



EXPRO National Manual for Projects Management

Volume 6, chapter 3

Development of Service Requisition - Procedure



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Development of Service Requisition - Procedure

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1.0 PURPOSE

The purpose of this procedure is to define the Engineering activities relating to the preparation of Scope of Work to convey Engineering instructions to the Contracts Department in the formation of Request for Proposal (RFP) through to Engineering input in the preparation of Conformed Contract and post award support to Contracts administrator.

2.0 SCOPE

This procedure applies to Contracts initiated by the Engineering for Engineering Only Services. This procedure does not apply to the Construction-only Contracts initiated by the Construction. Engineering provides required design input to construction only packages.

3.0 DEFINITIONS

Item	Definition
DDSR	Document and Data Submittal Requirements
ECMS	Enterprise Content Management System
ENTITY	A Saudi Government organization which is responsible for the delivery of government funded infrastructure construction projects.
ECMS	Enterprise Content Management System
EPC	Engineering, Procurement and Construction
NMPM	National Manual for Project Management
PC	Project Controls
QA/QC	Quality Assurance/Quality Control
RFP	Request for Proposal
SOW	Scope of Work
SQ	Supplier Quality
SR	Service Requisition
TQ	Technical Query

3.1 Acronyms

ITEM	Definition
DDSR	Document and Data Submittal Requirements
ECMS	Enterprise Content Management System
EPC	Engineering, Procurement and Construction
NMPM	National Manual for Project Management
PC	Project Controls
QA/QC	Quality Assurance/Quality Control
RFP	Request for Proposal
SOW	Scope of Work
SQ	Supplier Quality
SR	Service Requisition
TQ	Technical Query

4.0 REFERENCES

- EPM-KE0-PR-000001 – Development and Implementation of Design Standards Procedure
- EPM-KE0-PR-000004 - Engineering Contract Close Out Procedure
- EPM-KE0-PR-000002 - Design Review Procedure
- EPM-EN0-PL-000001 - Technical Standardization Plan
- EPM-KE0-PR-000009 - Design Change Notice Procedure
- EPM-KE0-GL-000015 - Project Submission Standards and Requirements
- EPM-KE0-GL-000016 - General Design Guideline
- EPM-KE0-TP-000008– Document and Data Submittal Requirements Template



5.0 PROCESS

Entity initiates the contract formation cycle through the preparation of a Service Requisition (SR) which provides the Contracts Department the Engineering Requirements for RFP/ Conformed Contract. The Service Requisition includes Scope of Work (SOW), drawings, specifications, Pricing Schedule, Quality Requirements, etc. The technical documents included in a SR along with other Contracts documents such as terms and conditions, Health, Safety, Security and Environment (HSSE) requirements, permits, etc. culminates in to RFP and, subsequently in to the Contract. Besides SR the Engineering will also provide technical input to some other documents that form the RFP/ Conformed Contract. Depending upon the package the Scope of Work, parts of SR, may also require input from other departments such as Construction and Project Controls. Refer to the NMPM, Volume 4 (Project Contracts and Tending) for the make-up of RFP package and Engineering input required for various parts of RFP/ Conformed Contract package.

The SR originator determines the necessity for interdisciplinary/ interdepartmental coordination in the preparation of SOW. It is recommended that a review meeting be held at the initiation of a contract package to confirm contract scope definition with all involved engineering disciplines and other departments.

SOW is issued with a cover sheet, refer to **Attachment 1**, to this procedure for the template for the cover sheet, along with technical documents (specification, drawings, templates, procedures, etc.) required to fully describe the services required from the Contractor. Document numbers with revision number of documents included in the SOW must be listed in it.

5.1 Contractor Contact

Throughout the bidding process, including the period when the bid documents are being prepared, Entity shall avoid direct contact with any bidder except through Contract Department who will be the single-point-of-contact with bidders during the Bid/Evaluate/Award (BEA) cycle. Entity shall direct any bidder communications/questions to Contracts.

5.2 Scope of Work Content

The scope of work document is to be checked using checklist included in the **Attachment 4**. The scope of work document, included in Part 5 of RFP/ Confirmed Contract, should not contain or establish design information which shall be covered by drawings, specifications, procedures, templates, etc. to be included as appendices to the SOW document. However, in cases where it is necessary to provide technical or design information in the Scope of Work, reference to the suitable design document shall be made, with the design document becoming an appendix to the SOW. Similarly, the schedule and pricing information shall not be included in the SOW document. The schedule and pricing information for a RFP is developed by the Project Control department and included in other parts of RFP/ Conformed package, refer to Volume 4 for details. However, Engineering shall provide input to the Project Controls/ Contracts in the development of Contract pricing data in terms of Engineered quantities. SOW document shall align with the pricing table of the Contract.

The Scope of Work document with associated technical documents (specification, drawings, data sheets, etc.) and other technical requirements such as document submittal requirements are packaged together and issued as Part 5 of the RFP/ Contract package.

A typical Scope of Work outline is illustrated in Part 5 – Typical Scope of Work and Technical Specifications, **Attachment 2** to this Procedure. The Scope of Work becomes part of RFP Part 5 and subsequently part of the Contract. The completed Part 5 shall be transmitted by the SR and incorporated into the RFP and contract by the Contract Department.

5.2.1 Specifications, Data Sheets, and Drawings

Scope of Work along with Specifications, Data Sheets, Drawings etc. defines the technical requirements established by Engineering with support from Construction, Project Controls, Contracts, etc. as required. Applicable specifications, Data Sheets; Drawings, Document Submittal Requirements, etc. are included as Appendices to the Scope of Work (Part 5) – **Attachment 2**, as indicated in the table below:



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Table – Appendices to Part 5 of SR

SN	Document Title	Preparation Responsibility	
		Lead	Support
1	Part 5 – Scope of Work and Technical Specifications	E	C
2	Appendix 5-1: Document and Data Submittal Requirements (DDSR)	E	C
3	Appendix 5-2: Data Sheet(s)	E	
4	Appendix 5-3: Supplier Quality (SQ) Requirements	E	SQ
5	Appendix 5-4: Entity Furnished Permits	E	C
6	Appendix 5-5: Changes to Standard Specifications	E	
7	Appendix 5-6: List of Drawings and other documents	E	
Legend: E- Engineering, C – Construction, SQ – Supplier Quality			

The preferred method of using technical specifications is to use them “as-is” and list them as attachments to RFP Part 5. Any project-specific deviations shall be addressed in an appendix (not an attachment) to the Part 5 titled Changes to Standard Specifications. If there are significant deviations to the standard specification(s), preparing a project specification is acceptable if approved by the Entity.

Technical requirements can be defined/supplemented with drawings and documents. Scoping drawings are recommended to clearly define the subcontractor's work responsibilities. Any drawings to be included in the package shall be included in Part 5 as Appendix 5-6; interfacing requirements shall be clearly identified.

5.2.2 Contractor Document Submittal Requirements

Document and Data Submittal Requirements (DDSR) Template, **Attachment 3** (Document No. EPM-KE0-TP-000008) provides guidance on selecting appropriate documentation to be provided by the contractor and is included as an appendix to RFP Part 5. A single DDSR form shall be developed to include all submittal requirements related to a contract package.

5.2.3 Quality Management System and Quality Surveillance Requirements

If the technical specifications do not adequately specify the engineering Quality Management System (QMS) requirements, these shall be included as an Appendix to scope of work document. The extent of Quality Surveillance required shall be coordinated with the Quality group and indicated in the appropriate box on the SR cover sheet (**Attachment 1**).

5.2.4 Optional Scope

Any optional scope shall be defined separately and included as a separate section at the end of Section 1.0 of RFP Part 5 in RFP. Contracts adds pricing terms for the optional work scope to RFP Part 4.

5.3 The SR Processing and Coordination

The SR Originator is responsible for coordinating interdepartmental technical input during all phases of the SR/RFP/ contract process. This includes coordinating the supplier quality and surveillance requirements, subcontractor shop inspection requirements, and technical bid evaluation. Input from other functional groups, such as Construction, Contracts, and Project Controls, should be obtained when completing the SR form.

A checker shall review all technical requirements and approves the SR following resolution and incorporation of any comments.

The SR originator shall evaluate and review items pertinent to the reviewing group's area of responsibility and shall ensure that interdisciplinary and interdepartmental coordination has occurred and all comments have been resolved prior to issuing SR to the Engineering Manager for approval.



5.4 Documentation Control Requirements

5.4.1 Numbering

SRs are assigned numbers by the ECMS group in accordance with the Entity's Document Numbering System. A number assigned to an SR that is subsequently deleted shall not be reused. If an SR is split prior to bidding, at least one new SR shall be created and assigned new SR number.

If it becomes necessary to divide the award of the services on an SR between two or more contractors, the original SR is updated with the revised scope of work and a new SR created for the balance of the work. Contracts makes modifications as required to conform the documents to the contract numbering convention and to comply with contract formation requirements.

5.4.2 SR Distribution and Retention

ECMS team is responsible for transmitting the approved SR including any appendices and attachments to the Contracts in accordance with Entity's ECMS procedures.

5.4.3 SR Revisions

The initial SR submittal triggers both the bidder selection process (bid list development) and commencement of RFP development. Any technical revisions incorporated during the SR review period and prior to issuing the RFP for bid shall be clearly identified using alpha revisions (e.g., SR Revision B, SR Revision C). Any impact in the quantity or cost due to SR revision shall be identified and coordinated with Project Control and approval obtained before SR revision is progressed for further action.

On approval for award, all contractor-agreed changes are documented as SR Revision 0 with all technical content reviewed and approved for award.

Any change following award approval shall be clearly identified using numerical revisions (e.g., SR Revision 1, SR Revision 2). Any change, including those initiated by Contracts or Engineering, shall be incorporated into the appropriate SR document; only the revised portions of the SR package need be transmitted to the project ECMS for retention and distribution. If there are substantial changes to the SR package during any revision, preparing a conformed SR package is recommended.

All SR revisions shall be clearly identified in the "Remarks" section of the SR form. In addition, the current SR revision number shall be identified on all SR pages, whether changed or not. Revisions shall be checked, reviewed, and approved in the same manner as the original issue. A revision to the SR is required for all changes to the RFP or contract scope and documentation.

5.5 Technical Bid Evaluation Plan

For all contracts, it is especially important that the impartiality of the evaluation process be documented. For complex contracts, a formal, detailed evaluation plan shall be prepared and approved before the RFP is issued to bidders. Originator shall prepare the technical portion of the bid evaluation plan and obtain approval of the Engineering Manager. This technical evaluation plan shall identify the criteria to be used by Engineering to compare bidders' proposals.

The technical bid evaluation plan should identify the documents required for submittal and should determine evaluation criteria for each submittal. Documentation submittals required for proposal evaluation (e.g., data sheets, drawings, catalog cuts) shall be listed in the DDSR provided to the Contracts.

Technical evaluation of the proposal documents establishes the basis for Engineering's recommendation of technically acceptable bidders. These submittals should provide sufficient technical data to evaluate the bidder's equipment, materials, processes, staff, execution plan, and organizational ability, as appropriate.



5.6 RFP Processing

Contracts is responsible for assembly of the RFP and for additional coordination of in-house reviews of the documents, if necessary after the initial submittal. Contracts consolidates all information and documents provided by Engineering and the other involved functional groups, develops the RFP package and issues the RFP to those firms on the approved bidders list.

Any revision to the SR and RFP document shall be performed in accordance with Section 5.4.3 of this procedure.

5.7 Bid Clarification

All questions to/from bidders shall be submitted to Contracts in writing. Contracts forwards questions involving technical aspects to the Originator who shall subsequently develop responses, obtain approval of the Engineering Manager and forward the responses to Contracts for transmittal back to the bidders.

Once the RFP has been issued, a meeting with prospective bidders may be held by Contracts to provide clarification of RFP requirements. When meetings of this nature are held, the SR Originator and/or Engineering Manager shall participate. The SR Originator shall provide agenda discussion points to Contracts, as appropriate, so that scope, design, and specification requirements are correctly presented and understood.

5.8 RFP Revision (After Issued for Bid/Pre-Award)

If it becomes necessary to change any requirements after the RFP has been issued for bid, Contracts issues an addendum to the RFP to all bidders. If technical requirements contained in drawings or specifications are to be changed, the Originator initiates the changes and has them reviewed, approved, and issued by the project ECMS in accordance with the approved procedure for that document. For each addendum, the Originator shall initiate a SR revision to notify Contracts of the change.

5.9 Contract Award

After all bids have been reviewed, Contracts is responsible for collecting all completed bid evaluations (including technical, pricing, and contractual) and preparing a letter of recommendation for award for Entity's approval.

The Originator shall incorporate any changes to the Scope of Work, specifications and drawings (RFP Part 5), or other technical documents resulting from addenda to the RFP, revisions to the bid evaluation, or negotiations with bidders. The Originator shall revise the technical documents in accordance with the documents' applicable procedure, in support of the award.

Upon Entity's approval of the award, Engineering shall transmit the revised technical package to Contracts via SR Revision 0, Issued for Award. Contracts shall then consolidate the contract documents for signature and execution by the contracting parties.

5.10 Contract Administration (Post-Award)

During contract execution, the work is managed by the Contracts group. Engineering is responsible for supporting the administration of the awarded contract until final closeout and completion. When the work is solely technical or engineering scope only, Engineering has primary responsibility for the technical administration of the contract.

5.10.1 Post-Award Meetings (Engineering Package)

For engineering or design-only contracts, a kickoff meeting with the successful bidder is recommended and may be held at the Entity or Contractor's office. This meeting occurs prior to authorizing the contractor to proceed with work and involves a detailed discussion of the technical and commercial implementation requirements of the contract. The Originator/ Lead Discipline Engineer shall assist Contracts in developing the agenda for the meeting and coordinate all technical aspects of the meeting with Contracts.

5.10.2 Post-Award Meetings (Construction Package)



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For construction contracts with an engineering component, a kickoff meeting is recommended and may be held with the contractor at the jobsite prior to mobilization. A pre-construction meeting typically takes place with the contractor at the jobsite prior to mobilization. This meeting occurs prior to authorizing the contractor to proceed with work and involves a detailed discussion of the technical and commercial implementation requirements of the contract. Construction and Contracts have primary responsibility for developing an agenda and coordinating the discussion topics with the appropriate functional groups. Where design is a significant element of a contract, the SR Originator shall participate in this meeting to ensure that the design requirements and technical aspects of the contract are adequately addressed.

5.10.3 Correspondence

All contacts with the contractor, including Technical Queries (TQ's), e-mail, other written correspondence, and telephone correspondence are transmitted through Contracts. TQ's shall be processed in accordance with Procedure for TQ's.

If direct telephone contact between Engineering and the contractor is necessary, Contracts shall be advised prior to the call and shall either facilitate the call, participate in the call, or inform Engineering to proceed with the call without the presence of Contracts. The essential features of the discussion shall be documented and transmitted to Contracts for filing.

5.10.4 Contract Changes (Post-Award)

To mitigate uncontrolled changes and potential claims in a contract, Contracts administers all changes and contractor interfaces. Engineering shall ensure that comments made to the contractor or on contractor documents do not authorize a change to the contract. For those cases where Engineering believes that any of the above have potential cost or schedule implications or present cost alternatives, the Originator/Lead Discipline Engineer shall so advise Contracts.

6.0 ATTACHMENTS

1. Attachment 1: EPM-KE0-TP-000030 - Service Requisition Cover Sheet Template
2. Attachment 2: EPM-KE0-TP-000031 - Scope of Work and Technical Specifications Template
3. Attachment 3: EPM-KE0-TP-000008 - Document and Data Submittal Requirements Template
4. Attachment 4: EPM-KE0-TP-000022 - Engineering Scope of Work Checklist



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Attachment 1: EPM-KE0-TP-000030 - Service Requisition Cover Sheet Template

SERVICE REQUISITION		
SR Type: ☐ Original ☐ Change	SDN No.:	SR Date:
Project Name/No.:	Contract No.:	
Contract Title:		
Pricing Method (LS/UP/CR/T&M):	Work Area:	
In Scope of the Project? ☐ Yes ☐ No	Non-Competitive Bid Justification required? ☐ Yes ☐ No	
Scope Summary:		
Supplier Quality Surveillance Requirements (to be coordinated with Supplier Quality Department)		
☐ 0 None ☐ 1 Final Only ☐ 2 Limited Scope ☐ 3 Full Scope ☐ 4 Resident		
Schedule		
Issue for Bid:	Pre-Bid Meeting:	Bid Due:
Subcontract Award:	Start Work:	Complete Work:
Other		
Proposed Contractors:		
Exhibit C Revision Required? ☐ Yes ☐ No	Budget Value:	
Optional Field 1		
Optional Field 2		
Remarks:		
Approvals		
Requestor:	Checker:	
Approver:	Engineering/Construction:	
Project Controls:	Contracts:	
ATTACHMENT \$		

Contracting Entity Project Name



Attachment 2: EPM-KE0-TP-000031 - Scope of Work and Technical Specifications Template



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**Scope of Work and Technical Specifications
Template**

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Scope of Work and Technical Specifications Template

NOTE: The yellow highlighted texts below define the input required from the Entity, text in *Italics* provide guide to the Entity in developing the input. Normal text is the suggested write-up Entity may use as is or modify to suit scope of every Project. Entity to refer to General Engineering Services and Engineering Services RFP templates for the guide in the preparation of this document.

1.0 PROJECT SCOPE

Entity to provide the description of facilities to be designed by the bidders and any tie-up requirements with existing facilities.

Define and describe scope of the project including location, details of facilities/ buildings, existing site conditions, limits of work, etc. Avoid providing technical details of the facilities if the same information is available on other documents such as Specifications, Drawings, Data Sheets, Reports, etc.

If a separate Scope of Project document(s) exists, provide brief description of the Project(s) in this section and include the document in Appendix 5-1 along with other relevant data/ documents, which will help bidders in understanding overall scope.

2.0 DEFINITIONS & ABBREVIATIONS

Entity to provide explanation of any acronyms used in this document

Provided below is a sample of general abbreviations:

- ADAG : Americans with Disabilities Act Guidelines
- A/E : Architect/ Engineer



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Scope of Work and Technical Specifications Template

- ANSI : American National Standards Institute
- ASTM : American Society for Testing and Materials
- BEDD : Basic Engineering Design Data
- BLDG : Building
- BOQ : Bill of Quantities
- CAPEX : Capital Expenditure Project
- CCTV : Closed Circuit Television
- CSI : Construction Specification Institute
- DBR : Design Basis Report
- DCN : Drawing Change Notice
- DRM : Design Review Meeting
- EPC : Engineering Procurement Construction
- SOW : Scope of Services

3.0 SCOPE OF WORK

The Contract Scope of Work (SOW) covers the detailed engineering design and other services required for the existing/ new infrastructure facilities of the First Party. This section provides general requirements and the details of the design services required of the First Party.

4.1 General Requirements:

Work scopes will be issued through Task Orders by the First Party defining the scope of services of the Second Party for each Task Order. The scope of services for each task order will be as defined in the Task Order and in



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Scope of Work and Technical Specifications Template

accordance with all applicable requirements defined in this Contract. Refer to the Part 4 of the Contract for the details on the management of Task Orders.

In general, the engineering/ design services shall include some or all of Architectural, Civil, Structural, Geotechnical, Electrical, Mechanical, Extra Low Voltage (BMS, IT, Security, Fire Detection, etc.) and Environmental disciplines as applicable for every Task Order. The Design Progress will undergo formal design review process at 30%, 60%, 90% and 100% as defined in the document No EPM-KE0-PR-000002, Procedure Design Review.

The First Party may issue with Task Orders a set of design guidelines of applicable disciplines for use by the Second Party as a guide for developing project/ task specific basis of design/ design criteria.

The list of design deliverables and data to be developed by the Second Party for each of the tasks orders shall be in accordance with the applicable deliverables included in the lists below:

1. Document No. EPM-KEA-RG-000001 List of Architectural Deliverables
2. Document No. EPM-KEC-RG-000002 List of Civil Deliverables
3. Document No. EPM-KEE-RG-000001 List of Electrical Deliverables
4. Document No. EPM-KEE-RG-000002 List of ELV Deliverables
5. Document No. EPM-KEM-RG-000001 List of Mechanical Deliverables
6. Document No. EPM-KES-RG-000001 List of Structural Deliverables

The scope shall also include obtaining all required local certifications/ approvals and all coordination's with other stakeholders such as SEC, NWC, SASO, Civil Defense, etc.

4.2 Project Design and Engineering Services

In general, the scope of design services may include, but not limited to, the following:



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Scope of Work and Technical Specifications Template

1. Research, investigation, collect, compile, review, verify and validate information such as existing data, studies, reports and other information as required
2. Prepare preliminary and detailed cost estimates for different phases/ stages of design including material take-offs
3. Preparation of design basis report, design criteria, specifications and standard installation details
4. Calculations, reports and detailed construction drawings for all applicable disciplines
5. Preparation of supply/ install bid packages
6. Preparation of design quantities (concrete, steel, pipes, doors, windows, fixtures, equipment, etc.)
7. Preparation and/ or review of shop/ fabrication drawings such as steel/ re-bar fabrication drawings
8. Building design shall include, unless noted otherwise, all architectural fittings, siding/ roofing, electrical lighting, grounding/ equipotential bonding, ventilation, HVAC, FADS, etc.
9. Provide QC and QA deliverables as applicable to the scope
10. Provide value Engineering and any other design services as required by the First Party

4.3 Site Investigation Services:

The scope of field/ site investigation services could include, but not limited to, the following:

1. Conduct site walk down to familiarize with the existing site/ access/ limits of the work/ interfaces with others
2. Obtain required data from other contracts that are in design phase or construction phase with which work of this Contract must interface
3. Develop or verify site as built data as necessary
4. Produce boundary & topographical surveys of above and underground existing utilities and site spot levels, roads, drainage, etc.
5. Review existing Geotechnical engineering (subsurface sampling, test pits and borings) data and request additional tests required for analysis and to produce interpretive report for use during design



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Scope of Work and Technical Specifications Template

4.4 Performance of Specific Studies

Certain studies may have to be performed for planning/ permitting/ design purposes. The scope of Second Party in the performance of such studies or in the management if the studies are to be done by other specialty consultants may include, but not limited to, the following:

- Feasibility studies / reports
- Master planning
- Programming, space planning
- Traffic and other site analyses
- Concept design
- Cost estimate / validation
- Code Analysis
- Power/ Utility Usage Projections, etc.
- Acoustic Studies
- Seismic analysis
- Environmental Studies

4.5 Support during Construction Contract Tender Phase

The following are the typical engineering activities required of the Second Party during the Construction Contract Tender Stage:

- Responding to bidder's technical queries
- Evaluation of bidders Technical Proposals
- Issue any revision/ addendum to the Issued technical documents
- Prepare conformed Scope of Work for award

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Scope of Work and Technical Specifications Template

4.6 Engineering Support during Construction/Testing & Commissioning

Following are the typical engineering support activities, which may have to be carried out from the construction site office, required during construction, but not limited to:

- Review and approval of Construction Contractor/ suppliers submittals
- Respond to site Technical Queries
- Attend Factory Acceptance Test (FAT)
- Provide input to the Design/ Field Change Notices as required
- As-built services.

4.7 General Engineering Support

Second Party may be required to perform from time to time variety of miscellaneous engineering/ design/ support tasks such as:

1. Support during the planning/ approval phase of the project such site studies, development of the drawings/ sketches, execution schedule, permits, etc. required to progress the Project approval gate process
2. Site walk to familiarize with the site, performing studies with consideration of the site conditions, safe operation of all systems, preliminary calculations, establishment of rights of way, establishing a basis for the project design, evaluating options and providing recommendations
3. Perform day to day miscellaneous design tasks and other support services as required. The day to day design tasks will include providing technical definitions for anticipated projects, modifications and minor improvements to their existing facilities in addition to performing repetitive tasks
4. Provide the First Party the engineering staff augmentation in the field of engineering and architectural if the staff need duration of the work is not long enough to justify direct hiring by the First Party.

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Scope of Work and Technical Specifications Template

4.0 RELEASE OF TASKS (WORK ORDERS)

Following is an indicative plan for the task orders that may be released by the First Party to the Second Party during the execution of this contract.

Sample of Task Order List (Entry to include task order details based on its five year plan)

Item No	Task Title	Task Type (Design, Study Site Investigation, etc.)	Description of the Task	Estimated award time
1	Miscellaneous tasks	General Engineering support	Provide Engineering Support to the Project planning group in the development of work scope, preliminary drawings/ sketches, estimate, etc. required for task approvals	Oct 2018
2	Office building expansion	Design	Addition of five office rooms and two toilet blocks to the existing site office at xxx	Dec 2018
3	Waste Water Plant Installation	Design	Develop RFP for EPC services to design, procure, install, test and commission a WTP at xxx	Mar 2019
4	Site Development	Site Investigation and Design	Review existing Geotechnical data, and if required, request additional investigation, collect and study existing as well as ongoing project design in	Aug 2020



Scope of Work and Technical Specifications Template

			adjacent area to develop complete design of 1.2 km of access road	
4				

Refer to Part 3 of the Contract for the Task Order form Template to be used by the First Party for obtaining the proposal from the Second Party. As a minimum, the Task request will contain following information for the Second Party to fully understand the task requirements and submit its proposal accordingly:

1. Description of the scope of the facility and services required
2. Relevant documents such as project reports, limits of work, site data, sketches, basis of basis, applicable specifications, etc.
3. Required output – Construction Drawings, Standards, Bid Package, etc.
4. Any other information necessary to define the scope of task

The Second Party will review the Task and submit its proposal in the Template provided in Part 3 for each Task Request. Second Party's proposal for each Task, as a minimum, shall include:

- Detailed List of Deliverables by discipline to be produced by the Second Party
- Job-hour estimate, by deliverables broken down to each position (Manager, Senior Engineer, Designer, etc.)
- Detailed basis of job-hour estimate
- Details of the Third Party including its scope that the First Party will hire to support completion of its task
- List of all individuals who will perform the task with qualification and experience summary
- Schedule of issue of deliverables including stage reviews

The proposal shall be reviewed and following negotiation/ clarification, as necessary, formal Task Release Letter be issued authorizing the Second Party to commence the execution of the task, refer to Part 3 for details. Upon



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Issuance of a Task Order the Second Party will execute the task in accordance with the approved Task Order and this contract without impacting the completion date(s) as set forth in this contract.

Number of Task Orders may be released concurrently. The Second Party shall execute these tasks in parallel regardless of other tasks that Second Party may have been assigned and in progress.

5.0 WORK BY OTHERS

Entity to define tasks/ deliverables to be done by others.

This could include permitting, geotechnical tests, site investigation, site survey, permits, concept design, roads tie-ins, design of temporary facilities, etc.

6.0 OTHER REQUIREMENTS

6.1 Quality of Work

The Second Party shall submit to the First Party for review and approval its own Quality Assurance Plan, which the Second Party intends to implement on this project. The plan shall include its Quality Procedures and QC tools. The quality of work expected from the Second Party shall be in conformance with the approved Design Criteria/ Basis of Design, Specifications, Standard Drawings, SOW, etc.

6.2 Data and Document Submittal Requirements (DDSR):

Entity to identify the documents from the Appendix 5-2 required from the bidders in their proposals.

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As a minimum the Second Party should be asked to submit Project Execution Plan, its generic QC/ QA procedures, Experience summary, automation plan for the project listing design tools proposed for use and their integration, proposed organization, etc.

6.3 Use of Design Software

First Party recommends a list of Design Software to be used, as applicable, in the design of its scope. Second Party shall review the list and include in its proposal the list of the design software, be it in the First Party recommended list or not, that the Second Party will use in the execution of its scope under this contract. The list of recommended software from the Second Party will be reviewed and approved by the First Party and shall form a part of this Contract.

Refer to the Document No. EPM-KE0-RG-000009 for the List of Recommended software.

6.4 Design Reviews and Approval

All the Engineering deliverables and data, developed by the Second Party at each stage of the project (30%, 60%, etc.) including final deliverables shall be reviewed and approved by the First Party.

6.5 Engineering Input for Project/Task Cost Estimate

The Scope of Services includes the development of engineering quantities information required for the development of cost estimates by Project/ task as needed. The quantity estimate may be required for the planning/ approval purposes or for cost control during the execution. The estimates may be required at different stages of design development (10%, 30%, 60%, etc.).

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6.6 Coordination with Government Agencies and Others

Second Party to coordinate the design interfaces and all required approvals with third party entities (such as MEWA, SEC, MOT, Telecom service providers, etc.) having jurisdiction over the First Party's Projects. In addition, the Second Party shall also coordinate very closely with other Contractors involved in the First Party's other projects or with other projects having interface with First Party's Projects.

6.7 Location of Second Party Office

All the design services shall be carried out by the Second Party from *(Entity to provide the desired location(s))*

5.0 TECHNICAL SPECIFICATIONS (Attachments)

The following engineering specifications and technical documents form a part of the subcontract: *(entity to include the specifications to be used in the design)*

5.1 Specifications (Examples: General Project Specification, Commodity Standard Specification, Project Specific Specifications, etc.)

Specification No.	Revision	Title
-------------------	----------	-------

6.0 CHANGES TO STANDARD SPECIFICATIONS (Appendices)

The following documents contain deviations from the Standard Specifications and form part of the subcontract: (Note: If there are significant deviations to the standard specification(s), preparing a project specification is acceptable if approved by the Entity).



Scope of Work and Technical Specifications Template

Document No.	Revision	Title
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2.0 APPENDICES

5-1 Document and Data Submittal Requirements form (see EPM-KE0-TP-000008)

5-2 Data Sheets, if required

5-3 Quality Surveillance Requirements (template attached)

5-4 Entity Furnished Permits

5-5 Changes to Standard Specifications

5-6 List of Drawings and other Documents (a template attached)



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Scope of Work and Technical Specifications Template

PART 5 – APPENDIX 5-3 QUALITY SURVEILLANCE REQUIREMENTS

Level	Action Required
Level 0 No Quality Surveillance	No quality surveillance required.
Level 1 Final Only Quality Surveillance	As directed, initial visit and final quality surveillance witnessing prior to shipment. This level includes the initial visit when directed by the SQD and final quality surveillance(s) prior to release of material or equipment. The number of visits necessary for final quality surveillance varies with the amount of material or equipment on order as well as the lot size the Supplier presents for final quality surveillance.
Level 2 Limited Scope Quality Surveillance	This level includes routine coverage of witness and hold points at the frequency prescribed in the Quality Surveillance Plan (QSP), progressive reviews of quality documentation, and final quality surveillance witnessing prior to shipment. The instructions for Level 1 apply. Subsequent visits shall be made to verify witness and hold points. The number of visits necessary varies with the amount and frequency of witness and hold points as well as the number of final quality surveillances.



Scope of Work and Technical Specifications Template

Level	Action Required
Level 3 Full Scope Quality Surveillance	This level includes the progressive quality surveillance witnessing of Level 2 plus increased monitoring of various manufacturing operations and progressive reviews of the Supplier's quality program implementation as directed by the SQD. The instructions for Level 2 apply; however, additional visits are made periodically to perform quality surveillance activities required by the QSP or special instructions. If not established by the QSP, the quality history of the supplier may be used to determine the frequency of quality surveillance visits.
Level 4 Resident Quality Surveillance	This level entails the assignment of a full-time SQ representative. The scope of quality surveillance witnessing activities is as directed by the SQD. This is a full-time residency status for a specific assignment. Specific activities to be accomplished in residency status are outlined in the QSP.



Scope of Work and Technical Specifications Template

APPENDIX 5-6: DRAWING & OTHER DOCUMENT LIST TEMPLATE

The following drawings/Documents form a part of this subcontract:

Drawing/Document No.	Revision No.	Date	Title



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Attachment 3: EPM-KE0-TP-000008 - Document and Data Submittal Requirements Template

1.0 GENERAL

The following table indicates and identifies the minimum Document and Data Submittal Requirements (DDSR) for this Contract.

DDSR No.	Description	Submission Requirements & Schedule							
		A	B	C	D	E	F	G	H
		Submit Document With Proposal (Y/N)	Document Review Required Before Fabrication (Y/N)	Schedule for Submittal after PO Award (See Note 1)	Copies required Electronically/Hard copies (See Note 2)	Schedule for Submittal of Certified DWGs & Data (See Note 4)	Required in O&M Manual (Y/N)		Requirement Refer to Note 6
	DOCUMENT SUBMITTALS AND SCHEDULES								
1	An electronic list of all document submittals, identified by the Item Numbers of this form with an associated Seller submittal number.	I							
2	Manufacturing & Delivery Schedule (applicable for MR)								
3	Progress Reports								
	Quality Assurance (QA)/ Quality Control (QC)								
4	Quality Plan								
5	Quality Assurance Program								
6	Inspection & Test Plan (ITP)								
7	Quality Assurance Program per Contract Requirements (for contract packages only)								
8	Index to certified Manufacturer's Record Book (MRB)								
9	Certified Manufacturer's Record Book (MRB)								
	Environment, Safety and Health								
10	Equipment reliability checklist								
11	Documentation to achieve noise reduction measure to obtain ___dB(A)								
	TRANSPORT AND STORAGE								
12	Bill of Material/Packing List including sub tier BOM and								



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Attachment 4: EPM-KE0-TP-000022 - Engineering Scope of Work Checklist

(This checklist to be used by EPMO in the preparation of Service Requisition (SR) for the Design Scope)

PROJECT NAME:							
No.	QUESTIONS	ORIGINATOR			CHECKER		
		N/A	YES	NO	N/A	YES	NO
PROJECT & DESIGN SERVICE SCOPE							
1	Is the SR describing the complete Project Scope of Work (SOW) as applicable including but not limited to: a. Type of services (General Engineering Services, Package Design Services, Field Investigation, site support, etc.) b. Project location, building types, access road (S), above and underground services, external works, etc. c. Development of Quantity Take Offs d. Use of National Manual for Project Management	☐	☐	☐	☐	☐	☐
3	Are the exclusions & limits of work clearly defined	☐	☐	☐	☐	☐	☐
4	Is any required demolition work clearly defined	☐	☐	☐	☐	☐	☐
5	Are the Division of Responsibilities (A/E, EPC, EPMO, Third Parties, etc.) clearly defined	☐	☐	☐	☐	☐	☐
6	Are the battery limits of utility/ power limits clearly defined and marked on a plan	☐	☐	☐	☐	☐	☐
7	Does the SOW align with the Design Execution Plan e.g. packaging plan	☐	☐	☐	☐	☐	☐
8	Has the input from the Procurement & Construction taken	☐	☐	☐	☐	☐	☐
9	Does the SR list codes and standards to be used in the design	☐	☐	☐	☐	☐	☐
10	Is the Engineering schedule included and agreed with PC	☐	☐	☐	☐	☐	☐
11	QA/ QC requirements defined	☐	☐	☐	☐	☐	☐
12	Is the requirement of consideration of safety in the design included	☐	☐	☐	☐	☐	☐
Basic Design							
13	Is the Basis of Design provided or its development included in SOW	☐	☐	☐	☐	☐	☐
14	Is the Basic Engineering Design Document (BEDD) provided or its development included in SOW	☐	☐	☐	☐	☐	☐
15	Does SOW include Development of Design Criteria for applicable disciplines	☐	☐	☐	☐	☐	☐
16	Are the applicable Entity's Standard Specifications or their development included	☐	☐	☐	☐	☐	☐
17	Is the EIA impact on design included	☐	☐	☐	☐	☐	☐
18	Is existing site data provided or its investigation included in the SOW	☐	☐	☐	☐	☐	☐
Detail Design							
19	Is the list of types of deliverables to be developed included in the SR	☐	☐	☐	☐	☐	☐
20	Is the Design Review Procedure included in the SR	☐	☐	☐	☐	☐	☐
21	Is the list of Recommended Design software included in the SR	☐	☐	☐	☐	☐	☐



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22	Is the Engineering progress measurement method included in the SR	☐	☐	☐	☐	☐	☐
23	Is the Document Submittal Procedures included in the SR	☐	☐	☐	☐	☐	☐
24	Is the required Design support during tendering, construction and T&C defined	☐	☐	☐	☐	☐	☐
25	Is the Engineering Close out Procedure provided	☐	☐	☐	☐	☐	☐
No.	Reviewer's Comments (against the item)	Resolution					
Originator's Name / Signature and Date:		Checker's Name / Signature and Date:					