

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

Serial Number (AEA- 118)		As on (26/11/2013)	
A.			
1	Name of accredited energy auditor	SURENDRA P.BANKAR	
2	Father's name	PATRUJI K.BANKAR	
3	Date of certification as Energy Manager	Energy Manager – 13.05.2011 Energy Auditor - 01.02.2012	
4	Date of passing the examination in “Energy Performance Assessment for Equipment and Utility Systems”	Passed the Examination Held in Oct 2011	
5	Examination Registration Number of (i) Energy Manager (ii) “Energy Performance Assessment for Equipment and Utility Systems”	EA - 12229	
6	Certificate Registration Number of (i) Energy Manager (ii) “Energy Performance Assessment for Equipment and Utility Systems”	6335	
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) Phone: 011-24607311 Fax: 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	npcmum@vsnl.net ; npcmumbai@mtnl.net.in ;
14	Telephone numbers . with STD Code (R) (O) Mobile no:	Mobile No. 9561036177 , 7350397012
15	Year of establishment of the trade name / firms' name for undertaking the energy audit	1958, National Productivity Council, Registered Under Society . Act XXI 1860
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.)	
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, Indiar 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
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E.mail : pdharmalingam@npcindia.gov.in

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Chandigarh-160 019 (Punjab).
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Fax:0172-2794109

GANDHINAGAR:

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GUWAHATI:

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JAIPUR:

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Fax : 0512-2224177

KOLKATA:

9, Syed Amir Ali Avenue,
Kolkata-700 017 (W.Bengal)

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MUMBAI:

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E-mail : npcmum@vsnl.net /

npcmumbai@mtnl.net.in

PATNA:

Sudama Bhawan, 2nd Floor, Boaring Road
Crossing, Patna-800 001 (Bihar)

Tel: 0612-2572311

Fax: 0612-2557577

E-mail: npcpat@sify.com

C**Details of Associated Energy Experts**

19

Number of resource persons
available

6 at Mumbai

List of BEE Certified Energy Auditors / Resource Persons with NPC

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	8
5	Jittin Kapoor	Will be attending BEE exam.	Mumbai	4

		6	Nakul	Will be attending BEE exam.	Mumbai	4
		7				
		8	R. Virendra	EA 5853	Hyderabad	Above 30
		9	A.K. Sinha	EA 3838	New Delhi	Above 30
		10	J. Nagesh Kumar	EA 1567	Chennai	25
		11	P. Dharmalingam	EA 1566	Chennai	25
		12	H.R. Prabhu	EA 1569	Bangalore	Above 25
		13	A. Chakravorty	EA 1578	Kolkata	Above 25
		14	Amitava Ray	EA 1580	Kanpur	Above 15
		15	R. Suryanarayan	EA 1568	Chennai	25
		16	D. Rajanikant	EA 0773	Hyderabad	Above 10
		17	Gopal Gopinath	EA 6139	Chennai	Above 5
		18	Prashant Srivastava	EA 6368	New Delhi	Above 5
		19	P. Chitra	EA 6888	Chennai	Above 5
20	I. Number. of full-time energy auditors in position with work experience of all energy auditors associated with the firm					32 (17 certified 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					Power Plant, Chemical Plant, Defence Industries, Process Plant, Engineering Industries, Biomass power Plant, Buildings
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					Textile Engineering Chemical Thermal Power Plants Combined Cycle Power Plants Captive & Cogeneration Plants Bio-mass Power Plants Sugar & Distilleries Hotel & Building
(b)	Energy audit thermal utility system (list sectors)					Same in 22 - a

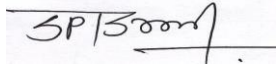
(c)	Energy audit electrical utility system (list sectors)	Same in 22 - a
23	Instruments available	
	(a) Electrical (list the name of the instruments)	Online Power Analyser – 1 Ph, 3 Ph Lux Meter, Harmonic Analyser
	(b) Thermal (list the name of the instruments)	Fuel Efficiency Monitor, Digital Temperature Indicator: Contact, Non Contact IR temperature gun, Thermo hydro meter, Digital pressure meter, Ultrasonic water flow meter.
24	Details of training programme/ seminars/ workshops conducted during the last 3 years in the field of energy efficiency / energy audit	
(i)		<i>One Year Post Graduate Certificate in Energy Management at Ambedkar Institute of Productivity Chennai From Aug 2008 to August 2009</i>
(ii)		Two Weeks Practical Training Programme on Compressed Air System at Regional Energy Efficiency Centre of NPC, Chennai
(iii)		a) Preparatory training program of Energy Managers & Auditors at L& T , Pawai, Mumbai b) Preparatory training program for Energy Managers & Auditors at Hotel Atithi, Andheri, Mumbai

D	Remarks(if any)
	Successfully Completed more than 20 Energy Audit Assignments in Various Industries . The detail experience detail is given in the <u>Energy Audit Assignment Details</u>

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

Place: Mumbai

Date: 17.06.2013

Signature: 

Name: Surendra P. Bankar

Designation: Asst. Director

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.)

Energy Audit Assignment Details

- ✓ **Sakthi Sugars Ltd. Jyothinagar , Erode (Tamilnadu) – (Oct -2008)**
 - Thermal Energy Audit Study
 - 10000 TCD capacity plant, having cogeneration power plant of 32 MW

- ✓ **Sakthi Sugars Ltd.Sivagangai ,Madurai (Tamilnadu) – (Oct -2008)**
 - Thermal Energy Audit Study
 - 4000 TCD capacity plant, having cogeneration power plant of 35 MW.

- ✓ **Ratnagiri Gas Power Private Ltd. (RGPPPL) Ratnagiri (Maharashtra). – (Oct 2009)**
 - The study was for water flow measurement of both de-mineralized water and cooling water in the heat exchanger by non contact ultra sonic flow meter for all three blocks of RGPPPL having capacity of 1976 MW.
 - The study involved the detailed analysis of cooling water system of power plant AND measurement of flow of both D.M water & CCW across PHEs and other gas turbine & steam turbine heat exchanger and analyzing its impact on power plant output.

- ✓ **Bureau of Energy Efficiency (BEE), Delhi. (2008-09)**
 - BEE is Central Govt. Organisation under Ministry of Power engaged in formulation & implementation of energy saving policies and measures in India.
 - The study was conducted to find out the energy consumption & saving potential in four sectors in India – Agriculture Pumping, Commercial Building and Municipalities.

- ✓ **Gujrat State Energy Generation Limited, Hazira (Gujrat). (2010)**
 - 156.1 MW gas based combined cycle power plant having two gas turbines and one steam turbine.

- The study involved was detailed analysis of power plant performance at various loads and complete energy audit of plant main equipments & its auxiliaries.
- To suggest recommendations to conserve energy and its monetary impact.
- All auxiliaries such as Electrical Systems, Pumping Systems, Cooling Water Systems, HVAC Systems, Compressed Air Systems, Lighting Systems and Insulation Systems were covered.

✓ **Energy Audit of Indian Sailor's Home Society, Mumbai (ISHS) - (2010)**

- ISHS is registered as a public company under Union Ministry of Shipping, Govt. of India, which allows the seamen to stay in Mumbai during their transit period.
- ISHS has two buildings of two floors each having 97 rooms and 10 dormitories.
- The study involved was complete analysis Energy consumption pattern, power measurement of FTL, fans, air conditions, T.V etc. and suggestions of corrective measures with cost benefit analysis.

✓ **Heat Rate Assessment of Bio Mass Power Plants in Maharashtra. (2009-10)**

- The study was done for Maharashtra State Energy Development Agency (MEDA) for fixing the tariff rate for bio-mass power in Maharashtra State.
- The study was done in 8 bio mass power plant in Maharashtra using different bio mass fuels.
- Power plant performance was monitored at different loads and analysed & heat rate was assessed.
- The units covered are
 - ❖ Shalivahana Green Energy Ltd. Wani, Yavatmal,
 - ❖ Saradambika Power Plant Pvt. Ltd . Chimur, Chandrapur
 - ❖ Waram Bio-Energy , Bhandara
 - ❖ Gayatri Agro Energy, Gondia
 - ❖ GAPS Power , Aurangabad

- ✓ **Energy Audit at Mazagon Dock Ltd. Mumbai (2011)**
 - Mazagon Dock Ltd. Is the public sector undertaking under Ministry of Defence making the naval ships for Indian Navy.
 - The study involved was complete energy audit study of Compressed Air System, Pumping System, Air Conditioning Systems, Lighting System, Electrical Systems & all other auxiliaries.
 - Calculation of losses, suggesting measures and its cost benefit analysis.

- ✓ **Solar Photovoltaic Panel Feasibility Study at Mazagon Dock Ltd. Mumbai (2010 & 2012)**
 - The study involved was feasibility for installing the SPV Panel in the Mazagon Dock premises on the building roof wherever possible & roof of the workshops

- ✓ **PAT (Perform, Achieve & Trade) assignment for BEE (EESL) for Textile Sector in Punjab. (2011-12)**
 - BEE is Central Govt. Organisation under Ministry of Power engaged in formulation & implementation of energy saving policies and measures in India.
 - The Assignment is for conducting baseline Energy Audit at the six Textile Units in Punjab under the category of Dedicated Consumers. The assignment is to develop the standards in Energy Consumption for Textile units in India. The Standards evolved in the study will be useful for formulating the PAT scheme
 - The units covered are
 - ❖ Arihant Spinning Mills, Malerkotla, Punjab
 - ❖ Malwa Cotton & Spinning, Barnala, Punjab
 - ❖ Aarti International, Ludhiana, Punjab
 - ❖ Abhishek Industries Ltd (Trident Group) – Yarn Division, Barnala , Punjab
 - ❖ JCT Ltd. Phagwara, Punjab
 - ❖ Abhishek Industries Ltd (Trident Group) – Home Textile Division Barnala , Punjab

✓ **Has done the Performance Assessment study of the following bio – mass / bagasse based power plant for claiming the capital subsidy from MNRE (Ministry of New and Renewable Energy), Govt. of India. (2009-2013)**

- Dwarkadhish Sugar Co-Gen Plant , Satana, Nashik – Maharashtra (10 MW Bagasse Based Power Plant having 2500 TCD capacity)
- Gangakhed Sugar Co-Gen Plant , Gangakhed, Nanded – Maharashtra (30 MW Bagasse & Coal Based Power Plant having 6000 TCD capacity)
- Renuka Sugars Ltd. Co-Gen Plant , Athani, Belgaum – Karnataka (23 MW Bagasse Based Power Plant having 9000 TCD capacity)
- Renuka Sugars Ltd. Co-Gen Plant , Havalaga, Gulbarga – Karnataka (25.5 MW Bagasse Based Power Plant having 7500 TCD capacity)
- Y.M.Krishna SSK . Co-Gen Plant , Rethare, Karad – Satara- Maharashtra. (16 MW Bagasse Based Power Plant having 7500 TCD capacity)
- Saradambika Power Plant Pvt. Ltd , Chimur Dist- Chandrapur ,Maharsashtra. (10 MW biomass based Power Plant)
- Venkateshwara Power Projects Ltd. At Post- Bedkihal, Tal. Chikodi, Dist. Belgaum,Karnataka (23 MW Bagasse Based Power Plant having 5000 TCD capacity)
- Purna SSK Ltd. Vasmatnagar, Dist. Hingoli, Maharashtra (18 MW Bagasse Based Power Plant having 2500 TCD capacity)
- Sonhira SSK, Wangi, Tal. Kadegaon, Dist. Sangli, Maharashtra (22 MW Bagasse Based Power Plant having 4000 TCD capacity)
- Transtech Green Power (P) Ltd. Kachela Village, Sanchor, Dist. Jalore Rajasthan (12 MW biomass based Power Plant)
- Satyam Power Private Ltd. Punjiyas, Jaroda Kala, Merta Road, Dist. Nagaur, Rajasthan (10 MW biomass based Power Plant)
- Bhairavnath Sugar Works Ltd Tal-Karmala, Dist-Solapur,(Maharashtra) (12 MW Bagasse Based Power Plant having 2500 TCD capacity)

✓ **Ratnagiri Gas Power Private Ltd. (RGPPPL) Ratnagiri (Maharashtra). (2013)**

- Illumination Survey of the Lighting System of the overall power blocks of the 1976 MW Gas Based Combined Cycle Power Plant

✓ **Waste Heat Recovery Potential Availability for IIP (Institute for Industrial Productivity), New Delhi (2013)**

- At present working on the assignment for estimating the Waste Heat Recovery Potential in India for IIP (Institute for Industrial Productivity), New Delhi in Seven Sector
- The sectors covering are – Sponge Iron, Cement, Pulp & Paper, Fertilizer, Glass, Petrochemicals, Refineries.

WORK EXPERIENCE – 4 YEARS

Name of the Energy Auditor: Shri S.P.Bankar, Asst Director Ref. EA-12229

Year 2012-13

Sr. No.	Energy Audit Assignment
1.	Performance assessment of bio-mass / bagasse power plants for MNRE – 3
2.	Energy audit of RGPPL Compressed Air System
3.	Energy audit of RGPPL Lighting System
4.	Solar feasibility study for MDL

Year 2011-12

Sr. No.	Energy Audit Assignment
1.	Performance assessment of bio-mass / bagasse power plants for MNRE – 2 Nos.
2.	Energy audit of Royal Seamens Club
3.	PAT Textile Group III base line energy audit – 6 Nos.

Year 2010-11

Sr. No.	Energy Audit Assignment	No. of Assignments
1.	Performance assessment of bio-mass / bagasse power plants for MNRE	4
2.	Energy audit of power plant auxiliary – Ratnagiri Gas Power Plant	1
3.	Energy audit of Mazagon Dock Yard	1
4.	Diesel audit for Dempo Mines	1
5.	Energy audit of LIC Residential buildings	1

Year 2009-10

Sr. No.	Energy Audit Assignment
1.	Bio-mass Power Plant Performance Assessment – 1 Nos.
2.	Energy Audit of Building Water Pumping Systems (Under DSM Program for BEST, Mumbai)
3.	Energy Audit of Indian Sailors Home Society - Building Audit
4.	Energy Audit of Combined Cycle Gas Power Plant - GSEG, Hazira
5.	Heat Rate Assessment of Bio-mass Power Plant for MEDA, Pune