

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

| Serial Number (AEA- 0017)                                  |                                                                                                                                    | As on: 26 February, 2013                                                |  |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--|
| <b>A.</b>                                                  |                                                                                                                                    |                                                                         |  |
| 1                                                          | Name of accredited energy auditor                                                                                                  | SANJAY VERMA                                                            |  |
| 2                                                          | Father's name                                                                                                                      | Sh. M.S. Verma                                                          |  |
| 3                                                          | Date of certification as Energy Manager                                                                                            | 6 <sup>th</sup> April, 2005                                             |  |
| 4                                                          | Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"                               | Exam Date 23 <sup>rd</sup> May'04<br>Result dt. 31 <sup>st</sup> Aug'04 |  |
| 5                                                          | Examination Registration Number of<br>(i) Energy Manager<br>(ii) "Energy Performance Assessment for Equipment and Utility Systems" | EA-1272                                                                 |  |
| 6                                                          | Certificate Registration Number of<br>(i) Energy Manager<br>(ii) "Energy Performance Assessment for Equipment and Utility Systems" |                                                                         |  |
| 7                                                          | Date of issue of accreditation certificate                                                                                         | ( to be filled by BEE)                                                  |  |
| <b>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                                                       | NTPC Ltd.                                                               |  |



|          |                                                                                                                                                           |                                                                                                                                                                                                                                                                   |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9        | Date of accreditation as accredited energy auditor                                                                                                        | ( to be filled by BEE)                                                                                                                                                                                                                                            |
| 10       | Type of firm/ private/ Government / NGO etc.                                                                                                              | Government (Central PSU)                                                                                                                                                                                                                                          |
| 11       | Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address ( All details compulsory) | Sh. Lalji Agrawal, AGM (CEETEM),<br>NTPC Ltd.,<br>Engineering Office Complex (EOC),<br>Sector-24, NOIDA-201301, (U.P.)<br>Ph. 0120-2410527 (off), 09650992703 (Mob)<br>Fax : 0120-2410357<br><a href="mailto:laljiagrawal@ntpc.co.in">laljiagrawal@ntpc.co.in</a> |
| 12       | Professional postal address with Pin Code of the accredited energy auditor                                                                                | Sanjay Verma<br>DGM(CEETEM),<br>NTPC Ltd., EOC,<br>Sector-24,<br>NOIDA-201301 (U.P.)                                                                                                                                                                              |
| 13       | E-mail address                                                                                                                                            | sanjayverma@ntpc.co.in                                                                                                                                                                                                                                            |
| 14       | Telephone numbers . with STD Code<br>(R)<br>(O)<br>Mobile no:                                                                                             | 0120- 4547955 (R)<br>0120- 2410207 (o)<br>09650992682 (Mob)                                                                                                                                                                                                       |
| 15       | Year of establishment of the trade name / firms' name for undertaking the energy audit                                                                    | 1975                                                                                                                                                                                                                                                              |
| 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<br>(List of complete addresses including heads of all branch offices with telephone, fax and email addresses)                       | Nil                                                                                                                                                                                                                                                               |
| <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>1. S.K. Tyagi</b>- 15 yrs experience in Combined cycle Gas power stations and 6 yrs in energy audits of thermal power stations. He is Certified Energy Auditor (EA-1092) and had participated in more than 20 energy audits in TPS. <a href="mailto:sktyagi@ntpceoc.co.in">sktyagi@ntpceoc.co.in</a></p> <p><b>2. Samir Sharma</b> - 8 yrs O&amp;M experience in coal based power plant and 6 yrs in energy audits of thermal power stations. He is Certified Energy Auditor (EA-1878) and had participated in more than 25 energy audits in TPS. <a href="mailto:samirsharma@ntpceoc.co.in">samirsharma@ntpceoc.co.in</a></p> <p><b>3. Harish Kumar</b> – Total 24 yrs of experience in coal based power plants including 7 years in energy auditing. He is a Certified Energy Auditor (EA- 3531) and has conducted more than 25 energy audits in thermal power stations. <a href="mailto:Harishkumar01@ntpc.co.in">Harishkumar01@ntpc.co.in</a></p> <p><b>4. M. M. Chawla</b> - Total 27 yrs of experience in coal based power plants including 13 years in energy auditing. He is a Certified Energy Auditor (EA - 0611) and has conducted more than 60 energy audits in thermal power stations. <a href="mailto:mmchawla@ntpceoc.co.in">mmchawla@ntpceoc.co.in</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
|      | II. No. of part-time energy auditors in position during the current year / previous year associated with the energy auditor / energy auditor's firms. | <table border="1" data-bbox="651 961 1555 1703"> <thead> <tr> <th>S.No</th> <th>Name</th> <th>CEA-No</th> <th>Email</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Pradeep Jain</td> <td>EA-10304</td> <td><a href="mailto:jain98@ntpceoc.co.in">jain98@ntpceoc.co.in</a></td> </tr> <tr> <td>2</td> <td>Dipak Sarkar</td> <td>EA-0986</td> <td><a href="mailto:sarkar_dipak@yahoo.com">sarkar_dipak@yahoo.com</a></td> </tr> <tr> <td>3</td> <td>B.L Yadav</td> <td>EA 8693</td> <td><a href="mailto:blyadav@ntpc.co.in">blyadav@ntpc.co.in</a></td> </tr> <tr> <td>4</td> <td>Harish Kumar</td> <td>EA-9927</td> <td><a href="mailto:hkumar@ntpceoc.co.in">hkumar@ntpceoc.co.in</a></td> </tr> <tr> <td>5</td> <td>Sanjay Kumar</td> <td>EA-9981</td> <td><a href="mailto:sanjaykumar02@ntpc.co.in">sanjaykumar02@ntpc.co.in</a></td> </tr> <tr> <td>6</td> <td>S. Mallikarjuna</td> <td>EA-13248</td> <td><a href="mailto:smallikarjun@ntpc.co.in">smallikarjun@ntpc.co.in</a></td> </tr> <tr> <td>7</td> <td>Y.K.Sharma</td> <td>EA-7436</td> <td><a href="mailto:yksharma@ntpceoc.co.in">yksharma@ntpceoc.co.in</a></td> </tr> <tr> <td>8</td> <td>S K Singhal</td> <td>EA-9301</td> <td><a href="mailto:sanjaysinghal@ntpc.co.in">sanjaysinghal@ntpc.co.in</a></td> </tr> <tr> <td>9</td> <td>M.K. Malviya</td> <td>EA-2182</td> <td><a href="mailto:manishkumarmalviya@ntpc.co.in">manishkumarmalviya@ntpc.co.in</a></td> </tr> <tr> <td>10</td> <td>Sujay Karmakar</td> <td>EA-1042</td> <td><a href="mailto:sujaykarmakar@ntpc.co.in">sujaykarmakar@ntpc.co.in</a></td> </tr> </tbody> </table> <p>Note : All auditors have experience of energy auditing in Thermal Power Stations.</p> |                                                                                  |  | S.No | Name | CEA-No | Email | 1 | Pradeep Jain | EA-10304 | <a href="mailto:jain98@ntpceoc.co.in">jain98@ntpceoc.co.in</a> | 2 | Dipak Sarkar | EA-0986 | <a href="mailto:sarkar_dipak@yahoo.com">sarkar_dipak@yahoo.com</a> | 3 | B.L Yadav | EA 8693 | <a href="mailto:blyadav@ntpc.co.in">blyadav@ntpc.co.in</a> | 4 | Harish Kumar | EA-9927 | <a href="mailto:hkumar@ntpceoc.co.in">hkumar@ntpceoc.co.in</a> | 5 | Sanjay Kumar | EA-9981 | <a href="mailto:sanjaykumar02@ntpc.co.in">sanjaykumar02@ntpc.co.in</a> | 6 | S. Mallikarjuna | EA-13248 | <a href="mailto:smallikarjun@ntpc.co.in">smallikarjun@ntpc.co.in</a> | 7 | Y.K.Sharma | EA-7436 | <a href="mailto:yksharma@ntpceoc.co.in">yksharma@ntpceoc.co.in</a> | 8 | S K Singhal | EA-9301 | <a href="mailto:sanjaysinghal@ntpc.co.in">sanjaysinghal@ntpc.co.in</a> | 9 | M.K. Malviya | EA-2182 | <a href="mailto:manishkumarmalviya@ntpc.co.in">manishkumarmalviya@ntpc.co.in</a> | 10 | Sujay Karmakar | EA-1042 | <a href="mailto:sujaykarmakar@ntpc.co.in">sujaykarmakar@ntpc.co.in</a> |
| S.No | Name                                                                                                                                                  | CEA-No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Email                                                                            |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 1    | Pradeep Jain                                                                                                                                          | EA-10304                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="mailto:jain98@ntpceoc.co.in">jain98@ntpceoc.co.in</a>                   |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 2    | Dipak Sarkar                                                                                                                                          | EA-0986                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:sarkar_dipak@yahoo.com">sarkar_dipak@yahoo.com</a>               |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 3    | B.L Yadav                                                                                                                                             | EA 8693                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:blyadav@ntpc.co.in">blyadav@ntpc.co.in</a>                       |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 4    | Harish Kumar                                                                                                                                          | EA-9927                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:hkumar@ntpceoc.co.in">hkumar@ntpceoc.co.in</a>                   |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 5    | Sanjay Kumar                                                                                                                                          | EA-9981                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:sanjaykumar02@ntpc.co.in">sanjaykumar02@ntpc.co.in</a>           |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 6    | S. Mallikarjuna                                                                                                                                       | EA-13248                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="mailto:smallikarjun@ntpc.co.in">smallikarjun@ntpc.co.in</a>             |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 7    | Y.K.Sharma                                                                                                                                            | EA-7436                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:yksharma@ntpceoc.co.in">yksharma@ntpceoc.co.in</a>               |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 8    | S K Singhal                                                                                                                                           | EA-9301                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:sanjaysinghal@ntpc.co.in">sanjaysinghal@ntpc.co.in</a>           |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 9    | M.K. Malviya                                                                                                                                          | EA-2182                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:manishkumarmalviya@ntpc.co.in">manishkumarmalviya@ntpc.co.in</a> |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |
| 10   | Sujay Karmakar                                                                                                                                        | EA-1042                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="mailto:sujaykarmakar@ntpc.co.in">sujaykarmakar@ntpc.co.in</a>           |  |      |      |        |       |   |              |          |                                                                |   |              |         |                                                                    |   |           |         |                                                            |   |              |         |                                                                |   |              |         |                                                                        |   |                 |          |                                                                      |   |            |         |                                                                    |   |             |         |                                                                        |   |              |         |                                                                                  |    |                |         |                                                                        |

|      |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                            |        |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 21   | Sectors in which the energy auditor has conducted energy audits since inception                                                                                                                                                                                                              | Power sector, Building sector                                                                                                                                                                              |        |
| 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 | Nil                                                                                                                                                                                                        |        |
| (b)  | Energy audit thermal utility system (list sectors)                                                                                                                                                                                                                                           | Power sector – Boiler, steam turbine, gas turbine, HRSG, Milling, Feed water system, HP/LP Heater, Air Pre Heaters, Condenser                                                                              |        |
| (c)  | Energy audit electrical utility system (list sectors)                                                                                                                                                                                                                                        | Power sector – Aux. Power Consumption, coal handling, ash handling, CW system including CT's, Pumps, Fans, Compressors, HVAC, Lighting, Thermal insulation, , Building Sector – Electrical, HVAC, Lighting |        |
| 23   | Instruments available                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                            |        |
|      | (a) Electrical (list the name of the instruments)                                                                                                                                                                                                                                            | a. 3-phase Power Analyzer (2 nos.)<br>b. Multimeter<br>c. Tong tester<br>d. Lux meter                                                                                                                      |        |
|      | (b) Thermal (list the name of the instruments)                                                                                                                                                                                                                                               | a. Non-contact infrared gun<br>b. Ultrasonic flowmeter<br>c. Flue gas analyzer<br>d. Vane type Anemometer<br>e. Digital hygrometer<br>f. Non-contact tachometer                                            |        |
| 24   | Details of training programme/ seminars/ workshops conducted during the last 3 years in the field of energy efficiency / energy audit                                                                                                                                                        |                                                                                                                                                                                                            | 3 nos. |
| (i)  |                                                                                                                                                                                                                                                                                              | Topic specific workshops on EC opportunities in thermal power stations (once every year)                                                                                                                   |        |
| (ii) |                                                                                                                                                                                                                                                                                              | Energy Manager's Conference (once every year)                                                                                                                                                              | 3 nos. |

|       |  |                                                                                         |        |
|-------|--|-----------------------------------------------------------------------------------------|--------|
| (iii) |  | 3L workshops (BEE)                                                                      | 2 nos. |
| (iv)  |  | Training program on Energy Audit Procedures & Techniques in Thermal Power Plants (2010) | 01 no. |

| <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.)