## **FORM IV**

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

| Serial Number ( AEA- 0240) |  | А                        | s on:- 19/10/2015   |
|----------------------------|--|--------------------------|---------------------|
| A.                         |  |                          |                     |
| 1                          | Name of accredited energy auditor  | Shri N. Rajkumar         |                     |
| 2                          | Father's name  | T.NAGARAJAN              |                     |
| 3                          | Date of certification as Energy Manager  | 2006                     |                     |
| 4                          | Date of passing the examination in<br>"Energy Performance Assessment for<br>Equipment and Utility Systems" | 2005                     |                     |
| 5                          | Examination Registration Number of   | CEA-1232                 |                     |
|                            | (i) Energy Manager   |                          |                     |
|                            | (ii) "Energy Performance Assessment for Equipment and Utility Systems"                                     |                          |                     |
| 6                          | Certificate Registration Number of   | 2332                     |                     |
|                            | (i) Energy Manager   |                          |                     |
|                            | (ii) "Energy Performance Assessment for Equipment and Utility Systems"                                     |                          |                     |
| 7                          | Date of issue of accreditation certificate   | ( to be filled by BEE)   |                     |
| B.                         | Information in respect o   | f trade name or firms' r | name                |
| 8                          | Trade name / firms name under which energy audit is proposed to be conducted                               | Central Power Resear     | ch Institute (CPRI) |
| 9                          | Date of accreditation as accredited energy auditor   | ( to be filled by BEE)   |                     |
| 10                         | Type of firm/ private/ Government / NGO etc.   | GOVERNMENT               |                     |

| 11 | Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address ( All details compulsory) | S.R. BHAT, Director General CPRI, Prof.Sir.C.V.Raman Road, Sadashiva Nagar P.O., Bangalore 560080. Tel.: +91 80 2360 2457 FAX: +91 80 2360 1213 Email: dgcpri@cpri.in, murugesan@cpri.in |
|----|---|--|
| 12 | Professional postal address with Pin<br>Code of the accredited energy auditor   | CPRI, Energy Efficiency & Renewable Energy Division (ERED),Prof.Sir.C.V.Raman Road, Sadashiva Nagar P.O., Bangalore 560080.  |
| 13 | E-mail address  | rajkumar@cpri.in   |
| 14 | Telephone numbers . with STD Code (R) (O) Mobile no:  | N.A.<br>+91 80 2360 4682<br>+91 98864 97677  |
| 15 | Year of establishment of the trade name / firms' name for undertaking the energy audit  | 1960   |
| 16 | Year of commencement of energy audit of the firm  | 1989   |
| 17 | Whether any certificate to support the excellence in the system has been obtained (ISO etc.)  | Yes. CPRI's consultancy services are covered under ISO 9001:2008   |
| 18 | No. of branch offices  (List of complete addresses including heads of all branch offices with telephone, fax and email addresses)                         | Additional Director, CPRI, Switchgear Testing and Development Station, Govindpura, Bhopal – 462 023. Tel.: +91 755 2586 682, 2586 877 FAX: +91 755 2587 774 Email: stds@cpri.in          |
|    |   | Joint Director & Unit Head,  |

CPRI, Thermal Research Centre, CPRI Colony, VidyutVihar, Koradi, Nagpur – 441 111.

Tel.: +91 7109 262251, 262253

FAX: +91 7109 262170 Email: tmrao@cpri.in

Additional Director, CPRI, UHV Research Laboratory, Post Bag No. 9, Uppal P.O., Warangal Highway, Hyderabad – 500 039.

Tel.: +91 40 2720 8067, 2720 3622

FAX: +91 40 2720 3378 Email: <u>uhvac@cpri.in</u>

Joint Director and Unit Head, CPRI.

Regional Testing Laboratory Kolkata, 1<sup>st</sup> Floor, CTD Workshop, WBSEB, Abhikshan Building, BN Block, Sector – V.

Salt Lake City, Kolkata – 700 091.

Tel./FAX: +91 33 6451 1887

Email: maiti@cpri.in

Additional Director, CPRI, Regional Testing Laboratory, No. 3A, Sector-62, Institutional Area, Noida – 201 309.

Tel.: +91 120 2402 823 FAX: +91 120 2402 824 Email: rtlnoida@cpri.in

Joint Director and Unit Head, CPRI,

Regional Testing Laboratory Guwahati, No.4, Type-III (Old A.T.)
A.S.E.B. Colony, Narangi,
Guwahati – 781 026.

Tel./FAX: +91 2650 299 Email: rtl\_g@cpri.in

| С  | Details of Ass   | ociated Energy Experts  |
|----|--|---|
| 19 | Number of resource persons available   | 3   |
| 20 | I. Number. of full-time energy auditors in position with work experience of all energy auditors associated with the firm | 1. Shri.R. Sudhir Kumar (EA 1233) ,- 22 Years  B.E. in Electronics and Communication Engg. With CPRI since 1993. A certified energy auditor with rich experience in conducting energy audits in power plants, buildings, port trusts and other industries. Has completed about 25 energy audits and published about 40 papers in international and national journals, conferences, etc. He has also worked with electrical distribution systems for some prestigious projects such as APDRP, RAPDRP, RGGVY. His areas of interest includes, SPV power generating system, solar lighting systems. Holds one patent.  2. Shri. S. Jothibasu (EA 2597) – 20 Years  B.Tech in Mechanical Engg from Pondicherry Engg. College and M.Tech in Thermal Engg. From NIT, Surathkal. Has 20 years of experience in energy audit and efficiency studies at Central Power Research Institute (CPRI) at its Centres in Bangalore and Thiruvananthapuram in the field of energy audit and energy conservation. He is presently working in Energy Efficiency & Renewable Energy Division of CPRI as Engineering Officer He is a certified energy Auditor of BEE. Provided energy audit services to 30 thermal power stations, 60 process industries, 30 buildings, etc. Executed R&D projects in the area of wind, biomass and solar energy. He is a ISO 9000:2000 auditor. |

|    |   | 3. Shri. N. Rajkumar (EA 1232) – 18 Years.  Has a professional experience of 18 years at Central Power Research Institute (CPRI) at its Centres in Bangalore and Thiruvananthapuram in the field of energy audit and energy conservation. He is presently working in Energy Efficiency & Renewable Energy Division of CPRI as Engineering Officer. He received M.Sc in Energy Science from Madurai Kamaraj University and M.Tech in Energy Management from Devi AhilyaViswavidyalaya, Indore.He has carried out energy audit in thermal power stations, buildings and various process industries. He has designed and developed solar thermal systems. He has published more than 50 technical papers in international and national journals, conferences and seminars in energy conservation and renewable energy. He is a life member of Solar Energy Society of India (SESI) and trained ISO 9000:2000 series lead auditor. |
|----|---|--|
|    | II. No. of part-time energy auditors in position during the current year / previous year associated with the energy auditor / energy auditor's firms. | NIL  |
| 21 | Sectors in which the energy auditor/<br>energy audit firm has conducted<br>energy audits since inception  | Power stations – Coal, Nuclear, Hydro, Gas based Combined cycle power plants Buildings, Research organisations, Hospitals, Airports, Port trusts, Various process industries, etc.   |

| 22  | 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 | Power plants, Buildings, etc.   |
| (b) | Energy audit thermal utility system (list sectors)   | Power plants, Buildings, etc.   |
| (c) | Energy audit electrical utility system (list sectors)  | Power plants, Buildings, etc.   |
| 23  | Instruments available  |   |
|     | (a) Electrical (list the name of the instruments)  | <ol> <li>Portable power analyser – 8 Nos.</li> <li>Digital lux meter – 4 Nos.</li> <li>Digital multimeter – 4 Nos.</li> <li>Digital clamp on meter – 2 Nos.</li> </ol>  |
|     | (b) Thermal (list the name of the instruments)   | <ol> <li>Ultrasonic flow meter – 5 Nos.</li> <li>Digital anemometer – 5 Nos.</li> <li>Infrared thermometer – 10 Nos.</li> <li>Digital temperature probes (RTD and Thermocouples) – 10 Nos.</li> <li>Digital RH and temperature instrument – 4 Nos.</li> <li>Combustion analyser – 4 Nos.</li> <li>Digital pressure gauge – 10 Nos.</li> <li>Non contact digital tachometer – 2 Nos.</li> <li>Iso-kinetic coal sampling probe – 2 sets.</li> <li>Data logger with pressure, temperature sensors – 2 Nos.</li> <li>Digital manometer – 4 Nos.</li> <li>Digital barometer – 2 Nos.</li> <li>Double arm pitot tube – 4 Nos.</li> <li>Dirty pitot tube – 2 Nos.</li> </ol> |

| 24<br>(i) | Details of training programme/seminars/ workshops conducted during the last 3 years in the field of energy efficiency / energy audit | Co-<br>organiser&<br>Speaker | National conference on<br>"Technological advances for<br>new power generating units<br>and for performance<br>enhancement of present plants"<br>during 18-19 <sup>th</sup> November 2010<br>at CPRI, Bangalore. |
|-----------|--|------------------------------|---|
| (ii)      |  | Co-<br>organiser             | National conference on "Recent trends in technological advances in LED lighting system" during 13-14 <sup>th</sup> December 2010 at CPRI, Bangalore.  |
| (iii)     |  | Speaker                      | A 2 day National Tutorial<br>program on Case studies of<br>Energy Conservation in water<br>pumps and pumping systems,<br>27 <sup>th</sup> -28 February 2012 at CPRI,<br>Bangalore                               |
| (iv)      |  | Organiser<br>and Speaker     | Tutorial on 'Best practices in coal fired TPS' during 13-14 Sept. 2012.   |
| (v)       |  | Co-<br>organiser&<br>Speaker | Tutorial on solar & wind energy systems for industrial applications held at CPRI during 14-15 <sup>th</sup> Feb. 2013.  |
| (vi)      |  | Speaker                      | National workshop on Case<br>studies of Energy Conservation<br>in Refrigeration, Heating,<br>Ventilation& Air conditioning (R-<br>HVAC) systems, 6-7 <sup>th</sup> June<br>2013 at CPRI, Bangalore.             |
| (vii)     |  | Co-organiser                 | Hybrid Power Generating<br>Systems, 11-12 <sup>th</sup> October 2013<br>at CPRI, Bangalore.   |
| (viii)    |  | Co-<br>organiser&<br>Speaker | Solar Energy solutions for Industrial applications, 13-14 <sup>th</sup> February 2014 at CPRI, Bangalore.   |

| (ix) |  | Speaker | Offices<br>Complexes | Conservation in Hospitals, Hotels, & Commercial and ECBC Codes, ch 2014 at CPRI, |
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|------|--|---------|----------------------|--|

| D | Remarks( if any) |
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(Note: Responsibility of the authenticity of the above information rests with the concerned energy auditor/energy auditing agency.)