

PESHAWAR ELECTRIC SUPPLY COMPANY LIMITED



OFFICE OF THE CHIEF ENGINEER (DEV:) PMU PESCO WAPDA HOUSE PESHAWAR
Phone # 091-9211757/9210987-86
Fax # 091-9213018

Amendment No.2

AMENDMENTS IN ACCORDANCE WITH SECTION II INSTRUCTIONS TO CONSULTANTS AND DATA SHEET TO THE RFP DOCUMENT. ACTIVITY NO. PK-PESCO-281325-CS-CQS.

This amendment No.2, in RFP against PK-PESCO-281325-CS-CQS is being issued on October 26, 2023, in accordance with the Section II - Instructions to Consultants (ITB-17.7, 17.9,19.1,) to the RFP Document.

No.	RFP Reference	Description as per issued RFP (Pervious Provisions)	Amended Clause under this Amendment 02 (New Provisions)
1	Request for Proposal Letter Consulting Services Point 3: Proposals has been addressed to the following shortlisted Consultants: under	g) SMEC international Pty. Ltd Australia as Lead Consultant with Engineering General Consultants (EGC) Pvt Ltd, Pakistan and Electra Consultants, Pakistan as Sub-Consultants.	g) SMEC international Pty. Ltd Australia as Lead Consultant with Engineering General Consultants (EGC) Pvt Ltd, Pakistan, Electra Consultants, Pakistan and M/s TLC Pakistan as Sub-Consultants
2	Section-3 TECH-06 under Technical proposals Team Composition, Key Experts Inputs, and attached Curriculum Vitae (CV)	6 pages each CV	8 pages each CV
3	Section-7, Terms of Reference, Under Key Staff/Skills, Expert No. K1 Project Manager/ Team Leader	<p>Minimum Qualification</p> <ul style="list-style-type: none"> • At least B.E / BSc. (Electrical) engineering degree <p>Desired Experience:</p> <ul style="list-style-type: none"> • At least 15 years of total experience in power sector. • Should be a permanent employee of the firm for more than one year. • At least 5 years of experience in implementing (as part of Utility or Contractor or Consultant team) and similar nature of Projects of 132kV network including working as Team Leader/Project 	<p>Minimum Qualification</p> <ul style="list-style-type: none"> • At least B.E / BSc. (Electrical) engineering degree <p>Desired Experience:</p> <ul style="list-style-type: none"> • At least 15 years of total experience in power sector. • At least 5 years of experience in implementing (as part of Utility or Contractor or Consultant team) and similar nature of Projects of 132kV network including working as Team Leader/Project Manager. Further experience of HVDS and

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		<p>Manager. Further experience of HVDS and APMS projects will be an added advantage.</p> <p>He should be able to lead the team of the consultants and assists the Client in timely completion of the Services with a quality output. The Project Manager will be the principal contact and will be expected to be readily available during project implementation</p>	<p>APMS projects will be an added advantage.</p> <p>He should be able to lead the team of the consultants and assists the Client in timely completion of the Services with a quality output. The Project Manager will be the principal contact and will be expected to be readily available during project implementation</p>
4	<p>Section-7, Terms of Reference, Under Key Staff/Skills, Expert No. K2 Utility Reform Expert</p>	<p>Minimum Qualification</p> <ul style="list-style-type: none"> At least BSc Electrical engineering with any advance degree/certification in reform management will be given advantage in evaluation. <p>Desired Experience:</p> <ul style="list-style-type: none"> At least 10 years of total experience in power sector. <p>At least 05 years of experience including business processes of energy sector to improve utility management and conduct trainings and experience in SCADA feasibility studies for 132 kV or above level. Similarly experience in load flow studies for VAR compensation at 132 kV or above levels by using advance software i.e., PSS/E etc.</p>	<p>Minimum Qualification</p> <ul style="list-style-type: none"> At least BSc Electrical engineering with any advance degree/certification in reform management will be given advantage in evaluation. <p>Desired Experience:</p> <ul style="list-style-type: none"> At least 10 years of total experience in power sector. <p>At least 05 years of experience including business processes of energy sector to improve utility management and conduct trainings and experience in SCADA feasibility studies for 132 kV or above level. Similarly, experience in load flow studies for VAR compensation at 132 kV or above levels by using advance software i.e., PSS/E etc. The Key expert is supposed to render services for both aspects if the Consultant(s) feel that the work is difficult to manage by one single expert then they may propose the non key expert for load flow study</p>
5	<p>Section 7. Terms of Reference 5.4.1.</p> <p>K-7 Environment, Social and OHS Expert</p>	<p>Master's Degree in Environmental Engineering/Environmental Sciences from a foreign or local university duly recognized by the Higher Education Commission (HEC) of Pakistan</p> <p>Experience: Atleast 5 years' experience of preparing and implementing ESIA/ESMP/RP in construction and supervision of Power Sector Projects Particularly</p>	<p>Master's Degree in Environmental Engineering/Environmental Sciences from a foreign or local university duly recognized by the Higher Education Commission (HEC) of Pakistan</p> <p>Experience: Atleast 5 years' experience of preparing and implementing ESIA/ESMP/RP in construction and supervision of Power Sector Projects Particularly Grid</p>

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		Grid Stations/Transmission line with certification / diploma in OHS (e.g. NEBOSH, IOSH, OSHA etc.) from accredited institutions with at least 5 years' experience in OHS Profession in construction and supervision of Power Sector Projects Particularly Grid Stations/Transmission lines and Dams etc.	Stations/Transmission line with certification / diploma in OHS (e.g. NEBOSH, IOSH, OSHA etc.) from accredited institutions with at least 5 years' experience in OHS Profession in construction and supervision of Power Sector Projects Particularly Grid Stations/Transmission lines and Dams etc. However, the Key expert will be for Environment and Social. The expert will lead the work of environment and social and also provide high level guidance for OHS. If the consultant(s) feel that OHS shall require dedicated input, then it may propose the non key expert for OHS position.
6	Section-7, Terms of Reference, Under Key Staff/Skills, Expert No. K11 Geographic Information System (GIS) Expert	<p>Minimum Qualification</p> <ul style="list-style-type: none"> • At least MSc in GIS /Geoinformatics or equivalent qualification. • The candidate must have Esri ArcGIS Enterprise Administration Professional Certification 2201. <p>Desired Experience:</p> <ul style="list-style-type: none"> • At least 10 years of total experience in the field of GIS with renowned organization. • At least 05 years of experience in GIS with electric utility company. Preference will be given to those having Esri Certification in Enterprise Geodata Management Professional Certification 19-001, Esri Enterprise Administration Professional Certification 19-001 and Esri ArcGIS Desktop Professional Certification 19-001 	<p>Minimum Qualification</p> <ul style="list-style-type: none"> • At least MSc in GIS /Geoinformatics or equivalent qualification. <p>Desired Experience:</p> <ul style="list-style-type: none"> • At least 10 years of total experience in the field of GIS with renowned organization. • At least 05 years of experience in GIS with electric utility company. Preference will be given to those having Esri Certification in Enterprise Geodata Management Professional Certification 19-001, Esri Enterprise Administration Professional Certification 19-001 and Esri ArcGIS Desktop Professional Certification 19-001, Esri ArcGIS Enterprise Administration Professional Certification 2201.
7	Section-7, Terms of Reference; 2.2.2 Details of up gradation of PESCO Geographic Information System	Upgradation of PESCO Geographic Information System (GIS) Infrastructure-Implementation of Centralized Mapping & Analysis	Upgradation of PESCO Geographic Information System (GIS) Infrastructure-Implementation of Centralized Mapping & Analysis system through ArcGIS Enterprise.

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	(GIS)-Implementation of Centralized Mapping & Analysis system through GIS Enterprise, Sr. No. 1.	system through ArcGIS Enterprise or equivalent system.	
8	Section-7, Terms of Reference, Clause 5.4.1 under Key Experts/Staff/Skills:	Total staff time input is estimated to be about 140 staff months for key and 150 non-key experts and 150 staff months for technical support staff.	Total staff time input is estimated to be about 180 staff months for key and 150 non-key experts and 150 staff months for technical support staff.
9	Section 7 Terms of Reference, 3. Scope of Services, 3.2/A/a	The consultant will prepare, consolidated work plans for all project components (as per requirement). They will; review and update feasibility and design studies of each subproject; undertake necessary analysis, power system and geotechnical studies (if applicable); and recommend/provide optimal design options (single line diagrams and layouts) and specification of the equipment required. The Client will provide the specifications (if available) of equipment which the consultant will review and update if necessary or else the consultant shall prepare itself, to ensure these specifications are in line with international best practices and as per PESCO/NTDC design standards and include state-of-art digital technologies (hardware and software) to optimize operation, maintenance, control and protection of assets, with focus on their core equipment. In this context, the consultant shall review and update/carryout necessary system studies, load flow studies through PSS/E software for VAR compensation required for PESCO STG system for the existing system and for future including load flow study of existing system, VARs required for the system for reduction of apparent power flow, identification	The Details of Each sub-project regarding feasibility and design study is attached as Annex-A for proper clarification of Section 7 Terms of Reference, Scope of Services, Sub Clause 3.2/A.

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of right size and right type of reactive power compensation devices in PESCO STG Network, step sizing in case of switch shunt capacitor Banks, study and remedies for the In rush current and odd Harmonics accordingly, to confirm technical specifications of equipment in line with International Electro-technical Commission (IEC)/NTDC standards/NEPRA GRID CODE.

Note: All other terms and conditions of the Request for Proposal and Request for Expression of Interest shall remain the same.

**Chief Engineer (Dev) PMU
PESCO Peshawar**

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Annexure-A

Subproject	Feasibility study	Design Study	Remarks
27x12MVAR switch shunt capacitors	Yes	Yes	Switch Shunt Capacitor Banks will be introduced for the first time in DISCOs/ Pakistan so it will require a feasibility study for pointing out grid stations for SSCB installation and Design study for preparation of Specification and Approval from NTDC.
Upgradation of 132kV Bus Bars at 20 No. G/Ss.	Yes	Yes	Upgradation of Single Conductor Bus Bars to Twin Bundle Bus Bars in specific grid stations have been identified by PESCO but feasibility study by Consultant will ensure that it will give the most efficient results for the selected grid stations already identified by PESCO.
Extension of Power T/Fs with 40MVA at 4 No. G/Ss.	No	No	PESCO using its expertise to identify the most feasible grid stations for Extension of TF bays keeping in view the load demand. PESCO has ample experience in purchase & installation & execution of TF bay extensions so No Feasibility or design studies is required for this sub-project.
14 No. Augmentation of 26 MVA Power T/Fs with 40MVA.	No	No	-do-
Reconductoring with HTLS/Greely 04 No. T/Lines (49km).	Yes	Yes	PESCO does not have expertise in reconductoring with HTLS/Greely conductor of existing T/Lines so a feasibility study will be required. Also experienced staff of consultant will be required to review the survey of T/Lines by the contractor. Similarly experienced staff of consultant will be required to review the design/Specification submitted for the HTLS/Greely conductor for the reconductoring. Therefore, Both Feasibility and Design Studies will be required for this sub project.
Billing & IT infrastructure Upgradation. 1. Deployment of Data Centre Primary and Failure Site. 2. Business Intelligence (BI) and Business Warehousing (BW) System.	Yes	Yes	PESCO has already undertaken Facility development and other equipment for upgradation of Billing and IT infrastructure so feasibility study may not be required however the scope of Billing & IT infrastructure upgradation includes Creation of Data Center Primary and Failover site which will require Design recommendation by the contractor and Experienced staff of consultant will be required to Review and Vetting of the design and Also preparation of Deployment plan and review the deployment plan submitted by the contractor to ensure the execution will be in line with the standards and deployment plan prepared by the Consultant for PESCO. So both feasibility and design studies will be required for this sub project.

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Installation of Transformer Monitoring System (TMS) at 60 No's 11 kV Feeders in Peshawar & Khyber Circles.	Yes	Yes	PESCO has already identified approx. 2518 distribution T/Fs sites for TMS so the consultant will review the said feasibility study by PESCO and give recommendations (in case changes are required). The consultant will also review the rollout plan, and TMS Designs submitted by the contractor for the sub-project to ensure it is in accordance with the specification(s).
Upgradation of PESCO GIS infrastructure to Arc-GIS Enterprise.	Yes	Yes	<p>Feasibility study and design study will be required for this sub project as it involves Preparation and Vetting of Data Model/system Design, Functional System Description (FSD), Preparation/Evaluation of User Needs Assessment and Requirements Analysis which requires Study and recommendation for deployment and Implementation of Drone based GIS surveying & mapping process as per PESCO requirement.</p> <p>Study, design and recommendation for the deployment/implementation for GIS Enterprise Solution system that provide centralized facility for load flow studies and to calculate technical losses through enterprise solution & using 3rd party software solution such as SynerGEE Electric or other analysis software.</p> <p>Study, design, and recommendations for the deployment/implementation of enterprise solution to generate Hv/Lv augmentation/rehabilitation proposal of distribution system as per PESCO requirement.</p> <p>Study, design, and recommendation for the implementation/configuration of operational dashboards as per the requirement of PESCO.</p> <p>Proper solution to ensure security of PESCO GIS environment i.e. Hardware, Software etc</p>
65,000 AMI Meters Installation (5-20kW consumers).	Yes	No	Design study will be required as Consultant will review the Design/Drawings submitted by the contractor to ensure that it is in accordance and in line with the NTDC Specification(s). PESCO already has the design/Specification for the AMI meters. Fresh Feasibility study will be required for the review of the rollout plan submitted by the contractor.
ABC installation 60 No's Feeders in Peshawar & Khyber Circles (1298 km).	Yes	Yes	PESCO has already identified 60 feeders for Replacement of bare conductor by Installation of ABC Cable So the consultant will only review the said feasibility study by PESCO and give recommendations (in case changes are required). The consultant will also review the rollout plan, and ABC Cable Designs and drawings submitted by the contractor for the sub-project to ensure it is in accordance with the specification(s) provided by PESCO.

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Technical Assistance (Equipment for M&T)	No	No	-
Technical Assistance (T/Fs Workshops,.)	Yes	Yes	PESCO has already identified sites for the Construction of 03 No. T/F reclamation workshops. Feasibility as well as design study will be required for the subproject as it involves the purchase of state-of-the-art equipment, vetting of Building Design, and equipment specification as per the defined scope.
Technical Assistance (T&P, PPE)	No	No	-
Technical Assistance (IT) Printers, Laptop , UPS	No	No	-
Technical Assistance (vehicles etc.)	Yes (for Single Cabin Pickups & P&I/T&I Vans)	No	PESCO required 8 No. Double cabin pickups for Project Monitoring, 40 No. Single Cabin Pickups for O&M activities of Sub Divisions for 60 No. feeders of ABC cable & 2518 No. TMS Subprojects and 2 No. Vans for GSO P&I Teams for System Emergency visits. The Consultant will conduct a feasibility study for the number of vehicles for the above mentioned purpose.
Training & Capacity Building.	Yes	No	Explanation in Form Tech-5 D-3/2/a,b&c is self-explanatory.
SCADA Studies	YES	Yes	Feasibility and Design studies will be required from scratch to Carry out complete SCADA feasibility study and implementation/roll out plan for PESCO Grid System for future investments.
Project Implementation Support	N/A	N/A	-