

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

<b>Serial Number (AEA- 0175)</b>		<b>As on. (09/10/2014)</b>	
<b>A.</b>			
1	Name of accredited energy auditor	<b>I.THANUMOORTHI</b>	
2	Father's name	<b>N.Iyyappan Pillai</b>	
3	Date of certification as Energy Manager	<b>6<sup>th</sup> April 2005</b>	
4	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	<b>May 2004</b>	
5	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	<b>EA 0035</b>	
6	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	<b>358</b>	
7	Date of issue of accreditation certificate	<b>( to be filled by BEE)</b>	
<b>B. Information in respect of trade name or firms' name</b>			
8	Trade name / firms name under which energy audit is proposed to be conducted	<b>Wipro Eco Energy</b>	
9	Date of accreditation as accredited energy auditor	<b>( to be filled by BEE)</b>	
10	Type of firm/ private/ Government /	<b>Private</b>	



	NGO etc.	
11	Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address ( All details compulsory)	<b>I. Thanumoorthi, Senior Manager-Technical &amp; Head Process Industries, Wipro Eco Energy, 3<sup>rd</sup> Floor, D-Block, Dodda kannelli, Sarjapur Road, Bangalore-560035. Tel: +91-80-39916761 Mobile: +91-9663380445 <a href="mailto:thanumoorthi.iyyappan@wipro.com">thanumoorthi.iyyappan@wipro.com</a></b>
12	Professional postal address with Pin Code of the accredited energy auditor	<b>I. Thanumoorthi, Senior Manager-Technical &amp; Head Process Industries, 301, No-15, Arien Edifice, N R Colony, Murugesh palaya, HAL, Bangalore-560017. Tel: +91-80-25279922 Mobile: +91-9663380445</b>
13	E-mail address	<b><a href="mailto:thanumoorthi.iyyappan@wipro.com">thanumoorthi.iyyappan@wipro.com</a> <a href="mailto:ithanu@yahoo.com">ithanu@yahoo.com</a></b>
14	Telephone numbers . with STD Code (R) (O) Mobile no:	<b>( R) 91-80-25279922 (O) 91-80-39916761 +91 9663380445</b>
15	Year of establishment of the trade name / firms' name for undertaking the energy audit	<b>2008</b>
16	Year of commencement of energy audit of the firm	<b>2009</b>
17	Whether any certificate to support the excellence in the system has been obtained (ISO etc.)	<b>Wipro EcoEnergy is going for ISO 9001:2008 certification for its Energy Management Business during August - September 2013 timeframe. However Wipro as a company is ISO, OHSAS 18001 and ISO 14001 certified.</b>
18	No. of branch offices (List of complete addresses including heads of all branch offices with telephone, fax and email addresses)	<b>Wipro Limited. Plot No 2, 3 &amp; 4, Greater Noida, UP-201306 0120-3835300</b>
<b>C</b>	<b>Details of Associated Energy Experts</b>	

19	Number of resource persons available	
20	I. Number. of full-time energy auditors in position with work experience of all energy auditors associated with the firm	<p><b>Certified Energy Auditors – 10 Nos</b></p> <p><b>1) <u>P V Antony Jerald</u></b>  <b>Position in Wipro:</b> Manager – Energy Optimisation  <b>Energy Audit certificate No:</b> EA 3269  <b>Educational qualification:</b> BE (Mechanical), M tech (Energy)  <b>Work Experience:</b> 14 years overall experience of which 3.0 years in Wipro.  <b>Sectors covered:</b> Iron &amp; Steel, Pulp &amp; Paper, Water utilities and Municipalities, Power plant, Cement, Chemical &amp; Pharmaceuticals, Food processing, Automobile, Heavy engineering, Glass &amp; Ceramic, Fertilizer, Mining, Telecommunication and Data Centers, Buildings &amp; Commercial complexes, Airports</p> <p><b>2) <u>Baijayanta Nath</u></b>  <b>Position in Wipro:</b> Senior Manager – Energy Solutions  <b>Energy Audit certificate No:</b> EA 1575  <b>Educational qualification:</b> BE (Mechanical), Post Graduate Diploma in Energy Management (PGDEM); Masters in Environmental Sciences, Policy and Management (MESPOM)  <b>Work Experience:</b> 18 years overall experience of which 5.0 years in Wipro.  <b>Sectors covered:</b> Iron &amp; Steel, Pulp &amp; Paper, Cement, Power generation, Pulp &amp; Paper, tea, sugar, casting &amp; forging, Food processing, Automobile, Heavy engineering, Glass &amp; Ceramic, Fertilizer, Mining, Telecommunication and Data Centers, Buildings &amp; Commercial complexes.</p> <p><b>3) <u>Shailesh P. Dangwal</u></b>  <b>Position in Wipro:</b> Senior Energy Manager</p>

		<p><b>Energy Audit certificate No:</b> EA 1317  <b>Educational qualification:</b>  BE (Mechanical), ISO 9001:2000. Certified Internal Quality Auditor of company  <b>Work Experience:</b> 15 years overall experience of which 5 years in Wipro.  <b>Sectors covered:</b> Power supply, transmission &amp; distribution, Telecommunication and Data Centers, Buildings &amp; Commercial complexes.</p> <p>4) <b><u>A.L.Krishna Kumar</u></b>  <b>Position in Wipro:</b> Energy Manager  <b>Energy Audit certificate No:</b> EA 3266  <b>Educational qualification:</b> BE (Electrical &amp; Electronics)  <b>Work Experience:</b> 16 years overall experience of which 2 months in Wipro.  <b>Sectors covered:</b> Sugar, Caustic soda, Glass and Airport infrastructure, Commercial sectors.</p> <p>5) <b><u>Hara Prasad Sahu</u></b>  <b>Position in Wipro:</b> Energy Optimization Assessment Lead  <b>Energy Audit certificate No:</b> EA 1335  <b>Educational qualification:</b> M. Tech (Energy Management)  <b>Work Experience:</b> 14 years overall experience of which 1.5 years in Wipro.  <b>Sectors covered:</b> Retail sector, Hotels, Commercial Buildings, Engineering, Telecom, Thermal Power Plant, Nuclear Power Plant, Chemical &amp; Fertilizer, Co-generation Power Plant, Gas Power Plant, Mining, Municipal Corporation, Textile</p> <p>6) <b><u>Karthikeyan N S</u></b>  <b>Position in Wipro:</b> Assistant Manager - Technical Assessment  <b>Energy Audit certificate No:</b> EA 12501  <b>Educational qualification:</b> B.E (Electrical &amp; Electronics)  <b>Work Experience:</b> 7 years overall experience of which 5 years in Wipro.  <b>Sectors covered:</b> Hotels, Breweries,</p>
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Automobile & Foundry industry, Buildings, Water Treatment plant, Telecom/Data center, Manufacturing, Municipal Street Lighting and Water pumping, Paper industry, Pharmaceutical, Buildings

7) **Pavan Kumar N**

**Position in Wipro:** Senior Engineer – Energy Audit

**Energy Audit certificate No:** EA 12224

**Educational qualification:** B.E (Electrical & Electronics)

**Work Experience:** 6.5 years overall experience of which 1.5 years in Wipro.

**Sectors covered:** Power Plants, Telecom, Aluminum, Cement, Textiles, Ceramic, Dairy, Seed Processing Industries, Municipalities, Hospitals and Universities

8) **Velumurugan K**

**Position in Wipro:** Assistant Manager – Energy Optimization

**Energy Audit certificate No:** EA 12810

**Educational qualification:** B.E (EEE); M.E (Energy)

**Work Experience:** 6 years overall experience of which 1 year in Wipro.

**Sectors covered:** Iron ore, Paper & Pulp, Textile, Commercial buildings (Hotels, Hospitals, and colleges) & Food Industry (Tea, Coconut powder & Biscuit)

9) **Chandrakant Sahu**

**Position in Wipro:** Assistant Manager – Energy Optimization

**Energy Audit certificate No:** EA 12908

**Educational qualification:** B.E (Electronics); M. Tech (Energy Management); CMVP (Certified Measurement & Verification Professional by EVO (US) & AEE (US))

**Work Experience:** 5 years overall experience of which 2 years in Wipro.

**Sectors covered:** Utility, Water, Commercial Buildings and Retail

10) **Thanakarthik Kumar**

		<b>Position in Wipro:</b> Consultant <b>Energy Audit certificate No:</b> EA 5296 <b>Educational qualification:</b> B.E (EEE) <b>Work Experience:</b> 8 years overall experience of which 3 months in Wipro. <b>Sectors covered:</b> Pulp and paper, textile, Small and medium scale industries, buildings
	II. No. of part-time energy auditors in position during the current year / previous year associated with the energy auditor / energy auditor's firms.	2
21	Sectors in which the energy auditor/energy audit firm has conducted energy audits since inception	<b>Iron &amp; Steel, Pulp &amp; Paper, Water utilities and Municipalities, Power plant, Cement Chemical &amp; Pharmaceuticals, Food processing, Automobile, Heavy engineering, Glass &amp; Ceramic Fertilizer, Mining, Telecommunication and Data Centers, Buildings &amp; Commercial complexes</b> <b>Airports</b>
22	Subject wise expertise	<b>All electrical and thermal utilities</b>
(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	<ul style="list-style-type: none"> <li>• <b>Cement kilns and all cement processes</b></li> <li>• <b>Glass melting furnace and annealing Lehrs and glass plant processes</b></li> <li>• <b>Power plant boilers &amp; Turbines and power plant processes</b></li> <li>• <b>Paper Machines and paper plant processes</b></li> <li>• <b>Blast furnace &amp; Basic oxygen furnace and all steel plant processes</b></li> <li>• <b>Waste water aeration section</b></li> <li>• <b>Datacenters ad Telecom exchanges</b></li> </ul>
(b)	Energy audit thermal utility system (list sectors)	<ul style="list-style-type: none"> <li>• <b>Iron &amp; Steel</b></li> <li>• <b>Pulp &amp; Paper</b></li> <li>• <b>Water utilities and Municipalities</b></li> <li>• <b>Power plants</b></li> <li>• <b>Food processing</b></li> </ul>

(c)	Energy audit electrical utility system (list sectors)	<ul style="list-style-type: none"> <li>• Iron &amp; Steel</li> <li>• Pulp &amp; Paper</li> <li>• Water utilities and Municipalities</li> <li>• Telecommunication and Data Centers</li> <li>• Buildings &amp; Commercial complexes</li> <li>• Airports</li> <li>• Power plant</li> <li>• Cement</li> <li>• Chemical &amp; Pharmaceuticals</li> <li>• Food processing</li> <li>• Automobile</li> <li>• Heavy engineering</li> <li>• Glass &amp; Ceramic</li> <li>• Fertilizer</li> </ul>
23	Instruments available	
	(a) Electrical (list the name of the instruments)	<ul style="list-style-type: none"> <li>• Kry card 3-phase power analyzer</li> <li>• Kry card 3-phase power logger cum harmonic analyser</li> <li>• Fluke 41 B</li> <li>• Single phase power analysers</li> <li>• Stroboscope</li> </ul>
	(b) Thermal (list the name of the instruments)	<ul style="list-style-type: none"> <li>• Infrared pyrometer</li> <li>• Pitot tube and micro manometer</li> <li>• Flue gas analyzer ( O<sub>2</sub>, CO<sub>2</sub>, CO)</li> <li>• Ultrasonic flow meter</li> <li>• Digital temperature indicator with temperature probes ( low to high range)</li> <li>• Temperature and humidity logger ( A/C purpose)</li> <li>• Thermal Imager ( Fluke for reliability study)</li> </ul>
24 (i)	Details of training programme/ seminars/ workshops conducted during the last 3 years in the field of energy efficiency / energy audit	<ul style="list-style-type: none"> <li>• Workshop conducted in all industries at the end of energy audit ( more than 50 from 2003 to 2011)</li> <li>• Training program and session conducted for BEE exam writing professionals covering Book-2,3 &amp; 4</li> </ul>
(ii)		
(iii)		

<b>D</b>	<b>Remarks( if any)</b>

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