### 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 - 0037)</th>
<th>As on: 26 February, 2013</th>
</tr>
</thead>
</table>

#### A.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Name of accredited energy auditor</td>
<td>Atul Joshi</td>
</tr>
<tr>
<td>2</td>
<td>Father's name</td>
<td>Sharad Joshi</td>
</tr>
<tr>
<td>3</td>
<td>Date of certification as Energy Manager</td>
<td>Energy Auditor 15&lt;sup&gt;th&lt;/sup&gt; July 2009</td>
</tr>
<tr>
<td>4</td>
<td>Date of passing the examination in “Energy Performance Assessment for Equipment and Utility Systems”</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Nov 2006</td>
</tr>
<tr>
<td>5</td>
<td>Examination Registration Number of (i) Energy Manager (ii) “Energy Performance Assessment for Equipment and Utility Systems”</td>
<td>EA - 6010</td>
</tr>
<tr>
<td>7</td>
<td>Date of issue of accreditation certificate</td>
<td>(to be filled by BEE)</td>
</tr>
</tbody>
</table>

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>Trade name / firms name under which energy audit is proposed to be conducted</td>
<td>Aditya Birla Management Corporation Pvt. Ltd.</td>
</tr>
<tr>
<td>9</td>
<td>Date of accreditation as accredited energy auditor</td>
<td>(to be filled by BEE)</td>
</tr>
<tr>
<td>10</td>
<td>Type of firm/ private/ Government / NGO etc.</td>
<td>Private</td>
</tr>
</tbody>
</table>
|   | Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address (All details compulsory) | Mr Jagrat Mankad  
Vice President  
Head – Corporate Technical and Energy Services (ABMCPL), ABSTC, Plot No. 1 & 1- A/1, MIDC Taloja, Tal. Panvel, Dist. Raigad 410208, Maharashtra, India  
Email: jagrat.mankad@adityabirla.com |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Professional postal address with Pin Code of the accredited energy auditor</td>
</tr>
</tbody>
</table>
| 13 | E-mail address | atul.joshi@adityabirla.com  
atuljoshi.chem@gmail.com |
| 14 | Telephone numbers . with STD Code (R) (O)  
Mobile no: | ( R ) +91 9594935411  
( O ) 022 - 27403253  
( O ) 022 - 67603253  
+91 9594935411 |
| 15 | Year of establishment of the trade name/ firms’ name for undertaking the energy audit | 1999 onwards Aditya Birla Management Corporation Pvt Ltd  
1997-99 – A part of Indo Gulf Fertilizers Ltd |
| 16 | Year of commencement of energy audit of the firm | 1997 |
| 17 | Whether any certificate to support the excellence in the system has been obtained (ISO etc.) | ISO 9001: 2008 |
| 18 | No. of branch offices  
(List of complete addresses including heads of all branch offices with telephone, fax and email addresses) | Nil |

## C Details of Associated Energy Experts

<table>
<thead>
<tr>
<th></th>
<th>Number of resource persons available</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>I. Number of full-time energy auditors in position with work experience of all energy auditors associated with the firm</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>II. No. of part-time energy auditors in position during the current year</td>
<td>Nil</td>
</tr>
</tbody>
</table>
previous year associated with the energy auditor / energy auditor’s firms.

CVs of all the full-time Energy Auditors with their Names, Contact address and energy audited Sectors

❖ Present Employer for all full time Energy Auditor
   Aditya Birla Management Corporation Pvt Ltd.,

❖ Contact address for all full time Energy Auditors:-
   Corporate Technical & Energy Services (ABMCPL),
   ABSTC, Plot no. 1 & 1-A /1,
   MIDC Taloja, Taluka Panvel,
   Dist. Raigad – 410 208

❖ Brief CVs of all full time energy auditors:-

Atul Joshi
(Dy. Manager Process.)

Present Employer
   ✗ Aditya Birla Management Corporation (P) Ltd. -------Since 2008
   ✗ ✗ Type of Employment -------Full Time

Education
   ✗ Bureau of Energy Efficiency Energy Auditor-------- 2006
   ✗ ✗ BE (Chemical) -------------------------------2004
   (SVM Engineering College, University of Pune)

Total work experience --------7.5 yrs.
   ✗ ✗ Operations of MEG Plant
   ✗ ✗ Commissioning of MEG Plant
   ✗ ✗ Project Management for ABSTC
   ✗ ✗ Energy Conservation projects
   ✗ ✗ Energy Audits

Sector covered in Energy Audit studies
   ✗ ✗ Aluminum,
   ✗ ✗ Cement,
- Textile,
- Pulp, Fiber, Carbon Black, Chemicals
- Hyper & Super Markets.

**Jagrat Mankad**  
(Vice President and Head Corporate Technical and Energy Services)

Total work experience -------- 27 yrs.

- Industrial projects
  - Project Execution
  - Project Erection and Commissioning
- Material Handling Design and Manufacturing
- Marketing and Troubleshooting – Mechanical Transmission devices
- Energy Conservation projects
- Energy Audits

Sector Covered in Energy Audit studies

- Chlor- Alkali & Chemicals
- Cement, Textiles
- Aluminium
- Iron
- Power Plant

**Deepak Gokhale**  
(DGM Elect.)

Total work experience -------------- 20yrs.

- Electrical Maintenance
- Project Execution
- Energy Conservation projects
- Energy Audits

Sector covered in Energy Audit studies

- Chlor- Alkali & Chemicals
- Cement,
- Textiles
- Aluminium
- Power Plant

**Dipak Khandare**  
(Sr. Manager)

Total work experience--------- 17 yrs.
Projects – Electricals

Energy Conservation projects

Energy Audits

Electrical Maintenance

Power system studies

Sector Covered in Energy Audit studies

Chlor-Alkali & Chemicals

Cement,

Textiles

Aluminium

Fibre

Power Plant

Jyotiprasad Bhattacharjee
(DGM - Elect.)

Total work experience---------- 26 yrs

Project execution from concept to commissioning of Power plants & Chemical plants.

Troubleshooting of electrical problems in power plants and Chemical plants.

System improvement for Power Plants electrics/instrumentation.

O&M of Gas turbine, DG Power Plants.

Electrical Maintenance of Fertilizer, Polymer, Fibre plants.

Energy Audit of power plant, Textile and cement plant.

Sector covered in Energy Audit studies

Chlor-Alkali & Chemicals

Cement,

Textiles

Aluminium

Power Plant

Mayank Shukla
(Asst. Manager Process)

Total work experience ---------8 yrs.

Basic Engineering Projects

Detail Engineering Projects

Commissioning

Energy Conservation projects

Energy Audits
- Energy Optimization projects

**Sector covered in Energy Audit studies**
- Chlor-Alkali & Chemicals
- Cement
- Textiles
- Aluminium
- Iron
- Power Plant
- Fertilizers
- Petrochemicals
- Fiber

<table>
<thead>
<tr>
<th>Monesh Sharma</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Asst. Manager Mechanical)</td>
</tr>
</tbody>
</table>

**Total work experience** ------- **11 yrs.**
- Captive Power Plants (Operation & Maintenance)
- Mechanical Maintenance
- Projects (Erection and Commissioning)
- Energy Conservation projects
- Energy Audits

**Sector Covered in Energy Audit studies**
- Chlor-Alkali & Chemicals
- Cement
- Textiles
- Aluminium
- Iron
- Power Plant

<table>
<thead>
<tr>
<th>Harshal Limdi</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dy. Manager Mech.)</td>
</tr>
</tbody>
</table>

**Total work experience** ------- **11 yrs.**
- Mechanical Maintenance
- Energy Conservation projects
- Energy Audits

**Sector Covered in Energy Audit studies**
- Chlor-Alkali & Chemicals
- Cement
- Textiles
- Aluminium
- Iron
<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Experience</th>
<th>Sector Covered in Energy Audit studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sudarshan Kumar Goyal</td>
<td>Experience: Energy Audit, Project management, Cement Manufacturing Technology, Mechanical Maintenance</td>
<td>Cement, Textiles, Pulp and fiber, Power plants, Chemical, Carbon black</td>
</tr>
</tbody>
</table>
- Chemicals,
- Buildings,
- Engineering & foundry
- Pharmaceuticals

**Rajesh Chourishi**  
(Sr. Manager Elect.)

**Total work experience **---------23 yrs.
- Industrial power system projects
- Electrical Maintenance
- Power system studies & industrial network designing
- Energy Conservation projects
- Energy Audits

**Sector covered in Energy Audit studies**
- Aluminum,
- Cement,
- Textile,
- Power Plants,
- Pulp, Fiber, Carbon Black, Chemicals & Fertilizers
- Ferrous and Non ferrous metals
- Insulators,
- Mining,
- Office Buildings, Malls, Hyper & Super Markets.

<table>
<thead>
<tr>
<th>21</th>
<th>Sectors in which the energy auditor has conducted energy audits since inception</th>
<th>Aluminium, Cement, Textile, Power Plants, Pulp, Fibre, Chemicals, Carbon Black, Fertilizer, Copper (Non ferrous metals), Insulators, Mining, Buildings</th>
</tr>
</thead>
</table>
| 22 | Subject wise expertise | Electrical Utilities - Detailed analysis of  
- Tariff Analysis – Effective utilization of ToD.  
- Contract Demand Rationalization  
- Distribution network from optimizing at best efficiency point  
- Electric Motor (HT & LT)  
- Transformers  
- Illumination  
- Thermography |
- Power Quality Study
- Power System Studies using ETAP software (Like:- Load flow, Harmonic, Short circuit, Device duty analysis and Relay coordination)
- DG set
- Pumps
- Fans & Blowers
- Cooling towers
- Air compressor
- Refrigeration and air conditioning

**Thermal Utilities** – Detail analysis of
- Boiler
- Furnace
- Waste heat recovery
- Steam system
- Heat exchangers
- Steam and gas turbine

| (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 | Nil |
| (b) | Energy audit thermal utility system (list sectors) | Aluminium, Power Plants, Pulp, Fibre, Chemicals, Carbon Black, Fertilizer, Copper (Non ferrous material), Insulators, Mining |
| (c) | Energy audit electrical utility system (list sectors) | Aluminium, Cement, Textile, Power Plants, Pulp, Fibre, Chemicals, Carbon Black, Fertilizer, Copper (Non ferrous material), Insulators, Mining, Buildings |

23 Instruments available

(a) Electrical (list the name of the instruments)

<table>
<thead>
<tr>
<th>Sr.No</th>
<th><strong>Electrical Instruments</strong></th>
<th>Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Logger ALM 10/Krykard</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Fluke 41B Power and Harmonic Analyser/Fluke</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Fluke 43B Power and Harmonic Analyser</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Clampon Power meter Nanovip/Krykard</td>
<td>3</td>
</tr>
<tr>
<td>No.</td>
<td>Instrument Description</td>
<td>Nos.</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>5</td>
<td>Power Quality Analyser Hioki 3196/Hioki</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Digital Multimeter/Motwane</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Insulation Tester/Meco</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Electric Motor Checker/EMC</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Digital Earth Tester/Motwane</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>(b) Thermal (list the name of the instruments)</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ultrasonic Flow Meter/Eesiflo</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Ultrasonic Leak Detector/Ultraprobe</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Infrared Thermal Imager/Fluke</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>DP Meter Testo 445/Testo</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Stack Gas Analyser/ACEmaxicem/Testo</td>
<td>2+1</td>
</tr>
<tr>
<td>6</td>
<td>Pressure Logger/Crystal/Leo</td>
<td>2+1</td>
</tr>
<tr>
<td>7</td>
<td>Digital Pressure Gauge/Crystal/Keller</td>
<td>1+2</td>
</tr>
<tr>
<td>8</td>
<td>Digital Vane Anemometer/Dwyer/Testo</td>
<td>2+1</td>
</tr>
<tr>
<td>9</td>
<td>Stroboscope/Testo</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>Digital Luxmeter/Testo</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>IR Thermometer/Raytek/Testo</td>
<td>2+1</td>
</tr>
<tr>
<td>12</td>
<td>Humidity/Temp. Indicator/Vaishala</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>Temp/Rh. Data Loggers/Testo/Kimo</td>
<td>2+2</td>
</tr>
</tbody>
</table>

24  
(i) Details of training programme/seminars/workshops conducted during the last 3 years in the field of energy efficiency/energy audit  
Fostering RCM culture- A Winning Strategy to Stand Tall  
2009

(ii) Electrical Power System Protection- A 360° Approach, Best Practices and Beyond  
2010

(iii) Green Energy  
2011
<table>
<thead>
<tr>
<th>D</th>
<th>Remarks( if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• We have carried out Energy Audits at various plants across the globe – Thailand, Indonesia, Canada, Phillipines, Egypts, etc</td>
</tr>
<tr>
<td></td>
<td>• We are conducting Corporate Seminar once in a year for all our Group Units on latest topics on Energy / Reliability</td>
</tr>
<tr>
<td></td>
<td>• We are publishing Quarterly C-NERGY newsletter mainly focused on new developments in Energy field and circulate it to our group Units.</td>
</tr>
<tr>
<td></td>
<td>• Encouraging our Group Units for celebration of Energy Conservation Day and participating in number of programs</td>
</tr>
<tr>
<td></td>
<td>• Having High End Software for in depth analysis of Electrical and Thermal Energy like ETAP, HTRI, MathCad, etc.</td>
</tr>
<tr>
<td></td>
<td>• Capacity Development of each individual auditor is being done on regular basis.</td>
</tr>
<tr>
<td></td>
<td>• We have received accreditation for energy audit firm from Gujarat Electricity Commissioner, GEDA, and MEDA</td>
</tr>
</tbody>
</table>

(Note: Responsibility of the authenticity of the above information rests with the concerned energy auditor/energy auditing agency.)