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TO:	All Bidders FAO Sales Managers	FROM:	Courtney Linley Chief, Procurement Section
DATE:	7 November 2017	REF.:	RFP No. 2017-0206/RAHMAN
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SUBJECT:	**Clarifications No. 2 – RFP No. 2017-0206/RAHMAN** "Independent Contractor to Construct an Equipment Storage and Maintenance Facility (ESMF) as per the attached Terms of Reference"		

Dear Sales Manager,

Please find attached responses to queries raised by interested bidders in respect of RFP No. 2017-0206/RAHMAN ("Independent Contractor to Construct an Equipment Storage and Maintenance Facility (ESMF) as per the attached Terms of Reference").

Please note that the lines in grey have already been answered in previous requests for clarifications and are reproduced here for ease of reference only.

Please take these responses into account in the preparation and submission of your proposal.

We are looking forward to receiving your proposal prior to the submission deadline on 17 November 2017, 17:00 hours, Vienna (Austria) local time.

Kind regards

Courtney Linley

Courtney Linley
Chief, Procurement Section

Nr.	Question/Comment	Suggestion/considered technical solution in offer	Discipline	Doc. Type	Doc. Name	Answer - CTBTO
1	Pipe and valve dimensions are missing from ventilation and heating/cooling drawings	The dimensions were roughly estimated based on the required demands written on the drawings	HVAC	Drawing		Pipe and valve dimensions of the main piping can be seen in the scheme.
2	Scheme does not fit to floor plans. Which is correct? (eg.: in TR01 room: two diffusers with one VFR and one extraction, on scheme shown differently)	Basis for our calculation were the floor plans	Ventilation	Drawing	7003-17_HKLS_Scheme-LÜ HKLS-ENT-102_eng	The suggested basis is acceptable.
3	Water supply, drainage and condensate pipes are completely missing from the drawings within the building.	A general sanitary and plumbing system was considered in the pricing without special technology related demand	Sanitary	Drawing	7003-17_HKLS-ENT-002-EG 7003-17_HKLS-ENT-003-1OG	The proposed solution is acceptable.
4	Ventilation duct routing in the shaft is different on floor plans and scheme	Floor plans were taken as basis for calculation	Ventilation	Drawing	7003-17_HKLS_Scheme-LÜ HKLS-ENT-102_eng	The proposed solution is acceptable.
5	Emergency (gas extraction) fan is shown on scheme in Tech room, but missing on ground floor plan in room and in the shaft. A more detailed description would be required about functionality and working principles. Is this an EX System?; Duct material?; what is the allowed air velocity?;		Ventilation	Drawing	7003-17_HKLS-ENT-002-EG	The ventilation unit must be designed according to the ÖNORM EN378
6	Are there any other emergency, technology or local ventilation systems in the building? (E.G. WC, Chemical or Technology extraction; Battery Charger Station; Fuel Storage; ...etc.) There are Yes/No requirements in the roombook list (20170407_roombook_list_user requirements.pdf) for gas extraction, but there is no further explanation	No additional ventilation system is considered in the pricing due to missing technical information	Ventilation	Drawing	7003-17_HKLS-ENT-002-EG 7003-17_HKLS_Scheme-LÜ-HKLS-ENT-102_eng 20170407_roombook_list_user requirements.pdf	The proposed suggession is acceptable. There are no further special ventilation units necessary.
7	Ventilation unit air flow difference on schema and in technical description (14.000 or 17.500 m3/h) - which is correct?	We calculated with 17.500 m3/h	Ventilation	Drawing	7003-17_HKLS_Scheme-LÜ HKLS-ENT-102_eng	The proposed solution is acceptable.
8	In what design software were the drawings created? (HVAC, Architecture, ELT). Can we get these drawings in source format?		General	Drawing		Plancal-file can be exported (size approximately 1GB).
9	Are there any requirements about the design softwares? (For HVAC, ELT, Architecture)	Plancal Nova, AutoCAD Cats, Revit?	General	Drawing		Plancal.
10	Are there any consumer needs for compressed air network? We have not seen this on plans. There are comments for demand in roombook list (20170407_roombook_list_user requirements.pdf) for ca 6bar.	Neither Compressed air piping nor air compressors are considered in the pricing	Compressed Air		20170407_roombook_list_user requirements.pdf	6Bar as defined in room book.
11	Were there any pipe network calculation made for rainwater network? Can we get these?		Rainwater			Not yet planned in detail
12	Are there heatload/heatloss calculations available?		Heating/Cooling			Heatload/heatloss is just an estimation, no detailed calculation are available.
13	What is the function of the third and smaller Soakaway / Sickerbox? (north western from the building)			Drawing	7003-17_HKLS-ENT-001-1UG	According to rainwater infiltration.
14	What is the function of the two Sickermulde areas? These are just green surfaces to eliminate rainwater from Asphalt surfaces?			Drawing	7003-17_HKLS-ENT-001-1UG	According to rainwater infiltration.
15	Where is the heating/cooling centre located?	In Tech room on Ground floor? (TECH FB02C 76,64 m2)	Heating/Cooling			In techroom (ground floor).
16	What kind of media and what for are they coming from (or going to) the separeted small building?		General	Drawing	7003-17_HKLS-ENT-001-1UG	Cold water / electricity.

17	Which kind of lines are coming in (or going out from) the existing terrain?		General	Drawing	7003-17_HKLS-ENT-001-1UG	The AIT provides a "clear site" that has no lines crossing. There could be some electrical lines, but these will be disconnected by the AIT. Also see Question 67.
18	How big is the available water pressure on site, and what is the available water intensity for consumption? (This information is essential for calculations!)	It is assumed, that the avaliable water pressure and amount conforms the requirements of the potable water consumers	Sanitary	Drawing	7003-17_HKLS-ENT-001-1UG	Suggestion acceptable; no pressure rising facility needed as far as we know.
19	Is Sprinkler network required in the building? The recevied documentation does not include information about that.	No sprinkler system is considered in the pricing	Sprinkler			No sprinkler is required.
20	Where are the infrastructure connection points of power, water, drainage etc. on the construction site?		General	Drawing	7003-17_HKLS-ENT-001-1UG	As shown in plan, downloadable from folder Clarifications No.1
21	Will the contract be only in english, or will it be bilingual? (English/German)		General	Contract		The contract will be only in English language.
22	Escape staircase is an individual fire compartment according to the description of fire prevention measures. What solution is suggested for smoke extraction?	Shouldn't be the staircase separeted from the hallway in this case? (Less fire dampers needed)	Ventilation		Fire prevention measures	1) From any point of any room from (even from the first floor) A safe place in the adjacent outdoor terrain is accessible within a maximum of 40 m. So there is no need for a satircase in an own fire compartment. 2) Two smoke extraction devices with a geometrically free cross-section of at least 1 m² at the foyer and nearby the steelstaircase. (See 6.4.2 Fire Safety Concept).
23	The roof of the office building part has no emergency rainwater drainage system. How is it considered?	Additional emergency rainwater drainage is considered within the office building in the pricing	Rainwater			The suggested solution is acceptable.
24	Why are the rainwater drainage pipelines of the office directed to the hall and goes trough it?	Possible sollution to lead into the third soakaway/sickerbox or into the fire fighting water pond.	Rainwater			The suggested solution is acceptable.
25	Heating/Cooling system operation description is insufficient. Please specify operation of Free Cooling / Regeneration / Solar system/ number, performace and depth of the probes ...etc. deeper		Heating/Cooling			Dephth of probes: 120m
26	The "Description of services for building technology" mention a Solar system, which does not appear on any plans. Is there one?	It is assumed, that no solar system will be installed, since only one sentence mentiones it but there are no information anywhere about it, and no price is required for the solar system	Heating/Cooling		Description of services for building technology	Yes, a thermal solar system with approximately 60m² for regeneration of probes during summer. There is also a requirement for a pre-installation for a solar system on the warehouse in the future.
27	L01 AHU according to "Description of services for building technology" has two stage filter, F7 and F8. An F7 filter as first filter would get dirty very fast. Why is an F8 filter required?	Normally we would suggest F3 and F7 filter, if technology or other conditions don't require it.	Ventilation		Description of services for building technology	Since the ventialtion unit is situated on the roof, a F3/F7-filter-combination seems to be sufficient for the purpose.
28	There are offices where simple disc valves are used in ventillation. Is it correct?	We suggest to use swirl diffusers in offices.	Ventilation			Yes, it is. The disc valves will work in the offices since the amount of air is very small.
29	The exterior surface irrigation tank (located in the MEP room) and system are supplied by drinking water?		Sanitary		20170628_CTBTO-Construction and equipment description-en_gb-C.pdf	Yes, it is.
30	Is it required to supply potable water as backup into the FIRE EXTINGUISHING water system?					No, it is not required.
31	The location of the main distribution boards of the EVN (Net A) and the EPS (Net B), UPS (NetC) newtork not shown clearly.	We presumed that the EVN, EPS, UPS main distribution boards are located in the electrical distribution room.	Electrical	Drawing	V+P_ET_AUS_CTBTO_GF_GR_001_A.pdf	The main distributors are drawed in the rooms, there is no extra room for the battery (UPS 30kVA).

32	Will the connection from the new built transformer to the main distribuition board be carried out by the EVN?	We considered that the supply connection to the main distribuiton board will be carried out by the EVN. (including, piping, feeder cable wit laying ...)	Electrical	Specs		EVN delivers up to the secondary field. Fuses, Cables, Piping & feedercable with laying is to set up from the contracting company.
33	Where is the transfomer located?		Electrical	Specs		The transformer is either situated approximately 70m away from the Property line or at the corner of the building site.
34	Is there a power calculation for the EPS and UPS network?	We assumed the ampacity of the circuit breakers of the specific main distribution for these branches.	Electrical	Calculation	V+P_ET_AUS_CTBTO_-_SC_002_A_NSHV.pdf	We assumed the power specification, which is written in the roombook, filled from the user.
35	In the low voltage distribution plan the ampacity of the busbar 2000A, and the main circuit breaker is only 800A. Why is 2000A busbar considered? Based on the power demand calculation in the technical description, it is not justified					The main circuit breaker is to be designed for maximum of 400KW
36	Is the deenergisation of the power network, separately in every fire compartment, requiered ? Or is the deenergisation appropriate by means of the main circuit breaker of the specific network ?	We assumed separate deenergization.			V+P_ET_AUS_CTBTO_-_SC_002_A_NSHV.pdf	Separate deenergisation depending on clusters.
37	On the floor plans there are KNX tableaus . Should the lighting be controlled by means of KNX or DALI? In the case of DALI, a KNX DALI gateway is to be used.	We assumed KNX.	Electrical	Drawing	V+P_ET_AUS_CTBTO_GF_GR_001_A.pdf V+P_ET_AUS_CTBTO_FF_GR_001_A.pdf	We assumed KNX, there is a KNX/DALI gateway intended.
38	In the electrical specification KNX schematics was mentioned, among the planes there was no KNX schematics included.		Electrical	Drawing		The system is yet to be planned in detail by the contractor. The delivered plans are the basis for these schemes.
39	Shall the active elements for the IT network planned and delivered? (Server, switch, router, access points...)	Delivery of active elements were not assumed.	Electrical	Specs		The active components are designed for all tendered installations, such as security & isp.
40	Shall the diesel aggregator and the UPS delivered?	Delivery of the diesel aggregator and UPS was assumed.	Electrical	Specs		Delivery of the diesel aggregator and UPS was assumed.
41	For proper design of the distributions are the technichal loads (especially higher than 5kW) necessary.	The powers, shown in the riser plan, were assumed.	Electrical	Calculation		The powers, shown in the riser plan, were assumed.
42	Is there any preferred manufacturer for low voltage distribution and switching system?		Electrical	Specs		Schneider electrics are preferrable.
43	Shall the communication system be taken into considerationwith audio privacy function or special electromagnetic shielding?	None of these were assumed.	Electrical	Specs		No shielding / secure ground
44	Regarding the IT network the cableisation between the racks and the endponts will be carried out by means of copper cables. Is there any case where optic fibre cable shall be used to the endpoint cableisation?	Copper cables were assumed.	Electrical	Specs		Copper cables were assumed.
45	At the technology workstations is there any special equipotetntial bonding for the workers required?	Special equipotential bonding was not assumed.	Electrical	Specs		Yes, as shown in the plan. In the legend listed as earth connection point.
46	What do the 'alarm distribution' signed elements stand for, which systems are connected to it? Eg. Intruder alarm system, video surveillance, etc.		Electrical	Drawing	V+P_ET_AUS_CTBTO_GF_GR_001_A.pdf	Alarm distribution' signed element stand for, systems are connnected to Alarm, video and access control.

47	There are elements on the floor plant, which are not shown in the legend.	Following assumptions were made: 1)GF,FF green loudspeakerlike elements in circle as loudspeakers 2) GF in the 4 workshop areas green loudspeakerlike elements in squares as loudspeaker 3) phone like elements in green color at GF axis G16-17 as phone 4) directly next to element described in 3). as microphone 5) red sirenlike element at axis GF H17 as siren.6) green hornlike element at GF axis F13 as horn	Electrical	Drawing	V+P_ET_AUS_CTBTO_GF_GR_001_A.pdf V+P_ET_AUS_CTBTO_FF_GR_001_A.pdf	>loudspeaker round are build in speakers >loudspeakers square are build on speakers >green telephones are the intercom >symbols at the porter in the lobby are microphone, speaker & intercom
48	Is any soil-mechanical description of the area available?					The Infiltration survey and geological survey are provided in the folder Clarification No. 1.
49	Are any topographic and geodesical survey of the plot, or any survey or photo documentation about the area available?		Architecture			The Infiltration survey and geological survey are provided in the folder Clarification No. 1.
50	There are glued laminated timber beams on the plans. Can we change those to reinforced concrete beams?		Architecture			A suggestion to a different solution can be made (plus costs). The roof structure is defigned in the design according to the plans.
51	Please give us information about the acoustic suspended ceiling system. Where (roomlist), with what amount, with what acoustic (sound-proofing) value should we calculate?		Architecture			Information in document: "Construction and equipment description; 6. Sound insulation and Room acoustics".
52	Please give us the expected technical parameters of the epoxy coating and the size of the area where we should calculate with that.	In our offer we have calculated with 880 m2	Architecture			Information in document: "Construction and equipment description"; The different usages of the groundfloor areas are defined individually according to the rooms. The areas have to be calculated by the contractor.
53	Please give us information where (roomlist) should we calculate with safety glass for the windows in the facade.		Architecture			Safety glass is to be implemented into the windows and glass fassades of the ground floor level and the area of the waiting platform.
54	Please give us information, expected technical data about the passenger elevator. (capacity in kg or passengers, etc.)		Architecture			8 Person / 630kg
55	For the landscaping works is it enough to calculate with grass? Or is it expected to reckon with further vegetation?		Architecture			Grass is sufficient.
56	On which facades and with what area should we calculate with plaster facade?		Architecture			All facades are to be executed as plaster facades, except for the glass façade.
57	Impact protection: Please give us information, for which pillars and gates do you need steel impact protection.		Architecture			On the outside of the building an impact protection is planned. On the inside such measures are not claculated.
58	What is the necessary capacity of the overhead traveling crane		Architecture			16 t / 35m
59	Who will arrange power for construction?		Architecture			There was a pre-discussion with the EVN. For the installation of a construction power box they need the KW they would have to provide for this line. The contractor has to coordinate this with the EVN.
60	Is the Commission providing the CAD drawing files in source plan?		Architecture			A 3d walkthrough model will be provided to the selected bidder upon signature of the contract.
61	How is the security arrangement and who will be responsible for security of the construction site?		Architecture			The AIT ground is seen as a secure area. Nevertheless a fence surrounding the site has to be built to mark out the building ground so nobody walks onto it by mistake.

62	Any radioactivity that affects the construction site?		Architecture			No, there is none. For sleeping arrangments the AIT will provide an evacuation plan and special details concerning safety.
63	Could you please share details of the solar panels?		Architecture			Please see answer to question 26.
64	Furniture list not clear, could you please clarify?		Architecture			All fixed furniture has to be provided by the contractor (toilets, kitchen,...).
65	Any detail about the waste-water type of system (e.g. pressurized or ...)?		Architecture			The connection point for the wastewater is on the AIT grounds. A pressurized wastewaterline has to be built. The connection point will be marked out by the AIT.
66	What about the ventilation system, there is only 2 HVAC and nothing else?		Architecture			The rooms that are marked "explosion protection" have to be treated with the special requirements concerning these rooms according to Austrian norms and law.
67	Are there any changes expected in the design?68		Architecture			The design on the building plot is not likely to be changed. An additional solar system could be placed on the roof of the warehouse. Up to this point, it is not clear if the road leading to the site and the connection to the ring line (water) / wastewater have to be built by the contractor or by the AIT.
68	What is the current status of the permitting, and how is the permitting scheduled?					The Commission expects to complete the permitting process by end of November 2017.
69	In what way is the contractor needed in the permitting process?					The contractor is not needed in the permitting process.
70	Is it possible to have living quarters/containers on the construction site for workers?					It is possible to have living quarters on the construction site. The specifications for that will have to be arranged with AIT.
71	According to the technical description, the heat demand is ca. 320kW, however, there are only 4 no. 60kW heat pumps planned on the heating/cooling scheme. Where is the rest 80kW heat coming from?					The Commission does not need the full capacity of 320kW as it has a storage of 2.000l, which will be loaded during the nighttime and which is big enough to ensure that the planned room temperature can be held during the daytime.

Please download the BIMX Model, the Ground Survey, the Infiltration Test Report and the Plan with Connection Points to Facilities from the Commission's link to the Complete technical documents, subfolder: 09 Clarifications no. 1