

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

Serial Number (AEA- 0039)		As on:- 26 February, 2013	
A.			
1	Name of accredited energy auditor	SANTANU CHOUDHURI	
2	Father's name	Late Sailendra Nath Choudhury	
3	Date of certification as Energy Manager /Energy Auditor	30 th April, 2007	
4	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	2006	
5	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	EA - 5075	
6	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	2496 (EA – 5075)	
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	STEAG Energy Services (I) Pvt. Ltd. (Erstwhile known as Evonik Energy Services India Pvt. Limited), A-29, Sector 16, Noida-201301 (U.P.)	
9	Date of accreditation as accredited energy auditor.	(to be filled by BEE)	



10	Type of firm/ private/ Government / NGO etc.	PRIVATE LIMITED
11	Name of contact person along with designation, address, telephone, mobile and fax number along with STD codes and email address (All details compulsory)	BOBEN ANTO HEAD – PLANT SERVICES STEAG ENERGY SERVICES A-29, SECTOR 16, NOIDA – 201010 Phone : 0120- 4625009 Fax : 0120- 4625100 Mobile : 919717298313 Email: b.anto@steag.in Website: www.steag.in
12	Professional postal address with Pin Code of the accredited energy auditor	Flat No. MA/2, Shanti Kunja, New Park, Garia Station Road, Kolkata – 700084, West Bengal.
13	E-mail address	s.choudhuri@steag.in sach.choudhuri@rediffmail.com
14	Telephone numbers . with STD Code (R) (O) Mobile no:	Residence: 03324629215(L)/ 09433864841(M) Office: 0120-4625069(L)/ 09717298307(M)
15	Year of establishment of the trade name / firms' name for undertaking the energy audit	2006-2007
16	Year of commencement of energy audit of the firm	2007
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)	6 Nos. Steag Energy Services (I) Pvt. Limited <ul style="list-style-type: none"> • Hazira (Gujrat) Mr. M.K. Gupta 09825600076, Mk.gupta@steag.in • Haldia (WB) Mr. Sukhdev Singh 09434577153, s.singh@steag.in

		<ul style="list-style-type: none"> • Jharsuguda (Orissa) Mr. Werner Renk 008093098000, w.renk@steagin • Bhatinda (Punjab) Mr. Rajiv Dhenge 08872037001, r.denge@steag.in • Bangalore (Karnataka) N.Thangarajan 09243327797, n.thangarajan@steag.in • Kolkata (West Bangal), 32/6, Gariahat Road (S), Kolkata – 700 031 Santanu Choudhuri 09717298307, s.choudhuri@steag.in
C	Details of Associated Energy Experts	
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>6 Nos. Energy Auditing in Thermal and Combined cycle Power Plants</p> <ul style="list-style-type: none"> • <u>Santanu Choudhuri</u> <p>Employment Record :</p> <p>A) from : Feb. 2009 to : Continuing Employer : Steag Energy Services (India) Pvt. Ltd. (formerly Evonik Energy Services (India) Pvt. Ltd. Positions held : General Manager (Engineering /R&M)</p> <p>B) From : June 1990 To : Jan. 2009 Employer : The West Bengal Power Development Corporation Ltd. Positions held : Senior Manager (Mechanical), Manager (Mechanical), Asst. Manager (Power Station).</p> <p>Area of Specialisation: Engineering, Energy Audit, Renovation & Modernisation of Thermal Power Plants, Contracts Management</p> <p>Highlights:</p> <ol style="list-style-type: none"> i. Experience in concept to execute, Engineering, procurement Greenfield Projects as Project Manager. ii. Execution of R&M projects in concept of reverse Engineering if required, procurement , erection commissioning . iii. Experience in coordinating with National and International agencies and Statutory Authorities. iv. Experience in developing the Growth of the Company, highlighting the sensible area of losses by gap analysis. v. Experience in preparation of Tender Specification covering the Techno-commercial aspects. vi. Experience with the consultants/ executers worked of Residual Life Assessment study of Power Plant. vii. Experience in Procurement in line with guidelines of multilateral and bilateral financial aided agency.

viii. Operation, Maintenance, Performance audit of 210 MW units and Energy audit of different Thermal Power Station like Kolaghat, Bandel, Bakreaswar, Santaldih, Patratu etc. Preparation of Specification for Energy Audit for Thermal Power Stations. (As Certified Energy Auditor & Boiler Operation Engineer).

Trainings undertaken :

- a) Overseas Training for Seven (7) weeks at Japan in Energy Audit and Energy Efficiency and Conservation organised by Japan International Cooperation Agency (JICA) under the Ministry of Economy, Trade and Industry and the Energy Conservation Centre, Japan (ECCJ) - 2008.
- b) CFB Technology and Revamping of Boilers in India -- conducted by Canadian International Development agency (CIDA) and Green Field Research Institute, Canada --- year' 2003.
- c) Loan Documentation : Legal & procedural aspects : Conducted by PFC --- year' 2003.
- d) Plant Operation Management & Procedures for setting of Core Values in organisation, ABT Regime operation : At Rihand Super Thermal Power Station , NTPC - in the year'2003.
- e) Energy conservation & Management :conducted by National Power Training Institute -- year'1997

• **Mr. Rakesh Kumar Mishra**

Benchmarking of capital cost for Thermal Power Plant Station (500 MW, 600 MW, 660 MW and 800 MW units), Transmission system and substation equipment (400 KV and 765 KV) for Central Electricity Regulatory Commission, Various aspects related to design, installation & operation of supercritical power plants in India for IDFC, Analysis of the technological risks associated with using super, ultra and advance ultra super critical technology in India for British High Commission and renovation & modernization projects for CEA and KFW

Contact No. : 9717298316,

• **Mr. N. Thangarajan**

He is an expert in Energy Auditing, renovation & modernization with capacity up-gradation related projects in power Sector. Drawing a plan for conducting RLA study of electrical systems / equipment, wherever required during available shutdown of the power plant, and covering the scope required related with R&M of electrical systems / equipment. He was associated in Energy Audit of R&M Projects of Nashik – 1 Units, Bokaro -3 Units, Kolaghat -3 Unit, and Bandel.

Contact No. : 09243327797,

• **Mr. M.K. Gupta**

Worked as Shift In-charge (O&M) in 31 MW Combined Cycle Power Plant. Responsible for operation, Trouble-shooting and Maintenance of 31 MW Combined Cycle Power Plant consists of:
20.2 MW Frame-V Gas Turbine, model: PG-5371 with modern microprocessor based MARK IV+ speedtronic control system, make: General Electric, Heat Recovery Steam Generator, capacity: 50 TPH at 40 Kg/cm² & 405 deg. C, make: Thermax-Babcock and Wilcox Ltd, 11.1 MW Steam Turbine, 11 stage straight condensing type with hydraulic governing system, make: SKODA.

Contact No.: 09825600076

		<ul style="list-style-type: none"> • <u>Rakesh K Mishra</u> Operation & Maintenance : Indian: 156.1 MW GSEG CCPP at Hazira, Nigerian: 278 OCPP + 650 MW CCPP at Afam, Port Hartcourt, Nigeria Assignment Involved : Indian: 30 MW WHRPP GEPL, at Amona, Goa, India Case Study : Assignment Involved - Indian: 30 MW WHRPP GEPL, at Amona, Goa, India Health Assessment : Assignment Involved - Indian: 30 MW WHRPP GEPL, at Amona, Goa, India Contact No. : 09099035104 • <u>Mr. A.K.S. Raghav</u> Energy Auditing/Performance Test at Bathinda Thermal Power Station, To provide training to fresh and experienced engineers ,Training in the field of Gas Turbine/Combined Cycle Gas Turbine plants for fresh and experienced engineers, Operation Consultant on behalf of STEAG Energy Services at Hindustan Copper Ltd., Khetri (Rajasthan) Contact No.:09910801594
	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	<ul style="list-style-type: none"> • Thermal Power Stations • Combined Cycle Power plants
22	Subject wise expertise	<ul style="list-style-type: none"> • Boiler and its auxiliaries • Turbine and its auxiliaries • Balance of plant
(a)	Energy audit process system (list sectors) - If no energy audit has been carried out of the process system and parameters, please list nil. Bureau of Energy Efficiency will be calling for detailed information in case agency has listed its energy audit expertise in the process systems	<ul style="list-style-type: none"> • Thermal Power Stations • Combined Cycle Power plants <p>Energy Auditing of process system in Thermal Power Stations is being performed.</p>
(b)	Energy audit thermal utility system (list sectors)	<ul style="list-style-type: none"> • Boiler and its auxiliaries • Turbine and its auxiliaries • Balance of plant
(c)	Energy audit electrical utility system (list sectors)	HT & LT Motors, Pumps, Illumination in power plant building etc.

23	Instruments available		
	(a) Electrical (list the name of the instruments)	Power Analyzer, voltage and frequency meter, Vibration meter, lux-meter etc.	
	(b) Thermal (list the name of the instruments)	<ul style="list-style-type: none"> • Rosemount 244 EHI-5 nos. • Digital Tachometer, • Digital Infrared pyrometer (non contact type), • Micro manometer with pitot tube • Digital anemometer rotating vane type, • Digital Industrial Pressure Indicator. • Ultrasonic Flow meter. • Ultrasonic steam and air leak detector. • Sound level meter. • Head Mounted K type- • Head Mounted RTD PT 100-15 nos. • Flue gas analyzer • Digital Temp indicator and hygrometer, • Barometer. • Dirty Pitot tube • Rota meter • Glass Microfiber Thimble and holder • Vacuum Gauge • Gas suction pump (Vacuum pump with adapter) • U tube manometer. • Digital thermometer with thermocouple • Dry Gas meter. • Stop watch • Spring balance etc. 	
24	(i) Details of training programme/ seminars/ workshops conducted during the last 3 years in the field of energy efficiency / energy audit	Workshop on Energy Auditing: 8-10- June 2009, 16-18 June 2009, July 2009, August 2009, September 2009, December 2008.	Seminar on Energy auditing and best practices in Thermal Power Stations: 03.10.2008 05.02.2008 30.06.2009
(ii)		Super Critical Boilers Solar Energy Best practices in power Stations	28.1.2011 28.1.2010 30.1.2009

(iii)	Seminar on coal blending	30.1.2012	
-------	--------------------------	-----------	--

D	Remarks(if any)
	For Sl. No 23(a) & (b) and 24 (b) Lists were submitted with the application forms earlier.

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