltd. (profiles in Attachment : 1). Through our contacts, other industry specialists are involved from time to time. Specialists were involved in some cases as follows:
- i. **UAL Bengal Ltd.** - for solar drying of asbestos sheets.
- ii. **Tata Metaliks Ltd.** - for mechanization of raw material handling system to reduce losses and wastages.
- iii. **Tata Sponge Iron Ltd.** – to study and comment on process parameters to reduce losses and wastages of coal in particular.
- iv. **Indian Oil Corp. Ltd., Pumping Division, Haldia** – for introduction of variable speed Drive for High Tension Oil Pumps.

**Bureau of Energy Efficiency**

**(b) Energy audit thermal utility system (list sectors)**
- i. Asbestos sheet Roofing,
- ii. Galvanized Iron Sheet Roofing,
- iv. Rubber Belting, Rubberized Coir Industry

**(c) Energy audit electrical utility system (list sectors)**
- i. Automobile.
- ii. Asbestos/Galvanized Sheet Roofing.
- iii. Commercial Building, Hospitals, Hotels.
- iv. Engineering, Fabrication.
- v. Rubber Belting, Rubberized Coir Industry.

### Instruments available

Refer Attachment- 3

**(a) Electrical (list the name of the instruments)**
- 11

**(b) Thermal (list the name of the instruments)**
- 7

### Details of training programme/seminars/workshops conducted during the last 3 years in the field of energy efficiency/energy audit

- Awareness programme is conducted in the establishments where energy audit is carried out.

### Remarks (if any)

Please refer to my original Application dated 07.12.2010 Letter no. 19/01/2002-DLH/ dated 17th March 2005 from ‘BEE’ to our firm Bicon Consultants Pvt. Ltd. (‘BICON’) stating “the Accreditation Committee constituted by the Government, after evaluating institutional and energy auditing capabilities of your agency has recommended the name of your agency for temporary accreditation. The Executive Committee of the Bureau of Energy Efficiency has accepted the recommendation of the Accreditation Committees.” Accordingly, the name of ‘BICON’ was uploaded in the website of ‘BEE’ - http://www.bee.india.nic.in with code 54, under list of Temporary Accredited Energy Auditors – 2005 updated for the year 2006.

(Note: Responsibility of the authenticity of the above information rests with the concerned energy auditor/energy auditing agency.)
I hereby state that the information furnished above is true and correct to the best of my knowledge.

Place: Kolkata.

Date: 10.05.2012.

Signature:
Name: Jiban Krishna Ghosh.
Designation: Director.
For and on behalf of: Bicon Consultants Pvt. Ltd.

(Note: Responsibility of the authenticity of the above information rests with the concerned energy auditor/energy auditing agency.)
BRIEF PROFILES OF RESOURCE PERSONS ASSOCIATED WITH ‘BICON’

A. Full-time Certified Energy Auditors (with work experience in all industries listed in Attachment – 2):


B. Part-time Certified Energy Auditors (with work experience in industries listed in Attachment – 2 as and when required):

1. Anjan Majumdar – A.M.I.E.(Elec.), Ch. Engr., PGDEM (Post-Graduate Diploma in Energy Management), Energy Auditor Certified by Bureau of Energy Efficiency (‘B.E.E. Regn. No. EA 0167) and a Holder of Electrical Supervisory Certificate of Competency for HT and EHT Lines. He was with the CESC Ltd. for 13 years, rising to the level of Assistant Engineer. He has carried out about 95 energy audits in Power Sector, Engineering Industry, Process Industries, Commercial Buildings etc. He is however a constant member of the ‘BICON’s Energy Audit team.


C. Part-time Energy Audit Technician (with work experience in all industries listed in Attachment – 2 as and when required):

Mrityunjoy Patra – Certificate holder of ‘Electrical Grade 1 & 2’ from Licencing Board, Power Department, Govt. of West Bengal. He has six years’ experience with specialization in instrumented energy audit measurements, has participated in around 50 energy audits and is a constant member of the ‘BICON’s Energy Audit team.
D. Part-time Industry/Sector Specialists (with work experience in all industries listed in Attachment – 2 as and when required):

1. Specialist - Power Plant
   Subhendu Roy Choudhury – B. E. E. (J.U.), DIC – Electrical Machines and Power Systems at Imperial College of Science & Technology, University of London, Passed Post Graduate Certificate Course on Energy Management & Energy Audit from School of Energy Studies (Jadavpur University). He is a Chartered Engineer, Fellow of the Institution of Engineers (India), Fellow of Indian Institution of Energy Auditors. He is an Accredited Energy Auditor of the Govt. of West Bengal. He is also a visiting professor with the Jadavpur University and its School of Energy Studies and National Power Training Institute, Durgapur. Mr. Roy Chowdhury had worked for 33 years essentially in the field of electricity generation, transmission and distribution for companies like CESC Ltd., Indian Aluminium Co. Ltd., Crompton Greaves Ltd. etc. In the course of consultancy since 1993, he regularly carried out Energy Audit for:
   a. CESC Ltd- Mulajore, New Cossipur & Titagarh (240MW) Thermal Power Plants,
   b. Ananda Bazar Patrika Ltd.,
   c. Advanced Medicare & Research Institute,
   d. Bata India Ltd.,
   e. Gulmohar Paper Mills Ltd.,
   f. Hindustan Motors Ltd.,
   g. Indian Association for Cultivation of Science,
   h. Woodlands Hospital & Nursing Home, etc.

2. Specialist - Heating, Ventilation & Air Conditioning (‘HVAC’) System
   S. Chakraborty – B. E. (Mech.) and with 28 years’ experience in industry and consultancy, in the field of Design, Optimization, Equipment Selection, Project Management, Maintenance and Trouble Shooting for Air Conditioning, Heating, Air Handling and Ventilation Systems. Mr. Chakraborty had worked with Blue Star for 15 years in construction and service division rising to the level as Area Manager-Services (ER).

3. Specialist - Furnace
   a. K. N. Shukla – An expert with over 40 years’ experience of design, manufacturing and modernisation of furnaces – both electrically operated and fuel oil fired.
   b. D.J. Gupta – A metallurgical engineer with 40 years’ experience in design, manufacture of furnace, producer gas plants and thermal engineering with organisations like G.K.W. Ltd., Bengal Linn Ltd., Westerwork Engineers etc. and thereafter in independent capacity.

4. Specialist – Foundry & Metallurgy
   G. Banerjee – A Metallurgical Engineer with over 44 years’ experience in foundry and melting practices with organisations like Addison & Co., TAYO Ltd., Machinery Manufacturers Corpn., Metflow Corporation, R.B. Agarwalla & Co. etc.

5. Specialist - Instrumentation
   U. P. Dutta – B.Sc., M.I.E., Chartered Engineer, P.G. Dipl. in S.Q.C., with over 36 year’s experience in defence industry, National Instruments Ltd and consultancy.
LIST OF ENERGY AUDIT ASSIGNMENTS CARRIED OUT
BY BICON CONSULTANTS PVT. LTD. SINCE INCEPTION

1. Arora Matthey Ltd. (Noble Metal & Components) (*)
2. Assam Roofing Ltd. (G.I. Roofing Sheet) (*)
3. B & A Ltd. (Residential Building) (*)
4. B & A Ltd. (Mokrung Tea Factory) (*)
6. Birla Buildings Ltd. (Office Building)
7. Calcutta Medical Research Institute (Speciality Hospital) (*)
8. DPSC Ltd. (Power Plant, Transmission & Distribution Centres) (*)
9. Eastern Railways – Bandel Power House (Loco Shed, Colony etc.) – 2 audits – 1 Detailed(*)
10. EPCOS Ferrites Ltd. (Soft Ferrite Cores) (*)
11. Gateway Guest House & Star Village Holiday Resort Pvt. Ltd. (Resort) (*)
12. Gontermann-Peipers (India) Ltd. (Roll Foundry) – 4 audits - 2 Detailed(*).
13. Himrag Coir Industries Pvt. Ltd. (Coir Mattress)
14. Hindusthan Engineering Industries (Foundry & Engineering) (*)
15. Hindustan Motors Ltd. (Automobile)
16. Indian Oil Corporation Ltd. (Pipelines Division), Haldia – 2 Audits – 1 Detailed (*)
17. JIS College of Engineering (College Building)
18. Kesoram Spun Pipes & Foundries (Spun Cast Iron Pipe Plant)
19. Kothari Medical Centre (Speciality Hospital) (*)
20. Modern High School for Girls (School Building & Exhibition Hall) (*)
21. Paharpur Cooling Towers Ltd. (Cooling Towers & Heat Exchangers) - 2 units (*)
22. Reserve Bank of India, Kolkata (Commercial Building) (*)
23. RRL Steels Ltd. (Steel Foundry)
24. SIEL Tizit Ltd. (Tungsten Carbide Tips & Tools) (*)
25. Tata Metaliks Ltd. (Pig Iron & Power) (*)
26. Tata Sponge Iron Ltd. (Sponge Iron) (*)
27. UAL Bengal Ltd. (Asbestos Sheet) - 2 Detailed Audits (*)
28. Vesuvius India Ltd. (Refractory)
29. Waldies Ltd. (Industrial Heavy Chemicals) (*)

Note: (*) Signifies Detailed Energy Audit.
## LIST OF ENERGY AUDIT INSTRUMENTS AVAILABLE TO BICON CONSULTANTS PVT. LTD.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description of Instrument</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clip-on-type Power Analyzer – Single/Three Phase, Split CT, Model – 2740 &amp; 2745, Make – Kusum-MECO</td>
<td>‘E’</td>
</tr>
<tr>
<td>2(*)</td>
<td>Micro-processor based 3-phase Power Quality Analyzer with software facility, Model – 3197, Sl. No. 080228076, Make – HIOKI, for both HT/LT measurements</td>
<td>‘E’</td>
</tr>
<tr>
<td>3</td>
<td>Clip-on type Digital Clamp Meter, Make – Metravi, Model DT-1250 for AC/DC Voltage</td>
<td>‘E’</td>
</tr>
<tr>
<td>4</td>
<td>Clip-on type Analog Power Factor Meter, Make - Cambridge Instruments &amp; Engg. Co.</td>
<td>‘E’</td>
</tr>
<tr>
<td>5</td>
<td>Neutral Box, Make – Cambridge Instruments &amp; Engg. Co. for 3 phase P.F.</td>
<td>‘E’</td>
</tr>
<tr>
<td>6</td>
<td>Non-contact Live Line Voltage Detector (Portable), Make – VAR Tech</td>
<td>‘E’</td>
</tr>
<tr>
<td>7</td>
<td>Insulation Tester – Analog Crank generator type, Make – Cambridge Instruments &amp; Engg. Co., Model – CIE 444.</td>
<td>‘E’</td>
</tr>
<tr>
<td>8</td>
<td>Digital AC Leakage Current Tester, Make – Metravi, Model – 4571</td>
<td>‘E’</td>
</tr>
<tr>
<td>9</td>
<td>Digital Vane Type Anemometer, Make – Prova, Model – AVM-01, Sl. No. 04400551</td>
<td>‘T’</td>
</tr>
<tr>
<td>10</td>
<td>Contact &amp; Non-contact type Digital Tachometer, Make – Systems &amp; Meco/Kusum</td>
<td>‘E’</td>
</tr>
<tr>
<td>11</td>
<td>Contact &amp; Non-contact type Digital Temperature Gauge, Make – Metravi MECO/Kusum, Model – DTM-900-1 &amp; KM-IR-L-300</td>
<td>‘T’</td>
</tr>
<tr>
<td>12</td>
<td>Portable Digital Thermometer, Make – Sonit make and Metravi (*) make Sl. No.04369638</td>
<td>‘T’</td>
</tr>
<tr>
<td>13(*)</td>
<td>Digital Lux Meter, Make – Metravi., Model – DT-1330</td>
<td>‘E’</td>
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<tr>
<td>14</td>
<td>Digital Hygrometer, Make – Meco-Kusum, Model – PM- 918</td>
<td>‘T’</td>
</tr>
<tr>
<td>15</td>
<td>Digital Manometer, Make – Lutron, Model – 9100HA</td>
<td>‘T’</td>
</tr>
<tr>
<td>16</td>
<td>Others: Digital Stop Watch/Timer, Measuring Tape (15Metres)</td>
<td>‘T’</td>
</tr>
<tr>
<td>17(*)</td>
<td>Lux meter – Kusum Meco make, Sl. No. 981210.</td>
<td>‘E’</td>
</tr>
<tr>
<td>18(*)</td>
<td>Flue Gas Analyser - Summit make, Sl. No. 10061920001</td>
<td>‘T’</td>
</tr>
</tbody>
</table>

**Note:** (*) Calibration Certificates (4 nos.) from ‘NABL’ accredited laboratory will be placed before the oral interview.