

THE EDINBURGH TRAM INQUIRY

Witness Statement of Roland Brueckmann

I, Roland Brueckmann, will say as follows:-

Background

1. I am a former employee of Siemens Plc ("Siemens") and I am now living in Germany at an address known to the Inquiry. My date of birth is [REDACTED]. I am currently employed by Schuler Pressen GmbH in Waghäusel/Germany as Project Director.
2. I have been an engineer since 1990 and since 1992, with my main area of work being railway infrastructure projects and the delivery of the overhead contact lines, signalling systems, power supply, and track-work. I currently hold the following professional qualifications: Diplom Ingenieur. I have worked with a number of international engineering companies during my time as an engineer such as Allgemeine Elektrizitäts-Gesellschaft AG and Siemens AG in Germany from 01.07.2007 until 30.09.2009 as Project Director.
3. My role has seen me involved with various notable turnkey infrastructure projects across the world. For instance, I worked as site manager on Kuala Lumpur's rail transit system (250 Mil. €, 12 km track with trains and turnkey system) and I was a project manager on a 3-year project to extend Dublin's DART rail system. I am trained as a Senior Project Manager level B of PM@Siemens certification system.
4. I was not employed by Siemens when it first became involved with the Edinburgh Tram Project (the "Project"). I understand that Siemens' involvement arose as a result of a procurement exercise. Siemens was at the time, and still is, a world-wide market leader in relation to such tram

infrastructure projects and has been involved in a number of other similar projects all over the world.

5. Siemens tendered for the Project as part of a consortium with Bilfinger Berger (UK) Limited ("Bilfinger") (the "BBS Consortium). Bilfinger was at the time, and still is, a leading international engineering company. Broadly speaking, Bilfinger was responsible for the civil works aspects of the Project (for example, the buildings, preparation of layer under the track-work & foundations) and Siemens was responsible for electrification works such as the overhead contact lines, power supplies, signalling and the track work interface (sleepers & ballast). The division of work reflected each entities' respective technical capabilities. The BBS Consortium entered into a contract with Transport Initiatives Edinburgh ("tie") to deliver in the Project in or around May 2008 (the "Infraco Contract").
6. I first became involved with the Project when I began my role as the director of the Project's technical team in or around the middle of October 2007. This role was closely aligned to the work I had undertaken previously on the extension of the Dublin DART system. I did not receive a detailed briefing when I started working on the Project, although this is in keeping with my experience of other, similar infrastructure projects. I was in this role until 15 April 2009.
7. As director of the Project's technical team, I reported to Siemens' Michael Flynn (based in the UK) and Joseph Frenz (based in Berlin, Germany). There were seven members of my technical team who reported to me who were Frank Wenzel (Documentation & Claim Manager); Mathias Hecht (Scheduler); Fenella Watson (Assistant); Ineke Van Klaveren (Quality); John Paul Riley (System Engineer); Michael Wilken (System Engineer); and Klaus Dieker (Trackwork). My technical team was responsible for developing the technical engineering aspects of the Project such as the overhead line equipment; supply of power; signalling; track work; system engineering and the maintenance equipment.
8. Part of the technical team's role was also to liaise with the Siemens' commercial team to calculate and provide the base cost to Siemens of delivering the technical engineering aspects of the Project.



9. The rest of my statement below sets out my experience whilst working on the Project for Siemens. My statement sets out my best attempt to respond to the 126 page question and answer form provided to me by the Edinburgh Tram Inquiry in light of the time constraints imposed and the time that has elapsed since the events in question occurred.

Pre-Contract phase

10. I understand that in 2005, Parsons Brinckerhoff Limited ("Parsons") was procured by tie Limited ("tie") (the commissioning authority for the Project), under a Systems Design Services ("SDS") agreement to assist with the provision of design work on the Project. This contract between tie and Parsons became commonly known between the parties as the "SDS Contract".
11. When I joined the Project, I became aware that the BBS Consortium was already in discussions with tie and Parsons regarding a number of issues with the design that Parsons had produced. Primarily, it was far from complete, and left a number of gaps and open matters. This meant that Siemens had to raise many questions to establish missing information, and also had to carry out design work that should have been completed by Parsons. When Siemens did raise questions or requests for further information with Parsons during the tender process, Parsons either failed to provide answers, or provided answers that were inadequate.
12. Following a tender submission, I understand that on or around 22 October 2007, tie, Bilfinger and Siemens Transportation Systems (a division of Siemens) entered into an agreement entitled "Selection for Appointment as Preferred Bidder" (CEC00569119) (the "Preferred Bidder Agreement"). I understand that the purpose of this agreement was to set out the terms upon which the BBS Consortium would accept an appointment as a "Preferred Bidder" should tie ultimately decide to appoint it as such.
13. I had very little involvement with the negotiation of the Preferred Bidder Agreement as I had only just joined the Project's technical team. I am aware however that clause 6 of the Preferred Bidder Agreement caused the BBS Consortium concerns. Clause 6 of the Preferred Bidder Agreement required the Preferred Bidder, whoever was to be appointed, to (i) use all reasonable endeavours to cooperate with tie in relation to Value Engineering with a view



to delivering cost reductions; and (ii) participate in the management of Parsons to deliver the design outputs including changes to accommodate the value engineering savings.

14. Siemens anticipated difficulties in achieving these cost savings given that the incomplete status of the design meant more work was required than indicated in the design. It was felt that given Parson's previous engagement, as referred to in paragraph 11 above, around the time I had joined the technical team, it would be difficult to work collaboratively to develop the design sufficiently.

The issues with the Project design

15. A number of disputes arose between tie and the BSC Consortium about the design during the contract negotiations after the conclusion of the Preferred Bidder Agreement. The BBS Consortium proposed changes to the design it felt necessary to achieve the Project which were then either rejected by tie or Parsons did not follow the BBS Consortium's recommendations and advised the BBS Consortium to receive confirmation first from tie before accepting any changes due to the additional costs such changes would involve. In my view, it did not seem to me that tie had anyone with sufficient technical experience to ensure that costs savings by refusing certain design changes were based on technically sound judgement. I also understand that tie was concerned that any major changes to the design would increase the price of the Project beyond what tie had been permitted to spend by the City of Edinburgh Council (the "CEC").
16. This caused further difficulties for the BBS Consortium in assisting tie to achieve the cost savings it so desired, given its responsibility to provide a system that works. In order to find a way forward, the parties agreed to introduce "Provisional Sums" items into their negotiations for the Infracore Contract. The Provisional Sums items became one of the technical team's main areas of responsibility.
17. Provisional Sums were engineering items on the Project that the BBS Consortium felt were necessary in order to deliver a best-functioning Project, but were available to tie as options for works that could be selected at an additional cost to the fixed price. The list of Provisional Sums works was used to help address the risk and increased costs arising from the gaps in



the design presented by Parsons and the fact that the design from Parsons was always changing due to it being incomplete. The system of using a Provisional Sums list was agreed with tie.

18. I am of the view that around 80% / 90% of the Siemens' Provisional Sums were necessary in order to meet the tie's specification for the Project (which specification eventually became enshrined in the Infraco contract as the "Employer Requirements"). The Provisional Sums were not included as part of the Infraco fixed price discussions, at tie's request. I believe this was done in order to visually maintain the Infraco contract price being negotiated, to ensure that the Infraco contract would receive approval from CEC.

The changing nature of the design

19. Following the appointment of the BBS Consortium as the preferred bidder, the main discussions that took place between the BBS Consortium and tie related to finalisation of the design.
20. However notwithstanding those discussions, the design for the Project continued to change which led to delays and caused frustration during the Infraco Contract negotiations. There were two reasons for this as far as I can recall.
21. The first reason for the design changes was that Parsons had not at that time approached third parties regarding the consents that would be required. For example, consents and approvals were required from Network Rail and Scottish Power in respect of the design. As these providers had not been approached previously (since the design was not complete enough to enter into discussions with them), this meant that changes were inevitable when third parties were approached.
22. The second reason for the design changes was that prior to execution of the Infraco Contract, tie kept changing its specification, the "Employer Requirements". Such changes had a consequent impact on Siemens' technical designs as current designs had to be checked to ensure they would still work.
23. By way of example, in the event that a request was made to change the specification of wire or cables used on an aspect of the Project, enquiries would need to be made to ascertain the impact of this on and compatibility



with other systems on the Project, such as signalling, cable ducts or power supply for instance. In order to do this, the technical team would need to await feedback from the relevant managers responsible for the particular system affected, which, due to the international nature of Siemens' business, could take some time. Often tie would make requests to change aspects of the design and would impose unrealistic response times.

24. It became difficult to track the constant changes made to the design, and the BBS Consortium accordingly had to create an internal team devoted to tracking and monitoring the incoming changes to the design.
25. In my view, the number of design changes requested from tie was outside standard industry practice for the stage the parties had reached on the contract negotiations, and it was a challenge to satisfy all of the requests. I also found that there were too many people negotiating design changes, as opposed to just one person from each party responsible for this. For example, there were four key people undertaking design change discussions on behalf of the BBS Consortium (Richard Walker, Michael Flynn (who would report any actions following such discussions to me), Scott McFadden and Chris Leader). There were however many key people undertaking design change discussions behalf of tie (i.e. Willie Gallagher, John Gilbert, Alistair Richards, Matthew Crosse, Frank McFadden, Bob Dawson and Colin Kerr).
26. Further issues arose regarding the finalisation of the design as the BBS Consortium would find that tie would upload information and design changes to a data room (set up for the purpose of allowing the parties to exchange information regarding the design) without informing the BBS Consortium. This would mean even shorter response times to accommodate such changes (such as changes to be implemented within one week) as the data room was not monitored on a constant basis.
27. Given that the design kept evolving, there became a need to fix the design in order to be able to move toward finalising the contract terms and the price. Accordingly, it was agreed with tie that the design would be fixed as at November 2007. This fixed design became known as the "Base Date Design" and was design information fixed as at a period of time, on which a price for the Infracore works could be based, to ensure that there was some certainty for the parties.



28. As a result of fixing the Base Date Design, the BBS Consortium and tie were able to start negotiations to agree a contract price in principle, I was not a party to those contract price discussions. However, Siemens was conscious that a number of the Provisional Sums items would also be needed which were not included in those price discussions to ensure that the system delivered to tie was workable. Siemens was however unable to estimate a price for such Provisional Sums sufficiently precisely as the cost of such items depended on development of the design and third party approvals, which were not then available to us.
29. Notwithstanding these concerns, tie were keen to agree the contract terms and, more importantly, the price. This led to the introduction of the Infracore notice of change mechanism Schedule Part 4 (CEC01493841). I was not involved in the negotiation of Schedule Part 4 but I understand that it was introduced to allow the cost of the contract to be fixed whilst providing a mechanism for either party (within the BBS Consortium) to apply for additional costs or time as a result of the design changing from the Base Date Design. Schedule Part 4 was discussed with tie at length throughout the contract negotiations and agreed as an appropriate mechanism for fixing the price of the contract whilst so many issues remained outstanding.
30. During December 2007, I am aware there were discussions between BBS Consortium and tie relating to difficulties that the BBS Consortium with finalising prices for a number of items (such as for highways and drainage and overhead line equipment). As I understand, these issues were mainly between Bilfinger and tie. Although Siemens did form part of these discussions, and additional sums were agreed to be paid to Siemens, I was not involved in this process.

The Wiesbaden meeting

31. In December 2007, a meeting took place between the BBS Consortium and tie at Bilfinger's headquarters in Wiesbaden, Germany, in December 2007. I was present at this meeting, as was Michael Flynn, Steven Wright and Steven McFadzen from the BBS Consortium.
32. One intention behind the meeting was to discuss and agree the list of Provisional Sums, from which a price could be estimated.



33. The agreement arising from that meeting was to be enshrined in the "Wiesbaden Agreement" entered into on or around 20 December 2007. The Wiesbaden Agreement set out the contract price for phase 1a of the Project as £218,262,426, and an estimated cost of approximately £18 million agreed in respect of the Provisional Sums. As I mentioned earlier, the reason for there being a distinction between the two elements in my view was that tie wished to keep the price of the contract at a low enough level that it would still receive CEC approval.
34. I am aware there were discussions on or around the conclusion of the Wiesbaden agreement between tie and Bilfinger regarding a further sum of around £8 million to fix certain variable sums where changes in design or additional information were needed. I did not form part of those discussions, and so do not have any other knowledge on why that sum was agreed.

The Advanced Works contract

35. On or around 20/21 December 2007 tie, Bilfinger and Siemens entered into the "Mobilisation and Advanced Works Contract" ("Advanced Works Contract"). From recollection, the purpose of this agreement was for tie to agree a payment to the BBS Consortium for spending a great deal of time and money to resolve the design issues and finalise the design for the Project with Parsons and tie. With the design finalised, this would assist the parties in their negotiations going forward as the design would be more advanced and consequently, the prices could be assessed more accurately.

December 2007 to May 2008

36. As part of the contract negotiations in or around early 2008, tie were requiring BBS Consortium to novate the SDS Contract between Parsons from tie to the BBS Consortium. On or around February 2008, there were various discussion between the Consortium and tie regarding the lack of progress, particularly in relation to the novation of the SDS Contract.
37. The BBS Consortium were reluctant to take novation of the agreement as the design was not complete. This would mean the BBS Consortium would be responsible for any errors in the design pre-novation and consequently, result in additional commercial risk to the BBS Consortium and exposure to costs. Throughout the contract negotiations, the BBS Consortium found tie were



difficult to negotiate with regarding costs and knew that negotiating the cost of any liability incurred by BBS Consortium as a result of SDS design work completed prior to the novation would be impossible. .

38. I am informed that various price increases were sought by the BBS consortium which were agreed in the first half of 2008; however I am unable to provide any comment on this as I was not part of these discussions.
39. When the SDS Contract was novated, it appeared to me that although Parsons were now the sub-contractor of the BBS Consortium for the provision and completion of the design of the Project, they were still under the instruction of tie. The reason I say this is that the design produced following novation did not align to the design requirements that the BBS Consortium had put forward for its tender for the completion of a workable system.
40. Resolution of this design misalignment issue was reached by postponing discussions on certain design items and adding them to the Provisional Sums items list. This did however have a knock on effect of further delays whilst the provisional value of such items were then negotiated between tie and the BBS Consortium, notwithstanding that the parties had tried to agree the scope of the Provisional Sums previously as part of the Wiesbaden Agreement.
41. By way of example, this misalignment created an issue with reference to costs arising in respect of the Network Rail immunisation (essentially a process used to prevent unwanted electrical currents from third parties' power supplies affecting the Project's electrical systems and vice-verse).
42. Changes to the proposed design from Parsons meant that this affected the accuracy of the costs of obtaining consents from Network Rail in respect of immunisation, which turned out to be priced considerably higher. Additionally, delays in producing a finalised design affected the time by which third party consents could be obtained, since, with reference to Network Rail, consent would only be granted (or otherwise) following production of a final design to them.
43. Finally after much negotiation, on or around 19 March 2008, tie issued a Public Information Notice advising that the BBS Consortium had been



selected to build the Edinburgh Tram System and that the Infraco contract was required to be concluded by 28 March 2008 to facilitate the drawdown of funding from Transport Scotland before 31 March 2008. My recollection was that tie was keen for the Infraco Contract to be concluded by this date as there was a political election scheduled and if the elections went a certain way, the future of the Infraco Contract was doubtful.

Contract Close – May 2008

44. The Infraco contract was not actually concluded until 14/15 May 2008 (CEC00036952). The main reason from memory that the Infraco Contract did not conclude by 31 March 2008 was that tie had requested further multiple changes to the specification of the Project shortly prior to proposed execution which meant urgent revisions were required to designs which impacted on the contract price.
45. The Infraco Contract as far as I was concerned had a “fixed price” for the “Construction Works” of £238,607,604 based on the Base Date Design fixed as at November 2007. As I mentioned earlier however, additional works, such as the works comprised in the Provisional Sums items, would need to be completed in order for the tram line to work and so it was always known to both parties that the price of the contract would inevitably increase. Accordingly, the price of the contract was not “95% fixed” as commented in the CEC report dated 23 April 2008 (CEC02083359).
46. At the conclusion of the Infraco contract, the trams manufacturer Construcciones y Auxiliar de Ferrocarriles (“CAF”), joined the BBS Consortium, which then became the Bilfinger Siemens CAF Consortium” – known as the BSC Consortium.
47. The Infraco Contract contained, amongst other provisions, target start and completion dates for certain milestones of the Project. However, as soon as the Infraco Contract came into effect, there were issues with the mobilisation of the works under the contract. These primarily arose due to the fact that changes to the design were immediately required, which required negotiations on additional costs and time allowances with tie, and because of the delays of the utility diversion works. I have summarised the issues with these delays below.



Utility Diversion delays

48. The utility diversion works were works to divert utility lines, sewers etc which were present in the "track box" (the area where the tram track and its foundations would be constructed). These works had been contracted to Alfred McAlpine Infrastructure Services Limited, later Carillion plc) by tie pursuant to a Multi-Utilities Diversion Framework Agreement ("MUDFA") on or around October 2006 (and become known as the "MUDFA Works").
49. The intention was at all times during the Infraco Contract negotiations for the MUDFA Works to be mostly completed by the time that the Infraco Contract was executed. tie had at one point informed the BBS Consortium that the works were 2 months away from completion at around May 2007 (before contract signing). From my personal experience, this estimation grossly underestimated the time it would take to complete the utility diversion works; and in my view, I felt that that the MUDFA Works at this point would still take a further twelve months at least to complete.
50. This created difficulties with commencing works under the Infraco Contract due to the nature of work allocation within the BBS Consortium. Siemens' work under the Infraco contract could only be carried out once Bilfinger had completed its civil works for the applicable section of the Project. This was the case since the civil works tended to provide a necessary interface for Siemens' works. For instance, by way of a simplistic example: Siemens could not lay track-work until Bilfinger had completed its work on the track foundations. In this way, Siemens therefore followed Bilfinger on sections of work, and would not start on a section of the Project independently from Bilfinger.
51. Bilfinger however would not commence its civil works on a section of the Project until the relevant MUDFA Works had been carried out given issues with access and completion of the section (any pipe of water, & gas or power cable would stop civil works in relevant track section). The extensive delays with completion of the MUDFA works therefore created a domino effect, causing consequent delays to Bilfinger's completion of its civil works which in-turn meant that completion of Siemens' works were delayed.
52. A constantly changing contract programme meant that it was also difficult for the BSC Consortium to allocate and organise resources. For example, the



BSC Consortium sub-contracted some of its work to other contractors on a back-to-back basis and so sub-contractor's work start-dates were the start-dates agreed with tie in the Infraco Contract. The MUDFA works delays led to delays in these start-dates and liquidated damages claims by sub-contractors against the BSC Consortium due to allocated personnel and machinery not being deployed when agreed.

Notice of change mechanism disputes

53. As I mentioned previously, there was a mechanism in Part Schedule 4 of the Infraco Contract for the parties to submit a "Infraco Notice of Change" and a "Tie Notice of Change". These provisions allowed the parties to vary the target completion dates and the costs based on changes as a result of design development from the Base Date Design fixed at November 2007 as well as delays arising from the Utility Diversion works.
54. When the Infraco Contract was entered into, there was an immediate Infraco Notice of Change which arose as a result of the design having developed to the next edition since being fixed in November 2007.
55. However, given the MUDFA Works delays and the fact that the design was still incomplete, many more Notice of Changes were submitted under the Infraco Contract.
56. The sheer number of these Notice of Changes resulted in the BSC Consortium having to create a Change Team to monitor progress and agree with tie the value of the changes proposed and impact on the contract programme.
57. It is recorded in one of the minutes of the BSC Consortium meeting on 8 December 2008 (SIE00000231) that "[Bilfinger] wished to propose David Carrick as Claims Consultant, to be employed by [Bilfinger] on behalf of Consortium. ...Siemens do not require services of Mr Carrick. BB will utilise as required." This was not taken up on the basis that Siemens already had a claims manager (named Frank Wenzel) and two claims managers were not required.
58. In my view, the Siemens' Change Team would try and avoid disputes with tie where possible and would try to negotiate and compromise but found that tie was not accommodating of changes in any way despite them being



necessary as a result of the design and MUDFA works issues. tie's attitude however in not agreeing the changes resulted in high profile works, such as the Princes Street works in or around March 2009, being suspended whilst traffic measures had already been put in place to accommodate the works on what is, the busiest street in Edinburgh.

59. It was, in my view, in Siemens' interests to monitor notice of changes and extension of time claims brought against tie by Bilfinger. The reason being that some of those claims impacted in the costs incurred by Siemens, even if Siemens was not party to the claim. For instance, if Bilfinger raised an extension of time claim, and would not start work until a resolution had been reached, this would mean Siemens' start dates on sections of the Project were delayed. However, if that extension of time was not ultimately agreed, it sometimes meant that a Siemens' start date was missed and so Siemens' was liable to pay tie liquidated damages under the Infraco Contract (even though the delay was caused by earlier negotiations between Bilfinger and tie).
60. My role as director of the technical team for the Project ceased on 15 April 2009 when many of the disputes regarding the notices of change commenced. Siemens AG in Germany took the decision without my consent to replace me with an individual named Miguel Berozpe, so that I had to move internally on to another project (Siemens Switzerland 2009 - 2014). From my perspective, I had done a good job on the Project and my team had performed well. I spent a month with Mr Berozpe handing over the role of director of the technical team in May 2009.

Closing Comments

61. I have been made aware that there are a number of allegations made against the BSC Consortium regarding the Project. My comments on these specific allegations are set out below.

Allegations

- 61.1 "*The BSC Consortium failed to mobilise timeously*" (DLA00001673 and DLA00001672): It was always intended that the MUDFA Works should have been completed by the time the Infraco Contract was concluded, and the responsibility for that was tie as the procuring party of the MUDFA Works.



61.2 *"The BSC Consortium refused to start work involving a change until an estimate had been agreed"*: The BSC Consortium did refuse to start work, for the most part, until a Notice of Change estimate had been agreed with tie. It had been the BSC Consortium's experience throughout the Infraco Contract negotiations that tie did not honour verbal agreements on costs or to negotiate in good faith and would do its best to renege on an agreement reached or seek to pay a sum below the figure agreed. Consequently, the risk to the BSC Consortium was too great to commence works without prior agreement from tie.

61.3 *"The BSC Consortium refused to work in a section if utility diversion works had not been completed there"*:

61.3.1 This was mainly an issue between Bilfinger and tie, as described previously. If the utility diversion works had not been completed before Bilfinger started work on a section, Bilfinger would not be able to conduct its works without being interrupted by contractors dealing with the utility diversion. Personally, I agree with the position adopted by Bilfinger: that it would not start works on a section until the relevant utilities had been diverted.

61.3.2 In my view, having both Bilfinger (or its contractors) on site as well as those contractors conducting the MUDFA works would not work well, and would make it difficult for each set of contractors to work. It would also potentially cause further issues, for instance allocating responsibility for certain work between contractors, or dealing with damage caused by respective contractors to each other's equipment and machinery.

61.4 *"The BSC Consortium delayed in carrying out the off-street works"*: This is an issue between tie and Bilfinger that I am not familiar with:

61.5 *"The BSC Consortium failed in its duty to take all reasonable steps to mitigate delay to the Infraco works, and in relation to the acceleration of those works"*: I am not in a position to comment on this allegation, as this relates more to the issues in dispute between Bilfinger and tie.

61.6 *"The BSC Consortium failed to properly manage and progress the design process after SDS novation"*: Again, this was mainly an issue between



Bilfinger and tie, since, following the novation, Parsons effectively became a sub-contractor of Bilfinger. However, the issue arose because Parsons delivered a design which was fundamentally different to the one proposed by the BSC Consortium in the tender process. This had a knock on effect on all minutia of the design which required changing. Further, the design process was delayed due to ties' constant changes to its specification. This was the main reason why the parties ultimately decided to fix the design in November 2007 as the "Base Date Design".

61.7 *"The BSC Consortium intimated an unreasonably high number of INTCs":*

61.7.1 From my understanding, approximately 90% of the Notices of Change submitted to TI under the Infraco contract came from Bilfinger.

61.7.2 Prior to my joining the Project, I had not experienced such a system before; whereby a Notice of Change would be submitted to the customer following a change in design, which then required an agreement on costs to be reached to allow commencement of those works. This mechanism only arose because of the need to fix the contract price at a certain level when the design was not complete and other items had not been properly considered so that tie could obtain approval from CEC to execute the Infraco Contract.

61.8 This may have caused, at most, some minor delay in the very early stages, although that said – this is quite normal on comparable infrastructure projects, where personnel numbers tend to require ramping up at the start.

61.9 *"When Estimates were provided, they were lacking in specification and/or failed to demonstrate how Infraco would minimise any increase in costs and ensure that the change would be implemented in the most cost effective manner (CEC00036952)":* Put simply, this is not my view.

61.10 *"The amounts in the Estimates were often excessive":* Again, this is not a view that I share.

62. I have also been asked whether I have any comment in relation to the project management and governance of the Project. From my perspective, and with the benefit of hindsight, I would say that the senior managers working on the Project did not work together all that harmoniously (despite



Siemens' efforts). There were few compromises between the parties, and the Project suffered as a result of this.

63. The main disputes arose between Bilfinger and tie, but, in my view, tie carries most of the responsibility for the delays experienced and ultimately, the increased costs. As the procuring contractor, tie had the greater responsibility to ensure that the project was managed appropriately but it also did not have the technical knowledge and experience of the BSC Consortium and should have been more open to taking advice and guidance on aspects on which it was not qualified.
64. As to specifics, it is clear that the long delays in MUDFA Works had a tangible impact upon the time and cost of completing the Project. Further, the fact that the design had not been completed to a sufficient degree at the execution of the contract also caused delays and multiple changes to the costs of the project as the design developed. In my professional view, the Infracore Contract should not have been entered into until the MUDFA Works and the design were completed, or near to completion, but as I have said previously, there appeared to be political reasons that tie was pushing for it to be executed by March 2008.
65. The other comparable projects that I have been involved in have been much better structured. In my view, part of the root issue with the Project was the creation of tie and the role that it played. Further, because tie was simply an extension of the CEC, I do not believe that tie felt the same sense of responsibility as the CEC towards the Project. I believe that the CEC should have acted directly as the client as opposed to a created third-party or intermediary.

I believe that the facts stated in this witness statement are true.

Signed

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Full Name: Roland Brueckmann

Dated:

17.08.2017