

Record of Meeting

Preferred Bidder Technical Issues Round-up

26/11/07

Attendees :
Matthew Crosse– tie Chair
Steven Bell – tie
Eric Smith – tie
Bob Dawson – tie
Alastair Richards – TEL
Duncan Fraser – CEC
Andy Steel - TSS
Toby Kliskey - TSS
Geoff Gilbert – tie (part)

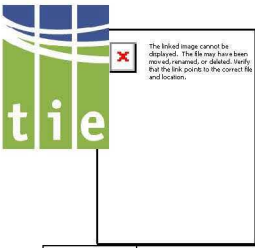
		Who	When
1	Introduction		
1.1	MC advised that the meeting had been convened to consider the relevant issues arising from the Technical Meetings with BBS along with anything arising from the Due Diligence process so that the impact on price could be assessed.		
1.2	AS noted the way in which the meetings had been conducted with notes taken and subsequently circulated to all interested parties. AS noted that many of the meetings seemed to be more about trying to get BBS up to speed rather than them advising what their bid allowed for in any detail. BBS had confirmed that they had generally bid against the information contained in the tender period Information Drops but accepted that there has been subsequent design development in response to things like Planning Conditions and 3 rd Party Agreements.		
1.3	A discussion was held on the overview of what the meetings had		

DOC.NO.	VERSION	STATUS	DATE	SHEET
PRO.Infraco.1569	1.0	Approved	06/12/07	1 of 5



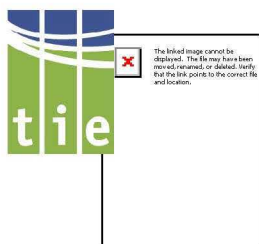
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	achieved. There were few significant technical concerns raised and BBS are still reliant upon the SDS design with the assumption that this is in accordance with the ERs and other project constraints. BBS do not appear to have engaged with the Due Diligence process and are only now beginning to complain of Information Overload. As much of the information was available through the bid process, it would appear that BBS are now considering the totality of the information for the first time. Maintenance proposals do not appear to have been co-ordinated with the technical and capital submissions.		
1.4	It was noted that BBS now highlight the client aspiration to hold the “into service” date whilst slipping the start date. This may now leave as little as 18 months construction period which would require a massive monthly spend of £11m on average.		
2.	Technical Sections		
	OLE and Power		
2.1	TSS advised that Scottish Power have demanded more space in the substation enclosures for their metering and switch gear. This will preclude the opportunity to make cost savings through reduction in the size of the substations.		
2.2	The responsibility for the cost and management of installing the connection from the Scottish Power ring main to the substation must be established by tie and passed to BBS by January. It is possible that the additional £100k cost advised by SP could be reduced by BBS. Any network reinforcement costs must also be recognised within the Project Budget.	tie	
2.3	TSS noted that BBS have been instructed to provide costs against manual and motorised isolators mounted in cabinets on the ground rather than on the poles. BBS to advise Spec and cost.	BBS	
2.4	TSS confirmed the basis of the BBS bid for OLE with full catenary between Airport and Roseburn Junction. On street will be fixed tension using the SDS design for poles and building fixings. The BBS price should be reducing to reflect this but the it is likely that	tie	

DOC.NO.	VERSION	STATUS	DATE	SHEET
PRO.Infraco.1569	1.0	Approved	06/12/07	2 of 5



		Who	When
	such savings will be offset by the additional cost of tapered poles currently being demanded by the Council. The poles bid are 3 stepped circular probably with UB/UC sections used where the corridor is next to the Network Rail installations. CEC advised that the decision on which poles to use could be delayed to after the contract award. ES will check with SDS the cost differential for different poles and fittings established during design development.		
2.5	TSS noted that BBS have been instructed to resubmit their costing based on the Phase 1a/1b split. This is probably not so easy as it seems for electrical and comms systems.	BBS	
2.6	TSS noted the options for providing resilience to the traction power supply to the ETN with the addition of an extra substation somewhere at the northern extremity of the Phase 1a. It can be argued that the ring main nature of the SP feeder circuit already provides a good degree of security and the ETN would also be able to continue to operate in the event of substation failure although possibly in a degraded mode. TEL and tie to agree if this saving can be taken.	TEL/tie	
2.7	It was agreed that VE item 149 should be deleted as no-one understood it and could not therefore justify it.	tie	
	Low Voltage and Auxiliary Power		
2.8	It was agreed that BBS should be instructed to delete the Depot standby generator.	tie	
2.9	It was noted that BBS have been instructed to compile the technical data on the Depot equipment and recalculate the real power requirements. It is anticipated that the transformer can be reduced from the 800kVA special to a standard 500kVA unit with commensurate cost savings.	BBS	
2.10	CEC confirmed that all street and signage lighting will be supplied from separate circuits that are not individually metered. BBS will need to bring it from the nearest supply point. BBS need to confirm that they have allowed for this.	tie	
	SC&C		

DOC.NO.	VERSION	STATUS	DATE	SHEET
PRO.Infraco.1569	1.0	Approved	06/12/07	3 of 5



		Who	When
2.11	BBS to confirm the Phase 1a/1b split.	BBS	
2.12	TSS noted that it can be calculated there is only a need for 55 cctv cameras for Phase 1a. This does not include cameras at roads junctions as these are either already in use or will be the responsibility of CEC. It was noted that the VE list appears to take a double count on the cctv provision so this needs to be rectified.	tie	
2.13	BBS should be asked to quote a price reduction for the Spec change from 4 hour UPS capacity to 3 hours.	tie	
2.14	BBS should be asked how many ducts they intend to install and what spare capacity there could be both in spare duct and in spare cable bandwidth capacity. TEL may be able to use this for other bus integration or commercial purposes.	tie	
	Trackform		
2.15	TSS noted the late change proposed by BBS to use Rheda City trackform. It has some significant benefits over SEDRA but the cost differential (if any) has to be confirmed.	tie	
2.16	CEC noted the very delicate nature of the boulder clay formation which will not tolerate water ingress. BBS and SDS will need to ensure that their design and construction methodology recognises this as CEC cannot afford to fund the further excavation of "unforeseen unsuitable material".	tie	
2.17	VE item 138 proposes possible savings for reducing the depth of ballast. BBS have been asked to confirm the depth they intend to use.	tie	
2.18	TSS noted that Noise and Vibration measures near sensitive receptors are likely to create additional costs. tie to check that there is a suitable Provisional Sum for noise barriers including fencing that may now not be required.	tie	
2.19	TSS noted the risks involved in accepting, at this stage, that the track can be directly fixed to the existing WEBS deck. It is more likely that some additional support will be required if only to create acceptable vertical and horizontal alignment. BBS and SDS have been asked to confirm their proposals and the technical viability. The BBS bid is		

DOC.NO.	VERSION	STATUS	DATE	SHEET
PRO.Infraco.1569	1.0	Approved	06/12/07	4 of 5



		Who	When
	based on direct fixing so it might be anticipated that costs will rise.		
	Performance Modelling		
2.20	TSS noted that there is a qualification from BBS in their bid where they have relied upon the SDS run time modelling.		
	Maintenance		
2.21	TEL noted that there may be qualifications within the revised bid from BBS based on the Maintenance team not being sure of the technical solutions being offered within the capital tender.		
2.22	TSS strongly advised against deleting maintenance spares at this stage of the tendering process.		
	Depot		
2.23	BBS will be asked for the delta in cost between providing fixed or mobile tram jacks with appropriate saving of pit construction. A decision will be taken once this information is available.	tie	
2.24	Similarly the costs for the different forms of tram washplant need to be available before a decision is taken on which one to adopt.	tie	
3.0	Next Meeting		
5.1	No further meetings were planned.		

DOC.NO.	VERSION	STATUS	DATE	SHEET
PRO.Infraco.1569	1.0	Approved	06/12/07	5 of 5