


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

Serial Number (AEA- 0166)		As on- (26/11/2013)	
A.			
1	Name of energy auditor	SUBBARAO BALASUBRAMANYA SADANANDA (S.B. SADANANDA)	
2	Father's name	A.V. SUBBARAO	
3	Date of certification as Energy Manager	1 st February 2013 Certificate as Energy Manager & also Energy Auditor	
4	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	September 2012	
5	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	EA – 15516	
6	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	Certificate No. 7061	
7	Date of issue of accreditation certificate	(to be filled by BEE)	
B. Information in respect of trade name or firms' name			
8	Trade name / firms name under which energy audit is proposed to be conducted	National Productivity Council	
9	Date of accreditation as accredited energy auditor	(to be filled by BEE)	
10	Type of firm/ private/ Government / NGO etc.	Autonomous body under Ministry of Commerce & Industry, Govt. of India	

11	Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address (All details compulsory)	Shri A.K. Sinha Group Head (Energy Management) National Productivity Council Utpadkta Bhawan, 5-6, Institutional Area Lodi Road, New Delhi 110 003. Tel.No.: 011-24607311 Fax No.: 011-24615002 E-mail: ak.sinha@npcindia.gov.in
12	Professional postal address with Pin Code of the accredited energy auditor	National Productivity Council Novelty Chambers, 7 th Floor Grant Road, Mumbai 400 007.
13	E-mail address	sb.sadananda@npcindia.gov.in ; sbsadananda@gmail.com ;
14	Telephone numbers . with STD Code (R) (O) Mobile no:	PH : 022-23071322, 23002924 Resi.: 022-26651780 Fax :022-23073323 09892278935
15	Year of establishment of the trade name / firms' name for undertaking the energy audit	1958
16	Year of commencement of energy audit of the firm	Energy Management services started in 1974
17	Whether any certificate to support the excellence in the system has been obtained (ISO etc.)	Qualified as auditor under ISO 50001 Energy Management Systems, Auditor / Lead Auditor Course 2012 through SGS India Private Limited.
18	No. of branch offices (List of complete addresses including heads of all branch offices with telephone, fax and email addresses)	14 HQ, National Productivity Council , Udpadakata Bhavan, 5-6 Institutional Area Lodi Road, New Delhi 110 003 Tel 011 24690331 Fax No.011-4615002 Regional Professional Management Groups BANGALORE : National Productivity Council 3005, 2 nd Floor, 12 th A-Main, HAL, 2 nd Stage,8 th Cross, Indira Nagar, Bangalore-560 008 (Karnataka) Tel.080-25217294/25217295 Fax No.080-25217296

BHOPAL :

P.B.No.542, E-5/112, Arera Colony
Bhopal-462 016 (M.P.)
Tel.0755-2466537 Fax 0755-2466537
E-mail : npcbhopal@airtelmail.in

BHUBANESWAR :

A/7, Surya nagar, Bhubaneswar,751 003
Tel: 0674-2397326, 0674-239780

Chennai AIP:

6 SIDCO Industrial Estate
Ambattur, Chennai-600 098 (T.N.)
Tel.044-26245629 /26251808 /26255216
Fax 044-26254904 /26255012
E.mail : pdharmalingam@npcindia.gov.in

Chennai :

6 SIDCO Industrial Estate
Ambattur, Chennai-600 098 (T.N.)
Tel.044-26253144 /26252467
Fax 044-26253122

CHANDIGARH:

SCO-40, 1st Floor, Sector-7-C
Madhya Marg,
Chandigarh-160 019 (Punjab).
Tel.0172-2794122 /2794110
Fax:0172-2794109

GANDHINAGAR:

E-5, GIDC Electronic Estate
Sector-26, Near Tata Chowkdi
Gandhinagar-382 028. (Gujarat)
Tel.079-23287344 /23287345
Fax : 079-23287443
E-mail : gandhinagar@npcindia.gov.in

GUWAHATI:

Meenakshi Bhawan, Rajgarh Road
P.B.No.32, Ulubari,
Guwahat-781 007 (Assam)
Tel.0361-2450160 /2453398 /2451896
Fax :0361-2450160

HYDERABAD:

10-E, Gaganvihar Complex, M.J. Road,
Nampally, Hyderabad-500 001 (A.P.)
Tel:040-32599845 /24733473
Fax:040-24606981
E-mail: npc.ap@nic.in

		<p>JAIPUR: SB-96, J.N. Marg, Bapu Nagar Jaipur-302 004 (Rajashtan) Tel:0141-2702935 Fax:0141-2703573</p> <p>KANPUR: Kabir Bhawan, 4th Floor. G.T. Road Kanpur-208 005 (U.P.) Tel : 0512-2224176 Fax : 0512-2224177</p> <p>KOLKATA: 9, Syed Amir Ali Avenue, Kolkata-700 017 (W.Bengal) Tel: 033-22870269 Fax:033-22873919 E-mail: npckol@dataone.in</p> <p>MUMBAI: Novelty Chambers, 7th Floor Grant Road (E), Mumbai-400 007 (Mah.) Tel.022-23071322 /23002924 Fax : 022 23073323 E-mail : npcmum@vsnl.net / npcmumbai@mtnl.net.in</p> <p>PATNA: Sudama Bhawan, 2nd Floor, Boaring Road Crossing, Patna-800 001 (Bihar) Tel: 0612-2572311 Fax: 0612-2557577 E-mail: npcpat@sify.com</p>
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C	Details of Associated Energy Experts	
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19	Number of resource persons available	5 at Mumbai 32 on all India basis. (all offices of NPC)
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<u>List of BEE Certified Energy Auditors / Resource Persons with NPC</u>				
Sr. No.	Name	Registration No.	Posting	Year of Experience in Energy Audit
1	Subbarao Balasubramnya Sadananda	EA-15516	Mumbai	Above 30
2	T.S. Narayanan	EA 1576	Mumbai	Above 25
3	B.P. Bhandary	EA 1577	Mumbai	Above 20
4	Surendra Patruji Bankar	EA 12229	Mumbai	5

	<table border="1"> <tbody> <tr><td>5</td><td>R. Virendra</td><td>EA 5853</td><td>Hyderabad</td><td>Above 30</td></tr> <tr><td>6</td><td>A.K. Sinha</td><td>EA 3838</td><td>New Delhi</td><td>Above 30</td></tr> <tr><td>7</td><td>J. Nagesh Kumar</td><td>EA 1567</td><td>Chennai</td><td>25</td></tr> <tr><td>8</td><td>P. Dharmalingam</td><td>EA 1566</td><td>Chennai</td><td>25</td></tr> <tr><td>9</td><td>H.R. Prabhu</td><td>EA 1569</td><td>Bangalore</td><td>Above 25</td></tr> <tr><td>10</td><td>A. Chakravorty</td><td>EA 1578</td><td>Kolkata</td><td>Above 25</td></tr> <tr><td>11</td><td>Amitava Ray</td><td>EA 1580</td><td>Kanpur</td><td>Above 15</td></tr> <tr><td>12</td><td>R. Suryanarayan</td><td>EA 1568</td><td>Chennai</td><td>25</td></tr> <tr><td>13</td><td>D. Rajanikant</td><td>EA 0773</td><td>Hyderabad</td><td>Above 10</td></tr> <tr><td>14</td><td>Gopal Gopinath</td><td>EA 6139</td><td>Chennai</td><td>Above 5</td></tr> <tr><td>15</td><td>Prashant Srivastava</td><td>EA 6368</td><td>New Delhi</td><td>Above 5</td></tr> <tr><td>16</td><td>P. Chitra</td><td>EA 6888</td><td>Chennai</td><td>Above 5</td></tr> </tbody> </table>	5	R. Virendra	EA 5853	Hyderabad	Above 30	6	A.K. Sinha	EA 3838	New Delhi	Above 30	7	J. Nagesh Kumar	EA 1567	Chennai	25	8	P. Dharmalingam	EA 1566	Chennai	25	9	H.R. Prabhu	EA 1569	Bangalore	Above 25	10	A. Chakravorty	EA 1578	Kolkata	Above 25	11	Amitava Ray	EA 1580	Kanpur	Above 15	12	R. Suryanarayan	EA 1568	Chennai	25	13	D. Rajanikant	EA 0773	Hyderabad	Above 10	14	Gopal Gopinath	EA 6139	Chennai	Above 5	15	Prashant Srivastava	EA 6368	New Delhi	Above 5	16	P. Chitra	EA 6888	Chennai	Above 5	
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20	I. Number of full-time energy auditors in position with work experience of all energy auditors associated with the firm	32 professionally trained energy management & energy audit consultants including 16 certified energy auditors.																																																												
	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/energy audit firm has conducted energy audits since inception	Wide spectrum of manufacturing, infrastructure & service industry and commercial establishments, covering Thermal Power & Combined Cycle Power Plants, Textile, Pulp & Paper, Fertilizer, Iron & Steel, Foundry, Cement, Aluminium Chloro Alkali, Railway Workshops, Commercial Buildings – large luxury hospital, office complex & malls, Ports, Mines, Dredging Corporation, Pipe line transportation of petroleum products, distribution companies, institutional Capacity Building through national organisations & international development agencies such as USAID, GIZ, ADB, UNEP, APO, World Bank etc.,																																																												
22	Subject wise expertise	Comprehensive energy auditing, energy end use efficiency improvements, steam & power optimization in large continuous process industry, cogeneration and heat recovery, technology evaluation & probing studies, preparation of strategic plan and policy documents on energy efficiency & conservation and institutional capacity building exercises.																																																												

(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)	Sectors such as textile (cotton, rayon & synthetic yarn), fertilizer & petrochemicals, power, commercial sector – large luxury hotels, cement, steel, aluminium, foundry, paper, Aluminium, chloro alkali, Chemical, dairy & food processing, sugar, automobile industry etc.
(c)	Energy audit electrical utility system (list sectors)	Sectors such as textile (cotton, rayon & synthetic yarn), fertilizer & petrochemicals, power, cement, chloro alkali, steel, foundry, Aluminium paper, chemical, dairy & food processing, sugar, automobile & auto components, commercial sector (hotels, malls & multi storied office cum commercial complex, service sectors such as railways, ports, public water works etc.
23	Instruments available	
	(a) Electrical (list the name of the instruments)	<ol style="list-style-type: none"> 1. Single Phase power analyzer 2. Three Phase power analyzer 3. Ultrasonic water flow meter 4. Lux Meter 5. Portable Vane Anemometer
	(b) Thermal (list the name of the instruments)	<ol style="list-style-type: none"> 1. Flue gas analyser 2. Infrared temperature gun 3. Air/liquid thermometer 4. Portable thermo hygrometer 5. Surface temperature indicator 6. Pitot tube with differential pressure indicator 7. Flue gas temperature indicator
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"> • Energy Auditors training course for electrical officers of Indian Railways, IRIEN, Nasik. • Training of trainers on energy conservation and audit under Nepal Energy Efficiency

		<p>Program, Kathmandu, Nepal.</p> <ul style="list-style-type: none"> • Energy Auditors training for Larsen & Toubro Ltd. • Key speaker at the business meet on energy audit organized by Kerala Management Centre at Cochin – 24th February 2012. • National workshop on Technological Trends & Advances in Efficient Operation & Maintenance of Boilers, Raipur, Chattisgarh. • APO two week energy management practitioners course at Lahore, Pakistan. • Preparatory training course for energy auditors – Intercompany program.
(ii)		-----
(iii)		-----

D	Remarks (if any)
	Work experience in the last 5 years given in the Enclosure.

I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: Mumbai
Date: 29.08.2013

Signature:
Name: **Subbarao Balasubramanya Sadananda**
(S.B. SADANANDA)
Designation: Director & Head, RPMG, Mumbai
For and on behalf of DG, NPC

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

WORK EXPERIENCE – LAST 5 YEARS**Name of the Energy Auditor: Shri S.B. Sadananda, Director & Head - Ref. EA-15516****Year 2012-13****Energy Efficiency / Energy Audit Assignment**

- Performance assessment of Bagasse Cogeneration Plant - Ugar Sugar Works, Dist. Gulbarga, Karnataka

Energy Conservation & Audit Training Programs

- Training of trainers on energy audit under Nepal Energy Efficiency Program (supported by GIZ), Kathmandu, Nepal.
- Preparatory training course for energy auditors for L&T at Management Development Centre, Lonavala.
- 2 weeks energy auditors training course for Electrical Officers of Indian Railways at IRIEEN, Nasik Road.

Year 2011-12

- Market & Technology Assessment of Industrial Boilers to support BEE in the development of Minimum Energy Performance Standards (MEPS) in India sponsored by CLASP.

- National workshop on Technological Trends and Advances in Efficient Operations & Maintenance of Boilers at Raipur, Chattisgarh – 18th & 19th January 2012.
- Key speaker at the business meet on energy audit organized by Kerala Management Centre at Cochin – 24th February 2012.
- 2 weeks energy auditors training course for Electrical Officers of Indian Railways at IRIEEN, Nasik Road – 2 Programs.

Year 2010-11

- Performance assessment of Bagasse Based Cogeneration & Biomass Power Plants
 - Vithalrao Shinde SSK Ltd., Near Solapur, M.S.
 - Chattrapathi Sahu SSK Ltd., Near Kolhapur, M.S.
 - Ita Power Generaion Ltd., Sattur, Near Madurai, T.N.
 - Shreeram Non-conventional Energy Ltd., Pattukottai, Near Tanjur, T.N.
 - Someshwar SSK Ltd., Near Baramati, M.S.
 - Indian Cane Power Ltd., Near Bagalkot, Karnataka.
 - Shahbad SSK, Kurukshetra

- 2 weeks energy auditors training course for Electrical Officers of Indian Railways at IRIEEN, Nasik Road – 2 Programs.
- 2 weeks APO energy management practitioner course at Lahore, Pakistan.
- Energy auditors training course for Larsen & Toubro Ltd., Powai, Mumbai.

- Haryana SSK, Rohatak
- Varam Bio Energy Ltd., Near Nagpur, M.S.
- AA Energy Ltd., Gadchiroli, M.S.

Year 2009-10

- Energy Audit at Mazagon Dock Ltd., Mumbai.
- Energy Audit at Gujarat State Generation Ltd., Hazira. (This was the repeat of the first assignment carried out in 2004)
- Revision and upgradation of BEE guide book for National Certification Examination for Energy Managers and Energy Auditors.
- Training of trainers on energy audit and conservation for Arunachal Pradesh Energy Development Agency, Ita Nagar – 2 Programs.
- Energy management module under APO basic productivity practitioner course Johannesburg, South Africa.

Year 2008-09

- Performance assessment of biomass power and bagasse cogeneration plants
 - Rake Power Ltd., Near Nagpur, M.S.
 - NCS Sugar Ltd., Babuli, Near Vijaynagaram, A.P.
- Preparation of Kerala Energy Conservation Policy Document for Energy Management Centre, Thiruvananthapuram.
- Energy Audit of Century Denim, Satrati.
- Energy Audit of Century Yarn, Satrati.
- Two weeks special course on energy audit for electrical officers of Indian Railways at IRIEEN, Nasik – 6 Programs.
 - Developed specific task oriented module and case studies & group exercises to address to the participant group, which had SAG officers. This is in addition to the regular energy audit examination syllabus. The program included plant visit.
- Workshop on CDM for electrical officers of Indian Railways at IRIEEN, Nasik.
- Energy efficiency course for Sri Lankan Engineers through National Cleaner Production Center, Colombo sponsored by UNEP.
- **Participation in BEE promotional activities** (under the directions of BEE officials).
Actively took part in the BEE promotional activities and the important ones are listed below:
 - ✓ Represented BEE and made presentation on Mandatory Provisions applicable to industry including Energy Audit at seminar on Energy Efficiency and Carbon Trading organized by Indian Chemical Council, Mumbai. (Nov. 2006)
 - ✓ Presented Energy Efficient Opportunities in Automobile Industry in 3L program for automobile sector (August 2007 - Pune).
 - ✓ Based on the energy audit carried out in port operations, prepared presentation on Energy Audit in Port Trust for BEE 3L program at Port Trust Sector. (February 2009 – Mumbai)