CLIENT'S NAME : BOTAŞ PETROLEUM PIPELINE CORPORATION 17.12.2018

PROJECT NAME AND NUMBER : TURKEY- GAS STORAGE EXPANSION PROJECT - P162727 / RFP No: CS-1-2

PROCUREMENT NAME AND LOAN NO : Supervision Consultancy Services (CS- 1-2) for Gas Storage Expansion Project

Loan No:8859-TR

## **REPLIES TO QUERIES AND CLARIFICATIONS (NO: 01)**

The provisions of this "Replies to Queries and Clarifications" are being issued to provide necessary clarifications on certain aspects of the Request for Proposal Documents in response to the queries or clarification requests sent by prospective Shortlisted Consultants in writing.

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
1	130	Section 7 Terms of Reference (TOR) Paragraph 5,6 Section 8 SCC 14.1	Please clarify the duration of Consultancy Services Contract.	As per Section 8 SCC 14.1 The duration of Consultancy Services Contract is 60 (sixty) months plus 12 (twelve) months of Defect Liability Period.	YES (Amendment No.1 in Addendum No.1)
2	74	_ ` '	Please provide further/detailed information for BOTAŞ project management team	Project Management Unit is BOTAS Storage Department. Organization Chart is attached	Attachment No.1
3	74-75	Section 7 Terms of Reference (TOR) Paragraph 5,6 ITC 14.1	Please clarify, whether defect liability period is included in the duration of Consultancy Services Contract or not.	Yes. Please refer to Amendment No.1 in Addendum No.1	YES
4	50-51	Section 3. Technical Proposal – Standard Forms TECH-5 & TECH-6 Forms	Please specify the deliverables.	The Shortlisted Consultants shall identify the deliverables in accordance with TOR Paragraph 6 Scope of Services and examples given in TECH-5 and TECH-6 Forms.	NO
5	35		It is stated that local cost should be calculated in local currency (Turkish Lira). Please clarify what local cost are.	The aggregate price of all Goods originated/manufactured in the Purchaser's country and all Services provided by residents of the Purchaser's country.	NO

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
6	36	Section 2-ITC 21.1	Participation by nationals among proposed Key Experts; what is the minimum number of nationals needed to acquire full points.	There is no minimum or maximum number specified by the Client. Participation by nationals among proposed Key Experts will be proposed by the Consultant. The score will be calculated as a ratio of the national Key Experts' time-input (in person-months) to the total number of Key Experts' time-input (in person-months) in the Consultant's Technical Proposal	NO
7	51-52	Section 3. Technical Proposal – Standard Forms TECH-6 Form, Note-3	Please clarify working at site for local key experts will be evaluated as field or home.	"Home" means work in the office in the expert's country of residence. "Field" work means work carried out in the Client's country or any other country outside the expert's country of residence.	NO
8	87	Section 7 Terms of Reference (TOR) Chapter 9 Table 1	Please clarify whether cementing and logging experts are Key Experts or not.	According to ITC 21.1 Item h) and i) and TOR Section 9 Table 1 well cementing and well logging experts are Key Experts.	YES (Amendment No.3 in Addendum No.1)
9			Please clarify that Client will use a common document management system together with the EPC Contractor or not.	BOTAŞ, EPC Contractor and the Consultant shall use a common document management system.	NO
10	87	Section 7 Terms of Reference (TOR) Chapter 9 Table 1	Please clarify the roles of Specialist Engineers for Geology? Is it well geologist or solution mining expert?	One Specialist Engineer for Geology will be responsible for drilling, completion and geological risk assessment and management of wells. (well geologist) Other Specialist Engineer for Geology will be responsible for solution mining, geological modelling, leaching supervision and geological risk assessment and management of caverns. (solution mining expert)	NO
11	35	Section 2. Data Sheet ITC 17.7 and 17.9 Section 8 SCC 14.1	Is any time extension for the Tender possible?	Time extension is granted.	YES (Amendment No.4 in Addendum No.1)
12	75	Section 7 - TOR Chapter 6 A1 - (i)	DETAILED DESIGN REVIEW; TOR - 6A1- i.  The Consultant shall review, verify and approve the detailed engineering documents and drawings prepared by the Contractor to ensure compliance with specification, performance criteria, operations and maintenance utility, and good industry practice during construction.  Based on the referenced section in the TOR regarding review, verification and approval of detailed engineering documents/drawings, the Client is kindly requested to clarify:  - considering the magnitude of detailed design deliverables to be issued by the Contractor, what is the intended depth/extend of the design review process: high level deliverables to be idetified by (or agreed with) the Client versus all design deliverables issued by the EPC Contractor will be reviewed and approved?	Please refer Terms of Reference (TOR) Part 6 Scope of Services.	NO

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
13	74	Section 7 - TOR Chapter 1	SCOPE; TOR - 7 Gas Storage Expansion Project construction is set to begin in 2018 and involves drilling up to 40 wells and 8 additional (spare) wells, which would raise total storage working gas capacity to approximately 5.4 Bcm, the daily maximum withdrawal capacity to 80 million Sm3and daily gas injection capacity to 60 million Sm3 Client is kindly requested to clarify if the 8 additional wells are also part of this Consultant scope of works?	Yes, Gas Storage Expansion Project construction involves drilling up to 40 wells and 8 additional (spare) wells and if 8 additional (spare) wells are drilled, this is in the scope of Consultancy Services.	NO
14	82	Section 7 - TOR Chapter 6 - B	TRAINING; TOR - 6 B The Consultant shall be in close coordination with the Client and shall transfer the technology and provide related training to the Client's Personnel. This shall cover the transfer of all software to the Client (including geological and geomechanical modelling, thermodynamic analysis, leaching, dewatering, gas operation, etc.) used during the design, execution and operation of the Facilities under the Service Contract, at no cost to the Client. However, the Client shall cover its personnel's travel and accommodation expenses for the trainings.  Based on the refereced, Client is kindly requested to clarify if Consultant can understand the Design, Execution and Operation of the Facilities as part of the responsibility of the EPC contract and thus, since Consultant do not know which software will be used, this required software will be given to BOTAS by the EPC Contractor?  Also, if is EPC Contractor responsability to provide the software, this will be also put at the disposal of Consultant?	Please see Section 7 TOR. Consultant shall have all necessary softwares in order to mitigate/execute scope of works of the Project defined in TOR Part 6.	NO
15	75 81	Section 7 - TOR Chapter - 6-A1 Chapter 6-A3-4	TRAINING & ASSISTANCE; A1 - General Services xxxii. The Consultant shall assist the staff of Client for operation of the first 12 caverns during the Defects Liability Period.  A3-4. Assistance during Gas Operation of the Facilities The Consultant shall assist and train staff of the Client during the operation of the Facilities covering all caverns completed. In RFP, Section 7 Terms of Reference" the Consultant is asked for assistance during Gas Operation of the Facilities is at one point referring to the first 12 caverns ("A. SERVICES DURING CONSTRUCTION AND INSTALLATION - A1. GENERAL SERVICES – Article xxxii") and in one part referring to all 40 caverns (A3-4. Assistance during Gas Operation of the Facilities). We would like to ask for clarification if assistance is asked for 12 caverns until the completion of the whole facilities or it is asked for assistance for operating 40 caverns during defect liability period.	Please see Section 7 TOR- 5 Implementation Schedule. "Each cavern will be put into operation individually when completed. Consultant will remain with the project through final hand over and during the Defects Liability Period." As per Section 8 SCC 14.1 The duration of Consultancy Services Contract is 60 (sixty) months plus 12 (twelve) months of Defect Liability Period.	NO

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
16	84	Section 7 - TOR Chapter 7.	TOR - 7. last paragraph: Upon the completion of Works, the Consultant shall submit all the original copies of correspondences, documents, test results and drawings relating to the services and the Expansion Facilities, to the Client together with indices in an acceptable files and forms by the Client and as archived. The Consultant shall keep the copies of the documents.  EPC tender document 02-DES-GENE-XX-1029-01 (part of the RFP) Chapter 1.1: A document control centre shall be established and all official documents that are used to communicate with Client and Contractor shall be released to the document control centre.	Please see Item No.9 above	NO
17	74, 75	Section 7 - TOR Chapter 4 & Chapter 6	PMU ORGANIZATION ;TOR-4 The Client will hold the overall project management responsibility through construction supervision, and retain control and financial responsibility for the Expansion Project. The Consultant shall assist and advice the Client as defined below and specifically when requested by the Client.  The Consultant shall support BOTAS in all aspects while BOTAS Gas Storage Department acts as "the Project Manager" (see definition in the World Bank's Standard Procurement Document - Request for Bids - Plant Design, Supply and Installation) and shall be responsible to carry out all duties envisaged in the Contractors' contract document.  TOR-6 The Client's Gas Storage Department acts as a Project Management Unit (PMU), with authority and responsibility for the implementation and coordination of the Project in Ankara as well as related staff and resources at the Project Site.  The Consultant will support the Project Management Unit and train Client staff on-site to perform the duties assigned to them to implement the Project. Based on the referenced sections of the TOR the Client is kindly requested, if possible, to clarify the composition of Client's team (disciplines, work locations etc.).	Please see Item No.2 above	NO

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
18	50,51	Section 3 - Form TECH-5 & Form TECH-6	DELIVERABLES; In FORM TECH 5-  1 List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client's approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.  The scope of work of Consultant as defined in Section 7 - TOR doesn't define any engineering or construction deliverable except comment sheets to the EPC documentation, weekly and monthly reports, MoM's and other documents not related with "EPC deliverables".  Therefore, Client shall clarify if this Form should be based on deliverables or not, and if yes, if the intended deliverables are limited to weekly and monthly reports and MoM's.  More specifically, Client is kindly requested to clarify what deliverables are required for the purpose of planning of Consultant's activities and inclusion into this Form 5 (and also FORM 6 as part of the staffing schedule which is also requested to be planned on deliverables basis)?  The Client is also asked if staffing planning based on activities or project components could also be acceptable to the Client?	Please see Item No.4 above	NO
19	50,51	Section 3 - Form TECH-5 & Form TECH-6	DELIVERABLES; In FORM TECH 5-  1 List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client's approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase. Since the definition of deliverables, as required in FORM TECH-5 WORK SCHEDULE AND PLANNING FOR DELIVERABLES is evaluated as not convenient for the definition and scheduling of the necessary tasks for supervision consultancy service, we would like to propose the definition of an action schedule as a project schedule of all necessary actions and connect the information of the involved Key- and Non-Key-Experts (as in FORM TECH-6 TEAM COMPOSITION, ASSIGNMENT, AND KEY EXPERTS' INPUTS). BOTAS is kindly asked for clarification.	Please see Item No.4 above	NO

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
20	74 & 129	Section 7 - TOR Chapter 5 & Section 8 - SCC Clause 12.1	SCHEDULE; TOR 5. The Gas Storage Expansion Project implementation period is between 6 to 7 years including defect liability period.  TOR 5: 2,000 days from the Effective Date for completion of Phase 4: Phase 4: Finishing of all 40 Caverns for Gas Operation  SCC 12.1: The time period shall be 60 (sixty) months.  There is a discrepancy between the referenced sections of the TOR regarding the duration and schedule for the Services and the Client is kindly requested to clarify:  - what is the duration foreseen for the services: (1) 6 to 7 years including defects liability period (TOR 5.); (2) 2000 days (TOR 5.); (3) 60 months (SCC 12.1);  - Furthermore, all referenced target dates in TOR are based on the assumption that construction work has started in 2018 and will be completed in Q4 of 2023. Considering the fact that, as of the date of this query, the contract for the the EPC Contractor has not been awarded yet, is there a revised schedule that the Consultant should take into account?	Please see Item No.1 above	NO
21	51 61 132	Section 3- Form TECH 6 Section 4- Form FIN 3 Section 8 - SCC Clause 42.1	COSTS; FORM TECH-6 Months are counted from the start of the assignment/mobilization. One (1) month equals twenty two (22) working (billable) days. One working (billable) day shall be not less than eight (8) working (billable) hours.  42.1 Payments for periods of less than one month shall be calculated on an hourly basis for actual time spent in the Consultant's home office and directly attributable to the Services (one hour being equivalent to 1/176th of a month) and on a calendar-day basis for time spent away from home office (one day being equivalent to 1/30th of a month). It is understood, that work in home office (Home) and at the project site (Field) shall be executed and the effort will be calculated in the portions of one (1) month, which equals twenty two (22) working (billable) days, where one working (billable) day shall be not less than eight (8) working (billable) hours (RFP, Section 3. Technical Proposal – Standard Forms, FORM TECH-6). Therefore the Person-month Remuneration Rate (Section 4. Financial Proposal – Standard Forms, FORM FIN-3) is for Home and Field is also based on one (1) month, which equals twenty two (22) working (billable) days, where one working (billable) day shall be not less than eight (8) working (billable) hours. Please also note that Special Conditions 42.1 is refering to a hourly calculation based on "one hour being equivalent to 1/176th of a month) and on a calendar-day basis for time spent away from home office (one day being equivalent to 1/30th of a month" for home office hours. The Client is kindly requested to clarify.	Please refer to SCC 42.1. "Payments for periods of less than one month shall be calculated on an hourly basis for actual time spent in the Consultant's home office and directly attributable to the Services (one hour being equivalent to 1/176th of a month) and on a calendar-day basis for time spent away from home office (one day being equivalent to 1/30th of a month)."	NO

No.	Bidding Document Page No.	Bidding Document Reference Clause	Query or Clarification Requested by the Prospective Shortlisted Consultants	Reply of the Client	Amendment in the Bidding Document is required  YES or NO (If "YES" Addendum No. 1 Provide Amendment Number)
22	84	Section 7 - TOR Chapter - 8.2	LOCAL SERVICES, FACILITIES BY THE CLIENT; 8.2. Local Services, Facilities The Client shall provide a 50 m2 (net) office at pipeline site camp areas with office furniture (excluding office equipment such as computer, printer, copy machine, etc.) and 2 rooms for 4 personnel for accommodation at the water supply and brine disposal pipeline and gas pipeline construction site near Aksaray until the completion of the Expansion Project  In the same manner, the Client shall provide a total 100 m2 (net) office with office furniture (excluding office equipment), accommodation rooms for 8 personnel and four phone lines to the Consultant through the Contractor at the Site The capacity for accommodation and food supply in the camp for the Key Personnel and Non-Key-Personnel, as given in RFP, Section 7 Terms of Reference, Article 8.2 Local Services, Facilities, is limited for 4 experts for water pipeline camp and further 8 experts for UGS facilities camp? Since the required personnel (Key- and additional Non-Key) at the project site will exceed the provided capacities, we would ask to increase the amount of accommodation and food supply to the required staffing level.	The Client shall provide 4 offices which are between 15 to 20 m2 with office furniture (excluding office equipment). In the same manner, accomadation rooms including heating, electricity, meal at site, water and wastewater services for 12 personnel will be provided.	YES (Amendment No.2 in Addendum No.1)
23	66	Section 4 - Form FIN 4	REIMBURSABLE EXPENSES; It is understood that Per Diem Allowance, as specified in Form FIN-4 BREAKDOWN OF REIMBURSABLE EXPENSES, will be paid for every day the expert is away from home office, including the travel days for outward and return journey. Client is kindly requested to clarify.	Please see FORM FIN-4 "BREAKDOWN OF REIMBURSABLE EXPENSES"  Per diem allowance is paid for each night the expert is required by the Contract to be away from his/her usual place of residence, including hotel, local transportation, meals, etc. for experts for every day of absence from the home office for the purposes of the Services. [Note: The Client will provide accommodation and meals for the experts within the premises at Project Site.]	NO
24	61-65	Section 4 - Form FIN 3	FINANCIAL FORM; The Client is kindly requested to clarify if "Appendix A. Financial Negotiations - Breakdown of Remuneration Rates" has to be submitted to the Client upon its request, after the Consultants bid has been evaluated as the Most Advantageous Proposal?	Please see ITC 28.8	NO
25		Section 2. Data Sheet ITC 17.7 and 17.9 Section 8. SCC 14.1	Due to upcoming Chritmas and New Year Holidays, we kindly ask for a time extension of 4 weeks for the submission date.	Please see Item No.11 above	YES (Amendment No.4 in Addendum No.1)

Attachment No.1 Organization Chart Of BOTAŞ

(end of Replies to Queries and Clarifications No.01)

CLIENT'S NAME :

TURKEY- GAS STORAGE EXPANSION PROJECT - P162727 / RFB No: CS-1-2

PROCUREMENT NAME AND LOAN NO:

PROJECT NAME AND NUMBER:

Supervision Consultancy Services (CS- 1-2) for Gas Storage Expansion Project Loan No:8859-TR

## **ADDENDUM NO: 01**

**BOTAŞ PETROLEUM PIPELINE CORPORATION** 

The provisions of this Addendum are being issued to modify or amend certain provisions of the "Request for Proposals" document as a result of changing circumstances or additional information being available from the Client or in response to the queries raised by the prospective Shortlisted Consultantss in writing. The Request for Proposal Documents are hereby amended as below:

Amendment No.	Bidding Document Page No.	Bidding Document Reference Clause / Subject	Clause in the Original Bidding Document	Amended Clause
1		Section 8 Part III. Special Conditions of Contract SCS 14.1/ Expiration of Contract	The time period shall be sixty (60) months.	The time period shall be sixty (60) months plus 12 (twelve) months of defect liability period.
2		Section 7 Terms of Reference (TOR) 8.2. Local Services, Facilities	In the same manner, the Client shall provide a total 100 m² (net) office with office furniture (excluding office equipment), accommodation rooms for 8 personnel and four phone lines to the Consultant through the Contractor at the Site.	In the same manner, the Client shall provide 4 office between 15 to 20 m2 with office furniture (excluding office equipment), accommodation rooms for 12 personnel and six phone lines to the Consultant through the Contractor at the Site.
3		Section 2-ITC 21.1 Section 7 Terms of Reference (TOR) Chapter 9 Table 1	a) Position K-1: [Project Manager-Team Leader] 8     b) Position K-2: [Chief Design Engineer] 6	a) Position K-1: [Project Manager-Team Leader] 7 b) Position K-2: [Chief Design Engineer ] 5 h) Position K-7a: [Specialist Engineer for Well Cementing]1 i) Position K-7b: [Specialist Engineer for Well Logging] 1 Please see Enclosure No. 1and 2
4	35,36	Section 2- Data Sheet ITC17.7 and 17.9	The Proposals must be submitted no later than: Date: 11 January 2019 Time: 03:00 p.m. (Turkey time)  Please add the following words in Turkish on the outer envelope "Do Not Open Before" - "Lütfen Belirtilen Tarihten Önce Açmayınız".  The Proposal submission address is:  Attention: BOTAŞ Petroleum Pipeline Corporation Haberleşme Müdürlüğü Address: Bilkent Plaza, 4. Cadde, A-2 Blok, Bilkent Floor/Room No: Ground Floor City: Ankara ZIP Code: 06800 Country: Republic of Turkey	The Proposals must be submitted no later than: Date: 18 January 2019 Time: 03:00 p.m. (Turkey time)  Please add the following words in Turkish on the outer envelope "Do Not Open Before" - "Lütfen Belirtilen Tarihten Önce Açmayınız".  The Proposal submission address is:  Attention: BOTAŞ Petroleum Pipeline Corporation Haberleşme Müdürlüğü Address: Bilkent Plaza, 4. Cadde, A-2 Blok, Bilkent Floor/Room No: Ground Floor City: Ankara ZIP Code: 06800 Country: Republic of Turkey

Amendment No.	Bidding Document Page No.	Bidding Document Reference Clause / Subject	Clause in the Original Bidding Document	Amended Clause
	36	Section 2- Data Sheet ITC 19.1	An online option of the opening of the Technical Proposals is offered: Yes _or No X  The opening shall take place at: Address: BOTAŞ Petroleum Pipeline Corporation Bilkent Plaza, 4. Cadde, A-2 Blok, Bilkent Floor/Room No: Konferans Salonu, Ground Floor City: Ankara ZIP Code: 06800 Country: Republic of Turkey Date: 11 January 2019 Time: 03:00 p.m. (Turkey time)	An online option of the opening of the Technical Proposals is offered: Yes _or No X  The opening shall take place at: Address: BOTAŞ Petroleum Pipeline Corporation Bilkent Plaza, 4. Cadde, A-2 Blok, Bilkent Floor/Room No: Konferans Salonu, Ground Floor City: Ankara ZIP Code: 06800 Country: Republic of Turkey Date: 18 January 2019 Time: 03:00 p.m. (Turkey time)
5	79	Section 7 Terms of Reference (TOR) Part 6 A2.Surface Facilities Services		Following provision is added: iii.The Consultant review, check and approve as-built projects.
6	79-80	Section 7 Terms of Reference (TOR) Part 6 A3-1.Well Drilling Services	iv. Supervise the relevant wireline logging operations and requested test (mini fracture tests)	iv. Supervise the relevant wireline logging operations and requested test (determine the mini fracture test intervals and approve the related reports) vi. The Consultant shall use wireline logs and drilling data to carryout well-to-well correlation and compare the design parameters. vii.The Consultant shall re-evaluate the basic design well locations. viii.The Consultant supervise/inspect cementing operation and approve cement quality reports.
7	80	Section 7 Terms of Reference (TOR) Part 6 A3-2.Services During Cavern Solution Mining	i. Supervise/check the field activities and reports iv.Supervise the regular and any additional cavern sonar surveys to intervenein case of interpretation doubts, and attend all sonar analysis meetings at the site. vii. Prepare 2D and 3D geomechanical analysis, predicting cavern behaviour separately and a part of a gallery x. Supervise Mechanical Integrity Test (MIT), report and assert readiness of the cavern for leaching	i. Supervise/check the field activities and approve daily leaching reports iv.Supervise the regular and any additional cavern sonar surveys to intervenein case of interpretation doubts, and attend all sonar analysis meetings at the site. Update the next leaching phase parameters accordingly. vii. Prepare and submit 3D single and multiple geomechanical analysis to predict caverns behaviour. x. Supervise Mechanical Integrity Test (MIT), approve MIT report and assert readiness of the cavern for leaching
8	80	Section 7 Terms of Reference (TOR) Part 6 A3-3.Services for First Gas Filling	i. Supervise/check the field activities and reports xi. Supervise installation of gas production strings and all wellhead related equipments xii. Supervise Gas Tightness Test (GTT), Cavern Acceptance Test (CAT), report and assert readiness of the cavern for gas operation	i. Supervise/check the field activities and approve dally reports xi. Supervise installation of gas production strings, packer, debrining strings and all wellhead related equipments. xii. Supervise Gas Tightness Test (GTT), Completion, Cavern Acceptance Test (CAT), approve daily reports and assert readiness of the cavern for gas operation xiii.Prepare and submit thermodynamical and geomechanical modellings analysis.

Amendment No.	Bidding Document Page No.	Bidding Document Reference Clause / Subject	Clause in the Original Bidding Document	Amended Clause
9	81	Section 7 Terms of Reference (TOR) Part 6 A3-4. Assistance during Gas Operation of the Facilities		Following provision is added: i.The Consultant shall assist and train staff of the Client during the operation of the Facilities covering all caverns completed. ii.Supervise the daily gas injection/withdrawal operation. iii.Compare the actual operation parameters with the parameters obtained from thermodynamical modeling at the end of injection and withdrawal seasons and submit an evaluation report.

Enclosure No. 1 Table 1

Enclosure No. 2 Table ITC-21.1

(end of Addendum No.1)

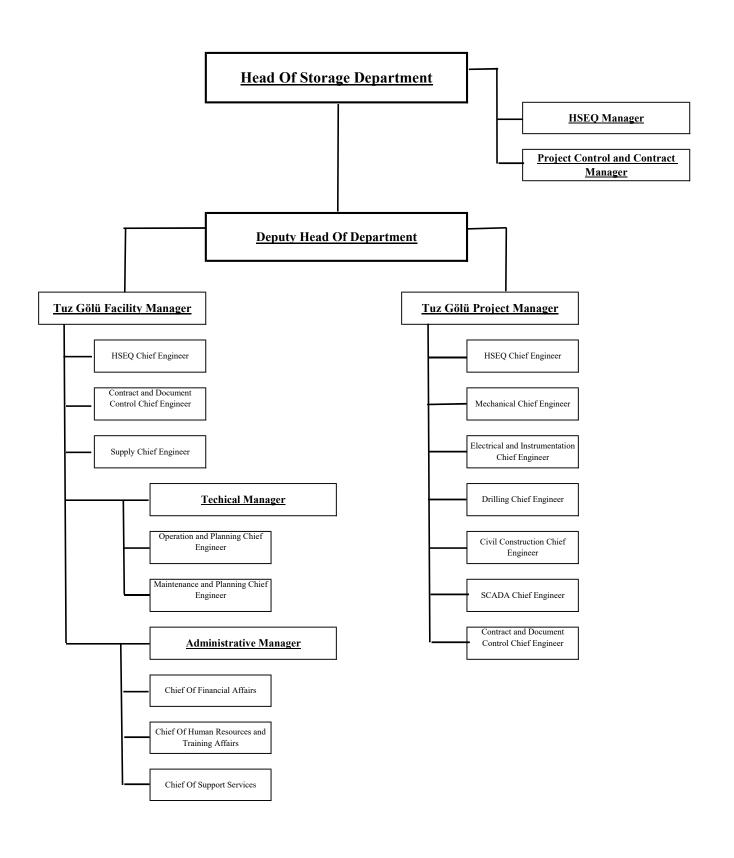


Table 1. Consultant Personnel, Number of Assignments and Years of Experience.

	POSITION	Number of Assignment	General Experience	Specific Experience
1	Project Manager (Team Leader)	1	20	15
2	Chief Design Engineer	1	15	10
3	Specialist Engineer for Geology	2	15	10
4	Specialist Engineer for UGS Geomechanics	1	15	10
5	Specialist Engineer for Pipelines	2	10	5
6	Supervisor for Drilling*, **	1	10	5
7	Specialist Engineer for Drilling*	6	10	5
7a	Specialist Engineer for Well Cementing**	1	10	5
7b	Specialist Engineer for Well Logging**	1	10	5
8	Process System Engineer for Leaching	4	15	10
9	Process System Engineer for Surface Facilities	2	15	10
10	Instrumentation Engineer	1	10	5
11	Specialist Engineer for Geophysics	1	10	5
12	Specialist Engineer for Snubbing and First Filling Operation	2	15	10
13	Specialist Engineer for Gas Injection/Withdrawal Operations	2	15	10
14	Specialist Engineer for SCADA and Telecom	1	15	10
15	Specialist Engineer for Electrical	1	15	10
16	Specialist Engineer for Mechanical Works	2	15	10
17	Quality Control Engineer	1	10	5
18	Contract Engineer	1	15	10
19	Environmental and Social Specialist	1	10	5
20	Specialist Engineer for Civil Works	2	10	5

21	Specialist Architect for Civil Works	1	10	5
22	Occupational Health and Safety Specialist**	2	10	5

<sup>\*</sup>at least two having IWCF/WellCAP certification.

<sup>\*\*</sup>during critical phases of drilling, completion, snubbing and first fill, consider expanding these specialist functions temporarily to be able to cover 24/7 coverage with day and night shift crews

ITC Reference	A. General		
21.1 (for FTP)	Criteria, sub-criteria, and point system for the evaluation of the Full Technical Proposals:		
(101 1 11 )	P	oints	
	(i) Specific experience of the Consultant (as a firm) relevant to the		
	Assignment:	5	
	(ii) Adequacy and quality of the proposed methodology, and work plan in responding to the Terms of Reference (TORs):	40	
	(iii) Key Experts' qualifications and competence for the Assignment:		
	{Notes to Consultant: each position number corresponds to the same fo Key Experts in Form TECH-6 to be prepared by the Consultant}	r the	
	a) Position K-1: [Project Manager-Team Leader]	7 5	
	<ul><li>b) Position K-2: [Chief Design Engineer]</li><li>c) Position K-3: [Specialist Engineer for Geology; 2 Experts]</li></ul>	2	
	d) Position K-4: [Specialist Engineer for UGS Geomechanics]	1	
	e) Position K-5: [Specialist Engineer for Pipelines; 2 Experts]	2	
	f) Position K-6: [Supervisor for Drilling]	1	
	g) Position K-7: [Specialist Engineer for Drilling; 6 Experts]	6	
	<ul><li>h) Position K-7a: [Specialist Engineer for Well Cementing]</li><li>i) Position K-7b: [Specialist Engineer for Well Logging]</li></ul>	1 1	
	j) Position K-76. [Specialist Engineer for Well Logging] j) Position K-8: [Process System Engineer for Leaching; 4 Experts	-	
	k) Position K-9: [Process System Engineer for Surface Facilities; 2		
	Experts]	2	
	l) Position K-10: [Instrumentation Engineer]	1	
	m) Position K-11: [Specialist Engineer for Geophysics]	1	
	n) Position K-12: [Specialist Engineer for Snubbing and First Filling 2.5]		
	<ul><li>Operation; 2 Experts]</li><li>o) Position K-13: [Specialist Engineer for Gas Injection/Withdrawa</li></ul>	2	
	Operations; 2 Experts]	2	
	p) Position K-14: [Specialist Engineer for SCADA and Telecom]	1	
	<i>q)</i> Position K-15:[ Specialist Engineer for Electrical]	1	
	r) Position K-16:[Specialist Engineer for Mechanical Works; 2		
	Experts ]	2	
	s) Position K-17: [Quality Control Engineer]	1	
	t) Position K-18: [Contract Engineer]	1	
	u) Position K-19: [Environmental and Social Specialist]	1	
	v) Position K-20: [Specialist Engineer for Civil Works; 2 Experts] w) Position K-21: [Specialist Architect for Civil Works]	2 1	
	x) Position K-22: [Occupational Health and Safety Specialist; 2	1	
	Experts]	2	
	Total points for criterion (iii):	50	

The number of points to be assigned to each of the above positions shall be determined considering the following three sub-criteria and relevant percentage weights:

1) General qualifications (general education, training, and experience):

20

- 2) Adequacy for the Assignment (relevant education, training, experience in the sector/similar assignments): 70
- 3) Relevant experience in the region (working level fluency in local language(s)/knowledge of local culture or administrative system, government organization, etc.):

  10

Total weight: 100%

In case more than one Key-Expert is requested for one position, each Key-Expert to be assigned the points equal to total points assigned to the relevant position divided by the number of Key-Expert requested for this Position.

(iv) Participation by nationals among proposed Key Experts

Total points for the four criteria:

100

5

The minimum technical score (St) required to pass is: 75