

## **PRE - BID Query and Clarification**

**NAME OF TENDER : Design, Manufacture, Supply, Installation, Testing and commissioning of Platform Screen Gates (PSG) system**

**Tender No : KMRL/SYS/PSG/05/2015**

**Pre Bid Meeting Held on 22 Jun 2015 at KMRL office Kochi**

SI No	Volume Details	Clause No.	Query	KMRL Response
1	Vol - 1 - Bidding Procedures	14.7	According to this para, all duties, taxes and other levies have to be included in Bid Price. BDS also does not exclude CD/ED/VAT etc. However Para 1.3 of Pricing Document Part I requires CD and VAT etc. to be excluded from the Bid Price. Moreover Para 1.8 of Pricing Document requires the contractor to “manage custom duty and excise duty applicability and inclusion in their quoted Lump Sum Price”. Thus there is a contradiction between the these Paras. This needs to be clarified.	Refer Corrigendum SI. No. 02 Clause 1.8 has no overriding effect on Clause 1.3. It only says proper calculation of the lumpsum price after taking into account all possible duty benefits. No changes made in both Clauses.
2	Vol - 1 - Bidding Procedures	Last Line of opening para of Section III 32.1	However ITB 32.1 does not identify any source of exchange rate. This may please be clarified.	Self Explanatory .
3	Vol - 1 - Bidding Procedures	3.5	In the Table under this clause, the headings of last two columns appear to mean the same. Please clarify the difference between the two.	Refer Corrigendum SI. No. 05
4	Vol - 1 - Bidding Procedures	3.6	The Table under this clause is blank. No key equipment are listed there. Please list the equipment.	Refer Corrigendum SI. No. 07 and 09
5	Vol - 1 - Bidding Procedures	4.8	This requires outline safety plan for ‘Train Control and Signalling and Telecom System’, which is not in the scope of PSG Contractor. Please clarify.	Refer Corrigendum SI. No. 10
6	Vol - 1 - Pricing Documents	1.2	Can all the items of equipment comprising of various type of Gates and their accessories be shipped with KMRL as consignee and after custom clearance delivered directly to KMRL sites at various stations?	Refer Corrigendum SI. No. 12
7	Vol - 1 - Pricing Documents	1.3(b) 1.9	In various sub-paras like 1.3(a), 1.3(b), 1.3(e) etc. and also in Para 1.9, there is a reference to ‘Cars’ and ‘Trains’. This appears to be a mistake. Drawing a parallel from “finished off-shore manufactured cars”, mentioned in Para 1.9 of the pricing Document, can the finished off-shore manufactured Platform Gates also be considered on FOB – Port of origin basis with sale taking place on High Seas? Please clarify.	Refer Corrigendum SI. No. 13, 14 and 15
8	Vol - 1 - Pricing Documents	1.3.1(b)	it appears that imported goods, after Custom Clearance, can be moved directly to KMRL sites. Please confirm availability of adequate availability space at various KMRL sites (stations) for unloading and temporary storage of Gates and accessories meant for that station.	No site shall be provided at stations by KMRL.

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9	Vol - 1 - Pricing Documents	Appendix G	Maximum Man Day rates for expatriate staff fixed by the Employer are in Euros. Can equivalent amount in US\$ be also taken as maximum Man Day rate? If yes, at what rate of Euro to US\$ conversion?	Not agreed.
10	Vol - 2 - TS	6.1.4	Table under clause 6.1.4 gives docking position as (+) or (-) 300 mm but clause 6.4.5 states that the train will stop between (+) or (-) 500 mm. This contradiction may please be clarified.	Refer Corrigendum SI. No. 21
		6.4.5		
11	Vol - 2 - TS	6.13	PSG open width has been given as 2100mm. It is not clear as to what will be the opening width of train doors but this typically is 1400mm in other systems. If the train door opening is 1400mm and docking is within (+) or (-) 300mm then it would be better to keep the PSG open width as 2000mm instead of 2100mm. Unnecessary increase in open width only increases the cantilever hang and resultant forces.	Refer Corrigendum SI. No. 24
12	Vol - 2 - TS	6.13	This clause not only specifies the PSG open width but also width of EEG and MSG. Since the design is the responsibility of the contractor, it is requested that these dimensions may not be frozen at this stage and may be finalised at the stage of design approval by KMRL.	Refer Corrigendum SI. No. 24
13	Vol - 2 - TS	2.1.3	From this para it is seen that ROD for 16 stations is 30th June 2016. This would mean that the PG work on these 16 stations has to be commissioned after integrated testing and statutory clearance etc. before 30th June 2016. In our opinion it is highly unworkable keeping in view of the time required for complying with all the general and preparatory requirements, design, prototype testing, supply, Installation and testing including integrated testing. It is requested that another review of project progress any be undertaken to establish realistic and workable targets for the PG contractor. Based on our experience of various activities undertaken by us in other similar Projects, we feel that the given timeframe of 30th June 2016 for 16 stations is unachievable.	Not agreed.

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14	Vol - 2 - TS	2.2.1 (j)	<p>To avoid any ambiguity it is requested that KMRL follows the same stipulations in this regard as given in DMRC's Particular Specifications for Platform gates, which are reproduced below for ready reference:</p> <p>"The PG system shall achieve a Safety Integrity Level (SIL) of 2. The Contractor shall identify and implement SIL for all systems within the scope of works. Where software is employed within a system, the contractor shall explicitly define and implement Software Safety Integrity Levels (SSILs), in accordance with EN50128. The SIL shall be interpreted that all safety functions performed by the above systems are required to achieve the specified SIL targets. The contractors shall provide justification for any deviation and also assess the SIL of all other systems within their scope of supply and develop these systems in accordance with EN 50126/IEC 62278, EN50128/IEC 62279, EN50129 and IEC 62280 (or equivalent). The proposed SIL shall be subjected to review and acceptance by the Engineer. The Contractors shall demonstrate the achievement of SIL by risk assessment that all safety functions performed by the above systems can able to mitigate relevant hazards to an acceptable level.</p> <p>The SIL shall be subjected to assessment by the Independent Safety Assessor to be engaged by the contractor and acceptance by the Engineer.</p> <hr/> <p>Safety Requirements for the PG-Signalling interface:</p> <ul style="list-style-type: none"> <li>•The contractor shall provide fail-safe design for the PG-Signalling interface.</li> <li>•The safety level of PG–Signalling interface shall satisfy SIL4 in IEC 61508 or equivalent safety level.</li> <li>•The contractor shall prove through Safety case that following shall meet SIL4 performance. <ul style="list-style-type: none"> <li>.PG closed and locked signal</li> <li>.Enable signa</li> <li>.Interlock override</li> <li>.Local Bypass Switch operation</li> </ul> </li> <li>•Interface between Signalling and Platform Gates will assessed and cleared by Independent Safety Assessor (ISA) appointed by employer."</li> </ul>	Refer Corrigendum SI. No. 18
15	Vol - 2 - TS	4.1.6 (I)	Please clarify if three years Comprehensive Maintenance coverage of the entire system, beyond Defects Liability Period is under the Scope of this tender or not.	Refer Corrigendum SI. No. 17
16	Vol - 2 - TS	4.3.7	Please explain the meaning of "monitoring with local Gate facilities". Will it suffice to provide indication light that is 'on' when the Gate is open and 'off' when the Gate is closed; together with a switch that connects to the safety loop as apart of door closed and locked signal.	Self Explanatory .
17	Vol - 2 - TS	4.3.11	Please clarify "dual hard-wired safety loop". Will it suffice to provide media redundancy that means dual hardwired safety loop through a single port.	Self Explanatory .
18	Vol - 2 - TS	4.3.12	<p>Please reconfirm that the PG contractor will be provided with a separate PG room for all PG equipment including the UPS required for PG.</p> <p>Moreover, please confirm that a train headway of 90 seconds can be taken into consideration for calculating the UPS capacity to meet the requirement 30 minutes back up.</p>	Refer Corrigendum SI. No. 26 and 27

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19	Vol - 2 - TS	6.1.4	The specified minimum size of the obstacle that should trigger the obstacle detection system is extremely small and is hardly needed in actual use. This will also be extremely difficult to meet this requirement with high level of reliability. We request that this be amended to fall in line with the corresponding requirement of DMRC specification which is 15mmX100mm pad and 19mm diameter round object.	Refer Corrigendum SI. No. 20
20	Vol - 2 - TS	6.5.2	Requirement that "all components, sub assemblies, or major assemblies which may require removal from the PSG System for the purposes of replacement of worn components or the rectification of faults shall be accessible entirely from the platform side" is an unnecessary restriction on design. The design should be allowed to provide for certain components etc. being accessible from track side provided these are capable of being maintained or completely replaced within three hours or less during non traffic hours. We request suitable amendment to this condition.	Not agreed.
21	Vol - 2 - TS	6.8.1.3	Please see our query against Clause 6.5.2 of Vol - 2 -TS.	Not agreed.
22	Vol - 2 - TS	6.8.2.3	Restriction on deflection of frame to 10mm and of bottom support etc. to 2mm is unreasonably low. We request that the stipulation of DMRC in this respect may be adopted. This is reproduced below:  "The PG structure shall accommodate the effect of cyclic and repetitive loading pressures that shall be placed on it from the forces associated with train movement and passenger /crowd loading, impact pressures and environmental conditions over the design life of the PG installations. Under extreme loading pressure, no structural elements or glazed sections (moveable or fixed) shall suffer permanent deformation or damage and no PG door panel shall become detached from its mountings. Maximum allowable (fully elastic) deflection at the PG frame members on which the top of PG façade shall be 20 mm from the static position and no part of facade should infringe the KE or damage the PG system under deflection."	Not agreed.
23	Vol - 2 - TS	6.9.3.1	Dimension 6mm mentioned in this clause contradicts the dimension given in table 6.1 under clause 6.1.4. Moreover please see our query against clause 6.1.4 - Item 12 of the Table and consider our request for following the same stipulation as in DMRC specifications.	Refer Corrigendum SI. No. 23
24	Vol - 1 - Bidding Procedures	11.2	Kindly confirm, 1) A firm, who has downloaded the tender document in their name, can submit the tender either as individual firm or in joint venture/JVA or consortium. 2) Companies with Consortium Agreement are eligible to participate in this tender. 3) Companies with a letter of intent to execute a Consortium Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Consortium Agreement are eligible for participate in this tender.	Self Explanatory .

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25	Vol - 2 - TS	6.8.3	Since fasteners, adhesive and sealants are all proposed to be restricted, it is not clear as to what fixing arrangement is required by KMRL, which can enable replacement in minimum time. This may please be clarified. We propose that the design minimises use of fasteners, adhesives, sealants etc. but eliminating them all together will compromise with the objective of replacement in minimum time.	Self Explanatory .
26	Vol - 2 - GS	3.2.1	Please provide the local climate condition. (Incl. RH/Temp./solar intensity,UV... )	Please refer relevant Clause in Tender document as these information is already provided.
27	Vol - 2 - TS	4.1.2	please provide the train layout and the platform layout. Please clarify whether PSG only covers the train length or cover the whole platform?	Drawings/layouts shall be provided.
28	Vol - 2 - TS	8.6.15 (a)	Please provide the standard national or international specification for the fire rated plasterboard required to be used and clarify the precise application of the same.	Self Explanatory .
29	Vol - 2 - TS	Touch Voltage	please clarify what is maximum permissible accessible voltage between track and the station earth?	As per best industrial practice, Bidder to propose during the design phase subject to acceptance by the Employer
30	General	4.3.15	Please clarify whether the "cable containment" mean trunking of the cable?	Self Explanatory .
31	Vol - 2 - TS	8.7.7.6	The tolerances specified in this clause are too tight considering the functionality. Such tight tolerances are generally not specified by other Employers for this application as they unnecessarily increase the cost. We suggest that 1:1000 be changed to 2:1000 and (+) or (-) 1.5mm be changed to (+) or (-) 4mm.	Not agreed.
32	Vol - 2 - TS	6.1.4 6.9.3.1	There are two requirements for the obstruction size. In general, the minimum obstacle size is 8mm thickness for PSG. Please confirm whether to change this.	Refer Corrigendum Sl. No. 20 and 23
33	Vol - 2 - TS	6.8.2.3	Considering the loads requirement in GS and TS,10mm deflection of PSG at any point on the frame is hard to achieve. We suggest to change the requirement to: "A correctly installed gate in its normal closed position shall deflect no more than 15 mm at the nearest position of train dynamic envelope when exposed to the maximum design loads or combination of loads. Out of this 15mm deflection, no more than 2mm deflection shall be contributed by the deflections of the side and bottom supports."	Not agreed.
34	Vol - 2 - TS	8.8.2.3 6.2.2	Clause 8.8.2.3 specifies minimum galvanising of 70 microns, whereas clause 6.2.2 gives a different value. Please reconcile.	Refer Corrigendum Sl. No. 28
35	Vol - 2 - TS	6.9.1.2 6.9.2.2a:	Please clarify which phases is correct for these two required measure value.	Refer Corrigendum Sl. No. 22
36	Vol - 2 - TS	8.5.4	Please clarify which status or alarm need to be sent to SCA	Shall be clarified during design stage.
37	Vol - 2 - TS	6.1.4 8.6.4	There is some difference in the two areas. Please clarify the material of door frame, Stainless steel grade 304 Grade 4 satin finish or Aluminium 6063 T5 grade.	Self Explanatory .
38	Vol - 2 - TS	8.6.15	Please clarify whether in the supply scope of PSG contractor. If yes please indicate the installation location detailly in the layout drawing.	Self Explanatory .
39	Vol - 2 - TS	8.9.1.2	Please clarify if the PSG contractor just provide the control power UPS and do not need provide PSG drive power UPS.	Self Explanatory .
40	Vol - 2 - TS	8.9.4.4	Please clarify if there is OVPD between running rail and station earth. Please explore the detail in etc.	Self Explanatory .

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41	Vol - 2 - TS	Civil drawings	Please provide the interface section drawing with civil structure. Please confirm, If civil platform drawings are not available to PSG contractor, then PSG contractor can assume all stations are straight.	Drawings/layouts shall be provided.
42	General	8.8.4	Threshold plate and bottom guide are not necessary for half height platform gates. These are provided in full height gates. It is requested that this clause may be deleted.	Not agreed.
43	Vol - 2 - TS	9.1.4	It is requested that installation programme be finalised at least six months in advance to ensure smooth flow of material. In case KMRL postpones the installation work beyond a certain limit as compared to the accepted installation programme then, in all fairness, the inventory carrying cost for the period of delay should be reimbursed to the contractor. This request may please be considered.	Refer Corrigendum Sl. No. 30
44	Vol - 2 - TS	4.1.6 (c) and 4.1.6 (n)	Does clause 4.1.6 (c) mean that civil structures e.g. PSG room will be constructed by PSG contractor. Similarly it is unclear from clause 4.1.6 (n) if Civil Contractor will be able to provide holes in platforms, foundation for fixing PSG equipment etc. These ambiguities may please be clarified.	Please refer relevant Clause in Tender document as these information is already provided.
45	Vol - 2 - GS	4.2.1	The statutory authority may not accept/ entertain the application of the PSG contractor for issue of safety certificate. In that case the Employer will need to apply to the authority with all information/ follow up and support being provided by the PSG contractor. Please confirm this aspect.	Not agreed.
46	Vol - 2 - TS	Technical_Specifications_Vol-II.pdf /Page 9	2.2 Key Characteristics (a) Trains will be of 3-car configuration and station platform length (81m apx) for 3-car train of 70 M apx. (b) Each car will have 4 saloon doors per side.  Questions: We need train drawings about train length size, each train(cars) door size.	Drawings/layouts shall be provided.
47	Vol - 2 - TS	Vol-II.pdf /Page 19 Clause No. 4.3.11	Where is BMS(Building Management System) interface panel? We need schematic drawings for station.	Shall be clarified during design stage.
48	Vol - 2 - TS	Vol-II.pdf /Page 53/ 8.1.1	Where is PSG Equipment Room? We need schematic drawings for Equipment Room location. We want to know the distance from platform to Equipment Room.	Drawings/layouts shall be provided.
49	Vol - 2 - TS	Vol-II.pdf /Page 61/ 8.5.2.2	Is the only durability of DC motor is 1,500,000 cycles? Is it possible to submit the result of 1,000,000 cycles instead of 1,500,000 cycles? And shall we submit test report of DC motor?	Not agreed.
50	Vol - 2 - TS	Vol-II.pdf /Page 41/ 6.14- Safety	In case of Signaling System(CBTC) is failure, can the PSG system open and close all sliding doors automatically and independently by sensing train stop position, train door opening and closing status? Otherwise, only shall the PSG system open and close all sliding doors manually by Local Control Panel(PSL) ?	Self Explanatory .

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51	Vol - 1 - Bidding Procedures	ITB 4.1	<p>We are a foreign (overseas) company intending to tender for the subject project, all by ourselves in our capacity as a sole bidder.</p> <p>Towards satisfactory catering of the onshore scope of supply and works also to successfully provide the long term service requisites, we are intending to establish offices in India through a local partnering-association that shall entail technology transfer &amp; collaboration arrangements, in case we are selected for the award of the contract for the project.</p> <p>In the above context we request you to kindly clarify the following points.:</p> <ol style="list-style-type: none"> <li>1. Under technology transfer agreement, would our local partnering entity in India be permitted to undertake and perform the indigenous portion of supplies and works?</li> <li>2. Under technology transfer agreement, would our local partnering entity in India be permitted to provide maintenance support services as well as supply of spares during Defect Liability Period and post Defect Liability Period as well as enter into any AMC with the Employer?</li> <li>3. Under technology transfer agreement, would our local partnering entity in India be permitted to receive payment from Employer for the supplies and services rendered for the project, as per tender requisites.</li> <li>4. As per the corporate policy of our Company, we need to receive all our payments against our deliverables both the foreign currency component and the Indian currency component (Indian Rupees), by way of an irrevocable, confirmed Letter of Credit (L/C).</li> </ol> <p>We shall be willing to bear the bank charges incurred by the Employer, towards opening of the above requested Letters of Credit (L/C).</p>	Refer Corrigendum SI. No. 34
52	Vol - 2 - Technical Specifications (TS)	11.4.1	It is presumed that the land and building for workshop will be provided by KMRL since the same is to be handed over to KMRL after completion of contract.	self Explanatory. Only land shall be provided at Depot by KMRL.
53	Vol - 2 - Technical Specifications (TS)	13.6	Will works train be available? What are the modalities for hiring works train?	self explanatory.
54	Vol - 2 - General Specifications (GS)	8.1	It is presumed that storage area will be provided by KMRL.	self Explanatory. Only land shall be provided at Depot by KMRL.

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55	Vol - 1 - Bidding Procedures	4.1	<p>We are foreign based company (Principal Company) &amp; would like to bid this tender with our local (India) representative company.</p> <p>Under this agreement, our local representative company will be main bidder for executing all works as per tender requirements on our behalf.</p> <p>All qualification criteria requested be considered as from 'Principal Company'.</p>	Not agreed.
56	Vol - 2 - Technical Specifications (TS)	13.1.2	<p>We are requesting you to allow variations in Key Dates/delivery period from total 90 weeks to 100 weeks.</p> <p>Bifurcation of 100 weeks is given below.</p> <p>For section R1            KD1: 10 Weeks            KD2: 16 Weeks            KD3: 21 Weeks            KD4: 41 Weeks            KD5: 56 Weeks            KD6: 61 Weeks            KD7: 63 Weeks</p> <p>For section R2            KD5: 65 Weeks            KD6: 80 Weeks            KD7: 90 Weeks (R2a)            KD7: 100 Weeks (R2b)</p>	Not agreed.
57	Vol - 1 - Bidding Procedures	ITB 22.1	Can extension of bid submission is allowed up to 31st July 2015.	Refer Corrigendum Sl. No. 03 and 04