

NEA Engineering Company Limited (NEAEC) Call for: Application for Roster/Register of Specialists/Experts/Team Leader (National/International)

Notice publication date: November 16, 2018

NEA ENGINEERING COMPANY LIMITED (NEAEC)

1. NEA Engineering Company Limited (NEAEC) is looking forward to carry out Feasibility Study of Various Hydroelectric projects. The NEAEC intends to retain the services of Experts/Specialists, as International Support Team (IST) and Technical Support Group (TSG), experienced in the design of large hydraulic infrastructure to provide independent advice and guidance to the project. The objective of the IST and TSG is to review and guide the NEAEC team following national and international standards and practice.

Following experts are expected to provide their services during feasibility study. The Scope of works shall be, and not limited to, as given below.

International Support Team-IST International Expert (Foreign National or Non-resident Nepalese)

SN	Job Title	Scope of duties	Qualification
1.	Team Leader	<ul style="list-style-type: none"> Responsible for leading the Technical Design works and ensuring the Quality of the Design efforts as well as the Schedule of the Deliverables according to the Contract with client. Coordinate his/her works as per the Schedule of Engagement in the way suitable to ensure sufficient supervision of the Design and study works of the Project. 	<ul style="list-style-type: none"> Master's degree in engineering or Equivalent Minimum of 15 years of experience working on engineering projects out of which, 5 of those years having experience in hydropower projects abroad on projects of capacity more than 300 MW during detailed engineering study.
2.	Dam Engineer	<ul style="list-style-type: none"> Review and develop, oversee and interpret the geotechnical investigations primarily focused on hydro projects with dam/reservoir options. Preparation of design basis memo for dam (RCC, CFRD, Arch Dam etc. based on site condition). Extensive exercise for the optimization of dam height and reservoir regulation and reservoir simulations. Must have demonstrable skill in the evaluation of technical performance, identifying potential improvements. Work together with hydrologist and reservoir simulation expert for floods and routing effects. 	<ul style="list-style-type: none"> Master's in civil/structural Engineering or Equivalent. Extensive experience with Dam/Weir design in all aspect. At minimum of 15 years of experience working on engineering projects out of which, 5 of those years having experience in hydropower projects abroad on projects of capacity more than 300 MW during detailed engineering study. Most have experience in project with Dam height 200M or more. Bachelor degree with more than 25 years specific experience.
3.	Geotechnical Engineer	<ul style="list-style-type: none"> Develop, and review design calculations, drawings, specifications related to geotechnical analysis prepared by NEAEC team Guide and support the NEAEC team member for geo investigation, instrumentation, and dam foundation design activities based on international dam regulations. Review and provide necessary input related to tunnel and underground structure design Provide input for the preparation of design basis memorandum/ geotechnical baseline report. 	<ul style="list-style-type: none"> Minimum of a M. Sc in Geotechnical Engineering or equivalent. At least 15 years of experience working on project where the geotechnical works dominate the huge chunk of the detailed design at least 5 of those years having experience in geotechnical engineering works on hydropower projects abroad capacity more than 300MW with tunnel option.
4.	Tunnel Engineer/Expert	<ul style="list-style-type: none"> Review and performs calculations and analyze related to tunnel and underground 	<ul style="list-style-type: none"> Minimum of a M.Sc. in Tunnel/Geotechnical Engineering or equivalent.

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		structure design, excavation, excavation support system. <ul style="list-style-type: none"> • Review and write design reports, specifications and plans, • Provide Inputs for design basis memorandum preparation 	<ul style="list-style-type: none"> • Minimum of 15 years of working experience out of which, 5 of those years having experience in tunnel design abroad during detailed engineering, preferably in hydropower projects.
5.	Structural Engineer	<ul style="list-style-type: none"> • Review and guide to prepare specifications, design criteria, and other available data preparation to accomplish the structural design and the preparation of design analyses • Participates in pre-design conferences/meeting with NEAEC team to validate requirements, identify project constraints, define the problem, and determine applicable design criteria. • Review the structural and foundation requirements and coordinate with all other design disciplines to provide a comprehensive design product conferring the site condition, and phasing of construction, etc. • Review and prepare design basis memorandum for the structural design of hydropower project components 	<ul style="list-style-type: none"> • Minimum master's degree in civil/Structural engineering or equivalent. • Minimum of 15 years of working experience out of which, 5 of those years having experience in structural design abroad during detailed engineering, preferably in hydropower projects.
6.	Hydrologist/ Hydrology Experts	<ul style="list-style-type: none"> • Review the surface water and hydro-geologic study and develop site conceptual models. • Establish, review, and evaluate water resource, analyze collected data, prepare hydrological /hydro geological model • Review and cross check analysis of hydro-geologic data /information, prepare written reports of study findings, and presents oral and/or written briefings of findings and others as needed • Review and guide to calculate the flood hydrographs and routing effects due to the rainfall pattern and catchment conditions 	<ul style="list-style-type: none"> • Minimum of a M.Sc in Hydrology/Water Resource Engineering. • Minimum of 15 years of working experience out of which, 5 of those years having experience as hydrologist abroad during detailed engineering preferably in hydropower projects.
7.	Hydropower Engineers/Experts	<ul style="list-style-type: none"> • Guide NEAEC team on civil, structural and hydraulic calculation a done by NEAEC team • Review and comments on civil drawings and specifications, feasibility studies, alternative analysis, design criteria and other overall engineering aspects in accordance with international best practices. • Review the reservoir sedimentation study carried out by the hydrological engineer to identify the least cost solution with minimum environmental impacts. Reflect the optimal design in the cost estimates and tender documents. • Help to plan a hydraulic model test on sediment flushing facilities • Review and prepare any disaster risk management plan including local flood control and early warning systems, with the hydrological engineer. 	<ul style="list-style-type: none"> • M.Sc. or higher degree in civil/water resources/ hydropower engineering or as approved equivalent. • At minimum of 15 years of working experience out of which, 5 of those years having experience as hydropower projects abroad on projects of capacity more than 300MW during detailed engineering • Bachelor degree with more than 25 years specific experience.

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8.	Seismological Expert	<ul style="list-style-type: none"> • Review of pertinent and establish database of historical earthquakes data near the project site with epicenter(s) and date(s) of occurrence, etc., based on details of seismological data collected from the seismic centers and other available sources. • Study and evaluate seismic activity in the project area e.g., seismic status of faults, thrusts and other weak features in the vicinity of the dam sites and within the region, etc. • Review and derive seismic design parameters, to ensure earthquake safety of the major hydropower structures based on the available geological and seismological records and reports. • Analyze seismic hazard due to the selected design and the failure of the completed structure 	<ul style="list-style-type: none"> • Minimum master's degree in Seismology, Earth Quake Engineering or geotechnical earthquake engineering or equivalent. • At minimum 15 years of experience in relevant professional works, especially minimum of 5 years which shall be in mapping the parameters required by earthquake resistant design for the structural engineer, preferably with experience in Nepal or lower Himalayan region.
9.	Engineering Geologist/Geologist	<ul style="list-style-type: none"> • Field study of the surface geology of the project site (composition, structure, and history of the earth's crust; examine rocks, minerals) based on the regional geological frame work. • Review over all geological condition of the project site, and guide the NEAEC team to prepare investigation plan egg, mapping, geophysical survey, and sub-surface drilling. • Review and analyze the prepared geo map, geophysical survey and drilling reports and recommends parameters for geotechnical/geological design/ tunnel/ dam foundation design. • Guide and support the NEAEC team member to prepare geotechnical baseline report and design base memorandum of ground structures. 	<ul style="list-style-type: none"> • Minimum of a M.Sc. in Geological Engineering with preference given to advanced degrees and training • At minimum 15 years of experience out of which, 5 of those years having experience as geologist abroad on projects capacity more than 300MW, preferably with experience in Nepal or lower Himalayan region.
10.	Hydro-mechanical Engineer/Experts	<ul style="list-style-type: none"> • Provides support for design review and quality assurance • Works closely with other disciplines • Review and prepare guidelines for design development and assists in providing technical aspects • Design and review of Penstock, Gate and valve • Prepare design basis memorandum for hydro-mechanical works • Design and review of steel liner and similar components 	<ul style="list-style-type: none"> • Minimum master's degree in Mechanical engineering or equivalent. • Minimum of 15 years of experience in engineering project out of which 5 of those years should have worked as hydro-mechanical engineering/expert abroad on projects of minimum capacity 100MW and more than 200 meter head. • Bachelor Degree with more than 25 years specific experience.
11.	Electro-mechanical Engineer/ Expert	<ul style="list-style-type: none"> • Examine methods of electrical/electro-mechanical equipment installation works, considering the site conditions. • Review cost estimates for electrical/electro-mechanical equipment based on the construction schedule. • Review study report and prepare document of actual design including all design criteria, parameters and standards, all major 	<ul style="list-style-type: none"> • Master degree in Electrical Engineering, or other relevant subject. • Minimum of 15 years of experience in hydropower project out of which 5 of those years should have worked as electro-mechanical engineering/expert abroad on projects of minimum capacity 100MW and unit size of more than 50 MW.

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		<p>calculations and analysis including all the drawings prepared by the NEAEC team.</p> <ul style="list-style-type: none"> • Review the implementation schedule for installation works of electric equipment. • Review the technical section for the electrical equipment and transmission lines in the tender documents. 	<ul style="list-style-type: none"> • Bachelor Degree with more than 25 years specific experience.
12.	Transmission line Engineer/Expert	<ul style="list-style-type: none"> • Review the transmission line routing and alternatives and the tower types and locations • Review the design of the tower types, the models used and their optimum design • Review and guide the Conductor type, schemes, specifications selection, and accessories and insulators selection and design • Review and guide the sub-station location and the switchyard design • The Transmission lines will be of 132 kV, 220 kV, 400 kV and similar voltages • Inputs for design basis memorandum preparations • Able to work independently in remote are if required 	<ul style="list-style-type: none"> • Master degree in Electrical Engineering, or other relevant subject. • Minimum of 15 years of experience in transmission line and substations out of which 5 of those years should have worked as transmission engineering / expert abroad in 220KV and 400KV substation and lines.
13.	EHV Substation Engineer	<ul style="list-style-type: none"> • Review and guide the equipment selection and switchyard design for EHV (220/400 kV and higher) • Review and design the lightning and switching surges protection calculations for the towers and switchyard • Review and guide the Insulation coordination of the equipment in the substation • Review and guide the design calculations for EHV effects such as Corona and travelling waves and the transient stability due to such phenomenon as switching, power swing etc. • Review and design the Protection coordination and protection schemes 	<ul style="list-style-type: none"> • Master's degree in power system engineering or equivalent. • Minimum 15 years of experience in engineering out of which 5 of those years having experience as a power system engineer in EHV substation (400 KV or higher), preferably in GIS substations or under ground.
14.	Contract Expert	<ul style="list-style-type: none"> • Review and guide on contractual records and documentation such as receipt and control of all contract correspondence • Responsible for review all the contractual analysis required in the light of FIDIC clauses and technical specification. • Review and comments on progress and performance to ensure goods and services confirming to the Contractual requirements. • Facilitating and negotiating contract variations and amendments in line with approved delegations. • Facilitating to identify and resolve disputes with contractor in a timely manner. • Review and guidance to work with accuracy of invoices and authorize payments consistent with the contract terms. 	<ul style="list-style-type: none"> • Minimum master's in engineering/contract management or equivalent • Experienced as contract expert in large scale projects manage by the FIDIC system of contract regulation. • Minimum 15 years of experience out of which 5 of those years having experience abroad. • Experienced in arbitration of claims or complaint.

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		<ul style="list-style-type: none"> Review and guides the study reports as EPC level design documents with respect to FIDIC clauses and technical specification. Fluent in PPA 2063 with latest amendments and the PPR 2064. 	

Technical Support Group-TSG National Expert with International Experience.

SN	Job Title	Scope of duties	Qualification
1.	Dam Engineer	<ul style="list-style-type: none"> Review and develop, oversee and interpret the geotechnical investigations primarily focused on hydro projects with dam/reservoir options. Preparation of design basis memo for dam (RCC, CFRD, Arch Dam etc. based on site condition). Extensive exercise for the optimization of dam height and reservoir regulation and reservoir simulations. Must have demonstrable skill in the evaluation of technical performance, identifying potential improvements. Work together with hydrologist and reservoir simulation expert for floods and routing effects. 	<ul style="list-style-type: none"> Minimum Bachelor or Higher Degree in Civil Engineering or Equivalent. Extensive experience with dam design. Understanding of international dam regulations. Experience with International consulting company or project. Involvement in large project inside the country with International Consulting / Contractor firms. Minimum 15 years of experience for Master's degree and 18 years for Bachelor degree in engineering with 10 of those years having experience in hydropower projects of capacity more than 50 MW in Feasibility / Detail Design.
2.	Geotechnical Engineer	<ul style="list-style-type: none"> Develop, and review design calculations, drawings, specifications related to geotechnical analysis prepared by NEAEC team Guide and support the NEAEC team member for geo investigation, instrumentation, and dam foundation design activities based on international dam regulations. Review and provide necessary input related to tunnel and underground structure design Provide input for the preparation of design basis memorandum/ geotechnical baseline report. 	<ul style="list-style-type: none"> Minimum of M.Sc. degree in Geotechnical or Equivalent. Minimum of 15 years of experience working on engineering projects out of those 10 years as geotechnical engineer in hydropower / similar projects of capacity more than 50 MW. Involvement in large project inside the country with International Consulting / Contractor firms. Involvement in large project inside the country with International Consulting / Contractor firms.
3.	Tunnel Engineer/Expert	<ul style="list-style-type: none"> Review and performs calculations and analyze related to tunnel and underground structure design, excavation, excavation support system. Review and write design reports, specifications and plans, Provide Inputs for design basis memorandum preparation 	<ul style="list-style-type: none"> Minimum of a M Sc. degree in Geotechnical/Engineering Geologist/Tunnel Engineering. Minimum of 15 years of working experience on tunnel design works for hydropower projects. Have experience with Phase II or similar design software for tunnel and Involvement in large project inside the country with International Consulting / Contractor firm.
4.	Structural Engineer	<ul style="list-style-type: none"> Review and guide to prepare specifications, design criteria, and other available data preparation to accomplish the structural design and the preparation of design analyses Participates in pre-design conferences/meeting with NEAEC team to validate requirements, identify project 	<ul style="list-style-type: none"> Minimum Bachelor or Higher Degree in Civil / Structural Engineering or Equivalent. Minimum of 15 years' experience for Master and 18 years of experience for Bachelor in large scale engineering projects. Out of which, 10 of those years having strictly been worked as structural design engineer.

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		<p>constraints, define the problem, and determine applicable design criteria.</p> <ul style="list-style-type: none"> • Review the structural and foundation requirements and coordinate with all other design disciplines to provide a comprehensive design product conferring the site condition, and phasing of construction, etc. • Review and prepare design basis memorandum for the structural design of hydropower project components. 	<ul style="list-style-type: none"> • Fluency in programs like, ETABS, SAP 2000, Staad Pro, PROKON etc. • Involvement in large project inside the country with International Consulting firms during design stage. • Worked as expert or panel of experts for hydro projects preferably more than 50MW
5.	Hydrologist/ Hydrology Expert	<ul style="list-style-type: none"> • Review the surface water and hydro-geologic study and develop site conceptual models. • Establish, review, and evaluate water resource, analyze collected data, prepare hydrological /hydro geological model • Review and cross check analysis of hydro-geologic data /information, prepare written reports of study findings, and presents oral and/or written briefings of findings and others as needed • Review and guide to calculate the flood hydrographs and routing effects due to the rainfall pattern and catchment conditions 	<ul style="list-style-type: none"> • Minimum of a M.Sc. in hydrology/water resource engineering or equivalent. Preference with PHD. In hydrology/water resources. • minimum of 12 years of experience working as hydrologist • Worked as expert or panel of experts for hydro projects preferably more than 50 MW. • Involvement in large project inside the country with International Consulting / Contractor firms.
6.	Hydropower Engineers/Expert	<ul style="list-style-type: none"> • Guide NEAEC team on civil, structural and hydraulic calculation a done by NEAEC team • Review and comments on civil drawings and specifications, feasibility studies, alternative analysis, design criteria and other overall engineering aspects in accordance with international best practices. • Review the reservoir sedimentation study carried out by the hydrological engineer to identify the least cost solution with minimum environmental impacts. Reflect the optimal design in the cost estimates and tender documents. • Help to plan a hydraulic model test on sediment flushing facilities • Review and prepare any disaster risk management plan including local flood control and early warning systems, with the hydrological engineer. 	<ul style="list-style-type: none"> • Minimum M.Sc. Degree in civil/water resources/hydropower Engineering or as approved equivalent. • 15 years experience with Master's degree or 18 years for Bachelor degree in engineering with 10 of those years having experience in hydropower projects in Design of dam, reservoir simulation, • Hydraulic design of spillways, gates, bottom outlets, energy dissipater, PH sizing and optimization etc. and other related major civil infrastructure projects in hydropower sector. • Experience in hydro projects more than 50 MW during Details • Feasibility / Engineering Study. • Involvement in large project inside the country with International Consulting / Contractor firms.
7.	Seismological Expert	<ul style="list-style-type: none"> • Review of pertinent and establish database of historical earthquakes data near the project site with epicenter(s) and date(s) of occurrence, etc., based on details of seismological data collected from the seismic centers and other available sources. • Study and evaluate seismic activity in the project area e.g., seismic status of faults, thrusts and other weak features in the vicinity of the dam sites and within the region, etc. • Review and derive seismic design parameters, to ensure earthquake safety of the major hydropower structures based on 	<ul style="list-style-type: none"> • Minimum Master Degree in Seismology or Equivalent, • Minimum 15 years of experience in relevant professional works • Especially minimum of 5 of which shall be in mapping the • Parameters required by earthquake resistant design for the structural engineer. • Involvement in large project inside the country with International Consulting Firms.

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		<p>the available geological and seismological records and reports.</p> <ul style="list-style-type: none"> Analyze seismic hazard due to the selected design and the failure of the completed structure 	
8.	Engineering Geologist/Geologist	<ul style="list-style-type: none"> Field study of the surface geology of the project site (composition, structure, and history of the earth's crust; examine rocks, minerals) based on the regional geological frame work. Review over all geological condition of the project site, and guide the NEAEC team to prepare investigation plan egg, mapping, geophysical survey, and sub-surface drilling. Review and analyze the prepared geo map, geophysical survey and drilling reports and recommends parameters for geotechnical/geological design/ tunnel/ dam foundation design. Guide and support the NEAEC team member to prepare geotechnical baseline report and design base memorandum of ground structures. 	<ul style="list-style-type: none"> Minimum of a M.S. in Geological Engineering with preference given to advanced degrees and training Minimum of 15 years of experience working on engineering projects with 10 of those years having experience in geological engineering of hydropower projects preferably capacity more than 100 MW Design experience in large hydropower project running inside the country with International Consulting/Contractor firms. Experience with International consulting company or project is a plus.
9.	Hydro-mechanical Engineer/Expert	<ul style="list-style-type: none"> Provides support for design review and quality assurance Works closely with other disciplines Review and prepare guidelines for design development and assists in providing technical aspects Design and review of Penstock, Gate and valve Prepare design basis memorandum for hydro-mechanical works Design and review of steel liner and similar components 	<ul style="list-style-type: none"> Minimum Bachelor or higher degree in Mechanical engineering or equivalent. Minimum of 15 years of experience for master degree and 18 years of experience for bachelor degree in engineering project out of which 10 of those years in hydropower project during design stage with capacity more than 50 MW. Involvement in large project inside the country with International Consulting / Contractor firms.
10.	Electro-mechanical Engineer/ Expert	<ul style="list-style-type: none"> Examine methods of electrical/electro-mechanical equipment installation works, considering the site conditions. Review cost estimates for electrical/electro-mechanical equipment based on the construction schedule. Review study report and prepare document of actual design including all design criteria, parameters and standards, all major calculations and analysis including all the drawings prepared by the NEAEC team. Review the implementation schedule for installation works of electric equipment. Review the technical section for the electrical equipment and transmission lines in the tender documents. 	<ul style="list-style-type: none"> Master degree in Electrical Engineering, or other relevant subject. Minimum 15 years of experience in relevant professional works and 10 years in hydro power projects. Having worked as an Electrical Engineer expert in various Hydropower Projects preferably more than 50 MW Experience (current) in Electro-mechanical design and analysis for hydropower projects with international consultant or company in Nepal. Experience with International consulting/manufacturer or contractor company or project is a plus.
11.	Transmission line Engineer/Expert	<ul style="list-style-type: none"> Review the transmission line routing and alternatives and the tower types and locations Review the design of the tower types, the models used and their optimum design Review and guide the Conductor type, schemes, specifications selection, and 	<ul style="list-style-type: none"> Bachelor or higher degree in Electrical Engineering or other relevant majors. Minimum of 13 years of experience for master degree and 16 years of experience for bachelor degree in engineering project out of which 5 of those years should have worked as transmission

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		<p>accessories and insulators selection and design</p> <ul style="list-style-type: none"> Review and guide the sub-station location and the switchyard design The Transmission lines will be of 132 kV, 220 kV, 400 kV and similar voltages Inputs for design basis memorandum preparations Able to work independently in remote area if required 	<p>engineering/expert in hydropower projects capacity (>50 MW)</p> <p>Extensive experience in electrical/transmission Engineering .</p> <ul style="list-style-type: none"> Experience in transmission line for hydropower projects with international consultant or company inside the country or abroad will be a plus.
12.	EHV Substation Engineer	<ul style="list-style-type: none"> Review and guide the equipment selection and switchyard design for EHV (220/400 kV and higher) Review and design the lightning and switching surges protection calculations for the towers and switchyard Review and guide the Insulation coordination of the equipment in the substation Review and guide the design calculations for EHV effects such as Corona and travelling waves and the transient stability due to such phenomenon as switching, power swing etc. Review and design the Protection coordination and protection schemes 	<ul style="list-style-type: none"> Master's degree in Electrical Engineering or High Voltage engineering or other relevant majors, Minimum 15 years of experience in relevant professional works, as a Power System Analyst or HV engineer, expert in Utilities or HV equipment manufacturers, Preferred experience in Power System transmission line, with international consultant or company inside the country or abroad. Experience with International consulting company or project is a plus.
13.	Power system Analyst	<ul style="list-style-type: none"> Review power study in Nepal, seasonal variation of energy and capacity demand, the system load curves, seasonal variation of energy and capacity demand, and load forecast Review the seasonal variation of energy and capacity demand and ability of the two power systems to meet the energy and capacity demand Review the existing and planned additions and alternative supply options in Nepal. Establish the capital and operating costs for the alternative generation options. Review Load flow analysis at local and regional level. Review power evacuation study for PHKHEP Review short circuit analysis and transient analysis 	<ul style="list-style-type: none"> Master degree in power system/electrical Engineering or other relevant majors, Minimum of 13 years of experience out of which 5 of those years should have worked in power projects. Having worked as a power system analyst at least one hydropower project of minimum capacity 50MW during design stage. Extensive experience in Power System Analyst. Experience in Power System Analysis for hydropower projects with international consultant or company inside the country or abroad . Experience with International consulting company (current) or project is a plus.
14.	Construction Planner	<ul style="list-style-type: none"> Assist in establishing and maintaining the project schedule in Primavera P6 or similar software Monitor the critical path and report any issues impacting the critical path Work with the project team to ensure that schedule activities are accurately updated Provide progress reports in accordance with the project reporting calendar, including resource histograms, progress curves and current versus baseline comparisons Assist in identifying schedule slippage mitigation strategies Review and finalize construction schedule for civil works prepared by the NEAEC team. 	<ul style="list-style-type: none"> Master degree in construction management/civil engineering, or other relevant majors. Minimum 13 years of experience in relevant professional works, out of which 5 of those years should have worked as construction planner for at least one large hydropower project more than 50 MW capacity. Proven experience in project control, cost control and scheduling in the field of engineering and construction. Knowledge of creating and developing baseline schedules; prior working

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		<ul style="list-style-type: none"> Coordinate with other experts concerned to prepare all the tender documents. 	<ul style="list-style-type: none"> experience with scheduling software (Primavera P6 or MS Project or similar). Experience in planning schedule software, Primavera, MS Project, or similar and having key understanding of schedule & cost interfaces. Experience with International consulting company or project.
15.	Contract Expert	<ul style="list-style-type: none"> Review and guide on contractual records and documentation such as receipt and control of all contract correspondence Responsible for review all the contractual analysis required in the light of FIDIC clauses and technical specification. Review and comments on progress and performance to ensure goods and services confirming to the Contractual requirements. Facilitating and negotiating contract variations and amendments in line with approved delegations. Facilitating to identify and resolve disputes with contractor in a timely manner. Review and guidance to work with accuracy of invoices and authorize payments consistent with the contract terms. Review and guides the study reports as EPC level design documents with respect to FIDIC clauses and technical specification. Fluent in PPA 2063 with latest amendments and the PPR 2064. 	<ul style="list-style-type: none"> Bachelor degree in any engineering discipline/management or equivalent with experience in large project, preferably worked with international team in English speaking environment. At least 18 years of experience. Well Exposed with insurance policy and general context of contract system in Nepal. Well versed in PPA and PPA Candidate should have experience in FIDIC contract system and arbitration of claims or dispute resolution.
16.	Financial/Economic Analyst/Economist	<ul style="list-style-type: none"> Review and finalize all indicators such as Net Present Value (NPV), Benefit Cost ratio, Internal Rate of return, Debit Service Coverage prepared by the NEAEC team. Review and finalize financial analysis of the projects and the project entity such as, commercial merits of the projects under alternative power market conditions (electricity market and demand), financial packages and fiscal regimes prepared by the NEAEC team. Review and identify risks associated with the project and allocated to the party that is assumed to cover the risk in the most cost efficient way in order to minimize financial costs of the venture, prepared by the NEAEC team. Identify and assess various financial sources including public funds from Nepal and other countries that may benefit from the projects, multilateral/ bilateral organizations, and commercial financial institutions prepared by the NEAEC team. Review sensitivity Analysis prepared by the NEAEC team. 	<ul style="list-style-type: none"> Master degree in Finance, Economics, Engineering Economics or chartered accountant or other relevant majors. Minimum 13 years of experience in relevant professional filed. Having worked as a Financial/Economic Analyst for minimum of 5 years, producing indices from various data collection and analysis for at least one large Hydropower Projects (>50 MW). Experience in Financial/Economic Analysis with international consultant or contracting company inside the country or abroad . Experience (current) with International consulting company or project is a plus.
17.	Wildlife Expert	<ul style="list-style-type: none"> Study of the wildlife, forestry environment of the project site (composition, structure, and history of the wildlife society as per Nepalese act, rule and regulation. 	<ul style="list-style-type: none"> Minimum of a master in biology or equivalent. Minimum of 10 years of experience working on engineering projects with 5 of

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		<ul style="list-style-type: none"> Review over all wildlife condition, number, deferent species of wild lives surrounding of the project site, and guide the NEAEC team to prepare investigation plan of wildlife. Study of the reservation of specialized wildlife. 	<p>those years having experience in wildlife environment of hydropower projects.</p> <ul style="list-style-type: none"> Preference for the involvement in current large hydropower project running inside the country with International Consulting/Contractor firms.
18.	Botanist/Ecologist	<ul style="list-style-type: none"> Studying plants, their environments, relationships, traits, and processes. Conducting fieldwork, collecting and testing plant samples, and recording observations. Testing the effects of weather, pollutants, pests and other problems on different plant species. Analyzing plant responses and reporting possible trends, benefits or concerns. Encouraging desirable traits in plants through breeding techniques. Raising awareness about environmental concerns and conservation efforts and assisting with disaster relief after floods, droughts etc. Working with others, including other Botanists, team members or students to achieve project objectives. Managing research group members and resources. 	<ul style="list-style-type: none"> Master's degree in Botany, Biology, or related field. Minimum 10 years of experience in related field. Experience in understanding of plant life, processes, and traits, scientific principles, and environmental concerns. Willingness to travel in different places. Preference for the involvement in current hydropower project running inside the country with International Consulting/Contractor firms.
19.	Psychologist	<ul style="list-style-type: none"> Conduct scientific studies of behavior and brain function of Applicants on recruitment. Collect information through observations, interviews, surveys, and other methods Research and identify behavioral or emotional patterns Test for patterns that will help them better understand and predict behavior Use their knowledge to increase understanding among individuals and groups. 	<ul style="list-style-type: none"> Master's degree in psychology. Minimum 10 years of experience in related field. Preference for the involvement in recruitments inside the country for international firms. Preferably to study of clinical psychology
20.	Chartered Accountant	<ul style="list-style-type: none"> Manage Taxes, provide advice related with accounting & auditing. Organizing meticulously to keep financial documents in order. Problem-solving to determine where errors might be occurring or to suggest ideas that would benefit the Company as per taxation acts and regulation. Committing to life-long learning to keep up with governmental and economic changes Being aware of financial situations and regulations in other countries since the global economy is increasingly becoming a concern to all businesses 	<ul style="list-style-type: none"> Completion of Chartered Accountancy-CA. Minimum 10 years of experience in field of auditing and accounting. Preference for the involvement in current hydropower project . Preference for the involvement in current hydropower project running inside the country with International Consulting/Contractor firms.
21.	Sociologist/ Social Expert	<ul style="list-style-type: none"> Analyze and interpret data in order to increase the understanding of human social behavior. Plan and conduct research to develop and test theories about societal issues such as crime, group relations, poverty and aging in hydropower effective area. 	<ul style="list-style-type: none"> Master degree in sociology/social science, specialize in sociology and criminology, sociology and businesses or social psychology. Minimum 10 years of experience in related field. Willingness to travel in different places.

SN	Job Title	Scope of duties	Qualification
		<ul style="list-style-type: none"> • Collect data about the attitudes, values, and behaviors of people in groups, using observation, interviews, and review of documents of hydropower effective area. • Direct work of statisticians, and others who compile and evaluate research data. • Consult with and advise individuals such as administrators, social workers, and legislators regarding social issues and policies, as well as the implications of research findings. 	<ul style="list-style-type: none"> • Preference for the involvement in current hydropower project running inside the country with International Consulting/Contractor firms.
22.	Cost Estimator	<ul style="list-style-type: none"> • Analyze documentation to prepare time, cost, materials, and labor estimates. • Assess cost effectiveness of projects or services, tracking actual costs relative to bids as the project develops. • Consult with clients, vendors, personnel in other departments or construction professionals to discuss and formulate estimates and resolve issues. • Confer with engineers, architects, contractors and subcontractors on changes and adjustments to cost estimates. • Prepare estimates used by management for purposes such as planning, organizing, and scheduling work. • Prepare estimates for use in selecting vendors or subcontractors. • Prepare cost and expenditure statements and other necessary documentation at regular intervals for the duration of the project. • Prepare and maintain a directory of suppliers, contractors and subcontractors. • Set up cost monitoring and reporting systems and procedures. • Establish and maintain tendering process, and conduct negotiations. • Calculate, analyze, and adjust estimates • Recommend ways to reduce costs 	<ul style="list-style-type: none"> • Master degree in engineering. • A sound knowledge of building materials, construction methods and customs prevailing in the trade. • Minimum 10 years of experience in hydropower development, relating to materials required, overhead expenses and costs of all kinds. • An understanding of a good method of preparing an estimate. • Experienced to collect, classify and evaluate data that would be useful in estimating and rate analysis. • Experience in bid preparation for contractor or consultant is a plus.
23.	Tax/VAT Expert	<ul style="list-style-type: none"> • Responsible for review all the tax/VAT and analysis as per NFRS and IFRS. • Facilitating and negotiating contract, official payment, international contractual payments and other relevant like income tax, excise duty, tax deduction on source, VAT reimbursement etc. • Support on making financial documents related with Tax audit. • Verification of tax/VAT calculation as per contract act, VAT act and financial litigation. • Review and guidance to work with accuracy of invoices and authorize payments consistent with the contract terms. • Responsibility for filing and paying taxes for their employers, fill out the proper paperwork, arrange for payment and stay 	<ul style="list-style-type: none"> • Master degree in Finance, Law, Economics, Management or chartered accountant or other relevant majors. • Minimum 13 years of experience in relevant professional filed. • Having worked as a Financial/Economic Analyst for minimum of 5 years, producing indices from various data collection and analysis of tax evaluate or Tax audit. • Experience (current) in Financial/Economic Analysis of hydropower projects with international consultant or contracting company inside the country or abroad will be highly preferred • Experience with International consulting company or project is a plus.

SN	Job Title	Scope of duties	Qualification
		on top of any changes that would affect what is due or owed.	
24.	Environment Specialist	<ul style="list-style-type: none"> Field study of the environment of the project site (composition, structure, and history of the environmental frame work. Review over all environmental condition of the project site, and guide the NEAEC team to prepare investigation plan egg, mapping, environmental survey, study and analysis. Guide and support the NEAEC team member to prepare environmental baseline report and design base memorandum. 	<ul style="list-style-type: none"> Minimum of a master in environmental science or equivalent, preference given to advanced degrees and training Minimum of 15 years of experience working on engineering projects with 10 of those years having experience in environmental of hydropower projects preferably capacity more than 50 MW. Preference for the involvement in current large hydropower project running inside the country with International Consulting/Contractor firms. Experience with International consulting company or project is a plus.
25.	Administrative Expert	<ul style="list-style-type: none"> Organize trainings, client meetings, team meetings and events as needed. Provide operations support and documentation support for Managers. Determine the administration issues and resolve them for smooth office operations. Provide support in preparing company documents, profile and other as per needed. Coordinate the administration activities involved in the employee recruitment, performance evaluation and termination processes. 	<ul style="list-style-type: none"> Successfully completed MBA/MBS or Master's degree in Administration or equivalent, preference given to higher degree. Minimum 15 years of experience in administration, out of which 10 of those years having experience in hydropower project/company. Preference for the involvement in current large hydropower project running inside the country with International Consulting/Contractor firms.

Specialists from the Register of TSG shall be appointed by the NEAEC to review and provide guidance to the project team, as per the requirement of the project. Intermittently, on daily or weekly or monthly basis based on the input requirement and the availability of experts: Same TSG resource can provide two or more expert services depending upon the specific case. The International Team Leader will be appointed by NEAEC to lead and facilitate the team member which includes National/International Experts and TSG will provide services on monthly, intermittently or as per requirement.

Interested eligible and competent experts/specialists may obtain further information NEAEC Website; www.neaec.com.np

Interested experts/specialists must submit their Curriculum Vitae along with the expected remuneration (hourly/daily/weekly/monthly) and other conditions of engagement to perform the services within 15 days from the published date by E-mail or hard copy. The notice deadline may be rolled over automatically as per company need.

Address:

2nd floor of Trade Tower Building, Thapathali; Kathmandu.

Mail: md@neaec.com.np (for IST) and hr@neaec.com.np (for TSG)

Website: www.neaec.com.np, Phone: 01-5111024/25