

# DD EMU Tender No. 51403 - Requests for Clarification

No.	Tender Doc Volume	Section No.	Main Title	Participant's Issue for clarification	ISR's answer
1	Attachments I1-I7 and I9	1.5	Design Concept	ISR was asked to specify its preference guidelines with respect to the design parameters described in the section.	Bidder shall propose the design of Unit's arrangement as required in the section, in such a detail that ISR experts will be able to carry out an assessment in regard to levels achieving a state-of-the-art design and in regard to RAMS related consequences.
2	Vol B	1.8.2	Platform Height and Length	ISR was asked to clarify certain requirements for platform height and length as specified in section 1.8.2.	Participants are referred to the amended section.
3	Vol B	1.1.1	Vehicle Concept	ISR was asked to clarify the required possible configuration in multiple unit operation vs maximum platform length.	The commercial operation in any multiple configuration of Units shall not exceed 12 vehicles in total. This multiple configuration shall fit with the max platform length of 325 m. A multiple configuration of up to 14 vehicles in total, shall take place in a non-commercial service where such configuration shall be operable from one driving cab.
4	Vol B	1.5.1	Basic Technical Data	ISR was asked to clarify whether the term "continues power" can be linked to the definitions of specific overload in IEC 60034-1.	Overloading is accepted as far as any related thermal restriction of the train operation is excluded considering all possible worst cases scenarios. If overloading is used the bidder shall describe in detail the overload power, considered time constants as well as the limiting components with its related thresholds.
5	Vol B	1.5.5.3	Emergency Operation	ISR was asked to clarify whether the section refers to the emergency operation carried out with passengers on-board.	The emergency operation as described in the section is foreseen to be with passengers on-board.
6	Vol B	1.9.2	Interior Noise Passenger Compartment	ISR was asked to clarify whether the entrance vestibules and gangways between vehicles are excluded from any noise limit values.	Participants are referred to the amended section.
7	Vol B	1.10	Pressure Protection, Aerodynamic	ISR was asked to clarify the level of tightness in regard to the pressure protection required in the section.	Participants are referred to the amended sections 1.10 and 2.4.3.
8	Vol B	2.6.1	Vehicle Interior Design	ISR was asked to reconsider the section.	The requirement of 0,2 m3 of luggage space shall be calculated per number of fixed seats (excluding tip-up seats) in a Unit.
9	Vol B	2.6.15	Emergency Equipment	ISR was asked to clarify the section.	Participants are referred to the amended section 2.6.15.
10	Vol B	2.12.1	Air Conditioning	ISR was asked to clarify and reconsider the performance and design requirement of the HVAC system as specified in sections 2.12.1 and 2.12.2	Participants are referred to the amended sections 2.12.1 and 2.12.2. In addition, with respect to pre-heating and pre-cooling time of the passenger compartment and driving cab, Participants are referred to the amended Appendix F to Technical Specifications, Volume B.
11	Vol B	3.2.2	Pantographs, Main Switches, Roof Cables and Earthing Switches	ISR was asked whether both pantographs can be connected to overhead line.	The Units shall be designed to operate in full power performance condition with only one pantograph in force.

12	Vol B	3.2.2	Pantographs, Main Switches, Roof Cables and Earthing Switches	ISR was asked to clarify the location of pantograph lowering testing facility.	Participants are referred to an amended section 3.2.2.
13	Vol B	3.2.4	Transformer	ISR was asked to clarify whether the Buchholz relay device is to be delivered.	Participants are referred to the amended section 3.2.4
14	Vol B	3.11.1	Automatic Train Protection & Control Systems	ISR was asked to clarify whether the track sections are operated with track circuits.	ISR is not operating track circuits for the signaling system.
15	Vol B	7.1	General Issues	ISR was asked to clarify the requirements of an automatic fire extinguishing system installation.	Participants are referred to the amended section 7.1
16	Vol B	1.2	Design Targets	ISR was asked to clarify the arrangements of the multi-purpose area in section 2.6.6	Participants are referred to the amended section 2.6.6.
17	Vol B	1.5.1	Basic Technical Data	ISR was asked to reconsider the design requirement in regard to the parking brake.	The requirement as specified in section 1.5.1 remains unchanged.
18	Vol B	2.4.3	Gangways/ Gangway Facilities	ISR was asked to clarify the design performance of the gangways and gangway facilities.	Participants are referred to the amended section 2.4.3
19	Vol B	2.5.9	Comfort Features	ISR was asked to clarify the requirements of the comfort features in the driving cab.	Participants are referred to an amended section 2.5.9
20	Vol B	2.6.2	Passenger Areas	ISR was asked to clarify the requirement of emergency and security equipment in section 2.6.2	Participants are referred to an amended section 2.6.15
21	Vol B	2.8.3	Opening of Doors	ISR was asked to confirm various design proposals of fix steps bridging the gap between door entrance and platform.	Participants shall follow the requirement of ISR for automatic sliding step/bridging plate as specified in section 2.8.3
22	Vol B	3.2.2.1	Automatic Power Control System to support the passing of a the neutral Zone	ISR was asked to clarify the wayside interface at neutral track side sections.	Participants are referred to an amended section 3.2.2.1
23	Vol B	3.4	DC On boards Network	ISR was asked to clarify the design requirement of the DC Onboard Network system.	Participants are referred to an amended section 3.4.1.
24	Vol B	9.4	Technical Documentation	ISR was asked to clarify the requirement for the delivery of full set of draft technical documentation.	Participants are referred to the amended section 9.4.
25	Vol B	3.15	Passenger Counting System	ISR was asked to provide information on the wayside system for receiving passenger counting data.	Participants are referred to an amended section 3.15
26	Vol B	3.2.1	Power supply and overhead line system	ISR was asked to provide certain information with respect to the power supply and overhead line system.	Participants shall follow the requirements and information provided within the section. Further detailed information will be provided by ISR to the Supplier during the design phase.
27	Vol B	16.5	Scope of Maintenance Work	ISR was asked to clarify the scope of Maintenance Works with respect to the daily services relevant tasks.	Participants shall follow the instructions and requirements specified in section 16.5.
28	Vol B	1.5.1	Basic Technical Data	ISR was asked to clarify the line voltage to be used for trip time calculation.	The trip time demonstration of 27 min shall be ensured within the potential line current of 22.5 - 27.5 kV.
29	Vol B	1.15	Precautions against Pollution, Damage and Water	ISR was asked to clarify the nozzle distance to the cleaning subject when the pressure is 8 bars.	Railway proven designed equipment will be used for cleaning purposes.

30	Vol B	3.7	External Power Supply	ISR was asked to clarify the design of the external power supply plug.	The external power supply shall be equipped with PE as well as N conductors.
31	Vol B	3.2.1	Power supply and overhead line system	ISR was asked to clarify the line current limitation for Unit operation.	The maximum current consumed by Unit in any multiple configuration shall be less than 800A.
32	Vol B	1.3	Climate Conditions	ISR was asked to clarify the information in regard to a maximum crosswind speed of 50m/s.	Participants are referred to cross wind specification in section 1.3 and the amendments in section 1.10.
33	Vol B	Appendix B	Trip Time calculation	ISR was asked to provide the available tunnel design for the purpose of trip time calculation.	The tunnel design will not be a parameter taken into consideration for trip time calculation.
34	Vol B	Appendix C	Running Dynamics	ISR was asked to clarify certain running dynamics related calculations in regard to specific ISR track alignment condition.	Participants are referred to the amendments in Appendix A. In addition, the requirements specified in Appendix C shall remain unchanged.
35	Vol B	16.5	Scope of Maintenance Work	ISR was asked to clarify the location where Excluded Maintenance Works will be performed by Supplier.	Excluded Maintenance Works are expected to take place in the Maintenance Depot.
36	Vol B	2.10.1.1.	Lamp Controls	ISR was asked to confirm the application of lamp controls in automatic and manual mode.	The driver shall be able to chose either the automatic or the manual control.
37	Vol B	2.6.14	Electric Outlets for Utilities	ISR was asked to reconsider the location of the passenger 220V sockets to be installed.	Bidders are allowed to offer alternative design solutions in its Technical Proposal according to section 0.
38	Vol B	5.7	LCC Analysis	ISR was asked to clarify the term of "total maintenance cost" as specified in section 5.7.	The total maintenance cost calculation <i>inter alia</i> shall incorporate the subcomponents which need to be replaced within 30 years period.
39	Vol B	3.13.2	Visual Information Facilities	ISR was asked to reconsider the requirement for the character size of the displays.	The requirements in section 3.13.2 remain unchanged.
40	Vol B	2.5.6	Windscreen and Equipment	ISR was asked to clarify the method to refill the wiper water tank for the windscreen.	The method currently used by ISR for the refilling of wiper water tank is by gravity.
41	Vol B	3.8.2	Software	ISR was asked to reconsider the requirement to update the Software.	The requirements in section 3.8.2 remain unchanged.
42	Vol B	2.3.2	Structural Design of Bogie Frame	ISR was asked to clarify the bogie frame related stress relevant assessment methods.	Bidder shall indicate the methodology to be used for stress and strength assessment and to consider the requirements as part of the homologation process.
43	Vol B	2.3.5	Flange Lubrication	ISR was asked to reconsider to accept flange lubrication systems others than specified in the section.	Bidder shall comply with the technical requirements of the section as specified.
44	Vol B	16	Supplier's Maintained Fleet – General Provisions	ISR was asked to clarify the handover procedure for the Maintenance Services.	ISR and Supplier will hand over the Unit at the entrance to the Maintenance Depot. The Supplier shall design clear procedure for handover/Return Units Ready for Operation.
45	Vol B	1.7 / Appendix B1	Vehicle weight	ISR was asked to clarify the definition of the payloads to be applied to the Units.	Participants are referred to the amended section 1.7 and Appendix B1 of the Technical Specifications.
46	Vol B	3.11.1	Automatic Train Protection & Control System	ISR was asked regarding the requirement to install ETCS L2 and Indusi I60 R functionality by STM.	Participants are referred to section 3.11.1.
47	Vol B	2.9	Brake System	ISR was asked to clarify the performance and the system design of the brake.	Participants are referred to am amended sections 1.5.1 & 2.9
48	Vol B	16.9.3	Depot capacity	ISR was asked to provide an operational time-table of the trains.	Participants are referred to the Operational Data specified in tables 5-4 & 5-5, section 5.5.1 of the Technical Specifications, Volume B.

49	Vol B	1.5.1 / 2.6.2	Basic Technical Data	ISR was asked to reconsider the requirement for the number of toilets in a Unit.	Participants are referred to the amended sections 2.6.2 and 2.6.5.
50	Vol B	1.5.1	Braking performance	ISR was asked to clarify the brake performance values in different brake system application.	Participants are referred to the amended sections 1.5.1 & 2.9 of the Technical Specifications.
51	Vol B	1.9.2	Interior Noise Passenger Compartment	ISR was asked to clarify whether the entrance vestibules and gangways between vehicles are excluded from any noise limit values.	Participants are referred to the amended section 1.9.2.
52	Vol B	3.8	Train Control Monitoring System (TCMS)	ISR was asked to reconsider the requirement to design the train bus system for the TCMS.	Participants are referred to the amended section 3.8.3
53	Vol B	3.9.2.5	Quality of Diagnostics	ISR was asked to reconsider the values of false messages of the diagnostic system indicated in section 3.9.2.5	Participants are referred to the amended section 3.9.2.5.
54	Vol B	9.7.1.3	Electrical system documents	ISR was asked to reconsider the section with respect to Electrical system documents.	The terms shall be remain unchanged. section 9.7.1.3 shall remain unchanged.
55	Vol A, Attachment II-17	1.4.2	Quality certification	ISR was asked to clarify the scoring method	The points allocated per each criteria are not cumulative.
56	Vol B	1.9.2	Interior Noise Passenger Compartment	ISR was asked to clarify whether the entrance vestibules and gangways between vehicles are excluded from any noise limit values.	Participants are referred to the amended section 1.9.2.
57	Vol B	2.6.3	Vehicle Capacity, Arrangement of Seats and Tables	ISR was asked to clarify certain dimensional issues of the arrangement of seats and tables in the Units.	Bidder shall follow the instructions of the Technical Specifications. However, with respect to certain issues Bidders may offer alternative design solutions as specified in section 0 of Technical Specifications.
58	Vol B	2.6.6	Multi-Purpose-Area	ISR was asked to clarify the dimension of the multi-purpose area.	Participants are referred to the amended section 2.6.6
59	Vol B	2.8.1	Doors and Entrance	ISR was asked to clarify the number of passengers taken into consideration for dwell time calculation.	Participants are referred to the amended section.
60	Vol B	App A4	Platforms Dimension and Data	ISR was asked to clarify the information in regard to Lod station's platform curves.	Participants are referred to the amendments in Appendix A.4 to the Technical Specifications.
61	Vol B	5.7	LCC Analysis	ISR was asked to clarify the assumed working day period.	Eight hours working day period shall be taken into consideration for LCC calculation.
62	Vol B	3.2.1	Power Supply and Overhead Line System	IS was asked to reconsider the requirement of minimum catenary height of 5100 mm.	Participants shall comply with the requirement specified in section 3.2.1.
63	Vol B	Appendix B	Specification of the Trip Time Calculation	ISR was asked for certain clarifications with respect to the methodology for the calculation of trip time as indicated in Appendix B to Technical Specifications.	Participants are referred to the amendments in section B.1 of Appendix B to Technical Specifications.
64	Vol B	Appendix A	Rail Types, Lines and Track Quality	ISR was asked to identify the major rail type / rail inclination interface information ruling the dynamic performance of the vehicle for design purposes.	Bidder shall consider all relevant ISR's network information to comply with EN 14363 running performance condition.

65	Vol B	2.6.2	Passenger Areas	ISR was asked to confirm that the multi-purpose area shall be designed in both, Long and Short Units.	Participants are referred to the amended section 2.6.2
66	Vol B	5.5.2	Maintainability Requirements	ISR was asked to reconsider the meaning of MTTR abbreviation.	Participants are referred to the amended section 5.5.3
67	Vol B	16.5	Scope of Maintenance Work	ISR was asked to clarify whether Refurbishment is included in Suppliers Maintenance Services.	Participants are referred to the amended section 16.5
68	Vol B	7.1	Fire Protection	ISR was asked to provide relevant ISR tunnel section information.	Participants are referred to <b>Annex A</b> below. Further information will be submitted to the Supplier during the design phase.
69	Vol B	1.8.3 / 7.1; Appendix A (A.1 – A.4)	Tunnels	ISR was asked to submit Tunnel relevant design information.	Participants are referred to the information provided in Annex A below.
70	Vol B	5.7	LCC Analysis	ISR was asked to clarify the form of LCC calculation and the Envelope number where it shall be included.	The LCC cost shall be developed as the total value over the DDEMU life cycle period of 30 years in ILS. The LCC calculation information has to be submitted in Envelope 2 -Technical Proposal.
71	Vol B	1.1.1	Vehicle Concept	ISR was asked to clarify the type of additional vehicle required to be co considered for the extension of the Unit and the implications with respect to train power and performance requirements.	The term of an "additional vehicle" refers to an identical vehicle design type which might be used in the standard Unit configuration. The required train performance as specified in Technical Specifications is applicable for standard Unit configuration of 4 and 6 vehicles.
72	Vol B	2.2.1 / 2.11	Design / Painting, Labeling and Corrosion Protection	ISR was asked to clarify whether a stainless steel carbody shell exterior surface is to be painted.	The external carbody surface shall be painted.

## ANNEX A

ISR's Tunnel Key Design Reference Dimension at the network							
Network Route	Akko - Karmiel		Jerusalem				
Tunnel	Tunnel #1	Tunnel #2	Tunnel #1	Tunnel #2	Tunnel #3	Tunnel #3A	Tunnel #4
Lenght (m)	1,459	3,166	85+3,500	1,246	57+11,571	808+17	1,305+510+500
Bore type	Twin-bore						
Number of Cross-Passages	18	18	14	4	46	2	2
Max. height (m)	7.15						
Free cross section (m <sup>2</sup> )	49.24	49.24	51.56	51.56	53.53	51.56	51.56
Perimeter (m)	26.55	26.55	27.05	27.05	27.36	27.05	27.05
Hydraulic diameter (m)	7.4	7.4	7.62	7.62	7.82	7.62	7.62
Gradient (%)	1.66	2.50	2.90 / 2.51	2.15	2.15 / 2.50	2.50 / 1.90	3.00 / 1.31 / 0.20