

EXPRESSION OF INTEREST (EOI)

**Title of Consulting Service: Energy Audit in
Industrial Sector**

Method of Consulting Service: National

Project Name : Energy Audit in Industrial Sector

EOI : WECS/EOI-04/2079/80

Office Name: Water and Energy Commission Secretariat

Office Address: Singh durbar Kathmandu

Funding agency : Government Budget

Abbreviations

CV	-	Curriculum Vitae
EA	-	Executive Agency
EOI	-	Expression of Interest
GoN	-	Government of Nepal
PAN	-	Permanent Account Number
PPA	-	Public Procurement Act
PPR	-	Public Procurement Regulation
TOR	-	Terms of Reference
VAT	-	Value Added Tax
WECS	-	Water and Energy Commission Secretariat

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A. Request for Expression of Interest

Request for Expression of Interest

Government of Nepal (GoN)

Name of Employer: Water and Energy Commission Secretariat

Date: 26-12-2022 00:00

Name of Project: Energy Audit in Industrial Sector

1. Government of Nepal (GoN) has allocated fund toward the cost of Energy Audit in Industrial Sector and intend to apply portion of this fund to eligible payments under the Contract for which this Expression of Interest is invited for National consulting service
2. The Water and Energy Commission Secretariat now invites Expression of Interest (EOI) from eligible consulting firms (“consultant”) to provide the following consulting services: The main objective of study is to conduct Energy Audit in Industrial Sector of Nepal.
3. Interested eligible consultants may obtain further information and EOI document free of cost at the address Water and Energy Commission Secretariat, Singhadurbar, Kathmandu during office hours on or before 10-01-2023 12:00 or visit e-GP system www.bolpatra.gov.np/egp or visit the client’s website <https://weecs.gov.np/>
4. Consultants may associate with other consultants to enhance their qualifications.
5. Expressions of interest shall be delivered online through e-GP system www.bolpatra.gov.np/egp on or before 10-01-2023 12:00
6. In case the last date of obtaining and submission of the EOI documents happens to be a holiday, the next working day will be deemed as the due date but the time will be the same as stipulated.
7. EOI will be assessed based on Qualification 40.0 %, Experience 50.0 %, and Capacity 10.0 % of consulting firm and key personnel. Based on evaluation of EOI, only shortlisted firms will be invited to submit technical and financial proposal through a request for proposal.
8. Minimum score to pass the EOI is 60

B. Instructions for Submission of Expression of

Instructions for Submission of Expression of Interest

1. Expression of Interest may be submitted by a sole firm or a joint venture of consulting firms.
2. Interested consultants must provide information indicating that they are qualified to perform the services (descriptions, organization and employee and of the firm or company, description of assignments of similar nature completed in the last 7 years and their location, experience in similar conditions, general qualifications and the key personnel to be involved in the proposed assignment).
3. This expression of interest is open to all eligible National Consulting firms..
4. In case, the applicant is individual consultant, details of similar assignment experience, their location in the previous 4 years and audited balance sheet and bio data shall be considered for evaluation.
5. The assignment has been scheduled for a period of One year. Expected date of commencement of the assignment is 10-05-2023.
6. A Consultant will be selected in accordance with the QCBS method.
7. Expression of Interest should contain following information:
 - (i) A covering letter addressed to the representative of the client on the official letter head of company duly signed by authorized signatory.
 - (ii) Applicants shall provide the following information in the respective formats given in the EOI document:
 - EOI Form: Letter of Application (Form 1)
 - EOI Form: Applicant's Information (Form 2)
 - EOI Form: Work Experience Details (Form 3(A), 3(B) & 3(C))
 - EOI Form: Capacity Details (Form 4)
 - EOI Form: Key Experts List (form 5).
8. Applicants may submit additional information with their application but shortlisting will be based on the evaluation of information requested and included in the formats provided in the EOI document.
9. The Expression of Interest (EOI) document must be duly completed and submitted in sealed envelope and should be clearly marked as "EOI Application for Short-listing for the Energy Audit in Industrial Sector.The Envelope should also clearly indicate the name and address of the Applicant. Alternatively, applicants can submit their EOI application through e-GP system by using the forms and instructions provided by the system.
10. The completed EOI document must be submitted on or before the date and address mentioned in the "Request for Expression of Interest". In case the submission falls on public holiday the submission can be made on the next working day. Any EOI Document received after the closing time for submission of proposals shall not be considered for evaluation.

C. Objective of Consultancy Services or Brief TOR

Terms of Reference for “Energy Audit in Industrial Sectors”

1. Introduction:

An energy audit is a process to determine an organization's energy performance based on data and/or actual measurement, leading to identification of opportunities for improvement. The energy audit provides useful information for the development of the energy baseline and the selection of energy performance indicators (EnPIs). It also establishes the monitoring capability to support effective continuous improvement of the energy performance in the future.

Commercially viable gas and oil reserves are yet to be identified. Some small reserves of coal are scattered in the country that are found mainly in the western region. Nepal is heavily dependent on imported fossil fuels, costing billions of Nepalese Rupees (NRs.) to fulfill the country's energy requirements. Nepal has tremendous hydroelectric power potential, gross hydropotential of Nepal at 40% of flow exceedance is estimated as 72,544 MW. However, only around 2.4 % of the economically viable hydropower potential has currently been developed. The present generation capacity has been unable to cope with the rising electricity demand.

Shortages of electricity supply and the need to reduce imported fuels for electricity generation, has made it imperative for Nepal to develop its vast hydropower potential as one of the key national economic development policies. The private sector is now playing a more active role in hydropower development. As a result, the hydropower investment projects and corresponding electricity grid expansions, worth billions of rupees, are underway. Under such situation, Energy efficiency (EE) measure applied to different aspects of energy use and consumption could play an important role to secure energy supply in general and enhance productivity and competitiveness of the Nepalese industry in particular.

Based on advancements in energy efficiency practices and technologies, it is now possible to reduce energy cost significantly in the industries without reducing the utility and productivity. It is essential to promote and encourage adoption of energy efficiency in all such aspect to realize energy savings. This can be achieved by initiating a systematic energy assessment of industries, followed by implementation of the most cost effective energy efficiency measures.

Energy conservation is equally important as energy generation. Energy cost is a major component in industrial sectors such as Cement Manufacturing, Steel Rolling Mills, Brick Kilns, Sugar Production, Dairy, Noodles Making, Pulp and Paper and other Industries. Keeping these in mind, for energy conservation,

Terms of Reference for “Energy Audit in Industrial Sectors”

WECS has prepared Energy Audit Guidelines for Domestic, Commercial and Industrial sectors in FY 2077/78. In general, the key features of Energy Audit Guidelines of Industrial, Commercial and Domestic sectors include:

- Helping to achieve reduction in energy use and carbon emissions in a systematic way;
- Providing guidance on how to benchmark, measure, document and report energy use;
- Creating a clear picture of current energy use status, based on which new goals and targets can be set;
- Evaluating and prioritizing the implementation of new energy-efficient technologies and measures;
- Providing a framework to promote energy efficiency throughout supply chain;
- Making better use of energy consuming assets, thus identifying potentials to reduce maintenance costs or expand capacity;
- Demonstrating to the stakeholders that corporate commitment to comply with their best practice to protect the environment;
- Fulfilling the associated regulatory requirements and responding with confidence to green trade barriers in global market;
- provide useful inputs about energy efficient appliances and technologies available;
- identifying and implementing energy savings opportunities.

The basic purpose of developing the energy audit guidelines is to raise awareness of energy auditors involved in Industrial enterprises, commercial building owners/managers and general public on the bench-marking/energy audit/assessment process, and to guide them on the process of identifying and implementing energy savings opportunities that may exist in their industry, buildings and home. The guidelines also aim to provide useful inputs about energy efficient appliances and technologies available.

Terms of Reference for “Energy Audit in Industrial Sectors”

Energy efficiency will enhance the energy security and at the same time improve environmental performance. It also gives opportunity to grow our economies, provide jobs and increase the number of people with access to energy as well as a range of other benefits. This undertaking is an attempt to bring together methodologies for assessing the impacts of a range of benefits that energy efficiency brings. Policy makers have their own priorities for economic growth and social development and energy efficiency can contribute in many of them.

To conduct the audit, the organization shall establish an equipment list and identify different energy use and obtain energy consumption details for a specified period, normally a full year on a monthly basis.

When conducting the energy audit, the following items should be noted:

- Major equipment with significant energy consumption should be itemized, i.e. energy consumption record should be provided for each piece of equipment;
- Installation of sub-meter to monitor and record the energy consumption (such as electricity, diesel, gas and steam) of each major equipment;
- When measurement of actual consumption is not available, estimation of energy consumption by power rating and operating hours may be adopted. However, assumptions and justifications for energy consumption estimation shall be clearly stated;
- The energy review should be updated when necessary to add new equipment and expel obsolete items; and
- Replacement of estimation by actual data through measurement as far as possible to enhance the accuracy of the energy profile.

Energy Audit Report provides step-by-step advice for industries to develop strategy to identify energy efficiency opportunities and development of action plans to implement the options.

2. Objectives of the study

The main objective of study is to conduct Energy Audit of Industrial sector of Nepal. The Specific objectives are:

- To conduct detailed energy audit in different types of industries.

Terms of Reference for “Energy Audit in Industrial Sectors”

- To prepare detailed Energy Audit report for those industries.
- To identify the problems and constraints/ barriers for achieving energy efficiency in those industries.
- To recommend/suggest best solutions/options to enhance energy efficiency.
- To prepare implementation/ follow-up plan for the audited industry.
- To organize an interactive program in the particular industry for discussion on the detail energy audit report.
- To recommend policy suggestions for decision makers and planners.

3. Scope of Work

The services to be provided by the consultant are related to the energy audit in industries. The work shall be completed in 3 phase and the detailed scope of work for each phase of the study, but not limited to, shall be as follows:

3.1 Inception Phase

In this phase, the consultant shall carry out the following jobs:

- The Consultant shall carry out the proper desk study before field work.
- Review and identify the number of already audited industries by government/ private sectors.
- Literature survey on Energy Efficiency and Energy audit practices adopted within Nepal and elsewhere.
- Review Energy audit guidelines of industrial sectors published by WECS as well as regional and international Energy Efficiency guidelines for the similar sectors, if any.
- Examine the legal requirements pertaining to EE standards and acts, as applicable in selected countries and regions.
- The Consultant shall submit **6 (Six) hard copies and 1 (one) soft copy** of the inception report within **1 (one) month** after the effective date of contract. In this report, the consultant shall incorporate the conceptual framework of the study, detailed methodology, work schedule and staffing plan. The consultant shall prepare and submit the work plan including the detail schedule for energy audit to WECS as a part of the Inception Report and get approval prior to the field visit. The Consultant shall organize a workshop to present Inception Report at WECS Hall. WECS will provide comments and suggestions on the Inception Report. The consultant

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shall submit the Revised Inception Report incorporating all those comments and suggestions.

3.2 Interim Phase

The consultant shall submit **6 (Six) hard copies and 1 (one) soft copy** of the Interim Report and **2 (Two) hard copies and 1 (one) soft copy** of Energy Audit report of each audited industries within **4 (Four) months** after submission of the Inception Report. The Interim Report shall include the summary of the activities carried out in this phase. Consultant may also submit progress report of field audit works as per the request from WECS. In this phase, the consultant shall complete the following works:

- Complete Energy audit works of **15 (Fifteen) industries**.
- Organize interactive program for discussion on the findings from energy audit work with the officials of those audited industries to recommend the options for energy saving measures.
- Organize **one day workshop** for discussion on the current scenario and the status regarding the energy efficiency of those audited industries among WECS officials, Provincial Government officials, concerned Industrialist and stakeholders in the energy audited area.
- Organize **one day workshop** to present and discuss on Interim Report at WECS Hall among the related stakeholders. WECS will provide comments and suggestions on the Interim Report. The consultant shall submit the revised Interim Report incorporating all those comments and suggestions.

3.3 Draft Phase

The consultant shall submit **6 (Six) hard copies and 1 (one) soft copy** of the Draft Report and **2 (Two) hard copies and 1 (one) soft copy** of Energy Audit report of each audited industries within **5 (Five) months** after submission of the Interim Report. The Draft Report shall include the summary of all activities carried out so far. Recommendations on the Energy Audit guidelines (prepared by WECS) regarding the Industrial sector shall also be included. Consultant may also submit progress report of field audit works as per the request from WECS. In this phase, the consultant shall complete the following works:

- Complete Energy audit works of remaining **15 (Fifteen) industries**.
- Organize interactive program for discussion on the findings from energy audit work with the officials of those audited industries to recommend the options for energy saving measures.
- Organize **one day workshop** for discussion on the current scenario and the status regarding the energy efficiency of those audited industries among WECS officials, Provincial Government officials,

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concerned Industrialist and stakeholders in the energy audited area.

- Organize **one day workshop** to present and discuss on Draft Report among the related stakeholders. WECS will provide comments and suggestions on the Draft Report. The consultant shall submit the revised Draft Report incorporating all those comments and suggestions.

3.4 Final Phase:

The Consultant shall submit **10 (Ten) hard copies** and **1 (one) soft copy** of the Final report within **2 (Two) months** after submission of the Draft Report. The consultant shall incorporate all the comments and suggestions provided by WECS on the Draft Report and submit the Final Reports along with all the analyzed database files.

4. Field Energy Audit work.

The industrial sector is the sector of those manufacturing institutions which process raw materials and give specific products. This sector has been classified into 24 categories by type of products and economic output by Nepal Standard Industrial Classification (NSIC). These categories represent specific outputs. Thus, for simplicity of energy analysis, all the manufacturing industries mentioned in Nepal Standard Industrial Classification are further categorized into 7 sub-sectors based on their energy intensity and type.

Industrial Sector Categorization

Categorization	Sub sector
Food, beverages, and tobacco	Manufacture of food product
	Manufacture of beverage
	Manufacture of tobacco products
Textiles and leather products	Manufacture of textiles
	Manufacture of leather and related products
Wood and paper products	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles and straw and plaiting materials
	Manufacture of paper and paper product
	Manufacture of furniture
Chemical, Rubber	Manufacture of coke, refined fuel petroleum

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Categorization	Sub sector
and Plastics	Manufacture of rubber and plastic products
	Manufacture of chemical and chemical product
	Manufacture of basic pharmaceutical products and pharmaceutical preparation
Mechanical engineering and Manufacturing	Manufacture of basic metal
	Manufacture of fabricated metal products, except machinery and equipment
	Manufacture of machinery and equipment
	Manufacture of motor vehicles, trailers and semitrailers
	Manufacture of other transport equipment
	Repair and installation of machinery and equipment
	Manufacture of electrical equipment
Cement and Non-Metallic Products	Manufacture of other non-metallic mineral product
	Manufacture of Cement product
Bricks and Structural Clay products	Manufacture of Bricks
	Manufacture of Clay Products

Energy audit of industrial sector to be conducted are as follows.

S.N.	Categorization	Number of Industry for Audit
1	Food, beverages, and tobacco	5
2	Textiles and leather products	5
3	Wood and paper products	5
4	Mechanical engineering and Manufacturing	5
5	Cement and Non-Metallic Products	5
6	Bricks and Structural Clay products	5
Total		30

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During the field audit work, the consultant shall also involve WECS Staff. Energy Audit shall include following activities:

- Before conducting the Energy Audit in the factories, the Consultant shall prepare the Energy Audit Flow Chart.
- Suitable format to be developed for data collection.
- Conduct an walkthrough audit and on-site inspection of the facility.
- Identify the major areas of energy use.
- Process and equipment parameters during normal operations that need to be measured shall be identified and listed.
- Duration and frequency of measurement, measurement location, instrument to be used etc. are established.
- Data collection format is used to record data during the data collection process.
- Measurement plan should include following:
 - a. Collection of corresponding relevant variables, e.g. operating parameters, production data from the management
 - b. Recording measurement method, equipment supplier’s specifications, perform mass and energy balance to the extent possible,

Equipments for Energy Audit:

All the costs incurred during the field work for logistics, equipments (Thermal Imaging Camera, Lux meter, Power analyzer, Combustion analyzer, Digital Camera, Clamp ampere meter, Thermo meter, Humidity meter Gas analyzer, Co2 meter etc.) hired for audit work, allowances, and transportation etc. shall be borne by the consultant.

Data Analysis

After completion of the field audit work the Consultant shall carry out the detailed data analysis and prepare the reports of the relevant industries.

Prepare Energy Audit Report

Consultant shall prepare the energy audit report for each audited industries. The individual Energy Audit Report shall include following:

- General Plant description and details;

Terms of Reference for “Energy Audit in Industrial Sectors”

- Energy and utility system description;
- Identification of energy intensive equipments;
- Baseline Energy consumption and Comparison of actual energy consumption with national, regional and international baseline figures;
- Identification of energy saving opportunities;
- Energy Conservation options and recommendations;
- Implementation plan for energy saving measures;
- Energy efficiency in utilities and process system(specific energy consumption, assessment, DG set performance assessment, boiler efficiency ,furnace efficiency analysis, cooling water system performance, Refrigeration system and compressed air system assessment, electric motor load analysis, lighting system etc.)
- Analysis of various technology options for their suitability in terms of cost effectiveness;
- List of options in terms of No cost/Low cost, Medium/High investment cost, annual energy saving and payback;
- Cost benefit analysis of identified energy efficiency improvement;
- Financial and technical Feasibility study of energy saving measure as applicable;
- Interpreting results in the form of chart, graph or table.

5. Work Schedule:

The Consultant shall complete the entire study project within a period of **12 (Twelve) months** from the effective date of contract. It is the responsibility of the Consultant to plan in detail the work schedule and expert person-months schedule to complete the assigned work within the assigned time frame.

6. Staffing Requirements

The following are the requirements of experts for the study. However, the consultant may include additional experts during the project period without any additional expenses on the agreed amount.

S.N.	Human Resources	Number	Man Months
1.	Team Leader	1	5.5
2.	Electrical Energy Expert	1	6.5
3.	Thermal Energy Expert	1	6.5

Terms of Reference for “Energy Audit in Industrial Sectors”

4.	Economist/Financial Analyst	1	4.5
5.	Mechanical/Industrial Engineer	1	8.5
6.	Electrical Engineer	1	8.5
7.	Supporting Staff for field and office work	1	8.5

The responsibility of the experts are, but not limited to, the following:

6.1. Team Leader

The team leader shall have substantial experience in the area of Energy Sector/Energy Efficiency/Energy Audit. S/he shall at least have Master's degree in Electrical /Mechanical/Industrial/ Renewable Energy Engineering/Energy Management with at least 15 years of professional experience in related field with specific experience in Energy Efficiency/Energy Audit / Energy sector. S/he will be responsible to:

- Take full responsibility for the consulting team and as per the scope of work, provide overall direction to the consulting team, and coordinate between individual experts.
- Carry out extensive consultations with the key stakeholders obtaining suggestions and concurrence with the contents of the study.
- Prepare detailed schedules for the office and field works.
- Organize meetings and workshops.
- Ensure timely delivery and quality control of the outputs required as per the scope of work.

6.2 Thermal Energy Expert

The thermal energy expert shall at least have Master's degree in Mechanical/Industrial/Renewable Energy Engineering/Energy Management with Bachelor's degree in Mechanical/Industrial Engineering with at least have 10 years of professional experience in related field with specific experience in Energy Efficiency/Energy Audit / Energy sector. S/he will be responsible to:

- Work closely with other members of the core technical team and assist the team leader.
- Carry out most of the fieldwork and diagnostic work.
- Monitor, review and analyze the inputs provided by different experts in the team;
- Assist the Team Leader in timely delivery of all outputs and preparation of reports.

Terms of Reference for “Energy Audit in Industrial Sectors”

6.3. Electrical Energy Expert

The electrical energy expert shall at least have Master's degree in Electrical/ Renewable Energy Engineering/Energy Management with Bachelor's degree in Electrical engineering with at least have 10 years of professional experience in related field with specific experience in Energy Efficiency/Energy Audit / Energy sector. S/he will be responsible to:

- Work closely with other members of the core technical team and assist the team leader.
- Carry out most of the fieldwork and diagnostic work.
- Monitor, review and analyze the inputs provided by different experts in the team.
- Assist the Team Leader in timely delivery of all outputs and preparation of reports.

6.4. Economist/Financial Analyst

Economist/Financial analyst shall at least have Masters' degree in Economics/Finance/Commerce with at least 10 years of professional experience in related field with specific experience in Economical/Financial Analysis. S/he will be responsible to:

- Work closely with other members of the core technical team and assist the team leader.
- Preparation of framework and carry out most of the economic and financial works related to energy audit.
- Ensure that economic/financial assessments carried out are undertaken with correct methodologies.
- Assist the Team Leader in timely delivery of all outputs and preparation of reports.

6.5 Mechanical/Industrial Engineer

The Mechanical/Industrial Engineer shall at least have Bachelor's degree in Mechanical/Industrial Engineering with at least 5 years of professional experience in related field with specific experience in Energy Efficiency/Energy Audit / Energy sector. S/he will be responsible to:

- Work closely with other members of the core technical team and assist the team leader.
- Carry out all the field work and data analysis related to Energy Audit.
- Assist the Team Leader and Energy Expert in field work , data analysis, report preparation etc.

6.6 Electrical Engineer

The Electrical Engineer shall at least have Bachelor's degree in Electrical Engineering with at least 5 years of professional experience in related field with specific experience in Energy Efficiency/Energy Audit /

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Energy sector. S/he will be responsible to:

- Work closely with other members of the core technical team and assist the team leader.
- Carry out all the field work and data analysis related to Energy Audit
- Assist the Team Leader and Energy Expert in field work , data analysis, report preparation etc.

7. Payment Mode:

The payment schedule will be as mentioned in the table below:

S.N.	Payments	Payment (%) of total contract amount	Preconditions of payment
1.	First Installment	25	After submission and approval of Inception Report
2.	Second Installment	25	After submission and approval Interim Report
3.	Third Installment	25	After submission of Draft Report
4.	Fourth Installment	25	After submission and approval of Final Report

8. Language of the Report:

All the reports should be prepared and submitted in English. The Consultant shall submit the guidelines in the required format in both English and Nepali Language towards its submission & approval to the cabinet.

9. Competencies:

The Organization/Consulting firm should have the following competencies:

- Excellent communication skill, good working relationship with the government and other organizations, and ability to collect and analyze data and information;
- Excellent ability to quickly grasp and synthesize inputs from a range of disciplines related to this subject area;

10. Qualifications:

The consulting firm should provide lists of qualified human resources with proven track records. The study team should comprise of specialist and/or knowledge-based human resources having required qualifications and experiences in relevant fields/thematic areas to carry out the works as included in the scope of this study. S/he should have fluent written and oral communication in English.

D. Evaluation of Consultant's EOI Application

Evaluation of Consultant's EOI Application

Consultant's EOI application which meets the eligibility criteria will be ranked on the basis of the Ranking Criteria.

i) Eligibility & Completeness Test

Sl. No.	Criteria Title	Compliance
1	Notarized copy of Company/Firm Registration certificate (of each member of JV in case of JV)	
2	Notarized copy of Tax Clearance Certificate of FY 2078/79 (of each member of JV in case of JV)	
3	Notarized copy of VAT & PAN Registration certificate (of each member of JV in case of JV)	
4	EOI Form 1: Letter of Application	
5	EOI Form 2: Applicantants Information Form	
6	EOI Form 3: Experience (3(A) and 3(B))	
7	EOI Form 4: Capacity	
8	EOI Form 5: Qualification of Key Experts	
9	In case of a natural person or firm/institution/company which is already declared blacklisted and ineligible by the GoN, any other new or existing firm/institution/company owned partially or fully by such Natural person or Owner or Board of director of blacklisted firm/institution/company; shall not be eligible consultant.	
10	If the corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV shall not be eligible to participate in procurement process till the concerned Court has not issued the decision of clearance against the Corruption Charges.	
11	Self-declaration letter of the firm (In case of JV, the Consultants shall submit self-declaration either separately or jointly by signing each member of JV)	
12	Joint Venture agreement between of JV partners duly signed by authorized signatories & stamped with company seal of each member of JV & clearly mentioning the name of lead firm, name of JV partners, role and responsibility of each members, name of authorized signatories (in case of a JV)	
13	The total number of consulting firms including the lead firm shall not exceed a maximum of three in a JV.	
14	An applicant must not submit more than one (1) EOI application either as a single entity or as a partner in JV Firm	
15	Power of attorney of authorized signatories of JV agreement from their respective firm with signature & stamp for each member of JV(in case of a JV)	
16	Power of attorney to lead firm by JV partners (in case of JV)	
17	The Lead Firm shall have minimum 7 (Seven) Years of Experience	

ii) EOI Evaluation Criteria

A. Qualification

Sl. No.	Criteria	Minimum Requirement
1	Team Leader	Master's degree in Electrical / Mechanical/ Industrial/ Renewable Energy Engineering/ Energy Management with at least 15 years of professional experience in related field. Specific experience in Energy Efficiency/Energy Audit / Energy sector.
2	Thermal Energy Expert	Master's degree in Mechanical/ Industrial/ Renewable Energy Engineering/ Energy Management with Bachelor's degree in Mechanical/Industrial Engineering with at least have 10 years of

Sl. No.	Criteria	Minimum Requirement
		professional experience in related field. Specific experience in Energy Efficiency/Energy Audit / Energy sector.
3	Electrical Energy Expert	Master's degree in Electrical/ Renewable Energy Engineering/ Energy Management with Bachelor's degree in Electrical engineering with at least have 10 years of professional experience in related field. Specific experience in Energy Efficiency/ Energy Audit / Energy sector.
4	Economist/Financial Analyst	Masters' degree in Economics/ Finance/Commerce with at least 10 years of professional experience in related field. Specific experience in Economical/ Financial Analysis.
5	Mechanical/Industrial Engineer	Bachelor's degree in Mechanical/ Industrial Engineering with at least 5 years of professional experience in related field. Specific experience in Energy Efficiency/ Energy Audit / Energy sector.
6	Electrical Engineer	Bachelor's degree in Electrical Engineering with at least 5 years of professional experience in related field. Specific experience in Energy Efficiency/ Energy Audit / Energy sector.

Score: 40.0

B. Experience

Sl. No.	Criteria	Minimum Requirement
1	General Experience (Only lead firm in case of JV)	Minimum 7 years of experience in Energy sector.
2	Specific experience (in last 7 Years)	Experience in Energy Efficiency/Energy Audit/ Energy sector related study work. The completed projects/tasks having contract amount/value more than 2 millions shall only be considered for evaluation.

Score: 50.0

C. Capacity

Sl. No.	Criteria	Minimum Requirement
1	Financial Capability of the Firm: Average Annual Turn Over of the best three fiscal years in recent last five consecutive fiscal years (in NRs.)	Minimum 20 Million

Score: 10.0

Minimum score to pass the EOI is: 60

Note : If the corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such consultant's proposal shall be excluded during the evaluation.

E. EOI Forms & Formats

E. EOI Forms & Formats

Form 1. Letter of Application

Form 2. Applicant's information

Form 3. Experience (*General, Specific and Geographical*)

Form 4. Capacity

Form 5. Qualification of Key Experts

Standard EOI Document

1. Letter of Application

(Letterhead paper of the Applicant or partner responsible for a joint venture, including full postal address, telephone no., fax and email address)

Date:

To,

Full Name of Client: _____

Full Address of Client: _____

Telephone No.: _____

Fax No.: _____

Email Address: _____

Sir/Madam,

1. Being duly authorized to represent and act on behalf of (hereinafter "the Applicant"), and having reviewed and fully understood all the short-listing information provided, the undersigned hereby apply to be short-listed by **[Insert name of Client]** as Consultant for **[Insert brief description of Work/Services]**.
2. Attached to this letter are photocopies of original documents defining:
 - a) the Applicant's legal status;
 - b) the principal place of business;
3. **[Insert name of Client]** and its authorized representatives are hereby authorized to verify the statements, documents, and information submitted in connection with this application. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
4. **[Insert name of Client]** and its authorized representatives are authorized to contact any of the signatories to this letter for any further information.¹
5. All further communication concerning this Application should be addressed to the following person,

[Person]

[Company]

[Address]

[Phone, Fax, Email]
6. We declare that, we have no conflict of interest in the proposed procurement proceedings and we have not been punished for an offense relating to the concerned profession or

¹ Applications by joint ventures should provide on a separate sheet, relevant information for each party to the Application.

Standard EOI Document

business and our Company/firm has not been declared ineligible.

7. We further confirm that, if any of our experts is engaged to prepare the TOR for any ensuing assignment resulting from our work product under this assignment, our firm, JV member or sub-consultant, and the expert(s) will be disqualified from short-listing and participation in the assignment.
8. The undersigned declares that the statements made and the information provided in the duly completed application are complete, true and correct in every detail.

Signed :

Name :

For and on behalf of (name of Applicant or partner of a joint venture):

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2. Applicant's Information Form

(In case of joint venture of two or more firms to be filled separately for each constituent member)

1. Name of Firm/Company:
2. Type of Constitution (*Partnership/ Pvt. Ltd/Public Ltd/ Public Sector/ NGO*)
3. Date of Registration / Commencement of Business (*Please specify*):
4. Country of Registration:
5. Registered Office/Place of Business:
6. Telephone No; Fax No; E-Mail Address
7. Name of Authorized Contact Person / Designation/ Address/Telephone:
8. Name of Authorized Local Agent /Address/Telephone:
9. Consultant's Organization:
10. Total number of staff:
11. Number of regular professional staff:

(Provide Company Profile with description of the background and organization of the Consultant and, if applicable, for each joint venture partner for this assignment.)

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3. Experience

3(A). General Work Experience

(Details of assignments undertaken. Each consultant or member of a JV must fill in this form.)

S. N.	Name of assignment	Location	Value of Contract	Year Completed	Client	Description of work carried out
1.						
2.						
3.						
4.						
5.						
6.						
7.						

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3(B). Specific Experience

Details of similar assignments undertaken in the previous seven years

(In case of joint venture of two or more firms to be filled separately for each constituent member)

Assignment name:	Approx. value of the contract (in current NRs; US\$ or Euro) ² :
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total No. of person-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in current NRs; US\$ or Euro):
Start date (month/year): Completion date (month/year):	No. of professional person-months provided by the joint venture partners or the Sub-Consultants:
Name of joint venture partner or sub-Consultants, if any:	Narrative description of Project:
Description of actual services provided in the assignment: Note: Provide highlight on similar services provided by the consultant as required by the EOI assignment.	

Firm's Name: _____

² Consultant should state value in the currency as mentioned in the contract

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3(C). Geographic Experience

Experience of working in similar geographic region or country

(In case of joint venture of two or more firms to be filled separately for each constituent member)

No	Name of the Project	Location (Country/ Region)	Execution Year and Duration
1.			
2.			
3.			
4.			
5.			
6.			
7.			

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4. Capacity

4(A). Financial Capacity

(In case of joint venture of two or more firms to be filled separately for each constituent member)

Annual Turnover	
Year	Amount Currency

- **Average Annual Turnover**

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(Note: Supporting documents for Average Turnover should be submitted for the above.)

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4(B). Infrastructure/equipment related to the proposed assignment³

No	Infrastructure/equipment Required	Requirements Description
1.		
2.		
3.		
4.		
5.		

³ Delete this table if infrastructure/equipment for the proposed assignment is not required.

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5. Key Experts *(Include details of Key Experts only)*

(In case of joint venture of two or more firms to be filled separately for each constituent member)

SN	Name	Position	Highest Qualification	Work Experience (in year)	Specific Work Experience (in year)	Nationality
1						
2						
3						
4						
5						

(Please insert more rows as necessary)

Evaluation Criteria (Evaluation of Consultant's EOI Application)

Consultant's EOI application which meets the eligibility criteria will be ranked on the basis of the Ranking Criteria.

i)	EOI Evaluation Criteria	Minimum Requirement	Weightage	Score
A.	Evaluation of personnel			40
i.	Team Leader	Master's degree in Electrical / Mechanical/ Industrial/ Renewable Energy Engineering/ Energy Management with at least 15 years of professional experience in related field. Specific experience in Energy Efficiency/Energy Audit / Energy sector.		12
ii.	Thermal Energy Expert	Master's degree in Mechanical/ Industrial/ Renewable Energy Engineering/ Energy Management with Bachelor's degree in Mechanical/Industrial Engineering with at least have 10 years of professional experience in related field. Specific experience in Energy Efficiency/Energy Audit / Energy sector.		8
iii.	Electrical Energy Expert	Master's degree in Electrical/ Renewable Energy Engineering/ Energy Management with Bachelor's degree in Electrical engineering with at least have 10 years of professional experience in related field. Specific experience in Energy Efficiency/ Energy Audit / Energy sector.		8
iv.	Economist/Financial Analyst	Masters' degree in Economics/ Finance/Commerce with at least 10 years of professional experience in related field. Specific experience in Economical/ Financial Analysis.		4
v.	Mechanical/Industrial Engineer	Bachelor's degree in Mechanical/ Industrial Engineering with at least 5 years of professional experience in related field. Specific experience in Energy Efficiency/ Energy Audit / Energy sector.		4
vi.	Electrical Engineer	Bachelor's degree in Electrical Engineering with at least 5 years of professional experience in related field. Specific experience in Energy Efficiency/ Energy Audit / Energy sector.		4
B.	Experience of Consulting Firm (in last 7 Years)			50
B1.	General Experience (Only lead firm)	Minimum 7 years of experience in Energy sector.		20

	in case of JV)			
B2.	Specific experience (in last 7 Years)	Experience in Energy Efficiency/Energy Audit/ Energy sector related study work. The completed projects/tasks having contract amount/value more than 2 millions shall only be considered for evaluation.		30
C.	Capacity			10
	Financial Capability of the Firm			
	Average Annual Turn Over of the best three fiscal years in recent last five consecutive fiscal years (in NRs.)	Minimum 20 Million		10
Total				100

Note:

- Only the Firms or JV(s) fulfilling the Eligibility and Completeness Test criteria mentioned in the EOI Document shall only be eligible for further evaluation. The EOI application of those Firms or JV(s) which do not fulfill the Eligibility and Completeness criteria shall not be evaluated further. In Case, a corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such firm's or JV's EOI shall be excluded from the evaluation, if public entity receives instruction from Government of Nepal.
- Minimum years of experience and qualification for all the key professionals shall be as specified in TOR. If the proposed personnel fails to meet the conditions of minimum years of experience and qualification as specified in TOR, the respective personnel shall not be considered for evaluation.
- Each page of Curriculum Vitae (CV) of the key professionals shall be submitted with expert's original signature in blue indelible ink along with the notarized copy of the Nepal Engineering Council (NEC)'s certificate of the professionals required to be registered as per NEC Act, 2055 and Regulation, 2057, and Academic qualification Certificates (bachelor's degree to higher degree) shall also be submitted for each expert.
- The contact number and the email address of each key experts shall be provided in the CV.
- A firm shall not propose the same professional in more than one designation for this job. If so proposed, the respective person shall not be considered in the evaluation for any designation.
- Experience of ongoing/incomplete project shall not be considered for evaluation.
- If more than one consulting firms propose the same professional, enquiry will be made by the client to verify the authenticity of the professional, if necessary.
- The experience of the firm shall be supported with notarized copies of work completion certificates showing the project size/ value of service and date of completion of the assignment. Experience of the firm without work completion certificate shall not be considered for evaluation.
- Each page of EOI document shall have original signature of authorized person with the stamp of the consulting firm.