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Edinburgh Tramway Project

Siemens internal "MIS report"  
Status Feb 2010

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# Edinburgh Tramway Network (ETN) Project Overview



Contractual completion date Sep 6th, 2011;  
but circa 18 months extension of time are still in negotiation

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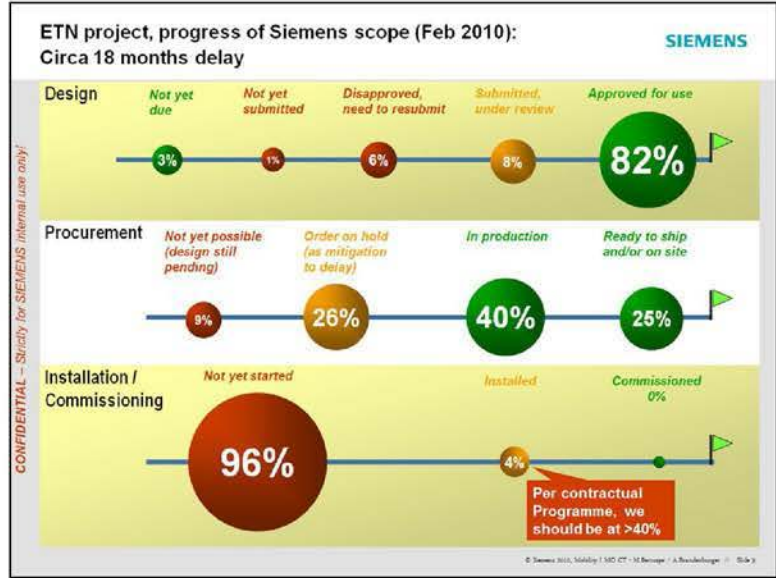
18.5 line kilometers (11 offstreet / 7.5 onstreet)

27 low floor tram vehicles (by partner CAF)  
All Civil Works (by partner Bilfinger Berger)  
All E&M works incl. Trackwork (by SIEMENS)

- SIEMENS: Overall PM & SYS
- Trackwork
- Electrification
- Depot and Workshop Equipment
- Tramway signaling (SICAS S7, IMU)
- Comms / Control Centre
- SCADA / PA
- Urban Traffic Controllers (\*)
- Maintenance for 3 years.

GRAND TOTAL, SIEMENS

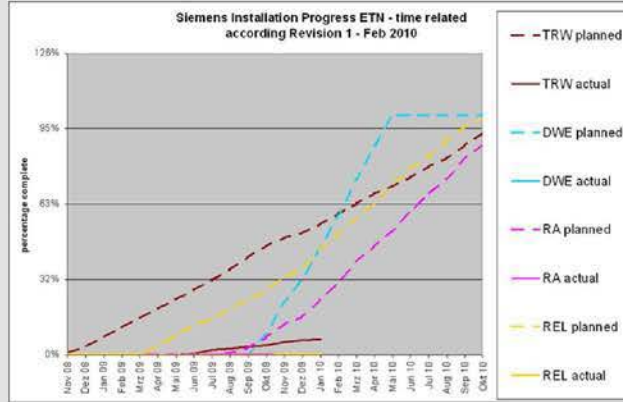
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**S-curves, installation progress:  
Planned vs actual (cumulated), per Siemens Lots**



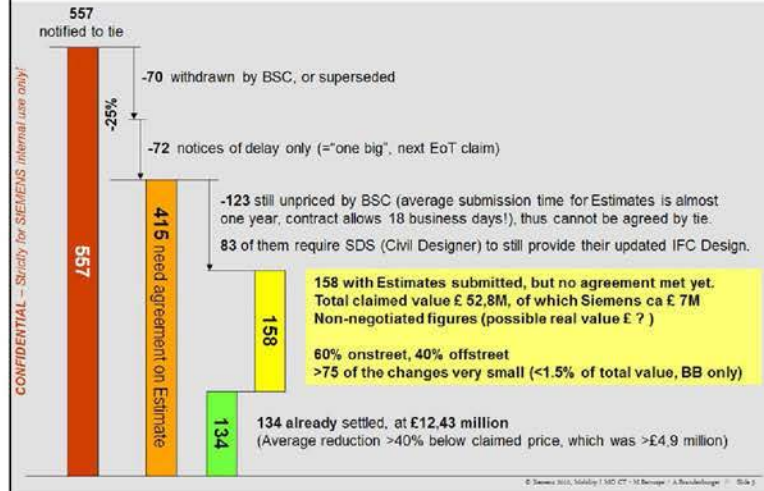
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- Start of installation delayed by >15 months, except Trackwork with 7 month delayed start (driven by Civil Works delay)
- Very disrupted initial installation (so far, Trackwork and Electrification)

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**Change Management process**  
 (>90% are Bilfinger Berger changes)



**ETN Project Stakeholder Management / Relationships** SIEMENS

MIGUEL/ALFRED please update this slide

**Customer (TIE Ltd.; reports to the Civil Works Council):** ●

- TIE ↔ BSC tense relationship in the first 18 months of the project
- Conflicts are with BB (not Siemens), centered on Changes/Entitlement, and on lack of progress
- Sep-Nov'09, relationship had improved since St, EoT1), VIP commitments to progress were met
- Dec '09-Jan-10, it has clearly worsened (Adjudication results? BB failed commitments of progress?)

**BSC Consortium (Bilfinger Berger / Siemens / CAF):** ●

- BB consortium leader: very aggressive, "own" strategy (no work without prior Change Order)
- Increasing tension BB ↔ Siemens & CAF, due to slow Civil Progress, and non fulfillment of BB's own VIP promises, further damaging the Consortium's image
- Main areas of conflict: non agreed strategy on prioritization of progress and mitigation of delay; risks of cross-compensation for concurrent delay so far (incl. design delays, etc.)

**Siemens' main subcontractor (BAM Rail)** ●

- Subcontract has ambiguities; and BAM submits very inflated claims
- Siemens has reinforced Subcontract Management, first two BAM Disputes "mediated away"
- "Progress or not" in Civil Works is leveraging practically all conflicts Siemens/BAM
- Relationship is slowly improving, as BAM presents less claims and Siemens recognizes more

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EXPLAIN FOLLOWING REASONS FOR IMPROVEMENT OF RELATIONSHIP TIE/BSC

Changes at top management level, Apr-Sep'09: TIE (CEO), BB (PDir, CEO), Siemens (PDir)

Settlement of first Disputes is reducing uncertainty as to the Change Management / Entitlement

Especially: crucial settlement of EoT1, and TIE's first conciliating approaches for EoT2

Reciprocally, BB has started a proactive approach to progress on the Site

"Mission accomplished" in Princes Street (despite continuous disruption and discussions)

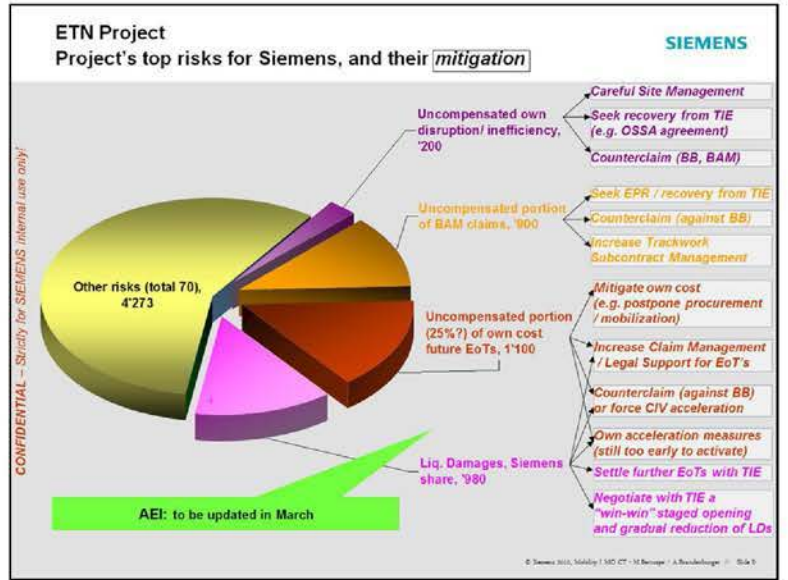
ETN Project  
Status of Disputes between Consortium and Customer



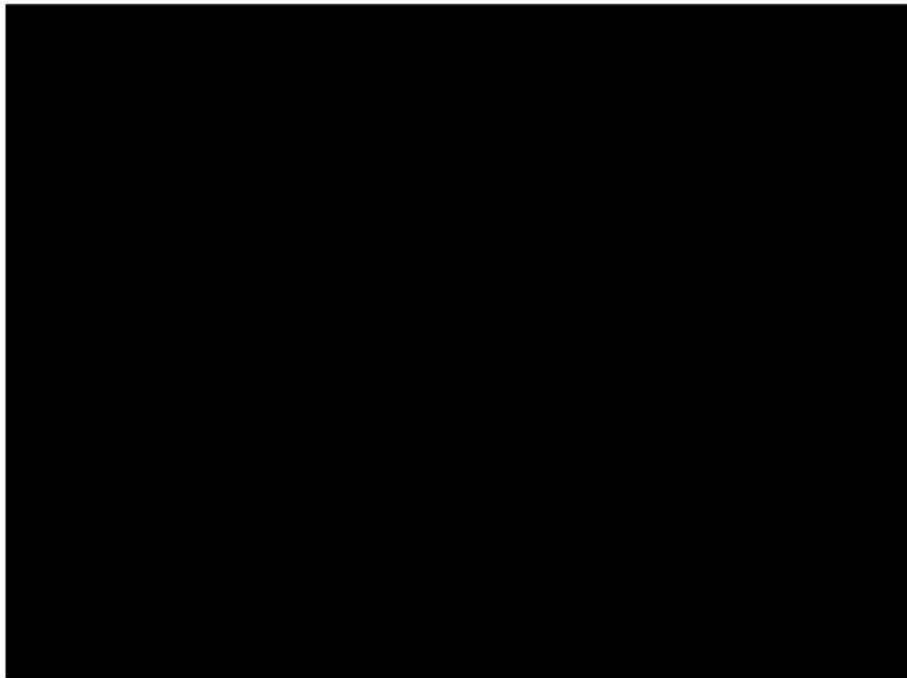
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Dispute title	Initiator	Issue(s)	Status	Comment
Application of BB prelims in changes	tie	Valuation of BB's overall project management costs in Changes	●	Resolved in Mediation, Jun 2009
Hilton Car Park access works	tie	Requirement to issue or not an instruction to commence works in a 3rd party land	●	Lost in Adjudication, Oct 2009 (note: very minor item)
Haymarket viaduct	tie	Civil Engineering scope change and valuation; principle of entitlement to change order	●	Resolved amicably (prior to mediation), October 2009
Valuation of EoT1 claim	tie	Consortium valuation of first extension of time (7.5 weeks)	●	Resolved in Mediation, Oct 2009 - £2.65M BB, £1.3M Siemens
Gogarburn bridge	tie	Civil Engineering scope change and valuation; principle of entitlement to change order	●	Won in adjudication (Nov 2009)
Carrick Knowe bridge	tie	Civil Engineering scope change and valuation; principle of entitlement to change order	●	Won in adjudication (Nov 2009)
Russell Road retaining wall	BSC	Civil Engineering scope change and valuation; principle of entitlement to change order	●	Won in adjudication (Jan 2010)
MUDFA v8 EoT		<b>MIGUEL please update this slide</b>	●	Agreed to postpone mediation period until first week of Feb, 2010
Baird Drive retaining wall	tie	Civil Engineering scope change and valuation; principle of entitlement to change order	●	Initiated by tie in Jan 2010. Expected to go to Adjudication
Balgreen retaining wall	tie	Civil Engineering scope change and valuation; principle of entitlement to change order	●	Initiated by tie in Jan 2010. Expected to go to Adjudication

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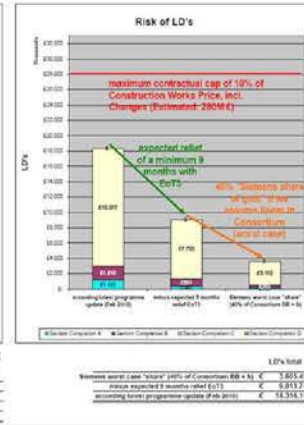
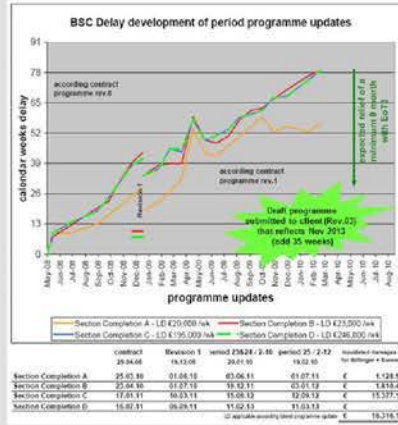




# Sectional Completion Dates, risk of LD's



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Note: there is a max cap of all LD's to 50% of Construction Works Price, save as extra LD's from CAF that could come from Train performance issues. Also, LD's for Section Completion D only apply for new delays caused after conclusion of Section C.

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## Possible mitigation strategies, delay risk

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- **Earlier start of technical Lots:** we are doing it whenever possible within acceptable cost and/or risk. **MATHIAS/MIGUEL please update this slide**
- **Acceleration scenarios** - various options available; still unexplored, too early to commit
- **Put pressure on BB to accelerate Civil Works at their own expense,** to recover potential concurrent delay of the Consortium (so far, most of it would be BB's, if not all)
- **Negotiate with TIE a staged opening of the line,** incl. renegotiation of Sectional Completion Milestones and their proportional weight of LDs
- If project [unlikely] "flatlines" beyond reasonable recovery: **partial demobilization** – but without incurring risk of breach.

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