



TransPeshawar (The Urban Mobility Company)



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CORRIGENDUM

Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar Integration - Peshawar BRT

Date: June 25, 2025

IFB No. TPC/OPS/OCB/Consultancy-Buses/2024-25/012

1. Reference to TransPeshawar (The Urban Mobility Company) advertisement regarding **“Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar Integration - Peshawar BRT”** published in The News, Daily Khabrain, and Daily Jung dated **June 6, 2025**.
2. Minor revisions in the RFP and evaluation criteria have been made. The corrigendum to the effect may be inspected at the websites of TransPeshawar (<http://transpeshawar.pk/>) and KPPRA (<http://www.kppra.gov.pk/>).
3. Other terms and conditions shall remain the same.

Chief Executive Officer,

TransPeshawar (The Urban Mobility Company)

TransPeshawar Head Office First (1st) Floor, Main BRT Depot,

Opposite NHA Complex, Khyber Pakhtunkhwa.

Contact Number: 091-2621393-5

Size 11x2

Corrigendum 2

To

REQUEST FOR PROPOSAL (RFP)

for

**Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar
Integration – Peshawar BRT**

Procuring Entity: TransPeshawar (The Urban Mobility Company)
Ref. No.: *TPC/OPS/OCB/Consultancy-Buses/2024-25/012*
Issued on: *June 24, 2025*

Section 1. Instructions to Consultants and Data Sheet

A. General Provisions

1. Definitions

- (a) “Affiliate(s)” means an individual or an entity that directly or indirectly controls, is controlled by, or is under common control with, the Consultant.
- (b) “Applicable Law” means the laws and any other instruments having the force of law in the jurisdiction of the province of Khyber Pakhtunkhwa & Islamic Republic of Pakistan, or in such other country as may be specified in the **Data Sheet**, as they may be issued and in force from time to time.
- (c) “Authority” means Khyber Pakhtunkhwa Public Procuring Regulatory Authority.
- (d) “Consultant” means a legally- established professional consulting firm or company **or joint venture of firms or companies** that provide the Services to the Procuring Entity under the Contract.
- (e) “Contract” means a legally binding written agreement signed between the Procuring Entity and the Consultant and includes all the attached documents listed in its Clause 1 (the General Conditions of Contract (GCC), the Special Conditions of Contract (SCC), and the Appendices).
- (f) “Data Sheet” means an integral part of the Instructions to Consultants (ITC) Section 1 that is used to reflect specific country and assignment conditions to supplement, but not to override, the provisions of the ITC.
- (g) “Day” means a calendar day.
- (h) “Experts” means, collectively, Key Experts, Non-Key Experts, or any other personnel of the Consultant, Sub- Consultant/ Sub-Contractor or Joint Venture/ Consortium member(s).
- (i) “Joint Venture (JV)” means an association with or without a legal personality distinct from that of its members, of more than one Consultant where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Procuring Entity for the performance of the Contract.
- (j) “Key Expert(s)” means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose CV

Instructions to Consultants
E. Data Sheet

A. General	
ITC Clause Reference	
2.1	<p>Name of the Procuring Entity: TransPeshawar (The Urban Mobility Company)</p> <p>Method of selection: Quality and Cost Based Selection (QCBS)</p>
2.2	<p>Technical and Financial Proposal are to be submitted in separate envelope as per the Single Stage Two Envelope Bidding Procedure</p> <p>The name of the assignment is: “Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar Integration – Peshawar BRT”</p> <p>Reference No: TPC/OPS/OCB/Consultancy-Buses/2024-25/012</p>
2.3	<p>A pre-Proposal conference/meeting will be held as per following details:</p> <p>Date: June 12, 2025</p> <p>Time: 11:30 AM (PST)</p>
2.4	<p>The Procuring Entity will provide the following inputs, project data, reports, etc. to facilitate the preparation of the Proposals: All the data relating to activities, if any, will be provided as an attachment to TORs.</p>
6.1	<ul style="list-style-type: none"> (a) Firm or Company duly registered with Registrar of Firms or with SECP, as applicable, or JV of Firms or Companies; (applicable to each member in case of JV). (b) Proof of valid and active NTN & KNTN registration; applicable to each member in case of JV. (c) Valid Registration with Pakistan Engineering Council in relevant category (Transport Planning and Consultancy Services 1215 (Applicable to lead member in case of JV). (d) Not Blacklisted from any public entity in Pakistan; applicable to each member in case of JV. (e) The consultant shall not have any pending litigation or arbitration or had not any litigation or arbitration decided against the Consultant; applicable to all members in case of JV. (affidavit on stamp paper of PKR.150 or above, duly notarized to be submitted) (f) Consultant shall have completed at least one (01) project of similar nature (as per TOR) with public/ private sector. In case of JV must meet by lead partner the lead partner must have an experience in Transport Planning; (g) The consultant meets minimum qualification criteria stipulated under

		500.00 million or more. Each project carries 02 2.5 marks		
		1.3.Experience of public transport infrastructure (depot design or related civil infrastructure projects). One project carries two 2.5 marks	10	
	2. Approach and Methodology		25	
		2.1 Understanding of the ToR and objectives	5	
		2.2 Quality and feasibility of the proposed methodology/work plan	10	
		2.3 Stakeholder consultation plan and risk management strategy	5	
		2.4 Innovation and sustainability measures (e.g., solar integration, carbon reduction)	5	
	3. Work Plan and Deliverables		10	
		3.1 Detailed work plan aligned with deliverables and timeline	5	
		3.2 Logical sequencing and resource allocation	5	
	4. Team Composition and Qualification	<i>each position number corresponds to the same for Key Experts in Form TECH-5 to be prepared by the Consultant}</i> 30% weightage will be given to matching qualification and 70% to experience as described in the TORs.	35	
	Position K1	4.1 Team Leader – Public Transport Planner	5 10	
	Position K2	4.2 Automotive/Mechanical Engineer	5	
	Position K3	4.3 Electrical Engineer	5	

	Position K4	4.4 Structural Engineer-	5
	Position K5 K4	4.54 Architect	5
	Position K6 K5	4.65 Environmental Specialist	5
	Position K7 K6	4.76 Procurement Specialist	5
	Total		100

	<p>.....</p> <p>The minimum technical score (St) required to pass is: 70%</p>
23.1	An online option of the opening of the Financial Proposals is offered: Attending opening of financial proposal online will be allowed subject to request.
25.1	Financial Proposals will be evaluated inclusive of all applicable taxes and duties.
26.1	The single currency for the conversion of all prices expressed in various currencies into a single one is: N/A
27.1	<p>The Combined Score (S) shall be calculated using the following formula:</p> $S = Ts \times 0.80 + Fs \times 0.20$ <p>Where:</p> <p>S = Combined Score</p> <p>Ts = Technical score awarded to the proposal (out of 100)</p> $Fs = (F_{min}/F) \times 100$ <p><i>F_{min}</i> = Lowest evaluated financial proposal</p> <p>F = Financial proposal under consideration</p> <p>Note: The proposal with the highest Combined Score (S) will be ranked first and considered for award of contract.</p>
	D. Negotiations and Award
28.1	<p>Expected date and address for Contract negotiations:</p> <p>Date: <u>Date will be communicated later</u></p> <p>Address: <u>TransPeshawar Office First Floor KPUMA Building Main BRT Depot Chamkani, GT Road Peshawar</u></p>
29.1	The publication of the Contract award information following the completion of the Contract negotiations and Contract signing will be done as per KPPRA rules _____

	The publication will be done in accordance with KPPRA
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FORM TECH-2
CONSULTANT'S ORGANIZATION AND EXPERIENCE

Form TECH-2: a brief description of the Consultant's organization and an outline of the recent experience of the Consultant that is most relevant to the assignment. In the case of a Joint Venture/ Consortium, or sub-Contractors, information on similar assignments shall be provided for each partner. For each assignment, the outline should indicate the names of the Consultant's Key Experts and Sub-Contractors who participated, the duration of the assignment, the Contract amount {total and, if it was done in a form of an Association (Joint Venture/ Consortium or a sub-Contractors), the amount paid to the Consultant}, and the Consultant's role/involvement.

A - Consultant's Organization

1. Provide here a brief description of the background and organization of your company, and – in case of a Joint Venture/ Consortium or sub-Contractors – of each member for this assignment.

2. Include organizational chart, a list of Board of Directors etc., and beneficial ownership

B - Consultant's Experience

1. List only previous similar assignments successfully completed.

2. List only those assignments for which the Consultant was legally Contracted by Procuring Entities/ Organizations as a company/ firm or was one of the Joint Venture/ Consortium partners. Assignments completed by the Consultant's individual experts working privately or through other consulting firms cannot be claimed as the relevant experience of the Consultant, or that of the Consultant's partners or sub-Contractors, but can be claimed by the Experts themselves in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references.

- ~~3. In case of JV/Sub-consultant, to asses firm's experience, 50% weightage shall be assigned to the lead firm/ company whereas remaining 50% to the partner firm(s)/ company (ies) equally.~~

Narrative Evaluation Criteria

The proposals that meet the eligibility requirements will be evaluated using the following technical criteria and sub-criteria. Each component is designed to ensure a fair and transparent selection process in accordance with ADB's Quality- and Cost-Based Selection (QCBS) method.

1 Relevant Experience of the Firm – Maximum 30 points

The consultants shall demonstrate relevant experience as provided below. In case of joint venture one partner individually or all partners collectively may fulfill the requirement however, the lead partner shall have experience in transport planning.

- i. Experience in public transport planning, particularly operational design – 2 ~~2.5~~ points per project (Max: 10)
- ii. Experience in drafting technical specifications and procurement documentation for electric or hybrid buses – 2 ~~2.5~~ points per project (Max: 10)
- iii. Experience in civil/structural infrastructure designing for public transport depots particularly BRT or related projects – 2 ~~2.5~~ points per project (Max: 10)

2 Approach and Methodology – Maximum 25 points

- i. Understanding of objectives and ToR – 5 points
- ii. Methodology and alignment with project goals – 10 points
- iii. Stakeholder engagement and risk mitigation strategy – 5 points
- iv. Integration of innovative and sustainable solutions (e.g., solar, low-carbon) – 5 points

3 Work Plan and Deliverables – Maximum 10 points

- i. Work plan consistency with deliverables and timelines – 5 points
- ii. Logical sequencing and resource allocation – 5 points

4 Key Experts' Qualifications and Competence – Maximum 35 points

The proposed team will be evaluated on the basis of required qualifications (30% weight) and relevant experience (70% weight) for each of the following key experts:

- i. Team Leader – Public Transport Planner – 5 ~~10~~ points
- ii. Automotive / Mechanical Engineer – 5 points
- iii. Electrical Engineer – 5 points
- ~~iv. Structural Engineer – 5 points~~
- iv. Architect – 5 points
- v. Environmental Specialist – 5 points
- vi. Procurement Specialist – 5 points

5 Minimum Qualifying Technical Score

Only proposals scoring 70 points or more out of 100 will be considered for financial evaluation.

6 Financial and Combined Score Evaluation

The Combined Score (S) is computed as:

emissions. The consultant shall, but not limited to, prepare PM 2.5, PM 10, NOx, Sox etc.

4. Proposed Core Team

The Consultant to be engaged for this consultancy service shall appoint the following team of specialist apart from support staff:

- i. Team Leader (Public Transport Planner);
- ii. Automotive /Mechanical Engineer;
- iii. Electrical Engineer;
- iv. ~~Structural Engineer;~~
- v. Architect;
- vi. Environmental Specialist;
- vii. Procurement Specialist.

5. Report Submission

The consultant shall provide following reports each page duly signed by key expert and team leader:

- i. Technical and Functional Specification of Diesel Hybrid Buses and Electric Buses;
- ii. ~~Detailed~~ Preliminary Construction Drawings of Depot and Solar System;
- iii. Tender documents including all annexure, agreement, payment schedule etc. Both for Civil Works, Solar and Bus Manufacturing;
- iv. Technical and Financial Bid evaluation report;
- v. Monthly progress report;
- vi. Factory Acceptance Report and Site Acceptance Report;
- vii. Business Model Report;
- viii. Land Identification Report;
- ix. Capital, Operation and Maintenance Cost Report including Financial Model report for O&M costing;
- x. Chamkani and Mall of Hayatabad Depot Report on conversion to fit for Electrical Buses;
- xi. Environmental Report.
- xii. All BoQs, unit rate or any other data shall be handed over to TransPeshawar in editable source file.

6. Deliverables

The consultant shall be responsible for following deliverables:

- i. Report on final bus specifications of Diesel-Electric Hybrid and Electric buses and technical report;
- ii. Land identification and feasibility report for bus Depot;
- iii. Depot design package (conceptual and ~~detailed~~ preliminary construction drawings);
- iv. BOQs, cost estimates, and design drawings;
- v. RFP and tender documents for bus manufacturer procurement;
- vi. Technical Bid evaluation report for procurement of buses;
- vii. Final completion report with recommendations;

7. Minimum qualification and Experience required for project team

S.No.	Positions	Qualification	Experience	Term of Reference
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1.	Team Leader (Public Transport Planner)	Bachelor's/Master's in Civil Engineering, Transport Engineering, or Urban Planning	15+ years in project management, public transport planning, solar project execution, and contract management	Supervise overall project activity and must have excellent understanding of project management and experience in execution of solar projects and contract management.
2.	Automotive /Mechanical Engineer	Bachelor's in Mechanical or Automotive Engineering	10+ years in vehicle systems design, diesel/electric bus technology, and specification drafting	Review specification of Diesel hybrid buses and draft electric bus specification.
3.	Electrical Engineer	Bachelor's in Electrical or Power Engineering	10+ years in solar power systems design and electrical depot infrastructure	Design of solar project and electrical design of depot. Must have excellent understanding and experience of solar projects design.
4.	Structural-Engineer	Bachelor's in Civil/Structural-Engineering	10+ years in structural design of buildings and depots, experience with solar infrastructure	Design of structures/ depot. Must have excellent understanding and experience of building /depot design, solar projects design.
4.	Architect	Bachelor's in Architecture (B.Arch)	10+ years in architectural planning and design of public infrastructure like depots and buildings	Architectural design of building/ depot.
5.	Environmental Specialist	Bachelor's/Master's in Environmental Science/Engineering	5+ years in environmental assessments, social impact evaluations, and carbon footprint estimation	Evaluate environmental and social aspect of the project. Experience in estimation of carbon footprint savings.



TransPeshawar (The Urban Mobility Company)



www.transpeshawar.pk



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[t\Transpeshawar](https://twitter.com/Transpeshawar)

CORRIGENDUM

Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar Integration - Peshawar BRT

Date: June 18, 2025

IFB No. TPC/OPS/OCB/Consultancy-Buses/2024-25/012

1. Reference to TransPeshawar (The Urban Mobility Company) advertisement regarding “**Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar Integration - Peshawar BRT**” published in The News, Daily Khabrain, and Daily Jung dated **June 6, 2025**.
2. The deadline for submission of proposal is extended and rescheduled as **June 30, 2025 02:30 PM (PST)**. Technical proposals will be opened on same day, **June 30, 2025, 02:45 PM (PST)**, in the presence of the consultants or their authorized representatives, who choose to attend.
3. Minor revisions in the RFP relating to evaluation criteria, TOR etc., have also been made. The corrigendum to the effect may be inspected at the websites of TransPeshawar (<http://transpeshawar.pk/>) and KPPRA (<http://www.kppra.gov.pk/>).
4. Other terms and conditions shall remain the same.

Chief Executive Officer, TransPeshawar (The Urban Mobility Company)

TransPeshawar Head Office First (1st) Floor, Main BRT Depot,

Opposite NHA Complex, Khyber Pakhtunkhwa.

Contact Number: 091-2621393-5

Corrigendum

To

REQUEST FOR PROPOSAL (RFP)

for

**Technical Consultancy for Bus Specification, Procurement, Depot Design, and Solar
Integration – Peshawar BRT**

Procuring Entity: TransPeshawar (The Urban Mobility Company)
Ref. No.: *TPC/OPS/OCB/Consultancy-Buses/2024-25/012*
Issued on: *June 18, 2025*

14.2	The Contract shall be “Lump Sum” Contract and the method of Selection shall be Quality and Cost Based Selection.
14.3	The estimated budget for the assignment is PKR. 27.3 million (inclusive of taxes) and contract shall be awarded on lump sum basis with payments linked to delivery of specified outputs and deliverables as defined in Term of Reference. The project budget is not fixed based.
15.3	The Consultant shall be required to submit the Technical Proposal in accordance with Section 2. Submission of the Technical Proposal in a wrong format may lead to the Proposal being deemed non-responsive to the RFP requirements.
16.1	<p>This is a lump sum consultancy contract; therefore, the Consultant is required to propose a single lump sum price that includes all costs related to the performance of the Services, including but not limited to remuneration, out of pocket expenses, per diem allowances, travel, accommodation, office overheads, backstopping support, taxes, profits and communication expenses.</p> <p>Financial proposal shall include breakdown of cost on given formats provided in Section 3 for information purposes only. This breakdown shall not be used for financial evaluation of payment purposes.</p>

16.2	A price adjustment provision, especially w.r.t changes in taxes/ rates/ fees/ duties if any, applies to remuneration rates or lump sum price: Price adjustment shall not be applicable.
16.2 & 16.3	“Information on the Consultant’s tax obligations can be found as per Income Tax Ordinance and KPRA sales Tax.
16.4	The Financial Proposal shall be stated in the following currencies: Consultant shall express the price for the Services in Pak Rupees
C. Submission, Opening and Evaluation	
17.1	The Consultants shall not have the option of submitting their Proposals electronically.
17.4	The Consultant must submit: (a) Technical Proposal: one (01) original and one (01) copy in hard and one (01) copy in soft; (b) Financial Proposal: one (1) original.
17.7 and 17.9	<p>The Proposals must be submitted no later than: Date: June 24, 2025 June 30, 2025 Time: 11:30 AM (PST) 02:30 PM (PST)</p> <hr/> <p>Technical proposals will be opened on the same day (June 24, 2025 June 30, 2025) at 11:45 AM (PST) 02:45 PM (PST) in the presence of the representatives of the Consultants who may choose to attend.</p>

17.9	The Proposal submission address is: Reception Desk TransPeshawar Office First Floor KPUMA Building Main BRT Depot Chamkani, GT Road Peshawar
19.1	An online option of the opening of the Technical Proposals is offered: Attending opening of technical proposal online will be allowed subject to request.
19.2	In addition, the following information will be read aloud at the opening of the Technical Proposals. Presence or absence of affidavit of bid security in technical proposal will be announced. Moreover, the consultants will be informed that financial proposals of technically qualified firms will be opened and financial proposals of technically unqualified firms will be returned after completion of the procurement process

21.1

Technical proposal will be assessed against the eligibility criteria stipulated under ITC 6.1. Technical Proposal qualifying eligibility criteria will be declared as responsive proposal. Responsive proposal will be evaluated against technical criteria, sub-criteria stipulated below.

Criteria	Sub-Criteria	Max. Points
1. Relevant Experience		30
	1.1.Experience of Consulting services pertaining to Public Transport Planning (Operational Plan & Design) Each project carries 2 2.5 marks	10
	1.2.Experience of Bus Procurement (The similarity of projects shall be assessed based on providing consultancy services for determination of specification for public transport electric or hybrid buses, testing of prototype, development of bidding documents, and procurement of electric or hybrid buses for projects to have project cost of PKR. Of	10

		500.00 million or more. Each project carries 02 2.5 marks		
		1.3.Experience of public transport infrastructure (depot design or related civil infrastructure projects). One project carries two 2.5 marks	10	
	2. Approach and Methodology		25	
		2.1 Understanding of the ToR and objectives	5	
		2.2 Quality and feasibility of the proposed methodology/work plan	10	
		2.3 Stakeholder consultation plan and risk management strategy	5	
		2.4 Innovation and sustainability measures (e.g., solar integration, carbon reduction)	5	
	3. Work Plan and Deliverables		10	
		3.1 Detailed work plan aligned with deliverables and timeline	5	
		3.2 Logical sequencing and resource allocation	5	
	4. Team Composition and Qualification	<i>each position number corresponds to the same for Key Experts in Form TECH-5 to be prepared by the Consultant}</i> 30% weightage will be given to matching qualification and 70% to experience as described in the TORs.	35	
	Position K1	4.1 Team Leader – Public Transport Planner	5	
	Position K2	4.2 Automotive/Mechanical Engineer	5	
	Position K3	4.3 Electrical Engineer	5	

	The publication will be done in accordance with KPPRA
30.1	The consultant is required to submit bid security to the amount of 2% of total cost of financial proposal in shape of Call deposit receipt (CDR) from any schedule bank of Pakistan in the name of Chief Executive Officer, TransPeshawar.
31.1	Successful consultant shall be required to submit Stamp duty (under Stamp Duty Act 1899) within three days of the demand by the procuring Entity for signing of contract.
32.1	The successful consultant shall be under an obligation to submit performance security 10% in the form of CDR/DD/PO/ Bank Guarantee within 10 days of issuance of Letter of Award by PE.

Narrative Evaluation Criteria

The proposals that meet the eligibility requirements will be evaluated using the following technical criteria and sub-criteria. Each component is designed to ensure a fair and transparent selection process in accordance with ADB's Quality- and Cost-Based Selection (QCBS) method.

1 Relevant Experience of the Firm – Maximum 30 points

- i. Experience in public transport planning, particularly operational design – 2 **2.5** points per project (Max: 10)
- ii. Experience in drafting technical specifications and procurement documentation for electric or hybrid buses – 2 **2.5** points per project (Max: 10)
- iii. Experience in civil/structural infrastructure designing for public transport depots particularly BRT or related projects – 2 **2.5** points per project (Max: 10)

2 Approach and Methodology – Maximum 25 points

- i. Understanding of objectives and ToR – 5 points
- ii. Methodology and alignment with project goals – 10 points
- iii. Stakeholder engagement and risk mitigation strategy – 5 points
- iv. Integration of innovative and sustainable solutions (e.g., solar, low-carbon) – 5 points

3 Work Plan and Deliverables – Maximum 10 points

- i. Work plan consistency with deliverables and timelines – 5 points
- ii. Logical sequencing and resource allocation – 5 points

4 Key Experts' Qualifications and Competence – Maximum 35 points

The proposed team will be evaluated on the basis of required qualifications (30% weight) and relevant experience (70% weight) for each of the following key experts:

- i. Team Leader – Public Transport Planner – 5 points
- ii. Automotive / Mechanical Engineer – 5 points
- iii. Electrical Engineer – 5 points
- iv. Structural Engineer – 5 points
- v. Architect – 5 points
- vi. Environmental Specialist – 5 points
- vii. Procurement Specialist – 5 points

5 Minimum Qualifying Technical Score

Only proposals scoring 70 points or more out of 100 will be considered for financial evaluation.

6 Financial and Combined Score Evaluation

The Combined Score (S) is computed as:

1. Background

TransPeshawar (The Urban Mobility Company) intends to procure 50 Diesel-Electric Hybrid Buses and 100 Electric buses to expand its BRT fleet, improve service coverage, and reduce carbon emissions. The project includes (i) the review and refinement of specifications for diesel-Hybrid buses, drafting of specification for electric buses, identification of suitable land and design of depot in Peshawar, and support in the selection of bus manufacturer; (ii) Consultancy services are required to support technical, procurement, and operational aspects of this initiative. The services of consultant required under this Term of References (TOR) are on need basis /intermittent basis.

2. Objectives

The main objective of the consultancy services is to assist TransPeshawar in:

- i. Reviewing and finalizing the technical specifications of the Diesel-Electric hybrid buses and electric buses suitable for ZU Peshawar BRT System.
- ii. Identification of suitable land and design of bus depot for additional fleet deployment in ZU Peshawar BRT System.
- iii. ~~Detailed~~ preliminary design for installation of renewable energy at depot.
- iv. Preparation of bidding documents, procurement support and contract management for induction of additional fleet.
- v. Factory Acceptance Test (FAT) and Site Acceptance Test (SAT) of the additional fleet.
- vi. Capital, operation and maintenance cost estimations for (a) bus fleet (b) alternate energy (c) Depot

3. Scope of Services

Scope of Services for this study is organized in to the following major tasks as listed and summarized below:

Task 1: Review and finalization of Bus Specifications (Diesel-Electric hybrid buses)

Review existing specifications of Diesel-Electric hybrid BRT buses currently in use and finalize specification of new buses to ensure compatibility with current BRT infrastructure, ITS, Automated Fare Collection (AFC) system, Platform Screen Doors and other system required for operations.

- i. Consult stakeholders (operators, manufacturers, technical teams) for further suggestions.
- ii. Evaluate and suggest changes to the current bus specifications based on latest technology and stakeholder recommendations (if feasible) and submit final recommended specifications. Recommend warranty period, battery size, interface design with PSD, ITS, Public Address System, UHF, Wifi etc. as part of specifications.
- iii. Finalize charger specifications and post review upgrade in system if any, spare parts package, tools & equipment and relevant items required during operation and maintenance stage.
- iv. Review of Bus ITS and data transmission procedure (Vehicle Logic Unit, Router etc.) and recommendations.
- v. Bus specifications shall attract 3-5 bus manufacturers in bidding process.
- vi. Compatibility of bus doors, floor level etc. with existing infrastructure.

Task 2: Finalization of Bus Specifications (Electric buses)

Finalize specification of new electric buses to ensure compatibility with current BRT infrastructure, ITS, Automated Fare Collection (AFC) system and other system required for

operations further.

- i. Consult stakeholders (operators, manufacturers, technical teams) for suggestions and feedback.
- ii. Suggest changes to the functional specifications of current buses (Air curtains, automatic passenger counter, driver surveillance etc. based on latest technology and stakeholder recommendations and submit final recommended specifications. Recommend warranty, battery size, interface design with PSD, ITS, Public Address System, UHF, Wifi etc. as part of specification.
- iii. Finalize charger specifications, spare parts package, tools & equipment and relevant items required during operation and maintenance stage.
- iv. Review of Bus ITS and data transmission procedure (Vehicle Logic Unit, Router etc.) and recommendations.
- v. Bus specification shall attract 3-5 bus manufacturers in bidding process.
- vi. Compatibility of bus doors, floor level etc. with existing civil work infrastructure.

Task 3: Land Identification for Depot

The consultant shall be responsible for following sub tasks:

- i. Conduct land area assessment based on ZU Peshawar System requirement, bus depot facilities for operations including operational maneuvering, maintenance and overnight parking for 150 buses. Identify and evaluate at least four potential sites in Peshawar area based on land cost analysis, dead mileage, availability of land parcel size, ownership, accessibility, availability of nearest grid station, flood risk, environmental impact, land acquisition issues etc. Keeping in view dead mileage of buses, potential area may be in close proximity of Shah Alam BRT Terminal or Kohat Adda or any other site adjacent to the Corridor.
- ii. Consultant shall visit and collect relevant record of the identified locations for depot from the Government of Khyber Pakhtunkhwa Revenue Department. Consultant shall also conduct survey for availability of Government owned land in the vicinity of above identified locations and BRT corridor.
- iii. Recommend the most viable site based on detailed availability analysis.

Task 4: Design of Bus Depot for Electric Buses

Review existing conceptional design of Chamkani Depot currently in use and draft and prepare new bus depot design for additional fleet for electric buses.

- i. Consult stakeholders (operators, manufacturers, technical teams) for future requirement, assessment and suggestions.
- ii. Evaluate and suggest changes to the current bus depot based on recommendations for electric buses and stakeholder recommendations (if feasible).
- iii. Prepare conceptual, and ~~detailed~~ **preliminary** designs (civil, electrical, mechanical, IT works etc.) for the depot which must include facilities such as:
 - Parking bays
 - Maintenance workshops
 - Inspection pits
 - Electrical and Mechanical equipment in depot
 - Administrative building /offices building
 - Street light design
 - Pavement

- Pavement markings
 - Water supply
 - Electrical Room
 - CCTV
 - Store
 - Driver rest area
 - Drainage System, Sewerage line and sewerage treatment plan
 - Bus washing and fueling station, charging stations
 - Greenbelt
 - Backup power (Generator etc.)
 - Security Watch tower(s) and boundary wall
 - Staff amenities (offices, washrooms, cafeteria etc.)
 - Ensure alignment with sustainability, energy efficiency, and safety standards.
 - Any other electrical and mechanical equipment, civil works etc. which is required for depot operations.
- iv. Evaluation of dedicated power supply from the nearest grid station based on the electric load analysis of the power consumption of depot.
 - v. ~~Detailed designed~~ Preliminary design shall be prepared based on Applicable Laws, and best international practices for depots (safety & health etc).
 - vi. ~~Prepare detailed stamped construction drawings duly marked “issued for tendering” and “issued for construction”.~~
 - vii. Prepare BOQs, unit rate and cost estimates in accordance with MRS and prevailing market rates including utilities cost, consultancies charges, landscaping, waste management etc.

Task 5: Preliminary and Detailed Design of the Solar System for New Depot

The Consultant shall execute the following sub task:

- i. Proposed solution based on SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis or other methodology;
- ii. Stakeholder consultations for ~~detailed~~ preliminary design of water supply for cleaning, power supply etc.
- iii. Modelling of solar system design for depot;
- iv. Design of solar system shall be aesthetically acceptable to TransPeshawar;
- v. Prepare preliminary design /drawings for solarization of the depot;
- vi. ~~Detailed~~ Preliminary Engineering Design / Layout of Solar System including detailed equipment list, BoQ for depot and capital cost estimates;
- vii. Estimate technical requirement, BoQ and other specifications related to interface requirement with national grid system;
- viii. Calculation of inverters including but not limited to solar panels, inverters and civil works required for system load;
- ix. Propose grid connectivity and net metering requirements and infrastructure considerations;
- x. ~~Detailed~~ preliminary Civil Structure Design for holding of solar system for depot with ample clearance for bus operation underneath or sideways as the case may be;
- xi. Ensure safety requirements in design;

- xii. Identify technical and financial risk in design and implementation and proposed mitigation measures accordingly based on best international practices;
- xiii. Detailed Specification of each equipment and cables used in solar system for depot;
- xiv. Ensure compliance with NEPRA, AEDB, and other applicable standards in design;
- xv. Preparation of test required to be conducted by solar contractor at delivery and commissioning of the system.

Task 6: Procurement support for Procurement of Buses and Contract Management of Bus Manufacturer Contract

The consultant shall execute following sub tasks:

- i. Develop procurement strategy for selecting a qualified bus manufacturer for buses through tendering.
- ii. Conduct and carry out complete procurement process from document preparation to EOI until submission of evaluation of bid. The consultant shall ensure that the scope of bid, evaluation/ qualification criteria are unambiguous and adequately covered in bidding documents while preparing such documents;
- iii. Preparation of EOI (Expression of Interest), pre-qualification of bidder (if required), invitation to bid, response to bidder queries, participation in pre-bid meeting, pre-bid meeting minutes and corrigendum (if required);
- iv. Draft Request for Proposal /bidding documents for procurement of buses along with Annexure, agreement, payment schedules, Letter of Award, technical and financial evaluation criteria etc.
- v. Draft tender documents for construction of civil works including Annexure, agreement, payment schedules, Letter of Award, technical and financial evaluation criteria etc.
- vi. Carry out and provide support in technical and financial bid evaluation in hiring of bus manufacturer.
- vii. Ensure specifications compliance and integration with current bus fleet including hybrid technology, ITS, AFC and warranty terms.
- viii. Bid evaluation report of the participated bidders.
- ix. Responding and approval of any technical nature to manufacturer from contract signing till delivery of buses.
- x. Addressing the Grievance under KPPRA if raised during any process of the procurement activity.
- xi. Maintain audit files for bus manufacturing contract which include contract, correspondence, changes/ deviation, amendments, clarifications, amendments etc.
- vii. Review and approval of preliminary and detailed design of electric buses, Diesel-Hybrid Buses and bus ITS system submitted by the bus manufacturer including allied sub systems.
- xii. Vetting of invoices prior to submitting to TransPeshawar and submitting along with progress report.

Task 7: Assessment for Converting of Chamkani and Hayatabad Depot for Electric Buses.

- i. The consultant shall conduct detailed assessment of power consumption, load assessment, charging pattern of buses and existing infrastructure (charger, charging panel etc.), Chamkani and Mall of Hayatabad depots.
- ii. The assessment report shall be submitted covering the requirements /modification to the existing depot infrastructure (charger, charger panel, infrastructure for load enhancement etc.) to meet the requirement of electric buses charging and load.

- iii. The consultant shall estimate the cost required to convert the exiting depot infrastructure to make it use for fully electric buses as per respective capacity.

Task 8: Testing and Commissioning of Buses

- i. The consultant shall devise detailed testing for FAT and SAT in prior to prototype manufacturing. The requirements shall not be limited to durability, efficiency, strength and performance tests but also includes testing based on Peshawar climate and road conditions.
- ii. The consultant shall inspect prototype bus in manufacturing country. The consultant shall submit Factory Inspection Testing (FAT) report to the manufacturer and TransPeshawar along with any recommendation /observations. ~~TransPeshawar will bear the cost of accommodation and economy air fare of two professionals to visit the factory for prototype bus testing, preferably automobile expert /vehicle expert and bus ITS expert~~ TransPeshawar will bear the cost of accommodation and economy air fare only of three professionals (automobile expert /vehicle expert and any other relevant expert/professional), as approved by TransPeshawar, to visit the factory for prototype bus testing.
- iii. On arrival of buses to Peshawar, the consultant shall conduct Site Acceptance Test (SAT) of buses and confirm bus manufacturing in accordance with approved design, specifications and prototype bus. The consultant shall conduct the Pre Delivery Inspection (PDI) in Peshawar and submit the PDI report of all buses to TransPeshawar before take-over of buses.

Task 9: Capital Cost of the Project

The consultant shall submit the capital cost estimates with breakup which includes cost of buses, depot, solar, land, utilities cost, dedicated power grid cost etc. The consultant shall compare financial bid with reserve price in bid evaluation report and recommend value for money and efficiency.

Task 10: Business Model for Implementation of the Project

The consultant shall conduct option analysis for implementation of the project for civil works /depot works and buses as follows:

- i. Engineering Procurement Construction verses procurement construction model for civil works;
- ii. Procurement of buses by (a) Government purchase buses and handover to operator through separate tender. (b) Combine procurement of buses with operation and maintenance by private sector with capital cost paid upon delivery acceptance at Peshawar. (c) Procurement, operations and maintenance by private sector with all cost built in per kilometer rate.
- iii. Packaging / clubbing of activities of Solar Works construction, solar operation and maintenance with bus operator activities.

The Consultant shall conduct Strengths, Weakness, Opportunities and Threats (SWOT) analysis or any other procedure and recommend model to TransPeshawar which are suitable for the city. The consultant shall keep in mind the problem faced in similar projects in Pakistan and recommend the way forward following international best practices.

Task 11: Operation and Maintenance Cost of Buses

The Consultant shall estimate operations and maintenance cost and recommend reserve price per kilometer for Diesel hybrid buses and electric buses based on prevailing rates and CPI Index. Furthermore, the Consultant shall recommend cost adjustment mechanism for kilometer payment each separately for diesel hybrid buses and diesel electric buses. The Consultant shall also draft detailed functional specifications for operation and maintenance of electric buses.

Task 12: Environmental Assessment of the Project

Consultant shall prepare environmental assessment of the project covering benefits of the

project from electric /diesel hybrid buses, solar energy, estimation of carbon footprints, methodology used for carbon estimation /greenhouse gas reduction, social benefits of the project etc. **The consultant is required to prepare excel based environmental assessment estimating potential corban footprints and positive environmental impacts based on environmental saving and carbon emissions. The consultant shall, but not limited to, prepare PM 2.5, PM 10, NOx, Sox etc.**

4. Proposed Core Team

The Consultant to be engaged for this consultancy service shall appoint the following team of specialist apart from support staff:

- i. Team Leader (Public Transport Planner);
- ii. Automotive /Mechanical Engineer;
- iii. Electrical Engineer;
- iv. Structural Engineer;
- v. Architect;
- vi. Environmental Specialist;
- vii. Procurement Specialist.

5. Report Submission

The consultant shall provide following reports each page duly signed by key expert and team leader:

- i. Technical and Functional Specification of Diesel Hybrid Buses and Electric Buses;
- ii. ~~Detailed~~ **Preliminary** Construction Drawings of Depot and Solar System;
- iii. Tender documents including all annexure, agreement, payment schedule etc. Both for Civil Works, Solar and Bus Manufacturing;
- iv. Technical and Financial Bid evaluation report;
- v. Monthly progress report;
- vi. Factory Acceptance Report and Site Acceptance Report;
- vii. Business Model Report;
- viii. Land Identification Report;
- ix. Capital, Operation and Maintenance Cost Report including Financial Model report for O&M costing;
- x. Chamkani and Mall of Hayatabad Depot Report on conversion to fit for Electrical Buses;
- xi. Environmental Report.
- xii. All BoQs, unit rate or any other data shall be handed over to TransPeshawar in editable source file.

6. Deliverables

The consultant shall be responsible for following deliverables:

- i. Report on final bus specifications of Diesel-Electric Hybrid and Electric buses and technical report;
- ii. Land identification and feasibility report for bus Depot;
- iii. Depot design package (conceptual and ~~detailed~~ **preliminary** construction drawings);
- iv. BOQs, cost estimates, and design drawings;
- v. RFP and tender documents for bus manufacturer procurement;
- vi. Technical Bid evaluation report for procurement of buses;

- vii. Final completion report with recommendations;

7. Minimum qualification and Experience required for project team

S.No.	Positions	Qualification	Experience	Term of Reference
1.	Team Leader (Public Transport Planner)	Bachelor's/Master's in Civil Engineering, Transport Engineering, or Urban Planning	15+ years in project management, public transport planning, solar project execution, and contract management	Supervise overall project activity and must have excellent understanding of project management and experience in execution of solar projects and contract management.
2.	Automotive /Mechanical Engineer	Bachelor's in Mechanical or Automotive Engineering	10+ years in vehicle systems design, diesel/electric bus technology, and specification drafting	Review specification of Diesel hybrid buses and draft electric bus specification.
3.	Electrical Engineer	Bachelor's in Electrical or Power Engineering	10+ years in solar power systems design and electrical depot infrastructure	Design of solar project and electrical design of depot. Must have excellent understanding and experience of solar projects design.
4.	Structural Engineer	Bachelor's in Civil/Structural Engineering	10+ years in structural design of buildings and depots, experience with solar infrastructure	Design of structures/ depot. Must have excellent understanding and experience of building /depot design, solar projects design.
5.	Architect	Bachelor's in Architecture (B.Arch)	10+ years in architectural planning and design of public infrastructure like depots and buildings	Architectural design of building/ depot.

6.	Environmental Specialist	Bachelor's/Master's in Environmental Science/Engineering	5+ years in environmental assessments, social impact evaluations, and carbon footprint estimation	Evaluate environmental and social aspect of the project. Experience in estimation of carbon footprint savings.
7.	Procurement Specialist	Bachelor's in Procurement, Business Administration, or Engineering	5+ years in procurement processes, bid evaluation, and contract management in infrastructure projects	Conduct procurement activities for the project and do contract management to the limit explained in TOR.

8. Duration of Consultancy Services

Timeline from contract signing.

Sr	Deliverable	Task	Duration
1	First Report: Preliminary report covering finalizing bus specifications, complete preparation of tender documents for procurement of buses and business model report and launch of tender document.	Compliance of Task 1, Task 2, Task 6 (Partial), Task 10.	Draft reports 10 days, final reports 15 days (15 days)
2	Second Report: Land identification for depot, detailed preliminary design of depot, design of solar system and tender documents for depot construction including solar.	Task 3, Task 4, Task 5, Task 6,	2 months
3	Third Report: Interim Report covering capital costs, operation and maintenance cost, environment report, and Chamkani/ MOH depot cost report, Evaluation of Bids	Task 7, Task 9, Task 11, Task 12	3 months
4	Fourth Report: Testing & Commissioning Report including Prototype testing	Task 8	Linked with prototype readiness and arrival of buses 6 to 20 months
5	Fifth Report: Final report covering all tasks and responsibility of the Terms of References.		20 months
	Total		20 months