

AUTHORIZATION OF ENERGY AUDIT CONSULTANTS

(2017 - 2018)



GEDA

Gujarat Energy Development Agency

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GEDA: The Pioneering Model

Historically speaking, energy efficiency in Gujarat has had a chequered history beginning with the onset of the oil crisis of the 1970s, when the government of Gujarat embarked upon a state level program of promotion and popularization of renewable energy technologies and the energy efficiency measures by establishing the Gujarat Energy Development Agency (GEDA) in 1979 at Vadodara. GEDA's efforts, therefore, concentrate on the initiation of change from energy deprivation and dependence to energy autonomy through the increased use of renewable energy sources and energy efficiency. Over the years GEDA interventional programs has been instrumental in introducing various new technologies for public use through the design of several innovative programs, implementation strategies and promotional initiatives.

They have contributed considerably to urban and rural development, generated grassroots employment, boosted agricultural productivity, improved the productivity of rural artisans, alleviated the drudgery of women, conserved scarce fossil fuels, promoted energy efficiency in domestic, agricultural, industrial, commercial and transport sectors and played a significant role in protecting the environment and halting the serious consequences of climate change. Most importantly, they have demonstrated the feasibility, energy efficiency and cost-effectiveness of decentralized and integrated renewable energy systems in several varied rural and urban scenarios.

Gujarat: Energy Conservation Momentum

As one unit saved is equal to three generated, GEDA's emphasis on Energy Conservation has always been very strong. GEDA has and continues to initiate several programs to promote energy conservation in the state, both at the urban and rural levels. Energy efficient devices such as improved crematoria, natural water coolers, diamond hot plates, improved potters' wheels and kilns and improved woodstoves have been promoted by GEDA all over the state. Rectification of agricultural pump sets implemented by GEDA has also led to considerable savings of electrical power, diesel and water in irrigation. The Energy Audit Subsidy Scheme was launched to help industry identify and plug energy wastage and budget their energy use to increase profitability.

The Energy Conservation Promotion Program has been an integral part of GEDA's Agenda. GEDA Industrial Energy Efficiency Improvement Program is over two decades old. A Study Report on Efficient Utilization of Electricity in Gujarat State was prepared and was followed by an ambitious program of funding 100 industrial energy audits to begin with.

Industrial Energy Efficiency (EE) Improvement Program

The Energy Audit Study Subsidy Scheme was launched in 1980s to help industries conduct a preliminary Energy Audit Study to identify energy conservation methods, improve energy efficiency and reduce energy costs. Till date, about 1500 industries have taken the benefit of this Scheme. Useful and crucial data was generated that helped diagnose and treat the problem areas. GEDA EC Program created general awareness and strengthened the energy service sector to a significant extent.

Mandatory Industrial Energy Audit Program by GOG

The realization of the fact that a considerable amount of the industrial profit leaks out due to poor energy efficiency of the plants and machinery has served as an "eye-opener" in the State industrial sector - both for the private sector and the government. And energy audit has become a mandatory norm for industries having a CD of 500 KVA and further modified to a CD of 200 KVA and above conduct energy audits for their plants. In addition, as it is also mandatory for all commercial complexes with a CD of 75 KVA and above as well. The Commissioner of Electricity, Government of Gujarat is looking after the implementation of this regulation in the state with the help of authorized energy auditors. This regulation has further enhanced the role of professional energy consultants and experts.

Only about 5000 to 6000 large and medium scale industrial units are covered under the mandatory energy audit program of the State Govt. A very large number of extremely inefficient small-scale units still remain out of the preview of the mandatory audit program and continue to waste large amount of vital energy resources of the state.

Implementation of the EC Act in Gujarat

The Energy Conservation Act 2001 was enacted by Government of India and GEDA, which has been engaged in promotion of renewable energy and energy conservation nominated as the Designated Agency to function as the extended arm of the Bureau of Energy Efficiency GOI for implementation of the Act in the state. The basic objectives of the EC Act are:

- Provide a policy framework and direction to the national energy conservation activities.
- Coordinate policies and programs on efficient use of energy with the stakeholders.
- Establish systems and procedures to verify measure and monitor EE improvements.
- Leverage multilateral, bilateral and private sector support to implement the EC Act.
- Demonstrate EE delivery systems through public-private partnerships.

Thrust Areas of the EC Act

1. Energy efficiency improvement in the industrial sector
2. EE manuals and codes
3. Energy efficiency improvement in buildings & establishments
4. Energy efficient building codes
5. Professional certification and accreditation
6. School education and curriculum change
7. Standards & Labeling program
8. DSM in power sector
9. EE policy research

Outline of EC Activities

In the current financial year the agency has outlined several programs such as:

- Chart an Action Plan for enhancing EE Promotion Programs & Activities in the State.
- Continue to create energy conservation awareness amongst different target groups viz. SMEs, power plants and power distribution companies, government departments, energy consultants, educational institutions, etc.
- Create a database of major manufacturers and suppliers of energy efficient technologies.
- Undertake EE Technology demonstration projects in different sectors – EE lighting, water pumping, WHR, etc.
- Launch a Mobile EC Demonstration Van for educating, particularly the industries and general public in general, about energy conservation and efficiency.
- Organize capacity building / training programs for Designated Consumers, industrial executives, shop-floor workers and energy service providers.
- Develop academic curriculum on Energy Conservation & Management for technical education institutions – ITI Technicians and diploma / engineering college students.
- Organize Awareness & Sensitization Programs for all cross sections of the energy users, viz. industrialist and executives, energy consultants & auditors, domestic users.
- Recommend EE promotion & implementation mandates for energy intensive sectors.
- To carry out surveys & soft studies for assessing energy conservation potential in different sectors of energy consumers.

Pooling Resources for Promoting Energy Efficiency in the State

GEDA is the State Designated Agency by the Bureau of Energy Efficiency for implementation of the provision of the EC Act – 2001 and promotion of related programs and activities in the State. In order to widen its role for providing technical support services in the ENERGY EFFICIENCY sector GEDA will pool resourceful service providers who are actively involved in EC activities and those who are willing pursue a profession as energy auditor/consultant and deploy them in the State. Qualified Energy Auditors and Consultants have an important role to play in the implementation of the EC Act. The enactment of the EC Act has raised the overall profile of EE and created ample opportunities for energy auditors & consultants in the country.

GEDA has been actively involved in pooling energy expertise from around the country and providing opportunities to energy professionals in Gujarat. GEDA, as per the mandate of BEE regularly conducts capacity building / training programs for energy professionals. To fulfill role of a State Designated Agency, GEDA has constantly been innovating to strengthen the energy service sector of the state.

Authorization of Energy Audit Consultants

GEDA will enroll qualified energy auditors and consultants for deployment of its energy conservation programs during the current year. The eligibility criteria for Authorization are given in Encl.1 (a). The approved “Energy Audit Consultants” (EAC) - as they will be termed, shall be involved in all EC promotion activities of GEDA.

Role of Authorized Energy Audit Consultants

Energy Auditors/ Consultants enrolled under this category shall be involved in GEDA's EC activities related to the implementation of the Act. Services of authorized energy auditors & consultants will be utilized for implementation of activities in various consumer sectors, viz. industries, commercial, public utilities, domestic and agricultural. Involvement of approved energy audit consultants is envisaged in preparation of action plans, project formulation, conducting trainings, monitoring & evaluation of various EC projects as and when required. GEDAs, however, is not under any obligation to award any work assignment to authorized energy audit consultants.

Targeted EC Act related Activities

The focus of the Annual Action Plan will be on the following activities:

1. EC Awareness and Capacity Building Programs for Industries, Govt/non-government organizations and Educational Institutions.
2. Promotion of EC Act Programs & Activities
 - a. S&L (Promotion of BEE Star Labeled Products) – Notification
 - b. Implementation of ECBC in the State - Notification
 - c. Investment Grade Energy Audit of Govt. & Commercial Buildings
 - d. Energy Surveys and EE Improvement in Public Utilities
 - e. EC Demonstration Projects
 - f. Capacity Building Programs for Certified Auditors & Managers
 - g. Preparation of Energy Saving Action Plans for Public Utilities – lighting & water & sewerage pumping facilities & Agriculture Sectors.
 - h. Implementation of PAT Scheme for Designated Consumers
3. Preparation of Directory of EE Products & Consultancy Services in the State
4. Development of schemes for promotion of energy conservation in all sectors
5. Designing educational curriculum / course material for ITI & Diploma in EE & EC.
6. Promote energy efficiency through actual industrial energy audits in the SME Sector of the State.

a. Eligibility Criteria for Authorization of Energy Audit Consultants

1. An individual applying should be a BEE certified Energy Auditor with at least 2 years of experience in the field of industrial energy auditing and consultancy. In case of authorization of firm atleast one member of the technical team should be a BEE certified Energy Auditor having 2 years of experience in the field of industrial energy auditing.
2. The applicant must have relevant experience in energy management and energy audit of industries / buildings. Necessary documents / certificates / proofs and Energy Audit Reports prepared by the applicant should be produced.
3. The consultant / consultant firm must possess following basic instruments for required for conducting energy audit:
 - Power Analyzer (kVA, kW, kWh, V, A, pf, etc)
 - Digital Tachometer
 - Magger
 - Earth Tester
 - Clip-on Meter
 - Lux Meter
 - Digital Thermometers
 - Digital Anemometer
 - Flue Gas Analyzer (for Thermal Energy Audit only)
4. The consultant / consultant firm must have the following infrastructure facilities:
 - Office Premises (permanent office address)
 - Telephone/Fax
 - Computer System with printer
5. The consultant / consultant firm should have conducted atleast five industrial energy audits / studies.

Terms & Conditions of Authorization

1. The authorization shall be only valid for operating under GEDA's Energy Conservation Activities & Programs within Gujarat State for a specified period of 36 months ending on 31st March 2018.
2. The authorization is subject to yearly review by GEDA and shall be liable for cancellation in case of non-performance or violation of any of the terms & conditions of Authorization by the consultant, specified herein.
3. The authorized Energy Audit Consultant (EAC) shall be obliged to submit yearly Work Report pertaining to their overall activity, as EAC, including relevant work done by them privately or under any other schemes anywhere in the country.
4. The authorized EAC shall be required to actively participate in GEDA EC Programs during this period.
5. The authorized EAC shall abide by the scope of work and the terms & conditions of the assignment given by GEDA.
6. The authorized EAC shall be required to participate in all the meetings and workshop convened by the Agency, periodically, for reviewing the progress of the Programme.

Application Processing Fees - Rs. 2875/- (2500 + 15% Service Tax)

The Application Processing Fee of Rs. 2875/- is payable along with the application submitted. Certificate of Authorization, as GEDA approved Energy Audit Consultant, will be issued by GEDA on approval. Authorized Energy Audit Consultants will be governed by the terms and conditions given in the Encl.1 (b).