

Thameslink Rolling Stock Project Issued 26 November 2010

Financial Proformas

THAMESLINK ROLLING STOCK PROJECT

INVITATION TO TENDER

Financial Proforma Templates

PRIVATE & CONFIDENTIAL

Important notice for all users

Important Notice

This document forms part of the Thameslink Rolling Stock Invitation to Tender and is issued subject to the same terms and conditions.

All references in this document to Network Rail (NRL) include, where appropriate and unless the context otherwise requires, references to NRL's successor(s). The Disclosed Information has been prepared to assist interested parties in considering whether or not to make a bid proposal in relation to the Thameslink Rolling Stock Project (TRSP) Services and, if so, how to make it. It does not purport to be all-inclusive or to contain all of the information that a Bidder may require. The descriptions of existing and proposed contractual arrangements are of a general nature only. Where the document describes any contractual arrangements which are not yet in force, those arrangements may change. Any reference to a contract or other document is qualified in full by reference to the entire terms of the contract or document referred to.

The issue of this document in no way commits the DFT to award the TRSP Services to any person or party. The DfT reserves the right to terminate the competition to award the TRSP Services without prior notice, to change the basis, the procedures and the timescales set out or referred to in this document, or to reject any or all bids and to terminate discussions with any or all Bidders at any time. Nothing in this document should be interpreted as a commitment by the DFT to award the TRSP Services to a Bidder

representation or warranty (express or implied) as to the accuracy, reasonableness or completeness of the Disclosed Information. All such persons or entities expressly disclaim any and all liability (other than in respect of fraudulent misrepresentation) based on or relating to any such information or representations or warranties (express or implied) contained in, or errors or omissions from, this document or based on or relating to the recipient's use, or the use by any of its subsidiaries or the respective representatives of any of them, in the course of its or their evaluation of the TRSP or any other decision. In the absence of express written warranties or representations as referred to below, the Disclosed Information shall not form the basis of any agreements or arrangements entered into in connection with the TRSP.

The only information which will have any legal effect and/or upon which any person may rely will be such information (if any) as has been specifically and expressly represented and/or warranted in writing to the winning Bidder in the relevant contracts or other relevant agreements entered into at the same time as such contracts are entered into or become unconditional.

This document is not a recommendation by DfT, or any other person, to bid for, enter into or agree to enter into any contract in connection with the provision of the TRSP Services, nor to acquire shares in the capital of any company, or in any parent company of the company, which is to provide the TRSP Services. In considering any investment in the shares of any company or in bidding for the award of the TRSP Services, Bidders, potential contractors, funders and investors should make their own independent assessment and seek their own professional financial, taxation, insurance and legal advice and conduct their own investigations into the opportunity of being awarded the TRSP Services and of the legal, financial, taxation and other consequences of entering into the contractual arrangements in connection with the TRSP Services.

Neither this document, nor the Disclosed Information, nor any other information supplied in connection with it, may, except with the prior written consent of DIT, be published, reproduced, copied, distributed or disclosed to any person other than in confidence to each Bidder's advisers, nor used for any purpose other than consideration by each Bidder of whether or not to make a bid.

DfT reserves the right at any time to issue further supplementary instructions and updates and amendments to the instructions and information contained in this document as it shall in its absolute discretion think fit.

Advisors are acting for DfT, in each case in relation to the TRSP Services, and will not regard any other person as their client or be responsible to anyone other than DfT for providing the protections afforded to their clients nor for advising any other person on the contents of this document or any matter referred to in it.

DfT will not be responsible for the costs or expenses of any Bidder in relation to any matter referred to in this document howsoever incurred, including the evaluation of the TRSP opportunity, the award, or any bid for the award of the TRSP Services, or negotiation of the associated contractual agreements.

THAMESLINK ROLLING STOCK PROJECT WLC Model Results Whole Life Cost Model - INSTRUCTIONS

Overview

A financial assessment of bids will be made on a whole life, rather than first cost, basis. The Whole Life Cost proformas will calculate the cost of owning and operating the units, and will allow the full project costs to be evaluated, thus allowing Bidders to offset initial capital costs with future savings where this is appropriate.

Bidders are required to submit the completed model as part of their bid documents. DfT will review the entries made by cross referencing them with the statements made elsewhere in the tender document to check whether the cost model is an accurate reflection of the bid content.

To produce this assessment, Bidders are required to complete the attached Whole Life Cost Model proformas which will calculate the present value of initial and all future costs. 'WLC Model Inputs' contains all the fields where the Bidder will input data. Other standard data specified by DfT is also included in this sheet. 'WLC Model Results' contains the automatically generated data which will total the fleet current investment value.

These notes are intended to assist the Bidder in completing this exercise. A number of variables have already been set, either by DfT or Network Rail, and these cannot be altered by the Bidder. In general all areas where the Bidder should input data are indicated with a yellow background. Areas where DfT has added variable data are indicated with a red background

The whole life costs will be calculated from 1st July 2017 until 30th September 2046. Bidders are required to input all costs for the start up period until 30th June 2017 – these costs will be reviewed but not included in the Whole Life Cost calculations for bid evaluation.

Bidders should provide inputs to the Whole Life Cost model covering Batch 1 and all future Batches.

Bidders should set out separately in the Miscellaneous Items category:

- a. the Owner's cost of shrinking back the MSA; and
- b. the TMM's revised Service Payments and costs of shrinking back the TSA

For evaluation purposes when carrying out the Stage 4 – Value Assessment the Department will apply a weighting of 20% to the scenario that the TRSP shrinks back to Batch 1 only, with consequent adjustments to the Whole Life Cost Model. It will apply this probability to both the Owner's cost of shrinking back the MSA to Batch 1 and the TMM's revised Service Payments and costs of shrinking back the TSA to Batch 1, in each case, in such a way to avoid any double counting of costs/benefits. The Department has included a WLC Model Inputs (addendum) and WLC Model Calcs (addendum) to facilitate the inclusion of this information.

Indexation & Discounting

Lease Rental Payments and Depot Lease Payments will not be subject to indexation. All other prices will be input in real terms (1 April 2010). The impact of inflation on future costs will be automatically calculated by the spreadsheet. Base costs will be inflated at the assumed RPI rate of 2.70% per annum. DfT has decided to include higher inflation rates for the future cost of traction electricity (RPI +1%) to reflect the expected increased future cost of energy.

All future costs will be discounted to current values at a real discount rate of 3.5%.

Notes

1. Lease Rental Payments

The Lease Rental Payments should cross reference Proforma L - 2.

Payments should be extrapolated to 30 September 2046 assuming that fleet size and Lease Rental remain constant.

2. TSA Service Payments

The TSA Service Payments should be input in real terms in 1 April 2010 prices and cross reference Proforma TSA - 2

Payments should be extrapolated to 30 September 2046 assuming that fleet size and Daily Service Charges (in real terms) remain constant

3. Total Depot Costs

The total depot costs consist of 3 elements:

1. Depot Lease Payment

The Depot Lease Rental Payments should cross reference Proforma D - 2.

Payments should be extrapolated to 30 September 2046 assuming that Depot Lease remains constant.

2. Depot Residual Value

Not required as per CQ0613

3. Network Rail Lease Value

The Department will set the Network rail lease value for each depot to be used in the model, and which will cover the cost of the Network Rail lease, connection to Network Rail signalling and OLE systems, and the cost of track connections.

4. Energy Consumption

As part of this exercise the overall electric current consumed in normal service (with all on train services such as air conditioning and lighting fully operational) will be calculated. For the simulation, Bidders are required to calculate the average current consumed by each unit per route mile by dividing the total electricity consumption for the test run by the overall distance run, to produce a kilowatt hour per unit mile figure. This single figure is to be input into the spreadsheet for Type 2 Units. In respect of Type 1 Units, Bidders may either conduct additional simulations over the same route in the same condition, or simply multiply the Type 2 number by 1.5 – stating which method they have selected. Power consumption is to be input on a unit basis.

The simulation conducted by Bidders will also calculate the amount of electricity fed back to the supply system during regenerative braking. Again, this figure should be calculated on an average amount of electricity regenerated per Unit mile running basis, and input in the appropriate cell, using the same figure for Type 2 Units. Type 1 Units should be calculated using the same method as used for energy consumption. Regeneration will be assumed to be at the maximum achievable rate, and the impact of the receptivity of the system (for example from the number of other units running in the local area) and the ability to accept regenerative power can be ignored.

The Department has already produced assumed diagram duties and duty miles per annum. These figures will be used to calculate the overall electricity consumption per annum for the purposes of evaluation. The Department has chosen a standard electricity cost inclusive of the costs of the power distribution system and overhead line equipment, and this value will be used for calculating the cost of power consumption. The Department has also set the value of power regenerated to the network, and this will again be used to assess the value of regeneration to the network. The costs used reflect the major variations in Network rail EC4T charges at different times of the day and year. The Department has also set an increased inflator for these costs, to reflect the increasing importance of energy values over time.

In addition, bidders must provide the energy consumption for overnight stabling of a 160m Unit. The Whole Life Cost Model converts this into an annual charge. 5. VTISM

Variable track charges will be calculated by Bidders using Rail Safety & Standards Board's VTISM model, which assesses the impact of the rolling stock on the track and the wear and tear caused, and produces a variable per mile cost. The Bidder will be responsible for procuring and running this model. Runs will be conducted for each type of unit, and the relevant values per mile will be produced. Bidders are required to produce the results in terms of a £ per mile figure derived by calculating the arithmetic mean figure across each of the routes travelled.

The Bidder will put this assessed figure into the spreadsheet, where it will be multiplied by the specified diagram duties to produce an assessment of the variable track access charges that will be incurred by the rolling stock in service. These track charges will apply for the whole project life (and are subject to annual indexation at RPI), and will be discounted to current levels. For the purposes of this assessment fixed track access charges will be ignored.

6. Performance Penalties

This item is intended to reflect the economic and financial impact of expected performance.

The Bidder is required to enter the number of delay minutes in each year. Confirmation of how these delay minutes should be calculated will be issued through the formal clarification process.

7. Late Delivery Penalties

The Bidder is required to introduce the whole fleet into service by June 2017. Where production schedules indicate that any units will be accepted later than this date, Bidders should quantify the number of unit months by which delivery will be delayed. For example, a unit which will be delivered in August 2017 would incur 2 unit months of lateness. The penalty cost of late delivery (for the purposes of this model only) will be set by DfT. The late delivery charge will be subject to indexation at RPI.

8. Miscellaneous Items

Bidders are permitted to add in any costs (regular or one-off) into these cells which they consider material to their bids.

Bidders are required to input an explanation of the content of the costs for each entry year.

Bidders should provide details of the costs of shrinking back the MSA and TSA within this cell.

9. Risk Adjustments

To the extent that Bidders have indicated in their response to the contract and commercial propositions additional costs related to accepting all the risks indicated as being allocated to the Bidder, the cost model will be adjusted by the Department to reflect such costs over the life of the project.

THAMESLINK ROLLING STOCK PROJECT WLC Model Results Whole Life Cost Model - RESULTS

	Net Present Value	% of total
		70 01 10121
Lease Rental Payments	£ -	0.0%
TSA Service Payments	£ -	0.0%
Total Depot Costs	£ -	0.0%
Energy consumption	£ -	0.0%
VTISM	£ -	0.0%
Performance	£ -	0.0%
Programme	£ -	0.0%
Risk Adjustment	£0	0.0%
Miscellaneous Items - Break Costs	£ -	0.0%
Miscellaneous Items - Other	£ -	0.0%
Total	£ -	0.0%

Reference to explanation:

THAMESLINK ROLLING STOCK PROJECT WLC Model Inputs Whole Life Cost Medical Provider

hole Life	e Cost Model - INPUTS	
	Bidders should complete inputs to the Whole Life Cost Model with reference to the Inst	uctions provided
	Bidders are to complete cells with coloured yellow with blue text: Bidder Input	
	Cells in red are Department inputs and should not be changed: DT nput	
	Where appropriate inputs should be in £, not £000s as in other proformas	
NPV DIT	Calculation Parameters Calculation, not to be amended by bidders	
	RPI 2.70% AEI 3.00% Biactory (relation Rate 3.70% Real Discount Rate 3.50% Discount Rate 6.20% Base Date 1.46%	
Roll	ing Stock Inputs	
	Number of Units Bidders must input the total number of units required to deliver the diagrammed service Totals must reconcile to Proforma L - 6.2 Cells C13:C15	Total Diagrammed Unit Miles per annum



Rolling Stock Lasse Provide the Department of the Comminal and recordie to Proforms L. 2.2 row 38 Provide the Department should be entrapolated to 30 September 2046 assuming that the Lease Rental and Fleet Size remain the same as the Section 54 Period Prestor after dow NOTE 1 Period Stark Period Stark

Total Lease Rental from 1 July 2017 to 31 September 2046

Please provide details of lease payments prior to 1 July 2017

01-Oct-11 01-Apr-12 01-Oct-12 01-Apr-13 01-Oct-13 01-Apr-14 01-Oct-14 01-Apr-15 01-Oct-15 01-Apr-16 01-Oct-16 31-Mar-17 31-Mar-12 30-Sep-13 31-Mar-13 30-Sep-13 31-Mar-14 30-Sep-14 31-Mar-15 30-Sep-15 31-Mar-16 30-Sep-16 31-Mar-17 30-Jun-17

0 0 0 0 0 0 0 0 0 0

Total Lease Rental until 1 July 2017

TSA Service Payments inputs must be presented in 12 real values as at 1 April 2010 and reconcile to Proforms TSA - 22 rous 23 to 33 Payments brand be extrapolated to 30 September 2046 assuming that the Daily Service Change and Fleet Size remain the same as the TSA period Pairod State in NOTE 2 Pairod State

50.00%

Penda Stan
Period End
Service Payments if Actual Annual Mileage is:
125,000 for Type 1 & Type 2 Units, 95,000 for Type 3 Units
135,000 for Type 1 & Type 2 Units, 105,000 for Type 3 Units
145,000 for Type 1 & Type 2 Units, 125,000 for Type 3 Units
155,000 for Type 1 & Type 2 Units, 135,000 for Type 3 Units
165,000 for Type 1 & Type 2 Units, 145,000 for Type 3 Units
175,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units
185,000 for Type 1 & Type 2 Units, 165,000 for Type 3 Units
195,000 for Type 1 & Type 2 Units, 175,000 for Type 3 Units
205,000 for Type 1 & Type 2 Units, 185,000 for Type 3 Units
215,000 for Type 1 & Type 2 Units, 195,000 for Type 3 Units
225,000 for Type 1 & Type 2 Units, 205,000 for Type 3 Units



0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Please provide details of TSA Service Payments prior to 1 July 2017 Period Start Period End 01-Oct-11 01-Apr-12 01-Oct-12 01-Apr-13 01-Oct-13 01-Apr-14 01-Oct-14 01-Apr-15 01-Oct-15 01-Apr-16 01-Oct-16 01-Apr-17 31-Mar-17 30-Sep-12 31-Mar-13 30-Sep-13 31-Mar-14 30-Sep-14 31-Mar-15 30-Sep-15 31-Mar-16 30-Sep-16 31-Mar-17 30-Jun-17 Pendod primot Service Payments II Actual Annual Mileage Is: 135,000 for Type 1 & Type 2 Units, 55,000 for Type 3 Units 136,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 136,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 156,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 156,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 156,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 156,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 255,000 for Type 1 & Type 2 Units, 256,000 for Type 3 Units 255,000 for Type 1 & Type 2 Units, 256,000 for Type 3 Units

Percentage of Daily Service Charge to Index (should reconcile to Proforma TSA - 1 cell C27)

	01-Jul-17	01-Oct-17	01-Apr-18	01-Oct-18	01-Apr-19	01-Oct-19	01-Apr-20	01-Oct-20	01-Apr-21	01-Oct-21	01-Apr-22	01-Oct-22	01-Apr-23	01-Oct-23	01-Apr-24	01-Oct-24	01-Apr-25	01-Oct-25	01-Apr-26	01-Oct-26	01-Apr-27	01-Oct-27	01-Apr-28	01-Oct-28	01-Apr-29	01-Oct-29	01-Apr-30	01-Oct-30	01-Apr-31	01-Oct-31	01-Apr-32	01-Oct-32	01-Apr-33	01-Oct-33	01-Apr-34
3	30-Sep-17	31-Mar-18	30-Sep-18	31-Mar-19	30-Sep-19	31-Mar-20	30-Sep-20	31-Mar-21	30-Sep-21	31-Mar-22	30-Sep-22	31-Mar-23	30-Sep-23	31-Mar-24	30-Sep-24	31-Mar-25	30-Sep-25	31-Mar-26	30-Sep-26	31-Mar-27	30-Sep-27	31-Mar-28	30-Sep-28	31-Mar-29	30-Sep-29	31-Mar-30	30-Sep-30	31-Mar-31	30-Sep-31	31-Mar-32	30-Sep-32	31-Mar-33	30-Sep-33	31-Mar-34	30-Sep-34
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

01-Jul-17	01-Oct-17	01-Apr-18	8 01-Oct-18	01-Apr-19	01-Oct-19	01-Apr-20	01-Oct-20	01-Apr-21	01-Oct-21	01-Apr-22	01-Oct-22	01-Apr-23	01-Oct-23	01-Apr-24	01-Oct-24	01-Apr-25	01-Oct-25	01-Apr-26	01-Oct-26	01-Apr-27	01-Oct-27	01-Apr-28	01-Oct-28	01-Apr-29	01-Oct-29	01-Apr-30	01-Oct-30	01-Apr-31	01-Oct-31	01-Apr-32	01-Oct-32	01-Apr-33	01-Oct-33	01-Apr-34
30-Sep-17	31-Mar-18	30-Sep-18	31-Mar-19	30-Sep-19	31-Mar-20	30-Sep-20	31-Mar-21	30-Sep-21	31-Mar-22	30-Sep-22	31-Mar-23	30-Sep-23	31-Mar-24	30-Sep-24	31-Mar-25	30-Sep-25	31-Mar-26	30-Sep-26	31-Mar-27	30-Sep-27	31-Mar-28	30-Sep-28	31-Mar-29	30-Sep-29	31-Mar-30	30-Sep-30	31-Mar-31	30-Sep-31	31-Mar-32	30-Sep-32	31-Mar-33	30-Sep-33	31-Mar-34	30-Sep-34

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

Total Depot Costs Please relev to NOTE 3	
Evaluation Weighting Homesy & Turbeidges 005 Homesy & Torbindge 005	
Depot Lasse Payment Inputs must be presented in £ nominal and reconcile to Proforma D - 2 row 20 and row 34 Payments should be extrapolated to 30 September 2046 assuming that the Depot Lease remains the same as the Section 54 Period Period Start Period Start	01-Jul-17 01-Oct-17 01-Apr-18 01-Oct-18 01-Apr-29 01-Oct-20 01-Apr-27 01-Oct-21 01-Apr-22 01-Oct-22 01-Apr-23 01-Oct-23 01-Apr-25 01-Oct-25 01-Apr-26 01-Oct-25 01-Apr-26 01-Oct-26 01-Apr-26 01-Oct-28 01-Apr-29 01-Oct-29 01-Apr-29 01-Oct-29 01-Apr-30 01-Oct-30 01-Apr-30 01-Oct-31 01-Apr-32 01-Oct-32 01-Apr-33 01-Oct-32 01-Apr-33 01-Oct-32 01-Apr-33 01-Oct-32 01-Apr-33 01-Oct-33 01-Apr-34 01-Oct-32 01-Apr-34 01-Oct-34 01-Apr-34 01-Apr
Depot Lease Payment from 1 July 2017 to 30 September 2046: Homey& Three Bridge Homey& Threindige	
Please provide details of lease payments prior to 1 July 2017 01-Oct-11 01-Agr-12 01-Oct-12 01-Agr-13 01-Oct-13 01-Agr-16 01-Oct-14 01-Oct-14 01-Oct-14 01-Oct-14 01-Oct-15 01-Oct-16	16 31:Mar17 17 30-Jane 17 0 0 0 0
Deport Residual Value (vice resulted as por CODOT3) Editions must supply methods for the Appl 2010 priorial Editions must supply methods for activation of the Residual Value Editions must supply methods for activation of the Residual Value Editions of Three Editions Homey & Tordnidge Editions Editio	
Network Rall Lass Charges To be completed by the Department Period End	01-Jde17 01-Oce-17 01-Ape-18 01-Oce-18 01-Ape-19 01-Oce-19 01-Ape-20 01-Oce-20 01-Ape-21 01-Ape-22 01-Oce-22 01-Ape-22 01-Oce-22 01-Ape-23 01-Oce-23 01-Ape-24 01-Oce-25 01-Ape-25 01-Oce-25 01-Ape-26 01-Oce-28 01-Ape-28 01-Oce-29 01-Ape-29 01-Oce-29 01-Ape-30 01-Oce-30 01-Ape-31 01-Oce-31 01-Ape-32 01-Oce-32 01-Ape-32 01-Oce-32 01-Ape-33 01-Oce-32 01-Ape-33 01-Oce-31 01-Ape-32 01-Oce-32 01-Ape-32 01-Oce-32 01-Ape-33 01-Oce-32 01-Ape-34 01-Ape-
Homey & Three Bridges Homey & Three Bridges Power Consumption	
Please ruler to NOTE 4 Electricity consumed per unit per mile	
Type 1 Units WPI/mile Type 2 Units 0 Type 2 Units 0 Type 3 Units Electricity: responsed of our mile	
Type 1 Units 0 Type 2 Units 0 Type 3 Units 0 Electricity Consumption for overright stabling of a 1 60m 0	
Electricity CostCredit	
Electricity Charge per IVH C10 Regeneration Credit per KWH -0.10 VTISM	
Presented to NOTE 5 Inputs must be presented in real values as at 1 April 2010 VTISM context with real Mile	
£ 0.00 Type 2 Units 0.00 Type 2 Units 0.00	
Performance Penalties <u>Please rater to VOTE 6</u> lipsult matube presented in real values as at 1 April 2010	
Experiormance Penalty Cost E. periodisy Type 1 Units 600 Type 2 Units 600 Type 3 Units 500	
Total Forecast Delay Minutes per Unit Period Start Period Ends	01-Jul-17 01-Oct-18 01-Apr-18 01-Oct-18 01-Apr-20 01-Oct-20 01-Apr-27 01-Oct-27 01-Apr-22 01-Apr-22 01-Apr-23 01-Oct-23 01-Apr-24 01-Oct-23 01-Apr-25 01-Oct-25 01-Apr-26 01-Oct-25 01-Apr-28 01-Apr-28 01-Oct-28 01-Apr-29 01-Oct-29 01-Apr-29 01-Oct
Type 1 Units Type 2 Units Type 3 Units Type 3 Units	
Late Delivery Penalty (programme) Please refer to HOTE 7 Inputs must be presented in real values as at 1 April 2010	
Parally for Molecular Stack Delaway Africa June 2017 E per Type 1 Unit per month 12.000.000 E per Type 1 Unit per month 0.000.000	
Type 1 Unit Months of delay Type 2 Unit Months of delay Type 3 Unit Months of delay	

THAMESLINK ROLLING STOCK PROJECT WLC Model Inputs Whole Life Cost Model - INPUTS

Bidders should complete inputs to the Whole Life Cost Model with refere Bidders are to complete cells with coloured yellow with blue text: Cells in red are Department inputs and should not be changed: Where appropriate inputs should be in £, not £000s as in other proforma

NPV Calculation Parameters DIT Calculation, not to be amended by bidders



Miles per Unit per annum Miles Type 1 Units 0 Type 2 Units 0 Type 3 Units 0

Rolling Stock Lesse Inputs must be presented in £ nominal and recorcile to Proforme L - 2.2 Payments should be extrapolated to 30 September 2046 assuming that <u>Please meter to NOTE 1</u> Period Start Period End

01-0ct-34 01-Apr-35 01-0ct-35 01-Apr-36 01-0ct-36 01-Apr-37 01-0ct-37 01-Apr-38 01-0ct-38 01-Apr-48 01-0ct-39 01-Apr-40 01-0ct-40 01-Apr-40 01-0ct-41 01-Apr-42 01-0ct-42 01-Apr-43 01-0ct-43 01-Apr-46 01-Apr

Please provide details of lease payments prior to 1 July 2017

Total Lease Rental until 1 July 2017

Test Service Symmetis
Inputs must be presented in 5 real values as at 1 April 2010 and record
Payments Should be extrapolated to 30 September 2046 assuming that
Please miler to NOTE 2
Period Start
Period End

01-Oct-34 01-Apr-45 01-Oct-35 01-Apr-36 01-Oct-36 01-Apr-37 01-Oct-37 01-Apr-38 01-Oct-38 01-Apr-48 01-Oct-48 01-Apr-48 01-Oct-49 01-Oct-41 01-Apr-42 01-Oct-41 01-Apr-43 01-Oct-43 01-Apr-46 01-Oct-44 01-Apr-46 01-Oct-45 01-Apr-46 01-Oct-41 01-Apr-48 01-Apr

Sonice Douments if Actual Annual Milegan in:																							
Service Payments in Actual Annual Mileage is.																							
125,000 for Type 1 & Type 2 Units, 95,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
135,000 for Type 1 & Type 2 Units, 105,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
145,000 for Type 1 & Type 2 Units, 125,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
155,000 for Type 1 & Type 2 Units, 135,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
165,000 for Type 1 & Type 2 Units, 145,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
175,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
185,000 for Type 1 & Type 2 Units, 165,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
195,000 for Type 1 & Type 2 Units, 175,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
205,000 for Type 1 & Type 2 Units, 185,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
215,000 for Type 1 & Type 2 Units, 195,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
225,000 for Type 1 & Type 2 Units, 205,000 for Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0

Please provide details of TSA Service Payments prior to 1 July 2017 Period Start Period End

Pendoc Enrol Service Sprements II Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units, 65,000 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 152,001 for Type 3 Units 165,000 for Type 1 & Type 2 Units, 152,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 155,001 for Type 3 Units 225,000 for Type 1 & Type 2 Units, 205,000 for Type 3 Units

Percentage of Daily Service Charge to Index (should reconcile to Proforma TSA - 1 cell C27)

Total Depot Costs Please refer to NOTE 3																						
Evaluation Weighting Hornsey & Three Bridges 100% Hornsey & Tonbridge 0%																						
Depot Lease Payment Inputs must be presented in £ nominal and reconcile to Proforma D - 2 Payments should be extrapolated to 30 September 2046 assuming that Period Start Period Start	t 01-Oct-34 01-A 31-Mar-35 30-S	pr-35 01-Oct-35	01-Apr-36	01-Oct-36 01 31-Mar-37 30-	-Apr-37 01-Oct Sen-37 31-Mar	-37 01-Apr-3	8 01-Oct-38 8 31-Mar-39	01-Apr-39	01-Oct-39 31-Mar-40	01-Apr-40 0	1-Oct-40	01-Apr-41 (01-Oct-41	01-Apr-42	01-Oct-42	01-Apr-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sen-44	01-Oct-44 31-Mar-45	01-Apr-45	01-Oct-45 0 31-Mar-46 30	1-Apr-46
Depot Lease Payment from 1 July 2017 to 30 September 2046: Hornsey & Three Bridges Hornsey & Tonbridge	0	0 0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Please provide details of lease payments prior to 1 July 2017 Period Start Period End Depot Lease Payment until 1 July 2017: Homeş & Three Bridges Homeş & Tonchidge																						
Depot Residual Value (Not required as per C00613) Inputs must be presented in E real in 1 April 2010 prices Biddes must supply methodogy to support the calculation of the Res Hornsey & Three Drividge Hornsey & Tonkidge Resterenc	ak Je																					
Depot RV Date 31-Mar-45																						
Network Rail Lease Charges To be completed by the Department Period Start Period End	01-Oct-34 01-A 31-Mar-35 30-S	pr-35 01-Oct-35 ap-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 01 31-Mar-37 30-	-Apr-37 01-Oct Sep-37 31-Mar	-37 01-Apr-3 -38 30-Sep-3	8 01-Oct-38 8 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 0 30-Sep-40 3	1-Oct-40	01-Apr-41 0 30-Sep-41 3	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43 3	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 0 31-Mar-46 30	1-Apr-46)-Sep-46
Hornsey & Three Bridges	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hornsey & Tonbridge Power Consumption Please refer to NOTE 4	0	0 0	0	oj	oj	oj		0	0	0	0	oj	0	O	0	0	0	0	oj	O	0	0
Electricity consumed per unit per mile																						
kWh/mile 0 Type 2 Units 0 Type 2 Units 0 Type 3 Units 0																						
Electricity regenerated per unit per mile																						
Type 1 Units 0 Type 2 Units 0 Type 3 Units 0 Electricity Consumption for overright stabling of a 160m																						
Unit (kWh per unit per night) 0 Electricity Cost/Credit																						
Electricity Charge per kWH 0.10 Regeneration Credit per kWH -0.10																						
VTISM <u>Please refer to NOTE 5</u> Inputs must be presented in real values as at 1 April 2010																						
VTISM cost per unit per Mile																						
£ 0.00 Type 2 Units 0.00 Type 3 Units 0.00																						
Performance Penalties <u>Please refer to NOTE 6</u> Inputs must be presented in real values as at 1 April 2010																						
Performance Penalty Cost																						
Type 1 Units 800 Type 2 Units 800 Type 3 Units 800																						
Total Forecast Delay Minutes per Unit Period Start Period Ends	01-Oct-34 01-A 31-Mar-35 30-Se	pr-35 01-Oct-35 p-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 01 31-Mar-37 30-	-Apr-37 01-Oct Sep-37 31-Mar	-37 01-Apr-3 -38 30-Sep-3	8 01-Oct-38 8 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 0 30-Sep-40 3	1-Oct-40 1-Mar-41	01-Apr-41 (30-Sep-41 3	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43 3	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 0 31-Mar-46 30	1-Apr-46)-Sep-46
Type 1 Units Type 2 Units Type 3 Units	0	0 0 0	0	0	0	0	0 0 0 0 0 0	0 0 0	0	0	0 0	0	0 0 0	0 0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0 0	0	0
Late Delivery Penalty (programme) <u>Please refer to NOTE 7</u> Inputs must be presented in real values as at 1 April 2010	-																					
Evenand For Rolling Stock Delively after June 2017 £ per Type 1 Unit per month 12,000,000 £ per Type 1 Unit per month 8,000,000 E per Type 1 Unit per month 8,000,000																						
Unit Months delivered after June 2017 Type 1 Unit Months of delay Type 2 Unit Months of delay																						

WLC Model Inputs

THAMESLINK ROLLING STOCK PROJECT WLC Model Inputs (Addendum) Whole Life Cost Model - INPUTS (Addendum)

Bidders should complete inputs to the Whole Life Cost Model with reference to the Instructions provided

Bidders are to complete cells with coloured yellow with blue text: Bidder Input

Cells in red are Department inputs and should not be changed: DfT Input

Where appropriate inputs should be in \pounds , not \pounds 000s as in other proformas

20.00% Weighting

Owner's cost of shrinking back MSA to Batch 1 Inputs must be presented in £ nominal and reconcile to Appendix A - Train Owner Break Costs cell F41

Period Start	01-Oct-11 01-Apr-12 (01-Oct-12 01-Apr-13	01-Oct-13 01-Apr-1	1 01-Oct-14 01-An	r-15 01-Oct-15 01	Apr-16 01-Oct-16	31-Mar-17 01-	Oct-17 01-Apr-18	01-Oct-18 01-	-Apr-19 01-Oct-	9 01-Apr-20 01.	Oct-20 01-Ar	or-21 01-Oct-21	01-Apr-22 01-0	Oct-22 01-Apr	-23 01-Oct-23	01-Apr-24_0	1-Oct-24 01-	Apr-25 01-0	ct-25 01-Apr	-26 01-Oct-2	26 01-Apr-27	01-Oct-27 /	01-Apr-28 01-C	ct-28 01-Apr-2/	01-Oct-29 01-Apr-30
Period End	31-Mar-12 30-Sep-12 3	31-Mar-13 30-Sep-13	31-Mar-14 30-Sep-1-	4 31-Mar-15 30-Se	p-15 31-Mar-16 30-	Sep-16 31-Mar-17	30-Sep-17 31-	Mar-18 30-Sep-18	3 31-Mar-19 30-	Sep-19 31-Mar-	0 30-Sep-20 31-	Mar-21 30-Se	p-21 31-Mar-22	30-Sep-22 31-M	Aar-23 30-Sep	-23 31-Mar-24	30-Sep-24 31	I-Mar-25 30-9	Sep-25 31-Ma	ar-26 30-Sep	-26 31-Mar-2	27 30-Sep-27	31-Mar-28 3	30-Sep-28 31-M	ar-29 30-Sep-29	31-Mar-30 30-Sep-30
	01 mai 12 00 00p 12 0					oop to of marin	00 000 11 01 1	mar to bo bop to		oop to of mar	00000000000000	1101 21 00 00	p 21 01 mai 22	00 000 22 01 1	nai 20 00 00p	20 01 110 21	00 000 21 01	- mai 20 00 0	50p 20 01 m	ai 20 00 00p	20 01 110 2	21 00 00p 21	71 mai 20 0	0 000 20 01 110	1 20 00 000 20	
Owner's cost of shrinking back MSA to Batch 1	0 0	0 0	0	0 0	0 0	0 0	0	0 0	0 0	0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 0	0 0
TMM's cost of shrinking back the TSA to Batch 1 Inputs must be presented in £ nominal and reconcile to Appendix B.1 - TMM TSA Bre	eak Costs cell F33																									
Period Start	01-Oct-11 01-Apr-12 0	01-Oct-12 01-Apr-13	01-Oct-13 01-Apr-1-	4 01-Oct-14 01-Ap	r-15 01-Oct-15 01-	Apr-16 01-Oct-16	31-Mar-17 01-	-Oct-17 01-Apr-18	3 01-Oct-18 01-	-Apr-19 01-Oct-	9 01-Apr-20 01-	-Oct-20 01-Ap	pr-21 01-Oct-21	01-Apr-22 01-0	Oct-22 01-Apr	-23 01-Oct-23	01-Apr-24 01	1-Oct-24 01-	Apr-25 01-00	ct-25 01-Apr	-26 01-Oct-2	26 01-Apr-27	01-Oct-27 (01-Apr-28 01-O	:t-28 01-Apr-29	01-Oct-29 01-Apr-30
Period End	31-Mar-12 30-Sep-12 3	31-Mar-13 30-Sep-13	31-Mar-14 30-Sep-14	1 31-Mar-15 30-Se	o-15 31-Mar-16 30-	Sep-16 31-Mar-17	30-Sep-17 31-I	Mar-18 30-Sep-18	3 31-Mar-19 30-3	-Sep-19 31-Mar-	20 30-Sep-20 31-	Mar-21 30-Se	p-21 31-Mar-22	30-Sep-22 31-N	/ar-23 30-Sep	-23 31-Mar-24	30-Sep-24 31	I-Mar-25 30-8	Sep-25 31-Ma	ar-26 30-Sep	-26 31-Mar-2	27 30-Sep-27	31-Mar-28 3	0-Sep-28 31-Ma	r-29 30-Sep-29	31-Mar-30 30-Sep-30
TMM's cost of shrinking back the TSA to Batch 1	0 0	0 0	0	00	0 0	0 0	0	0 0	0 0	0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 (0 0
TMM's revised Service Payments if TSA shrunk back to Batch 1 Inputs must be presented in E real values as at 1 April 2010 and reconcile to Proform Payments should be extrapolated to 30 September 2046 assuming that the Daily Ser Period Start Deviced End	na B.2- TSA Revised DSC rvice Charge and Fleet Size rema	ain the same as the TSA p	period				01-Jul-17 01-	-Oct-17 01-Apr-18	3 01-Oct-18 01-	-Apr-19 01-Oct-	9 01-Apr-20 01-	Oct-20 01-Ap	pr-21 01-Oct-21	01-Apr-22 01-0	Oct-22 01-Apr	-23 01-Oct-23	01-Apr-24 0'	1-Oct-24 01-	Apr-25 01-00	ct-25 01-Apr	-26 01-Oct-2	26 01-Apr-27	01-Oct-27 (01-Apr-28 01-C	ct-28 01-Apr-24	01-Oct-29 01-Apr-30
Pendu End	Weighting in evaluat	tion					30-36p-17 31-1	Mai* 10 30*3ep*10	5 5 1 - Wal - 1 9 30 -	-3ep=19 31-Wal-	0 30 3ep 20 31	Ivial=21 30=36	p=21 31=Ivial=22	30"36p"22 31"	nal=23 30=36p	-23 31-Ivid1-24	30*3ep*24 31	-wiai=25 30=0	36h-52 20 21-1416	ar-20 30-36p	-20 31-Wal-2	27 30*36p*27	31*iviai*20 3	3"36p"20 31"IVA	1=29 30=36p=29	31*Wal*30 30*36p*30
Revised Service Payments if TSA is shrunk back to Batch 1 and Actual Annual Mileag 125,000 for Type 1 & Type 2 Units 135,000 for Type 1 & Type 2 Units	le is:						0	0 0	0 0	0	0 0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0 0	0	0	0 0	0 0
145,000 for Type 1 & Type 2 Units	8%						0	0 0	0	0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 0	0 0
155,000 for Type 1 & Type 2 Units	35%						0	0 0		0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 0	0 0
165,000 for Type 1 & Type 2 Units	35%						0	0 0		0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 0	
185 000 for Type 1 & Type 2 Units	5%						0	0 0		0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0	0 0
195,000 for Type 1 & Type 2 Units	2%						0	0 0		0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 0	0 0
205.000 for Type 1 & Type 2 Units	1%						0	0 0	0 0	0	0 0	0	0 0	0	0	0 0	0	0	0	ő	0	0 0	0	0	0 1	0 0
215.000 for Type 1 & Type 2 Units	0%						0	0 0	0 0	0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0 /	0	0 1	0 0
225,000 for Type 1 & Type 2 Units	0%						0	0 0	0 0	0	0 0	0	0 0	0	0	0 0	0	0	0	0	0	0 0	0	0	0 (0 0
Please provide details of TSA Service Payments prior to 1 July 2017 if TSA is shrun	k back to Batch 1																									
Period Start	01-Oct-11 01-Apr-12 0	01-Oct-12 01-Apr-13	01-Oct-13 01-Apr-1-	4 01-Oct-14 01-Ap	r-15 01-Oct-15 01-	Apr-16 01-Oct-16	31-Mar-17																			
Period End	31-Mar-12 30-Sep-12 3	31-Mar-13 30-Sep-13	31-Mar-14 30-Sep-14	4 31-Mar-15 30-Se	o-15 31-Mar-16 30-	Sep-16 31-Mar-17	30-Jun-17																			
Revised Service Payments if TSA is shrunk back to Batch 1 and Actual Annual Mileag	je is:		-		-		-																			
125,000 for Type 1 & Type 2 Units	0 0	0 0	0	0	0 0	0 0	0																			
135,000 for Type 1 & Type 2 Units	0 0	0 0	0	0	0 0	0 0	0																			
145,000 for Type 1 & Type 2 Units	0 0	0 0	0	0	0 0	0 0	0																			
155,000 for Type 1 & Type 2 Units	0 0	0 0	0	0	0 0	0 0	0																			
165,000 for Type 1 & Type 2 Units	0 0	0 0	0	0	0 0	0 0	0																			
1/5,000 for Type 1 & Type 2 Units	0 0	0 0	0	0	0 0	0 0	0																			
105,000 for Type 1 & Type 2 Units	0 0	0 0	0		0 0	0 0	0																			
20E 000 for Type 1 & Type 2 Units	0 0	0 0	0		0 0	0 0	0																			
205,000 for Type 1 & Type 2 Units	0 0	0 0	0		0 0	0 0	0																			
213,000 for Type 1 & Type 2 Units	0 0	0 0	0		0 0	0 0	0																			
Percentage of Daily Service Charge to Index 50.0	00%		,																							

THAMESLINK ROLLING STOCK PROJECT WLC Model Inputs (Addendum) Whole Life Cost Model - INPUTS (Addendum)

Bidders should complete inputs to the Whole Life Cost Model with referen

Bidders are to complete cells with coloured yellow with blue text:

Cells in red are Department inputs and should not be changed:

Where appropriate inputs should be in £, not £000s as in other proformat

20.00%

Weighting

Owner's cost of shrinking back MSA to Batch 1 Inputs must be presented in £ nominal and reconcile to Appendix A - Tra

Period Start Period End	01-Oct-30 31-Mar-31	0 01-Apr 1 30-Sep	r-31 01-O -31 31-Ma	t-31 01-A r-32 30-Se	vpr-32 01-C ep-32 31-N	oct-32 01-A ar-33 30-S	Apr-33 01-C iep-33 31-N	oct-33 01-A ar-34 30-S	Apr-34 01-0 iep-34 31-N	Oct-34 01- Mar-35 30-5	Apr-35 01 Sep-35 31-	Oct-35 01- Mar-36 30-5	Apr-36 01- Sep-36 31-I	Oct-36 01-A Mar-37 30-S	Apr-37 01-C ep-37 31-M	Oct-37 01-A lar-38 30-S	Apr-38 01-C ep-38 31-M	Oct-38 01-/ 1ar-39 30-S	Apr-39 01- Sep-39 31-	Oct-39 01-A Mar-40 30-Se	pr-40 01- p-40 31-	Oct-40 01 Mar-41 30-	Apr-41 01- Sep-41 31-	Oct-41 01 Mar-42 30	-Apr-42 0 -Sep-42 3	01-Oct-42 1-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-4 31-Mar-4	4 01-Apr- 45 30-Sep-	45 01-O 45 31-Ma	ct-45 01-Apr-46 ar-46 30-Sep-46
Owner's cost of shrinking back MSA to Batch 1	0	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0 0
TMM's cost of shrinking back the TSA to Batch 1 Inputs must be presented in \hat{z} nominal and reconcile to Appendix B.1 -	т																																
Period Start Period End	01-Oct-30 31-Mar-31	0 01-Apr 1 30-Sep	r-31 01-Oo -31 31-Ma	r-32 30-Se	vpr-32 01-0 ep-32 31-N	oct-32 01-/ ar-33 30-S	Apr-33 01-0 iep-33 31-N	oct-33 01-A ar-34 30-S	Apr-34 01-0 iep-34 31-N	Oct-34 01- Mar-35 30-5	Apr-35 01 Sep-35 31-	Oct-35 01- Mar-36 30-5	Apr-36 01- Sep-36 31-I	Oct-36 01-4 Mar-37 30-S	Apr-37 01-C ep-37 31-M	Oct-37 01-A Iar-38 30-S	Apr-38 01-C ep-38 31-M	Oct-38 01-/ 1ar-39 30-S	Apr-39 01- Sep-39 31-I	Oct-39 01-A Mar-40 30-Se	pr-40 01- p-40 31-	Oct-40 01 Mar-41 30-	Apr-41 01- Sep-41 31-	Oct-41 01 Mar-42 30	-Apr-42 0 -Sep-42 3	1-Oct-42 1-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-4 31-Mar-4	4 01-Apr- 5 30-Sep-	45 01-O 45 31-Ma	ct-45 01-Apr-46 ar-46 30-Sep-46
TMM's cost of shrinking back the TSA to Batch 1	0	ס	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0 0
TMM's revised Service Payments if TSA shrunk back to Batch 1 Inputs must be presented in £ real values as at 1 April 2010 and recon Payments should be extrapolated to 30 September 2046 assuming tha Period Statt Period End	cil t 01-Oct-30 31-Mar-31	0 01-Apr 1 30-Sep	r-31 01-Oo -31 31-Ma	t-31 01-A r-32 30-Se	pr-32 01-C ep-32 31-M	ct-32 01-/ ar-33 30-S	Apr-33 01-C	oct-33 01-A lar-34 30-S	Apr-34 01-0	Oct-34 01- Mar-35 30-8	Apr-35 01 Sep-35 31-	Oct-35 01- Mar-36 30-5	Apr-36 01- Sep-36 31-I	Oct-36 01-4 Mar-37 30-S	Apr-37 01-C iep-37 31-M	Oct-37 01-A lar-38 30-S	Apr-38 01-C ep-38 31-M	Oct-38 01-/ lar-39 30-S	Apr-39 01- Sep-39 31-	Oct-39 01-A Mar-40 30-Se	pr-40 01- p-40 31-	Oct-40 01 Mar-41 30-	Apr-41 01- Sep-41 31-	Oct-41 01 Mar-42 30	-Apr-42 0 -Sep-42 3)1-Oct-42)1-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-4 31-Mar-4	14 01-Apr- 15 30-Sep-	45 01-O 45 31-Ma	ct-45 01-Apr-46 ar-46 30-Sep-46
Revised Service Payments if TSA is shrunk back to Batch 1 and Actual	Ar		0		0		0		0	0	0	0	0	0	0	0		0	0		0	-		0	-						0	0	
125,000 for Type 1 & Type 2 Units 135,000 for Type 1 & Type 2 Units	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0 0
145,000 for Type 1 & Type 2 Units	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0 0
155,000 for Type 1 & Type 2 Units	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	j	0	0	0 0
165,000 for Type 1 & Type 2 Units	0	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	l l	0	0	0 0
175,000 for Type 1 & Type 2 Units	0	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0 0
185,000 for Type 1 & Type 2 Units	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0 0
195,000 for Type 1 & Type 2 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	·	0	0	0 0
205,000 for Type 1 & Type 2 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0 0
215,000 for Type 1 & Type 2 Units	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0 0
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0	0	0 0

Please provide details of TSA Service Payments prior to 1 July 2017 if 1 Period Start Period End

Revised Service Payments if TSA is shrunk back to Batch 1 and Actual Ar 125,000 for Type 1 & Type 2 Units 135,000 for Type 1 & Type 2 Units 145,000 for Type 1 & Type 2 Units 155,000 for Type 1 & Type 2 Units 165,000 for Type 1 & Type 2 Units 185,000 for Type 1 & Type 2 Units 195,000 for Type 1 & Type 2 Units 205,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units

Percentage of Daily Service Charge to Index

THAMESLINK ROLLING STOCK PROJECT WLC Model Calculations Whole Life Cost Model - CALCULATIONS

NPV Calculation Parameters	01-Oct-11 01-Apr-12 01-Oct-12 01-Apr-13 01-Oct-13 01-Apr-14 01-Oct-14 01-Apr-15 01-Oct-15 01-Apr-15 01-Oct-15 01-Apr-15 01-Oct-15 01-Apr-14 01-Apr-12 00-Sep-12 01-Apr-13 00-Sep-13 01-Apr-14 01-Apr-14 01-Apr-15 00-Sep-15 01-Apr-15 01-Apr-15 00-Sep-15 01-Apr-15 01-Apr	r-16 01-Oct-16 01-Apr-17 01-Oct-17 p-16 31-Mar-17 30-Sep-17 31-Mar-18 :	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19	01-Apr-19 01-Oct- 30-Sep-19 31-Mar-	19 01-Apr-20 20 30-Sep-20	01-Oct-20 01-Apr-2 31-Mar-21 30-Sep-2	1 01-Oct-21 01-/ 1 31-Mar-22 30-5	pr-22 01-Oct-22 ep-22 31-Mar-23	01-Apr-23 (30-Sep-23 3	1-Oct-23 01-A 1-Mar-24 30-S	pr-24 01-Oct-2 ep-24 31-Mar-2	4 01-Apr-25 5 30-Sep-25	01-Oct-25 31-Mar-26	01-Apr-26 0 30-Sep-26 3	1-Oct-26 01 ,1-Mar-27 30	I-Apr-27 01-Oc I-Sep-27 31-Ma	-27 01-Apr-28 r-28 30-Sep-28	01-Oct-28 0 31-Mar-29 3	1-Apr-29 0-Sep-29
RPI 2.70% Electricity Inflation Rate 3.70% Real Discount Rate 3.50% Discount Rate 6.29% Base Date 1-Apr.10																			
Years from Base Date for NPV Calculations Discount Factor Years from Base Date for Indexation Calculations RPI (1 April 2010 = 1) Electricity (1 April 2010 = 1)	2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 6.00 88.60% 88.80% 83.26% 80.75% 75.89% 73.20% 71.49% 60.33% 67 1.00 2.00 3.00 3.00 4.00 5.00 5.00 1.027 1.055 1.063 1.083 1.112 1.112 1.142 1.142 1.037 1.075 1.175 1.115 1.156 1.156 1.199 1.199	6.50 7.00 7.50 8.00 24% 65.22% 63.26% 61.36% 6.00 7.00 7.00 1.173 1.205 1.205 244 1.244 1.290 1.290	8.50 9.00 59.52% 57.73% 8.00 8.00 1.238 1.238 1.337 1.337	9.50 10 55.99% 54.3 9.00 9 1.271 1.2 1.387 1.3	00 10.50 1% 52.67% 00 10.00 71 1.305 187 1.438	11.00 11.5 51.09% 49.55 10.00 11.0 1.305 1.34 1.438 1.45	12.00 48.07% 11.00 1.341 1.491	12.50 13.00 .62% 45.22% 12.00 12.00 1.377 1.377 1.546 1.546	13.50 43.86% 13.00 1.414 1.604	14.00 42.54% 41 13.00 1.414 1.604	14.50 15.0 1.26% 40.029 14.00 14.0 1.452 1.452 1.663 1.663	0 15.50 6 38.82% 0 15.00 2 1.491 3 1.725	16.00 37.66% 15.00 1.491 1.725	16.50 36.52% 16.00 1.532 1.788	17.00 35.43% 16.00 1.532 1.788	17.50 1 34.36% 33. 17.00 1 1.573 1 1.855 1	100 18.50 12% 32.32% 1.00 18.00 573 1.615 855 1.923	19.00 31.35% 18.00 1.615 1.923	19.50 30.41% 19.00 1.659 1.994
Lease Rental Payments Period Start		01-Jul-17 01-Oct-17	01-Apr-18 01-Oct-18	01-Apr-19 01-Oct	19 01-Apr-20	01-Oct-20 01-Apr-2	1 01-Oct-21 01-/	pr-22 01-Oct-22	01-Apr-23	1-Oct-23 01-A	pr-24 01-Oct-2	4 01-Apr-25	01-Oct-25	01-Apr-26 0	01-Oct-26 0'	I-Apr-27 01-O	t-27 01-Apr-28	01-Oct-28 0	01-Apr-29
Period End		30-Sep-17 31-Mar-18	30-Sep-18 31-Mar-19	30-Sep-19 31-Mar	20 30-Sep-20	31-Mar-21 30-Sep-2	1 31-Mar-22 30-5	ep-22 31-Mar-23	30-Sep-23 3	1-Mar-24 30-S	ep-24 31-Mar-2	5 30-Sep-25	31-Mar-26	30-Sep-26 3	1-Mar-27 30	-Sep-27 31-Ma	-28 30-Sep-28	31-Mar-29 3	J-Sep-29
Lease Rental Payments U			0 0	0	0 0	0	0	0 0	0	0	0	0 0	0	U	0	0	0 0	0	0
Not Indexed % of costs 50.00%																			
rindexed vices Payments NOT indexed if Actual Annual Mileage is: 00.00% Real Service Payments NOT indexed if Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units; 135,000 for Type 1 & Type 2 Units; 105,000 for Type 3 Units; 135,000 for Type 1 & Type 2 Units; 105,000 for Type 3 Units; 105,000 for		0 0 0 0	0 0 0	0	0 0 0	0		0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
145,000 for Type 1 & Type 2 Units, 125,000 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 135,000 for Type 3 Units 165,000 for Type 1 & Type 2 Units, 145,000 for Type 3 Units			0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
175,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 185,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units		0 0 0	0 0 0 0	0	0 0 0	0		0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
195,000 for Type 1 & Type 2 Units, 175,000 for Type 3 Units 205,000 for Type 1 & Type 2 Units, 185,000 for Type 3 Units 215,000 for Type 1 & Type 2 Units, 195,000 for Type 3 Units			0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
225,000 for Type 1 & Type 2 Units, 205,000 for Type 3 Units		0 0	0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
Real Service Payments indexed if Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units, 95,000 for Type 3 Units 135,000 for Type 1 & Type 2 Units, 105,000 for Type 3 Units		0 0	0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
145,000 for Type 1 & Type 2 Units, 125,000 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 135,000 for Type 3 Units		0 0	0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
165,000 for Type 1 & Type 2 Units, 145,000 for Type 3 Units 175,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 185,000 for Type 1 & Type 2 Units, 165 000 for Type 3 Units			0 0	0	0 0	0		0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
195,000 for Type 1 & Type 2 Units, 175,000 for Type 3 Units 205,000 for Type 1 & Type 2 Units, 185,000 for Type 3 Units		0 0 0 0	0 0 0 0	0	0 0 0	0	0 0	0 0	0	0	0	0 0 0	0	0	0	0	0 0 0 0	0	0
215,000 for Type 1 & Type 2 Units, 195,000 for Type 3 Units 225,000 for Type 1 & Type 2 Units, 205,000 for Type 3 Units	Weighting in evaluation	0 0 0 0	0 0	0	0 0	0	0 0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
Nominal Service Payments if Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units, 95,000 for Type 3 Units 135,000 for Type 1 & Type 2 Units, 105,000 for Type 3 Units	2% 5%	0 0	0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
145,000 for Type 1 & Type 2 Units, 125,000 for Type 3 Units 155,000 for Type 1 & Type 2 Units, 135,000 for Type 3 Units	8% 35%		0 0	0	0 0 0	0	0 0	0 0	0	0	0	0 0 0	0	0	0	0	0 0 0	0	0
165,000 for Type 1 & Type 2 Units, 145,000 for Type 3 Units 175,000 for Type 1 & Type 2 Units, 155,000 for Type 3 Units 185,000 for Type 1 & Type 2 Units, 165,000 for Type 3 Units	35% 8% 5%		0 0 0	0	0 0 0	0			0	0	0	0 0 0 0 0 0	0	0	0	0	0 0 0 0 0 0	0	0
195,000 for Type 1 & Type 2 Units, 175,000 for Type 3 Units 205,000 for Type 1 & Type 2 Units, 185,000 for Type 3 Units	2% 1%		0 0 0 0 0	0	0 0 0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0 0	0	0
215,000 for Type 1 & Type 2 Units, 195,000 for Type 3 Units 225,000 for Type 1 & Type 2 Units, 205,000 for Type 3 Units	0%		0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
Weighted Payment		0 0	0 0	0	0 0	0	0 0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0
Total Depot Costs																			
Depot Lease Payments																			
Period Start Period End		01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19	01-Apr-19 01-Oct 30-Sep-19 31-Mar	19 01-Apr-20 20 30-Sep-20	01-Oct-20 01-Apr-2 31-Mar-21 30-Sep-2	1 01-Oct-21 01-/ 1 31-Mar-22 30-5	pr-22 01-Oct-22 ap-22 31-Mar-23	01-Apr-23 0 30-Sep-23 3	1-Oct-23 01-A 1-Mar-24 30-S	pr-24 01-Oct-2 ep-24 31-Mar-2	4 01-Apr-25 5 30-Sep-25	01-Oct-25 31-Mar-26	01-Apr-26 0 30-Sep-26 3	/1-Oct-26 01 31-Mar-27 30	I-Apr-27 01-Oc I-Sep-27 31-Ma	-27 01-Apr-28 r-28 30-Sep-28	01-Oct-28 0 31-Mar-29 3	1-Apr-29 0-Sep-29
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0	90 000 000 000 000	0 0 0 0	0 0 0	0	0 0 0	0	0 0 0 0 0	0 0	0	0	0	0 0 0	0	0	0	0	0 0 0	0	0
Depot Residual Value																			
Weightin	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply																		
Hornsey & Three Bridges 0 Hornsey & Torholdge 0 Weighted Total NPV 0 Network Rail Charges	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 11.81% 0% 0 2.47 0 11.81%																		
Hornsey & Three Bridges 0 Hornsey & Torholdge 0 Weighted Total NPV 0 Network Rail Charges	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 111.81% 0% 0 2.47 0 111.81%	01-Juj-17 01-Oct-17	01-Apr-18 01-Oct-18	01-Apr-19 01-Oct	19 01-Apr-20	01-Oct-20 01-Apr-2	1 01-Oct-21 01-	pr-22 01-Oct-22	01-Apr-23	1-Oct-23 01-A	pr-24 01-Oct-2	4 01-Apr-25	01-Oct-25	01-Apr-26 0	1-Oct-26 01	I-Apr-27 01-00	-27 01-Apr-28	01-Oct-28 0	1-Apr-29
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges Pariod Start Pariod End Veightin Hornsey & Three Bridges 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 3 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar	19 01-Apr-20 20 30-Sep-20 0 0	01-Oct-20 01-Apr-3 31-Mar-21 30-Sep-2 0	1 01-Oct-21 01-/ 1 31-Mar-22 30-S 0 0	pr-22 01-Oct-22 ap-22 31-Mar-23 0 0 0	01-Apr-23 (30-Sep-23 3	1-Oct-23 01-A 1-Mar-24 30-S 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0	4 01-Apr-25 5 30-Sep-25 0 0 0	01-Oct-25 31-Mar-26	01-Apr-26 0 30-Sep-26 3 0	11-Oct-26 01 1-Mar-27 30- 0	I-Apr-27 01-Ot -Sep-27 31-Ma 0	-27 01-Apr-28 -28 30-Sep-28 0 0	01-Oct-28 0 31-Mar-29 3 0	1-Apr-29 0-Sep-29
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Network Rail Charges Period Start Period Start Period End Hornsey & Three Bridges 0 Hornsey & Three Bridges 0 Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 11.81% 0% 0 2.47 0 11.81%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 0 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr- 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01-7 1 31-Mar-22 30-5 0 0 0	pr-22 01-Oct-23 pp-22 31-Mar-23 0 0 0	01-Apr-23 (30-Sep-23 2 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-26 0 30-Sep-26 3 0 0	11-Oct-26 01 1-Mar-27 30- 0 0	I-Apr-27 01-Or -Sep-27 31-Ma 0 0	-27 01-Apr-28 -28 30-Sep-28 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	11-Apr-29 0-Sep-29 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Period End Weighten Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Total Depot Charges 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 111.81% 0% 0 2.47 0 111.81% 11.81%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 3 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr-2 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01- 1 31-Mar-22 30-5 0 0 0 0	pr-22 01-Oct-22 sp-22 31-Mar-23 0 0 0 0 0 0	01-Apr-23 30-Sep-23 3 0 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr-24 01-Oct-2 pp-24 31-Mar-2 0 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-26 0 30-Sep-26 3 0 0	11-Oct-26 01 1-Mar-27 30 0 0	1-Apr-27 01-O -Sep-27 31-Ma 0 0	1-27 01-Apr-28 -28 30-Sep-28 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	11-Apr-29 0-Sep-29 0 0
Hornsey & Three Bridges 0 Hornsey & Torholdge 0 Weighted 0 Weighted 0 Network Rail Charges 0 Pariod Start Pariod Start Pariod Start 0 Hornsey & Torbhidge 0 Weighted 0 Weighted 0 Weighted 0 Pariod Start 0 Hornsey & Torbhidge 0 Weighted Total NPV 0 Power Consumption Electricity consumed per unit per mile	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 0 0 0 0	01-Apr.18 01-Oct.18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0 0 0	01-Oct-20 01-Apr. 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01- 1 31-Mar-22 30-5 0 0 0 0	pr-22 01-Oct-22 sp-22 31-Mar-23 0 0 0	01-Apr-23 0 30-Sep-23 2 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-26 0 30-Sep-26 3 0 0	11-Oct-26 01 11-Mar-27 30 0 0	I-Apr-27 01-O -Sep-27 31-Ma 0 0	1-27 01-Apr-28 -28 30-Sep-28 0 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0)1-Apr-29 0-Sep-29 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Pariod Start Pariod Start Pariod Start 0 Hornsey & Three Bridges 0 Weighted Total NPV 0 Total Depot Charges 0 Power Consumption Electricity consumed per unit per mile Type 1 Units 0 Type 2 Units 0 Type 3 Units 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 111.81% 0% 0 2.47 0 111.81% 0% 0 2.47 0 111.81% 0% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0 0 0	01-Oct-20 01-Apri- 31-Mar-21 30-Sep- 0 0	1 01-Oci-21 01-) 1 31-Mar-22 30-5 3 0 0 3 0 0	pr-22 01-Oct-22 ap-22 31-Mar-23 0 C 0 C	01-Apr-23 (30-Sep-23 (0 0 0	11-Oct-23 01-A 11-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 0 1	4 01-Apr-25 5 30-Sep-25 0 0 0 0 0	01-Oct 25 31-Mar 26 0 0	01-Apr-26 0 30-Sep-26 3 0 0)1-Oct-26 01 11-Mar-27 30 0 0	1-Apr.27 01-Oc Sep-27 31 Ma 0 0	1-27 01-Apr-28 -28 30-Sep-28 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	0-Sep-29 0-Sep-29 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Period End Weighted Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Total Depot Charges 0 Power Consumption Electricity consumed per unit per mile Type 1 Units 0 Type 2 Units 0 Type 3 Units 0 Withmile 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 111.81% 0% 0 2.47 0 111.81% 99 00% 00% 076	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 3 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01- 1 31-Mar-22 30-5 0 0 0 0	pr-22 01-Oct-22 ap-22 31-Mar-23 0 C 0 C	01-Apr-23 30-Sep-23 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-26 0 30-Sep-26 3 0 0	11-Oct-28 01 11-Mar-27 30 0 0	1.Apr.27 01-Q. Sep-27 31-Mi 0 0	t-27 01-Apr-28 7-28 30-Sep-28 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	01-Apr-29 0-Sep-29 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Pariod Start 0 Pariod End Weighted Hornsey & Three Bridges 0 Hornsey & Three Bridges 0 Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Total Depot Charges 0 Power Consumption Electricity consumed per unit per mile Type 1 Units 0 Type 2 Units 0 Type 1 Units 0 Type 2 Units 0 Type 2 Units 0 Type 2 Units 0 Type 3 Units 0 Type 4 Units 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 111.81% 0% 0 2.47 0 111.81%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 3 0 0 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct20 01-Apr 31-Mar-21 30-Sep-2 0 0	1 01-Q0:21 01-1 31-Mar-22 30-5 3 0 5 0	pr.22 01-Oct.22 pp.22 31-Mar.23 0 C 0 C	01-Apr-23 0 30-Sep-23 0 0	1-Oct-23 01-# 1-Mar-24 30-S 0 0	pr:24 01-Oct:2 ep:24 31-Mar-2 0 0	4 01.Apr.25 5 30-Sep.25 0 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-26 0 30-Sep-26 3 0 0	11-Oct-26 0: 11-Mar-27 30 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	t-27 01-Apr-28 -28 30-Sep-28 0 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	01-Apr-29 00-Sep-29 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Network Rail Charges 0 Pariod Start 0 Pariod Start 0 Pariod End 0 Mornsey & Torbridge 0 Weighted 0 Worksyntheter 0 Mornsey & Torbridge 0 Weighted Total NPV 0 Total Depot Charges 0 Power Consumption Electricity consumed per unit per mile Type 1 Units 0 Type 1 Units 0 Type 2 Units 0 Type 3 Units 0 Type 3 Units 0 Type 3 Units 0 Type 3 Units 0 Total Unit Miles per annum 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to apply 00% 0 2.47 0 111.81% 0 2.47 0 111.81% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 0 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01- 1 31-Mar-22 30-5 0 0 0 0	pr-22 01-Oct 23 sp-22 31-Mar-23 0 C 0 C	01-Apr-23 0 30-Sep-23 2 0 0	11-Oct-23 01-A 11-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-28 0 30-Sep-26 3 0 0	01-Oct-26 0' 11-Mar-27 30 0 0	1-Apr-27 01-Q Sep-27 31-M 0 0	1-27 01-Apr-28 -28 00-Sep-28 0 0 0 0 0	01-Oct-28 (31-Mar-29 3 0 0)1-Apr-29 0-Sep-29 0 0 0 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Pariod Stat 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Weighted Total NPV 0 Yoral Depot Charges 0 Power Consumption 0 Electricity consumed per unit per mile 0 Type 1 Units 0 Type 2 Units 0 Type 1 Units 0 Type 2 Units 0 Type 1 Units 0 Type 2 Units 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to appy 0% 0 2.47 0 11.81% 0% 0 2.47 0 11.81%	01-Jul-17 01-Oct-17 20-Sep-17 31-Mar-18 0 0 0 0 0 0 0	01-Apr:18 01-Oct:18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0 0	01-Oct-20 01-Apr 31-Mar-21 30-Sep-2 0 0	1 01-Oci-21 01-) 1 31-Mar-22 30-5 3 0 0 9 0 0	pr-22 01-Oct-22 ap-22 31-Mar-23 0 0 0 0 0 0	01-Apr.23 (30-Sep.23 (0 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 1	4 01.Apr.25 30.Sep.25 0 0 0 0 0	01-Oct.25 31-Mar.28 0 0	01-Apr.26 0 30-Sep-26 3 0 0	31-Oct-26 0' 31-Mar-27 30 0 0	I-Apr.27 01-Or Sep-27 31 Mo 0 0	1-27 01-Apr-28 -28 30-Sep-28 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	01-Apr.29 10-Sep.29 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Pariod Start Period End Hornsey & Three Bridges 0 Weighted Total NPV 0 Total Depot Charges 0 Power Consumption 0 Electricity consumed per unit per mile 10 Type 1 Units 0 Type 2 Units 0 Type 2 Units 0 Type 2 Units 0 Type 2 Units 0 Type 1 Units 0 Type 2 Units 0 Type 2 Units 0 Type 2 Units 0 Type 1 Units 8350,515 Type 3 Units 2,81564 Type 3 Units 2,81564 Type 3 Units 2,81564	ng Residual Value (Real) Index Residual Value (Nominal) Discount to appy 0% 0 2.47 0 111.81% 0% 0 2.47 0 111.81% 99 0% 0% 0%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 3 0 0 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0 0	01-Apr-19 01-Otc 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01-) 1 31-Mar-22 30-5 3 0 3 0	pr-22 01-Oct-22 ap-22 31-Mar-23 0 0 0	01-Apr-23 0 30-Sep-23 0 0 0	11-Oct-23 01-A 11-Mar-24 30-S 0 0	pr-24 01-Oct-2 sp-24 31-Mar-2 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0	01-Oct-25 31-Mar-26 0	01-Apr-26 0 30-Sep-26 3 0 0	31-Oct-26 0' 31-Mar-27 3C 0 0	1.Apr.27 01-0. Sep-27 31-Mi 0 0	1-27 01-Apr-28 -728 30-Sep-28 0 0 0 0	01-Oct-28 (31-Mar-29 3 0 0)11-Apr.29 00-Sep.29 0 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Network Rail Charges 0 Pariod Start 0 Pariod Start 0 Pariod Start 0 Pariod End Weighten Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Weighted Total NPV 0 Total Depot Charges 0 Power Consumption Electricity consumed per unit per mile Type 1 Units KWh/mile Type 1 Units 0 Type 2 Units 0 Type 2 Units 0 Type 1 Units 0,961,244 Type 2 Units 8,830,615	ng Residual Value (Resi) Index Residual Value (Nominal) Discount to appy 0% 0 247 0 11.81% 0% 0 247 0 11.81% 99 0% 0% 0%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 3 0 0 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr- 31-Mar-21 30-Sep- 0 0	1 01-Oct-21 01- 1 31-Mar-22 30-5 0 0 0 0	pr-22 01-Oct-22 31-Mar-23 0 0 0 0 0	01-Apr-23 30-Sep-23 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr.24 01-Oct-2 ep.24 31-Mar.2 0 0	4 01-Apr-25 5 30-Sep-25 0 0 0	01-Oct-25 31-Mar-26 0 0	01-Apr-26 0 30-Sep-26 3 0 0	11-Oct-26 0' 11-Mar-27 3C 0 0	1-Apr-27 01-0 Step-27 31-Me 0 0	1-27 01-Apr-28 -28 30-Sep-28 0 0 0 0 0 0	01-Oct-28 0 31-Mar-29 3 0 0	01-Apr.29 00-Sep.29 0 0 0 0
Hornsey & Three Bridges 0 Hornsey & Torbridge 0 Network Rail Charges 0 Period Start 0 Period End Weighten Hornsey & Torbridge 0 Weighten 0 Weighten 0 Weighten 0 Hornsey & Torbridge 0 Weighten 0 Weighten 0 Torbridge 0 Weighten 0 Weighten 0 Torbidge 0 Weighten 0 Weighten 0 Torbidge 0 Orbidge 0 Power Consumption Electricity consumed per unit per mile Type 1 Units Weighten Type 2 Units 0	ng Residual Value (Real) Index Residual Value (Nominal) Discount to appy 00% 0 2.47 0 111.81% 111.81% 00% 00% 00%	01-Jul-17 01-Oct-17 30-Sep-17 31-Mar-18 0 0 0 0	01-Apr-18 01-Oct-18 30-Sep-18 31-Mar-19 0 0 0 0	01-Apr-19 01-Oct 30-Sep-19 31-Mar 0 0	19 01-Apr-20 20 30-Sep-20 0 0 0	01-Oct-20 01-Apr 31-Mar-21 30-Sep-2 0 0	1 01-Oct-21 01- 1 31-Mar-22 30-5 0 0	pr-22 01-Oct.22 sp-22 31-Mar-23 0 C	01-Apr-23 00-Sep-23 0 0	1-Oct-23 01-A 1-Mar-24 30-S 0 0	pr-24 01-Oct-2 ep-24 31-Mar-2 0 1	4 01-Apr-25 5 30-Sep-25 0 0 0	01-Oct-25 31-Mar-26 0	01-Apr-26 0 30-Sep-26 3 0 0	31-Oct-26 0' 31-Mar-27 3C 0 0	1-Apr-27 01-Or Sep-27 31-M 0 0	1-27 01-Apr-28 -28 30-Sep-28 0 0 0	01-Oct-28 (31-Mar-29 3 0 0	31 Apr 29 00

Electricity Regenerated per annum (kWH) 0 Credit (real) 0

Electricity Consumption	
Consumption per unit per night (kWh) Consumption from Stabiling for Type 1 Unit O Consumption from Stabiling for Type 2 Unit O	
Annual Consumption (KWh) 0 Type 1 Units 0 Type 2 Units 0 Type 3 Units 0 Electricity Consumed per annum 0 from stabling 0	
Cost (real) 0	
Period Start Period End	01-Jul-17 01-Oct-17 01-Apr-18 01-Oct-18 01-Apr-19 01-Oct-19 01-Apr-20 01-Apr-20 01-Apr-20 01-Apr-21 01-Oct-21 01-Apr-22 01-Oct-22 01-Apr-23 01-Oct-23 01-Apr-24 01-Oct-23 01-Apr-25 01-Apr-25 01-Apr-26 01-Apr-26 01-Apr-27 01-Oct-27 01-Apr-28 01-Oct-28 01-Apr-29 01-Oct-28 01-Apr-29 01-Oct-28 01-Apr-29 01-Oct-28 01-Apr-29 01-Oct-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Oct-28 01-Apr-28 01-Apr
Portion of Year	25.19% 49.83% 50.10% 49.83% 50.10% 50.10% 50.10% 50.10% 49.83% 50.10% 49.83% 50.10% 49.83% 50.10% 50.10% 50.10% 49.83% 50.10% 49.83% 50.10% 49.83% 50.10% 49.83%
Electricity Consumed 0 Electricity Regenerated 0 Stabling Costs 0 Total NPV 0	0 0
VTISM	
VTISM cost per unit per Mile	
Type 1 Units 0.00 Type 2 Units 0.00 Type 3 Units 0.00	
Total	
Total Unit Miles per annum Miles Type 1 Units 9.961.244 Type 2 Units 8.80.515 Type 3 Units 2.241.564	
Total VTISM Cost (real) 0	
	01-Jul-17 01-Oct-17 01-Apr-18 01-Oct-18 01-Apr-19 01-Oct-19 01-Apr-20 01-Apr-20 01-Apr-20 01-Apr-21 01-Oct-21 01-Apr-22 01-Oct-22 01-Apr-23 01-Oct-23 01-Apr-24 01-Oct-23 01-Apr-25 01-Oct-25 01-Apr-26 01-Oct-26 01-Apr-27 01-Oct-27 01-Apr-28 01-Oct-28 01-Apr-29 00-Oct-28 01-Apr-29 00-Oct-28 01-Apr-29 00-Oct-28 01-Apr-29 00-Oct-28 01-Apr-28 01-Oct-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr-28 01-Apr
Portion of Year	25.19% 49.83% 50.10% 49.83% 50.10% 50.10% 50.10% 50.10% 49.83% 50.10% 49.83% 50.10% 49.83% 50.10% 50.10% 50.10% 49.83% 50.10% 49.83% 50.10% 49.83% 50.10% 49.83% 50.10\% 50.10\% 50.
VTISM Cost	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Performance Penalties	
Nominal Cost per delay minute Real: 800 Number of Units: 0 Type 2 Units Real: 800 Number of Units: 0 Type 3 Units Real: 800 Number of Units: 0 Type 3 Units Real: 800 Number of Units: 0	964 990 990 1,017 1,044 1,072 1,072 1,101 1,131 1,131 1,162 1,193 1,193 1,225 1,225 1,258 1,258 1,292 <th1,292< th=""> <th1,292< th=""> <th1,292< t<="" th=""></th1,292<></th1,292<></th1,292<>
Penalties Type 1 Units 0 Type 2 Units 0 Type 3 Units 5 Total NPV 0	0 0
Late Delivery Penalty (Programme)	
Nominal Cost per vehicle month of delay Real Cost: 12,000,000 Nominal Cost per vehicle month of delay Real Cost: 8,000,000 Nominal Cost per vehicle month of delay Real Cost: 8,000,000	14,460,202 14,460,202 14,450,627 14,850,627 15,251,594
Type 1 Penalty Type 2 Penalty	0 0 0 0 0 0 0 0 0 0
Type 3 Penalty Late Delivery Penalty 0	0 0 0 0 0 0 0 0 0 0

Type 3 Penalty
Late Delivery Penalty
0

IESLINK ROLLING STOCK PROJECT Model Calculations 3 Life Cost Model - CALCULATIONS

NPV Calculation Parameters	01-Oct-29 31-Mar-30	01-Apr-30 30-Sep-30	01-Oct-30 31-Mar-31	01-Apr-31 30-Sep-31	01-Oct-31 31-Mar-32	01-Apr-32 30-Sep-32	01-Oct-32 31-Mar-33	01-Apr-33 30-Sep-33	01-Oct-33 31-Mar-34	01-Apr-34 30-Sep-34	01-Oct-34 31-Mar-35	01-Apr-35 30-Sep-35	01-Oct-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 31-Mar-37	01-Apr-37 30-Sep-37	01-Oct-37 31-Mar-38	01-Apr-38 30-Sep-38	01-Oct-38 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 30-Sep-40	01-Oct-40 31-Mar-41	01-Apr-41 30-Sep-41	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 31-Mar-46	01-Apr-46 30-Sep-46
RPI Electricity Inflation Rate Real Discount Rate Discount Rate																																		
Base Date Years from Base Date for NPV Calculations Discount Factor Years from Base Date for Indexation Calculations RPI (1 April 2010 = 1) Electricity (1 April 2010 = 1)	20.00 29.50% 19.00 1.659 1.994	20.50 28.61% 20.00 1.704 2.068	21.00 27.75% 20.00 1.704 2.068	21.50 26.92% 21.00 1.750 2.145	22.00 26.11% 21.00 1.750 2.145	22.50 25.32% 22.00 1.797 2.224	23.00 24.56% 22.00 1.797 2.224	23.50 23.82% 23.00 1.846 2.306	24.00 23.11% 23.00 1.846 2.306	24.50 22.41% 24.00 1.895 2.392	25.00 21.74% 24.00 1.895 2.392	25.50 21.08% 25.00 1.947 2.480	26.00 20.45% 25.00 1.947 2.480	26.50 19.83% 26.00 1.999 2.572	27.00 19.24% 26.00 1.999 2.572	27.50 18.66% 27.00 2.053 2.667	28.00 18.10% 27.00 2.053 2.667	28.50 17.56% 28.00 2.108 2.766	29.00 17.03% 28.00 2.108 2.766	29.50 16.52% 29.00 2.165 2.868	30.00 16.02% 29.00 2.165 2.868	30.50 15.54% 30.00 2.224 2.974	31.00 15.07% 30.00 2.224 2.974	31.50 14.62% 31.00 2.284 3.084	32.00 14.18% 31.00 2.284 3.084	32.50 13.75% 32.00 2.346 3.198	33.00 13.34% 32.00 2.346 3.198	33.50 12.94% 33.00 2.409 3.317	34.00 12.55% 33.00 2.409 3.317	34.50 12.17% 34.00 2.474 3.439	35.00 11.81% 34.00 2.474 3.439	35.50 11.45% 35.00 2.541 3.567	36.00 11.11% 35.00 2.541 3.567	36.50 10.77% 36.00 2.609 3.699
Lease Rental Payments																																		
Period Start Period End	01-Oct-29 31-Mar-30	01-Apr-30 30-Sep-30	01-Oct-30 31-Mar-31	01-Apr-31 30-Sep-31	01-Oct-31 31-Mar-32	01-Apr-32 30-Sep-32	01-Oct-32 31-Mar-33	01-Apr-33 30-Sep-33	01-Oct-33 31-Mar-34	01-Apr-34 30-Sep-34	01-Oct-34 31-Mar-35	01-Apr-35 30-Sep-35	01-Oct-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 31-Mar-37	01-Apr-37 30-Sep-37	01-Oct-37 31-Mar-38	01-Apr-38 30-Sep-38	01-Oct-38 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 30-Sep-40	01-Oct-40 31-Mar-41	01-Apr-41 30-Sep-41	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 31-Mar-46	01-Apr-46 30-Sep-46
Lease Rental Payments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TSA Payments																																		
Indexed																																		
Real Service Payments NOT indexed if Actual An 125,000 for Type 1 & Type 2 Units, 95,000 for T 135,000 for Type 1 & Type 2 Units, 105,000 for 145,000 for Type 1 & Type 2 Units, 125,000 for 155,000 for Type 1 & Type 2 Units, 135,000 for 165,000 for Type 1 & Type 2 Units, 145,000 for	0 0 0 0																																	
175,000 for Type 1 & Type 2 Units, 155,000 for 185,000 for Type 1 & Type 2 Units, 165,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195,000 for Type 1 & Type 2 Units, 175,000 for 205,000 for Type 1 & Type 2 Units, 185,000 for 215,000 for Type 1 & Type 2 Units, 195,000 for 225,000 for Type 1 & Type 2 Units, 205,000 for	0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0	0 0 0 0	0	0	0 0 0 0	0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0	0 0 0 0	0 0 0 0 0	0 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0
125,000 for Type 1 & Type 2 Units, 95,000 for T 135,000 for Type 1 & Type 2 Units, 95,000 for T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145,000 for Type 1 & Type 2 Units, 125,000 for 155,000 for Type 1 & Type 2 Units, 135,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165,000 for Type 1 & Type 2 Units, 145,000 for 175,000 for Type 1 & Type 2 Units, 155,000 for 185,000 for Type 1 & Type 2 Units, 165,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195,000 for Type 1 & Type 2 Units, 175,000 for 205,000 for Type 1 & Type 2 Units, 185,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215,000 for Type 1 & Type 2 Units, 195,000 for 225,000 for Type 1 & Type 2 Units, 205,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nominal Service Payments if Actual Annual Mileag 125,000 for Type 1 & Type 2 Units, 95,000 for T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135,000 for Type 1 & Type 2 Units, 105,000 for 145,000 for Type 1 & Type 2 Units, 125,000 for 155,000 for Type 1 & Type 2 Units, 125,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165,000 for Type 1 & Type 2 Units, 155,000 for 175,000 for Type 1 & Type 2 Units, 145,000 for 175,000 for Type 1 & Type 2 Units, 155,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185,000 for Type 1 & Type 2 Units, 165,000 for 195,000 for Type 1 & Type 2 Units, 175,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205,000 for Type 1 & Type 2 Units, 185,000 for 215,000 for Type 1 & Type 2 Units, 195,000 for 225,000 for Type 1 & Type 2 Units, 205,000 for	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Payment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NPV of weighted TSA payments																																		
Total Depot Costs																																		
Period Start	01-Oct-29	01-Apr-30	01-Oct-30	01-Apr-31	01-Oct-31	01-Apr-32	01-Oct-32	01-Apr-33	01-Oct-33	01-Apr-34	01-Oct-34	01-Apr-35	01-Oct-35	01-Apr-36	01-Oct-36	01-Apr-37	01-Oct-37	01-Apr-38	01-Oct-38	01-Apr-39	01-Oct-39	01-Apr-40	01-Oct-40	01-Apr-41	01-Oct-41	01-Apr-42	01-Oct-42	01-Apr-43	01-Oct-43	01-Apr-44	01-Oct-44	01-Apr-45	01-Oct-45	01-Apr-46
Period End	31-Mar-30	30-Sep-30	31-Mar-31	30-Sep-31	31-Mar-32	30-Sep-32	31-Mar-33	30-Sep-33	31-Mar-34	30-Sep-34	31-Mar-35	30-Sep-35	31-Mar-36	30-Sep-36	31-Mar-37	30-Sep-37	31-Mar-38	30-Sep-38	31-Mar-39	30-Sep-39	31-Mar-40	30-Sep-40	31-Mar-41	30-Sep-41	31-Mar-42	30-Sep-42	31-Mar-43	30-Sep-43	31-Mar-44	30-Sep-44	31-Mar-45	30-Sep-45	31-Mar-46	30-Sep-46
Hornsey & Tonbridge Weighted Total NPV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depot Residual Value																																		
Hornsey & Three Bridges Hornsey & Tonbridge Weighted Total NPV Network Rail Charges																																		
Period Start Period End	01-Oct-29 31-Mar-30	01-Apr-30 30-Sep-30	01-Oct-30 31-Mar-31	01-Apr-31 30-Sep-31	01-Oct-31 31-Mar-32	01-Apr-32 30-Sep-32	01-Oct-32 31-Mar-33	01-Apr-33 30-Sep-33	01-Oct-33 31-Mar-34	01-Apr-34 30-Sep-34	01-Oct-34 31-Mar-35	01-Apr-35 30-Sep-35	01-Oct-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 31-Mar-37	01-Apr-37 30-Sep-37	01-Oct-37 31-Mar-38	01-Apr-38 30-Sep-38	01-Oct-38 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 30-Sep-40	01-Oct-40 31-Mar-41	01-Apr-41 30-Sep-41	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 31-Mar-46	01-Apr-46 30-Sep-46
Hornsey & Three Bridges Hornsey & Tonbridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Total NPV																																		
Power Consumption																																		
Electricity consumed per unit per mile																																		
Type 1 Units Type 2 Units																																		
Electricity regenerated per unit per mile																																		
Type 1 Units Type 2 Units																																		
Typë 3 Units Total Unit Miles per annum																																		
Type 1 Units Type 2 Units Type 3 Units																																		

Electricity Cost/Credit

Electricity Charge per kWH Regeneration Credit per kWH

Electricity Consumed per annum from operation of trains (kWH) Cost (real)

Electricity Regenerated per annum (kWH) Credit (real)

Electricity Consumption

Consumption per unit per night (kWh) Consumption from Stabling for Type 1 Unit Consumption from Stabling for Type 2 Unit Consumption from Stabling for Type 3 Unit

Annual Consumption (kWh) Type 1 Units Type 2 Units Type 3 Units Electricity Consumed per annum from stabling Cost (real)

000 (102)																															
Period Start	01-Oct-29	01-Apr-30	01-Oct-30	01-Apr-31	01-Oct-31	01-Apr-32	01-Oct-32	01-Apr-33	01-Oct-33	01-Apr-34	01-Oct-34	01-Apr-35	01-Oct-35	01-Apr-36	01-Oct-36	01-Apr-37	01-Oct-37	01-Apr-38	01-Oct-38	01-Apr-39	01-Oct-39	01-Apr-40	01-Oct-40	01-Apr-41	01-Oct-41	01-Apr-42	01-Oct-42	01-Apr-43	01-Oct-43	01-Apr-44	01-Oct-44
Period End	31-Mar-30	30-Sep-30	31-Mar-31	30-Sep-31	31-Mar-32	30-Sep-32	31-Mar-33	30-Sep-33	31-Mar-34	30-Sep-34	31-Mar-35	30-Sep-35	31-Mar-36	30-Sep-36	31-Mar-37	30-Sep-37	31-Mar-38	30-Sep-38	31-Mar-39	30-Sep-39	31-Mar-40	30-Sep-40	31-Mar-41	30-Sep-41	31-Mar-42	30-Sep-42	31-Mar-43	30-Sep-43	31-Mar-44	30-Sep-44	31-Mar-45
Portion of Voor	40.929/	50 109/	40.929/	50 109/	E0 109/	50 109/	40.929/	E0 109/	40.020/	50 109/	40.929/	E0 109/	50 109/	E0 109/	40.939/	E0 109/	40.929/	E0 109/	40.929/	50 109/	E0 109/	50 109/	40.929/	50 109/	40.929/	50 109/	40.929/	E0 109/	50 109/	E0 109/	40.939/
Polition of real	49.03%	50.10%	49.03%	30.10%	30.10%	30.10%	49.03%	30.10%	49.03%	50.10%	49.03%	30.10%	30.10%	30.10%	49.03%	50.10%	49.03%	50.10%	49.03%	50.10%	30.10%	30.10%	49.03%	50.10%	49.03%	50.10%	49.03%	30.10%	50.10%	50.10%	49.03%
Electricity Consumed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity Regenerated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stabling Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NPV																															
VTISM																															
VTISM cost per unit per Mile																															

Type 1 Units Type 2 Units Type 3 Units

Total VTISM Cost (real)

	01-Oct-29	01-Apr-30	01-Oct-30	01-Apr-31	01-Oct-31	01-Apr-32	01-Oct-32	01-Apr-33	01-Oct-33	01-Apr-34	01-Oct-34	01-Apr-35	01-Oct-35	01-Apr-36	01-Oct-36	01-Apr-37	01-Oct-37	01-Apr-38	01-Oct-38	01-Apr-39	01-Oct-39	01-Apr-40	01-Oct-40	01-Apr-41	01-Oct-41	01-Apr-42	01-Oct-42	01-Apr-43	01-Oct-43	01-Apr-44	01-Oct-44	01
	31-Mar-30	30-Sep-30	31-Mar-31	30-Sep-31	31-Mar-32	30-Sep-32	31-Mar-33	30-Sep-33	31-Mar-34	30-Sep-34	31-Mar-35	30-Sep-35	31-Mar-36	30-Sep-36	31-Mar-37	30-Sep-37	31-Mar-38	30-Sep-38	31-Mar-39	30-Sep-39	31-Mar-40	30-Sep-40	31-Mar-41	30-Sep-41	31-Mar-42	30-Sep-42	31-Mar-43	30-Sep-43	31-Mar-44	30-Sep-44	31-Mar-45	30
Portion of Year	49.83%	50.10%	49.83%	50.10%	50.10%	50.10%	49.83%	50.10%	49.83%	50.10%	49.83%	50.10%	50.10%	50.10%	49.83%	50.10%	49.83%	50.10%	49.83%	50.10%	50.10%	50.10%	49.83%	50.10%	49.83%	50.10%	49.83%	50.10%	50.10%	50.10%	49.83%	
VTISM Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Performance Penalties																																

Nominal Cost per delay minute

Norminal Cook per delay minute																															
Type 1 Units	1,327	1,363	1,363	1,400	1,400	1,438	1,438	1,476	1,476	1,516	1,516	1,557	1,557	1,599	1,599	1,642	1,642	1,687	1,687	1,732	1,732	1,779	1,779	1,827	1,827	1,876	1,876	1,927	1,927	1,979	1,979
Type 2 Units	1,327	1,363	1,363	1,400	1,400	1,438	1,438	1,476	1,476	1,516	1,516	1,557	1,557	1,599	1,599	1,642	1,642	1,687	1,687	1,732	1,732	1,779	1,779	1,827	1,827	1,876	1,876	1,927	1,927	1,979	1,979
Type 3 Units	1,327	1,363	1,363	1,400	1,400	1,438	1,438	1,476	1,476	1,516	1,516	1,557	1,557	1,599	1,599	1,642	1,642	1,687	1,687	1,732	1,732	1,779	1,779	1,827	1,827	1,876	1,876	1,927	1,927	1,979	1,979
Penalties																															
Type 1 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Type 2 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Type 3 Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NPV																															

Late Delivery Penalty (Programme)

Nominal Cost per vehicle month of delay Nominal Cost per vehicle month of delay Nominal Cost per vehicle month of delay

Type 1 Penalty Type 2 Penalty Type 3 Penalty Late Delivery Penalty

01-Apr-46	01-Oct-45	01-Apr-45	01-Oct-44	1
30-Sep-46	31-Mar-46	30-Sep-45	31-Mar-45	1
50.10%	49.83%	50.10%	49.83%	5
0	0	0	0)
0	0	0	0)
0	0	0	0)

44	01-Apr-45	01-Oct-45	01-Apr-46
45	30-Sep-45	31-Mar-46	30-Sep-46
\$%	50.10%	49.83%	50.10%
0	0	0	0
79	2,033	2,033	2,087
79	2,033	2,033	2,087
79	2,033	2,033	2,087
0	0	0	0
0	0	0	0

THAMESLINK ROLLING STOCK PROJECT WLC Model Calculations Whole Life Cost Model - CALCULATIONS

NPV Calculation Parameters	01-Oct-11 01-Apr-12 31-Mar-12 30-Sep-12	01-Oct-12 01-Apr-1 31-Mar-13 30-Sep-1	3 01-Oct-13 01-/ 3 31-Mar-14 30-5	Apr-14 01-Oct-14 Sep-14 31-Mar-15	01-Apr-15 01- 30-Sep-15 31-	Oct-15 01-Ap Mar-16 30-Se	r-16 01-Oct-16 o-16 31-Mar-17	01-Apr-17 01 30-Sep-17 31	1-Oct-17 0 1-Mar-18 3	01-Apr-18 01-Oct- 0-Sep-18 31-Mar-	18 01-Apr-19 19 30-Sep-19	01-Oct-19 31-Mar-20	01-Apr-20 0 30-Sep-20 3	01-Oct-20 (81-Mar-21 3	01-Apr-21 0 30-Sep-21 3	01-Oct-21 0 11-Mar-22 30	0-Sep-22	01-Oct-22 0 31-Mar-23 3	0-Sep-23 3	01-Oct-23 0 31-Mar-24 30	1-Apr-24 0)-Sep-24 3	11-Oct-24 01 1-Mar-25 30	-Apr-25 (-Sep-25 3	01-Oct-25 0 81-Mar-26 30	1-Apr-26 0-Sep-26	01-Oct-26 31-Mar-27 3	01-Apr-27 30-Sep-27	01-Oct-27 31-Mar-28	01-Apr-28 30-Sep-28	01-Oct-28 31-Mar-29	01-Apr-29 30-Sep-29
RPI 2.70% Electricity Inflation Rate 3.70% Real Discourt Rate 3.50% Discourt Rate 6.29% Base Date 1-Apr-10																															
Years from Base Date for NPV Calculations Discount Factor Years from Base Date for Indexation Calculations RPI (1 April 2010 = 1) Electricity (1 April 2010 = 1)	2.00 2.50 88.50% 85.83% 1.00 2.00 1.027 1.055 1.037 1.075	3.00 3.5 83.26% 80.75 2.00 3.0 1.055 1.08 1.075 1.11	50 4.00 % 78.34% 7 30 3.00 33 1.083 15 1.115	4.50 5.00 5.98% 73.70% 4.00 4.00 1.112 1.112 1.156 1.156	5.50 71.48% 6 5.00 1.142 1.199	6.00 9.33% 67. 5.00 1.142 1 1.199 1	3.50 7.00 24% 65.22% 3.00 6.00 173 1.173 244 1.244	7.50 63.26% 7.00 1.205 1.290	8.00 61.36% 7.00 1.205 1.290	8.50 9. 59.52% 57.73 8.00 8. 1.238 1.2 1.337 1.3	00 9.50 3% 55.99% 00 9.00 38 1.271 37 1.387	10.00 54.31% 9.00 1.271 1.387	10.50 52.67% 10.00 1.305 1.438	11.00 51.09% 10.00 1.305 1.438	11.50 49.55% 11.00 1.341 1.491	12.00 48.07% 11.00 1.341 1.491	12.50 46.62% 12.00 1.377 1.546	13.00 45.22% 12.00 1.377 1.546	13.50 43.86% 13.00 1.414 1.604	14.00 42.54% 13.00 1.414 1.604	14.50 41.26% 14.00 1.452 1.663	15.00 40.02% 14.00 1.452 1.663	15.50 38.82% 15.00 1.491 1.725	16.00 37.66% 15.00 1.491 1.725	16.50 36.52% 16.00 1.532 1.788	17.00 35.43% 16.00 1.532 1.788	17.50 34.36% 17.00 1.573 1.855	18.00 33.32% 17.00 1.573 1.855	18.50 32.32% 18.00 1.615 1.923	19.00 31.35% 18.00 1.615 1.923	19.50 30.41% 19.00 1.659 1.994
Owner's cost of shrinking back MSA to Batch 1																															
Owner's cost of shrinking back MSA to Batch 1 0	0 0	0	0 0	0 0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Probability Adjusted 0.00																															
TMM's cost of shrinking back the TSA to Batch 1																															
Period Start Period End	01-Jul-17 01-Jul-17 30-Sep-17 30-Sep-17	01-Jul-17 01-Jul-1 30-Sep-17 30-Sep-1	17 01-Jul-17 01- 17 30-Sep-17 30-S	Jul-17 01-Jul-17 Sep-17 30-Sep-17	01-Jul-17 01 30-Sep-17 30-5	Jul-17 01-Ji Sep-17 30-Se	I-17 01-Jul-17 0-17 30-Sep-17	01-Jul-17 01 30-Sep-17 31	1-Oct-17 0 1-Mar-18 3	01-Apr-18 01-Oct- 0-Sep-18 31-Mar-	18 01-Apr-19 19 30-Sep-19	01-Oct-19 31-Mar-20	01-Apr-20 0 30-Sep-20 3	01-Oct-20 (31-Mar-21 3	01-Apr-21 0 30-Sep-21 3	01-Oct-21 0 11-Mar-22 30	1-Apr-22 0-Sep-22	01-Oct-22 0 31-Mar-23 3	01-Apr-23 0 0-Sep-23 3	01-Oct-23 0 31-Mar-24 30	1-Apr-24 0)-Sep-24 3	1-Oct-24 01 1-Mar-25 30	-Apr-25 0 -Sep-25 3	01-Oct-25 0 81-Mar-26 30	1-Apr-26 0-Sep-26	01-Oct-26 31-Mar-27	01-Apr-27 30-Sep-27	01-Oct-27 31-Mar-28	01-Apr-28 30-Sep-28	01-Oct-28 31-Mar-29	01-Apr-29 30-Sep-29
TMM's cost of shrinking back the TSA to Batch 1 0	0 0	0	0 0	0 0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Probability Adjusted 0.00																															
TMM's revised Service Payments if TSA shrunk back to Batch 1																															
Not Indexed % of costs 50.00% Indexed % of costs 50.00%																															
Real Service Payments NOT Indexed if Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units 135,000 for Type 1 & Type 2 Units 145,000 for Type 1 & Type 2 Units 155,000 for Type 1 & Type 2 Units 205,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units								0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0
Real Service Payments Indexed if Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units 145,000 for Type 1 & Type 2 Units 155,000 for Type 1 & Type 2 Units 205,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units								0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0
Nominal Service Payments II Actual Annual Mileage is: 125,000 for Type 1 & Type 2 Units 135,000 for Type 1 & Type 2 Units 145,000 for Type 1 & Type 2 Units 155,000 for Type 1 & Type 2 Units 155,000 for Type 1 & Type 2 Units 165,000 for Type 1 & Type 2 Units 175,000 for Type 1 & Type 2 Units 185,000 for Type 1 & Type 2 Units 195,000 for Type 1 & Type 2 Units 195,000 for Type 1 & Type 2 Units 205,000 for Type 1 & Type 2 Units 205,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units	vengrung in 64304 2% 3% 35% 35% 5% 5% 5% 5% 6% 0%	uvi						0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Weighted Payment								0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Probability Adjusted

0.00

IESLINK ROLLING STOCK PROJECT Model Calculations 9 Life Cost Model - CALCULATIONS

B LITE COST MODEL - CALCULATIONS																																		
NPV Calculation Parameters	01-Oct-29 31-Mar-30	01-Apr-30 30-Sep-30	01-Oct-30 31-Mar-31	01-Apr-31 30-Sep-31	01-Oct-3 31-Mar-3	1 01-Apr-32 2 30-Sep-32	01-Oct-32 31-Mar-33	2 01-Apr-33 3 30-Sep-33	01-Oct-33 31-Mar-34	01-Apr-34 30-Sep-34	01-Oct-34 31-Mar-35	01-Apr-35 30-Sep-35	01-Oct-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 31-Mar-37	01-Apr-37 30-Sep-37	01-Oct-37 31-Mar-38	01-Apr-38 30-Sep-38	01-Oct-38 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 30-Sep-40	01-Oct-40 31-Mar-41	01-Apr-41 30-Sep-41	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 31-Mar-46	01-Apr-46 30-Sep-46
RPI Electricity Inflation Rate Real Discourt Rate Discourt Rate Base Date																																		
Years from Base Date for NPV Calculations Discount Factor Years from Base Date for Indexation Calculations RPI (1 April 2010 = 1) Electricity (1 April 2010 = 1)	20.00 29.50% 19.00 1.659 1.994	20.50 28.61% 20.00 1.704 2.068	21.00 27.75% 20.00 1.704 2.068	21.50 26.92% 21.00 1.750 2.145	22.0 26.119 21.0 1.75 2.14	0 22.50 6 25.32% 0 22.00 0 1.797 5 2.224	23.00 24.56% 22.00 1.797 2.224	23.50 23.82% 23.82% 23.00 1.846 2.306	24.00 23.11% 23.00 1.846 2.306	24.50 22.41% 24.00 1.895 2.392	25.00 21.74% 24.00 1.895 2.392	25.50 21.08% 25.00 1.947 2.480	26.00 20.45% 25.00 1.947 2.480	26.50 19.83% 26.00 1.999 2.572	27.00 19.24% 26.00 1.999 2.572	27.50 18.66% 27.00 2.053 2.667	28.00 18.10% 27.00 2.053 2.667	28.50 17.56% 28.00 2.108 2.766	29.00 17.03% 28.00 2.108 2.766	29.50 16.52% 29.00 2.165 2.868	30.00 16.02% 29.00 2.165 2.868	30.50 15.54% 30.00 2.224 2.974	31.00 15.07% 30.00 2.224 2.974	31.50 14.62% 31.00 2.284 3.084	32.00 14.18% 31.00 2.284 3.084	32.50 13.75% 32.00 2.346 3.198	33.00 13.34% 32.00 2.346 3.198	33.50 12.94% 33.00 2.409 3.317	34.00 12.55% 33.00 2.409 3.317	34.50 12.17% 34.00 2.474 3.439	35.00 11.81% 34.00 2.474 3.439	35.50 11.45% 35.00 2.541 3.567	36.00 11.11% 35.00 2.541 3.567	36.50 10.77% 36.00 2.609 3.699
Owner's cost of shrinking back MSA to Batch 1																																		
Owner's cost of shrinking back MSA to Batch 1	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Probability Adjusted																																		
TMM's cost of shrinking back the TSA to Batch 1																																		
Period Start Period End	01-Oct-29 31-Mar-30	01-Apr-30 30-Sep-30	01-Oct-30 31-Mar-31	01-Apr-31 30-Sep-31	01-Oct-3 31-Mar-3	1 01-Apr-32 2 30-Sep-32	01-Oct-32 31-Mar-33	01-Apr-33 30-Sep-33	01-Oct-33 31-Mar-34	01-Apr-34 30-Sep-34	01-Oct-34 31-Mar-35	01-Apr-35 30-Sep-35	01-Oct-35 31-Mar-36	01-Apr-36 30-Sep-36	01-Oct-36 31-Mar-37	01-Apr-37 30-Sep-37	01-Oct-37 31-Mar-38	01-Apr-38 30-Sep-38	01-Oct-38 31-Mar-39	01-Apr-39 30-Sep-39	01-Oct-39 31-Mar-40	01-Apr-40 30-Sep-40	01-Oct-40 31-Mar-41	01-Apr-41 30-Sep-41	01-Oct-41 31-Mar-42	01-Apr-42 30-Sep-42	01-Oct-42 31-Mar-43	01-Apr-43 30-Sep-43	01-Oct-43 31-Mar-44	01-Apr-44 30-Sep-44	01-Oct-44 31-Mar-45	01-Apr-45 30-Sep-45	01-Oct-45 31-Mar-46	01-Apr-46 30-Sep-46
TMM's cost of shrinking back the TSA to Batch 1		0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Probability Adjusted																																		
TMM's revised Service Payments if TSA shrunk ba	ck																																	
Not Indexed Indexed																																		
Real Service Payments NOT indexed if Actual Ann	iua		0	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0	
135,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195.000 for Type 1 & Type 2 Units	(0	0	0		0 0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215,000 for Type 1 & Type 2 Units 225,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Real Service Payments indexed if Actual Annual N 125 000 for Tune 1.8 Tune 2 Units	lile	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165.000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205.000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nominal Service Payments if Actual Annual Mileage	e is		0	0			0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0
125,000 for Type 1 & Type 2 Units 135,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ő	0	0	0	0	0
155,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100,000 for Type 1 & Type 2 Units 175,000 for Type 1 & Type 2 Units	(0	0	0	-	0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185,000 for Type 1 & Type 2 Units		0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205,000 for Type 1 & Type 2 Units 215,000 for Type 1 & Type 2 Units	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225,000 for Type 1 & Type 2 Units		0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighted Payment	(0	0	0		0 0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				-					-	-		-	-		-	-			-			-		-	-		-	-						

NPV of weighted TSA payments

Probability Adjusted

		<u> </u>
35.50	36.00	36.50
11.45%	11.11%	10.77%
35.00	35.00	36.00
2.541	2.541	2.609
0.001	0.001	0.000
0	0	0
01-Apr-45	01-Oct-45	01-Apr-46
30-Sep-45	31-Mar-46	30-Sep-46
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
•	0	0
0	0	0