Intercity Express Programme

Invitation to Tender

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Glossary of Terms

Additional Service Proposals	Defined in Table 3.2
ADSCR	Annual Debt Service Cover Ratio
Alternative Proposals	Defined in Table 3.3
ATOC	Association of Train Operating Companies
BAFO	Best and Final Offer
Base Proposal	Defined in Table 3.1
Bidder	A party to whom this ITT is adressed and who considers making and/ or makes a Proposal in response to this ITT Bi-mode, Self-powered or electric operation
CC	Cross Country Line
Clarification Questions	Defined in Section 2.4.3
Company Documents	All the corporate documents of the TSP including Memorandums and Articles of Association
Contract Award	The award of IE Services contract to the successful Bidder
Contract Life	Period of Usage Undertaking
Core Routes	Defined in Section 1.3.1
Crossrail	Cross London Rail Links
DAA	Depot Access Agreement
DFO	Depot Facilities Operator
DfT	Department for Transport
DfT Procurement Team	Defined in Section 2.5
DfT Procurement Programme Support	Defined in Section 2.3
Disclosed Information	The information contained in this document (including its appendices and data site)
ECML	East Coast Main Line

ECS	Empty Coach Stock Movement
EFQM	European Foundation for Quality Management
Equity Documents	Those documents referred to in Section 7.2.1(c)
Financial Close	Financial Close for East Coast Phase 1 and any other Priced Option Routes contracted at Financial Close
Fleet	One of PST, ECML, GWML, WCML (South) and CC
FMECA	Failure Mode, Effects, and Criticality Analysis
FOIA	Freedom of Information Act 2000
Franchise Agreement	Defined in Section 23 (3) of the Railways Act 1993
GWML	Great Western Main Line
HMRI	Her Majesty's Railway Inspectorate
HMT	Her Majesty's Treasury
IE	Intercity Express
IE Agreements	The Project Documents entered into at Financial Close including all projects, plans, financing and operational arrangements necessary to deliver the objectives set by the DfT
IE Services	The financing, procurement and delivery of the new trains and all other related services in connection with the provision of the required availability for the IEP.
IEP	Intercity Express Programme
ITT	This Invitation to Tender
KPI	Key Performance Indicator
MARA	Master Availability and Reliability Agreement
MRA	Maintenance Reserve Accounts
NDT	Non Destructive Testing

NNTR	Notified National Technical Rule
NPV	Net Present Value
NRIL	Network Rail Infrastructure Limited
OFT	Office of Fair Trading
OGC	Office of Government Commerce
OJEU	Official Journal of the European Union
ORR	Office of Rail Regulation
Other Routes	Defined in Section 1.3.1
OTMR	On Train Monitoring and Recorder
PIS	Passenger Information System
PLCR	Project Life Cover Ratio
Preferred Bidder	The Preferred Bidder as described in Sections 3.3 and 3.6
Priced Options	The priced options set out in Section 3.5
Project Plans	Plans identified in Section 4 of the ITT
Proposal	A Bidder's entire offering in response to this ITT
PST	Pre-Series Trains
QA	Quality Assurance
QHSE Process	Quality, Health, Safety and Environmental Process as Section 7.1.4
QMS	Quality Management System as section 7.1.5
RADAR	Results, Approach, Deployment, Assessment & Review
RAM	Reliability, Availability and Maintainability
RGS	Railway Group Standards
RISAS	Railway Industry Supplier Approval Scheme
ROSCO	Rolling Stock Company

RSSB	Rail Safety and Standards Board
RV Date	The date of expiry of each Usage Undertaking
SAP	Set Availability Payment
Security Bonds	Certain security bonds, including the maintenance and servicing facility construction bond amongst other bonds
Set	Full, half or intermediate train formations as described in Table 1.3.2
SoS	Secretary of State for Transport
Supporting Information	Information placed in the data site relating to IEP
TARA	Train Availability and Reliability Agreement
TMS	Train Management System
TOC	Train Operating Company
Trains	Trains forming part the IE Service
Tranche 1	PST, East Coast Main Line Phase 1 and any Priced Options selected from West Coast Main Line (South) and East Coast Phase 2
Tranche 2	Great Western Main Line Phase 1 and any Additional Services selected from GWML Phase 2 and Cross Country
Transport Scotland	The National Transport Agency for Scotland
TIIS	Train Infrastructure Interface Specification as set out in the data site
TTS	Train Technical Specification
TSI	European Technical Standards for Interoperability
TSP	Train Service Provider
TUPE	Transfer of Undertakings (Protection of Employment) Regulations
Usage Undertaking	Undertaking as defined in Schedule 4.3 of the MARA

VAT	Value Added Tax
VTISM	Vehicle Track Interaction Strategic Model
VTT	Virtual Test Track
WCML	West Coast Main Line

Where terms are not defined please refer to the MARA and TARA. For the avoidance of doubt should any inconsistancy arise the definitions in the MARA and TARA will take precedence over this Glossary.

Important Notice

All references in this document to the Department for Transport (DfT) include, where appropriate and unless the context otherwise requires, references to DfT's predecessors and successor(s).

All references in this document to Network Rail (NRIL) include, where appropriate and unless the context otherwise requires, references to NRIL's successor(s).

The Disclosed Information has been prepared to assist interested parties in considering whether or not to make a Proposal in relation to the Intercity Express Services (IE 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 IE Services to any person or party. The DfT reserves the right to terminate the competition, to award the IE 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 Proposals 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 IE Services to a Bidder.

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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 IE Services, nor to acquire shares in the capital of any company, or in any parent company of the company, which is to provide the

IE Services. In considering any investment in the shares of any company or in bidding for the award of the IE 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 IE Services and of the legal, financial, taxation and other consequences of entering into the contractual arrangements in connection with the IE 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 DfT, 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 Proposal.

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.

Freshfields Bruckhaus Deringer, PricewaterhouseCoopers LLP, Mott MacDonald, Steer Davies Gleave, BravoSolution and Willis Ltd are acting for DfT, in each case in relation to the IE 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 IEP opportunity, the award, or any Proposal for the award of the IE Services, or negotiation of the associated contractual agreements.

1 Introduction and Objectives

1.1 Introduction

The DfT is leading the procurement of a new generation of IE Services. The procurement is part of a wider programme of improvements, including the provision of infrastructure works to enable trains to achieve the required performance.

This Invitation to Tender (ITT) seeks proposals from Bidders that will provide IE Services for the Contract Life of the IEP. Proposals are sought for a defined number of Train diagrams on the Core Routes and Priced Option Routes, and the DfT's aim is to enter into a contract for the manufacture, entry into service and reliable operation with maintenance and servicing support, together with financing, for the relevant IE Trains to achieve this goal. The successful Bidder will be required to enter into contracts with the DfT and with one or more Train Operating Companies (TOCs) for each Franchise Agreement term.

This ITT:

- provides an overview of the scope, objectives, structure and stakeholders of the IEP (Section 1);
- sets out the general tender information and instructions to Bidders (Section 2);
- describes the evaluation process, methodology and criteria which the DfT will use to evaluate submitted Proposals (Section 3);
- summarises the DfT's specifications, plans and requirements, and details the various plans that will need to be submitted with each Bidder's proposals (Section 4);
- provides details of the proposed contractual arrangements for the provision of the IE Services (Section 5); and
- explains the financing requirements and further submission details (Section 6).

1.2 The DfT's Objectives of the IEP

The objectives of the IEP are to:

- deliver increased carrying capacity on the rail network;
- deliver a fast reliable journey time;
- meet customer requirements by providing an enhanced passenger environment;
- improve safety;
- deliver an environmentally sustainable solution;
- minimise whole-life, whole-system cost;
- offer flexibility of deployment; and
- manage the transition between the TSP and existing Intercity fleets.

These objectives have been used to inform the specification of vehicles (Train Technical Specification (TTS) and infrastructure (Train Infrastructure Interface Specification (TIIS) and the conduct of the procurement process, drafting of IE Agreements (notably the MARA and TARA) and the evaluation criteria for selecting the successful Bidder.

1.3 IEP Scope

1.3.1 IEP Procurement

This ITT is for the procurement of IE Services on:

- the **Core Routes** namely:
    - East Coast Main Line, including pre-series (Phase 1); and
    - Great Western Main Line (Phase 1), including weekend services to West of England; and
- **Other Routes** being **Priced Options** for other service groups over which IE Services are **expected** to be deployed, subject to price and consequent confirmation of value for money namely:
    - West Coast Main Line (South): London - Northampton - Stoke - Manchester; and
    - East Coast (Phase 2): Kings Cross - Cambridge - Ely - Kings Lynn; and
- **Other Routes** being **Additional Services** for other service groups over which the IE Services **may** be required to be deployed, subject to price and consequent confirmation of value for money namely;
    - Great Western (Phase 2): West of England (full service on the Berks and Hants Line); and
    - Cross Country: Penzance/ Plymouth – Edinburgh/ Glasgow via Leeds and Newcastle.

Routes are set out in detail in the TIIS. There is potential for trains to operate on further routes in the future but this will not change the specification prior to Financial Close. Gauge will be set on the basis of the Core Routes and Other Routes.

1.3.2 Availability Requirements

The IE Trains requirement is defined in terms of the number of trains required to be available to operate the required diagrams for service. It is for Bidders to consider the number of Trains they need to provide to deliver the availability requirements.

A feature of the IEP is the concept of a “family of trains” with a set of standard cars. IE Trains may be self-powered, electric or bi-mode and may be full, half or intermediate length. This concept provides maximum flexibility over the long term deployment of the Trains with respect to power supply and train configuration.

Proposals should be based on the provision of the required number of diagrams (or trains available for service) per day by train type, by route and by type of motive power. The required number of weekday diagrams is shown in the following table. Bidders are advised that further information relating to indicative diagrams including weekends is available on the data site.

Routes	Power Source	Length	Interior scenario[1]	No. of diagrams/ weekday	Full Train Length equivalent
Core Routes					
Pre-series	Electric	Half	Commuter	3	
	Bi-mode	Full [3]	Intercity	3	
	Bi-mode	Half	Commuter	4	
ECML (Phase 1) [2]	Electric	Full	Intercity	24	24
	Electric	Half	Commuter	13	6.5
	Bi-mode	Full	Intercity	10	10
	Bi-mode	Half	Commuter	12	6
GWML (Phase 1)	Self powered	Full	Interurban	24	24
	Bi-mode	Half	Commuter	38	19
Total					**89.5**
Other Routes					
WCML (South)	Electric	Half	Commuter	22	11
ECML (Phase 2)	Electric	Half	Commuter	11	5.5
GWML (Phase 2)	Self powered	Full	Intercity Interurban	12 3	15
	Bi-mode	Half	Commuter	3	1.5
Cross Country	Bi-mode	Intermediate (nominal 208m)	Interurban	21	16.8
Total					**49.8**

Footnote:

[1] Train interior scenarios are set out in the TTS.

[2] This includes the pre-series trains.

[3] These may be marginally less than full length in initial service owing to depot constraints.

DfT reserves the right to vary the availability requirements prior to Financial Close by 5% for Tranche 1 and 15% for Tranche 2 in either direction.

In addition, Bidders are required to price the provision of IE train sets for Transport Scotland. Unlike the IE Trains for the Core and Other Routes above, the Transport Scotland requirement is specified in terms of the total number of train sets to be provided, not in terms an availability requirement. The number and type of train sets to be priced for Transport Scotland is set out in the table below.

Routes	Power Source	Length	Interior scenario	No. of IE train sets required
Transport Scotland	Electric	Half	Commuter	4
	Self Powered	Half	Commuter	5
	Bi-mode	Half	Commuter	20

Timings for deployment of the IE Fleets are as set out in the following table:

Routes	Deployment	
Core Routes	**First IE Train Set no earlier than**	**Last IE Train Set**
ECML PST	January 2013	March 2013(1) May 2013(2) August 2013(3)
ECML (Phase 1) 8 full bi-mode diagrams equivalent	March 2015	October 2015
ECML (Phase 1) balance	March 2015	October 2016
GWML (Phase 1)	April 2016	October 2017
Other Routes	**First IE Train Set no earlier than**	**Last IE Train Set**
West Coast Main Line (South)	April 2014	October 2015
ECML (Phase 2)	March 2015	October 2015
Cross Country	April 2016	October 2017
GWML (Phase 2)	September 2017	October 2018
Transport Scotland	February 2015	July 2016

Footnote:

To facilitate train introduction the TSP may initially (if required) introduce pre-series in self powered mode only, in the following interim steps with dates as indicated:

(1) Half length bi-mode train, self powered operation only

(2) Full length bi-mode train, self powered operation only

(3) Half length electric train plus bi-modes with electric operation permitted

Bidders can tender to deliver IE Train sets at any rate they choose after the first IE Train set date up to a maximum rate of one full set every seven days per fleet, provided the last IE Train set is delivered into revenue service by the dates for deployment of the last IE Train set noted above. The actual delivery programme of the successful Bidder will be committed in the contracts. The DfT encourages Bidders to deliver IE Train sets into service as early as possible, although it is up to Bidders to develop and manage their own transition plan with both the TOCs and NRIL to achieve their specified transition rate.

1.3.3 Journey Time Capability

The Bidders shall deliver Trains to meet the journey times set out in Appendix D.

1.3.4 IEP Financing

The financing of IEP Core Routes will be undertaken in two parts as follows:

- ECML (Phase 1), including PST will be financed at Financial Close and committed finance will be required as part of the Proposal this route; and

- GWML (Phase 1) will be financed from 2014 and DfT intends that the process for funding the Great Western tranche will begin in 2013. Committed debt finance is not required for the GWML (Phase 1) Core Route as a part of the Proposal for this route (although Bidders may offer it if they demonstrate the value for money benefits).

In the event that DfT decides to contract any of the Other Routes we expect that these would be financed on the following basis:

- ECML (Phase 2) & WCML (South) would be financed at Financial Close at the same time as the ECML (Phase 1) and committed finance will be required as part of the Proposal for these routes;

- GWML (Phase 2) & Cross Country at the same time as GWML (Phase 1). Committed debt finance is not required.

Further information on the financing of IE Services is in Section 6 and Appendix B of this ITT.

1.4 Summary of the IE Services

The procurement of the IE Services comprises one project consisting of a number of elements in a single integrated programme including:

a) the design and manufacture of the IE Trains (Sections 4.3 & 4.4);

b) commissioning, acceptance and bringing into service of the Trains (Section 4.4);

c) the daily provision of available and reliable Trains which meet KPI standards by the TSP to the relevant TOCs (Section 5);

d) implementing the plan for Depots and other assets and, where required, their design, construction and commissioning and/or refurbishment (Section 4.5);

e) the daily operation of Maintenance and Servicing Depots and other assets (Section 4.5);

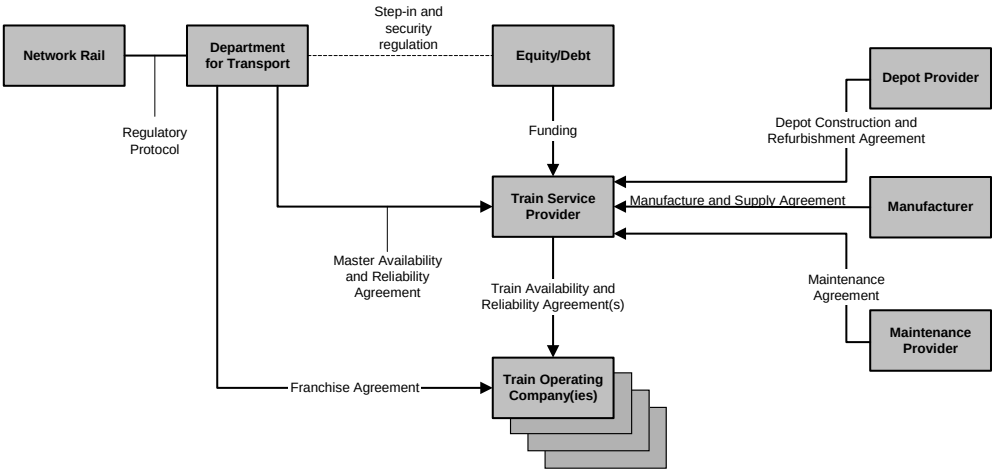
f) the handover to NRIL, if required (Section 4.5); and

g) the financing of all activities described in (a) – (f) above.

1.5 Contractual Structure

The IE Agreements are to be structured around two principal Contracts. The TSP will contract under a MARA with the Secretary of State for Transport and also under a series of TARAs with individual TOCs.

The anticipated structure of these contractual agreements will be:



1.6 Stakeholders

The key stakeholders of the IEP and their roles in the programme are:

1.6.1 Department for Transport

DfT has four strategic objectives which focus on the core areas of its responsibilities; to sustain economic growth and improved productivity through

reliable and efficient transport networks, to improve the environmental performance of transport, to strengthen the safety and security of transport, and to enhance access to jobs, services and social networks, including for the most disadvantaged.

DfT has responsibility for the development and procurement of the IEP and the Secretary of State for Transport will enter into the MARA. DfT has fully consulted with HM Treasury in developing the IEP proposition.

Through the MARA the Secretary of State for Transport will give a Usage Undertaking for each of the Fleets for 20 years from the introduction of the first train in that fleet in passenger service. In addition to this direct government support the Secretary of State for Transport is obliged under Section 30 of the Railways Act 1993 to provide or secure the provision of railway passenger services in the event of a franchise agreement being terminated or otherwise coming to an end, or where no other franchise agreement is entered into. This duty is discharged through various direct agreements put in place with key counterparties of the TOC.

1.6.2 Train Operating Companies

Deployment of Trains into passenger service and their subsequent operation will be undertaken by a TOC or franchisee. Trains will operate across a range of routes in the UK and will therefore be operated eventually by a number of TOCs.

In most cases the franchises for IEP deployment will undergo a re-franchising process prior to introduction of the trains. This means that the current incumbent companies may not be the future franchisees for the Trains. Through the franchise process the DfT will ensure that there is an appropriate body acting in the franchisee role throughout the whole IEP, from design stage, through to acceptance and entry into full revenue service. The franchisees will enter into the TARAs with the TSP at the required times during the IEP. Under the TARAs, the franchisees will make regular payments to the TSP based on the specified payment mechanism.

TOCs and TOC owning groups have been consulted through ATOC in the development of the IEP.

1.6.3 Network Rail Infrastructure Limited (NRIL)

The role of NRIL in relation to IEP is to provide the infrastructure over which the trains will operate – in some areas this will require enhancement which will be to a specification set out in the TIIS and agreed with the DfT and delivered by NRIL, under the control of a regulatory protocol.

NRIL own the majority of depot sites on the network. Where appropriate these assets will be made available to the TSP. NRIL will discuss Bidders' proposals to use NRIL owned land for new depots on a case by case basis.

NRIL is an integral part of the IEP team. It has developed the TIIS together with the DfT and has contributed fully in the development of IEP.

1.6.4 Office of Rail Regulation (ORR)

HMRI (as part of the ORR) has a role as Safety Authority under the Railways (Interoperability) Regulations 2006, including a role in the acceptance of the trains to operate on the network.

The ORR also oversees regulated agreements including depot access agreements and will have an interface with the TSP in this respect, depending on the nature of the maintenance offer from Bidders.

1.6.5 Rail Safety and Standards Board (RSSB)

The RSSB is the independent body that sets standards for the UK mainline railway. The adoption of European Technical Standards for Interoperability (TSIs) replaces the majority of Railway Group Standards for the train. However, a number of notified national standards will still apply.

1.6.6 Passenger Focus

Passenger Focus is a member of the IEP Sponsor board representing passenger interests and has been a key stakeholder in the development of IEP.

1.6.7 Stakeholder Management

Fundamental to the delivery of the IEP will be the need for robust and maintained stakeholder links throughout the Contract Life. Bidders will be required to demonstrate how the future TSP's business management plan establishes, implements, and maintains productive and equitable stakeholder relationships.

2 Information and Instructions to Bidders

2.1 Procurement Process

2.1.1 Overview of the Procurement

The procurement is pursuant to a Contract Notice published in the Official Journal of the European Union (Utilities Contract Negotiated Procedure reference 2007/S 48-059536).

The DfT is running the IE Services competition as a service contract under the negotiated procedure of the European Union procurement directives. European procurement rules allow for a public sector entity/utility to procure on behalf of or for the benefit of another/others. Accordingly the DfT is leading the development of the Intercity Express Programme (IEP) to introduce new intercity trains, plus supporting infrastructure, onto the UK rail network.

2.1.2 Procurement plan and timescales

The following major milestones are anticipated between issue of the ITT and award of the contract.

Stage	Responsibility	Date
Issue Invitation to Tender	DfT	16 November 07
Closing Date for Tender Return	Bidders	6 May 08
Negotiations Commence	DfT - Bidders	September 08*
Debt Funding Competition (if required)	DfT	November 08*
Final negotiations complete	DfT- Shortlisted Bidders	February 09*
Winner Approval Process	DfT ICAC DfT Rail Board/Rail Executive SoS & HM Treasury	March 09*
Contracts Signed	DfT – Winning Bidder	1 April 09*

Footnote:
* Indicative dates only
NB – DfT reserves the right to introduce BAFO stages within the Bidder selection programme (Section 3.6) which would indicatively add a further four months to the procurement programme.

2.2 ITT Tender documents

The IEP ITT pack is being made available to Bidders from 16th November 2007 via the IEP data site (Section 2.3) and in addition to this ITT will include the following documentation:

- The Train Technical Specification; and
- The Train Infrastructure Interface Specification.

Other ITT documentation that will be made available to Bidders progressively from 16 November directly via the IEP data site (Section 2.3) includes:

- Copies of the MARA and TARA contracts;
- NRIL's Virtual Test Track (VTT) DVD data;
- Supporting Information; and
- Proformas.

2.3 IEP data site

A secure, internet based, electronic data site containing information provided by the DfT, NRIL and other parties will be provided to support the Bidders. Hard copies of the information will not be provided, but Bidders will be free to download and print information contained within the data site. Once information and data has been downloaded by Bidders they will be solely responsible for the internal management of the same.

The data site will be maintained by DfT Procurement Programme Support who will control user rights, document version control, Clarification Questions etc.

Bidders will be notified of the data site web address (url); authorised users and passwords when the ITT is published. Additional users may be added to the system by contacting DfT Procurement Programme Support. Such requests must originate from the bid manager (or their nominated deputy) and be routed via the data site.

Technical support will be provided by the data site host.

Access to the DfT IEP data site is restricted to authorised users only.

The data site will be the preferred medium for communication between the DfT and the Bidders, see further Section 2.4.3.

2.4 Bidder Liaison

2.4.1 Dialogue with Bidders

The primary contact point for Bidders will be the DfT Procurement Team who will be responsible for managing the interface and relationships between the DfT and the Bidders.

The overarching objectives of this dialogue are to:

- ensure efficient communication and refine and develop the IE Agreements to achieve the most economically advantageous tenders;

- develop an effective partnership that will create the optimum level of integration of capability across all elements of the programme; and
- develop the most cost effective asset life solutions for the rail industry. In the TIIS we have identified specific areas that we would like Bidders to discuss with DfT prior to the submission of their Proposal.

Dialogue with Bidders about the ITT will generally be on a one-to-one basis with the exception of any group workshops held to clarify specific aspects of the ITT. Consistent with the principle set out in section 2.4.3 of the ITT, Bidders are advised that any output of general relevance to the competition, excluding confidential information or commercially sensitive information (as determined by the DfT in accordance with section 2.4.3), which results from meetings or exchanges with Bidders will be recorded and circulated to all Bidders.

2.4.2 Individual Bidder Workshops

The DfT has set aside 24 weeks for the Bidders to develop their Proposals. During this period it is recommended that regular, four weekly, meetings are held to discuss the progress of the Proposal development and provide a forum at which the individual Bidders can raise questions. The agenda for these meetings will be developed in advance to ensure that the relevant disciplines/stakeholders are represented (or have prepared the requested information).

The DfT will co-ordinate (on behalf of the Bidders) any meeting requests with NRIL, DFOs, TOCs etc. to discuss aspects of their Proposal. It is the Bidders' responsibility to satisfy themselves as to appropriateness of disclosing any information they choose to disclose during any such meeting (see further sections 2.4.1 and 2.4.5).

2.4.3 Formulation of Clarification Questions

Bidders are encouraged to submit Clarification Questions to the DfT Procurement Programme Support team via the IEP data site which is accessible by members of the procurement team in order to provide helpful service.

Any Clarification Question or request for clarification must be submitted using the Q&A template available from the data site and meet the requirements stated below. Failure to satisfy the DfT of the value of the information sought may result in the request not being accorded priority attention and/or it being viewed as an unreasonable request for information.

As a general principle all Clarification Questions received will be recorded and circulated to all Bidders. A Bidder may request that the DfT treat a Clarification Question and its response as "commercially sensitive". Any such requests must be made at the time of submission of the Clarification Question. If the DfT considers, in its discretion, that it is able to answer the Clarification Question on a confidential basis, then it will do so. If the DfT considers, in its

discretion, that it is unable to answer the Clarification Question on a confidential basis, then it will notify the Bidder of its decision and the Bidder will have the opportunity either to withdraw the Clarification Question, or accept that the Clarification Question and response will be circulated to all Bidders.

Clarification Questions from Bidders will be responded to expeditiously having regard to the nature, extent and availability of the information requested. The DfT aims to respond to Clarification Questions within 10 working days, but Bidders should note that the DfT cannot guarantee this. Clarification Questions will not be accepted within 10 working days of the Proposal submission date.

Subject to the preceding paragraphs relating to commercially sensitive information the DfT will transmit to other Bidders the questions asked by, and the answers provided to, any Bidder. This will be done by means of bulletins published periodically on the data sites.

Access to the DfT IEP Clarification Question Process is restricted to certain authorised users only.

2.4.4 Site visits – maintenance, servicing and stabling locations

Within 30 calendar days of the ITT the Bidders shall identify those sites, preferably in order of priority, where they believe a visit is necessary in order for them to develop their Proposal (i.e. for maintenance, servicing and stabling). A programme of visits will then be prepared by the DfT. The DfT will manage the stakeholder arrangements for site visits to which all Bidders will be invited, with a maximum of up to 5 representatives per Bidder. Bidders should indicate in advance the purpose of the visit so that appropriate arrangements can be made. All visitors will be subject to the safety arrangements mandated by the DFO.

2.4.5 VTISM Training and Help Desk

Training will be provided for 3 members of each Bidder's team on 19th December, at RSSB, Room 3A&B, Evergreen House, Euston Road, London. All Bidders will be offered the opportunity to attend this joint session. This will be an opportunity for the Bidders to ask questions in an open forum with the other Bidders and receive hands on training on the use of VTISM for VTISM bid submission.

A Help Desk will be provided to assist Bidders with operational VTISM queries during the ITT stage. The DfT and its partners intend to publish operational questions with respect to VTISM to all Bidders and will agree the output with individual Bidders to ensure no commercially sensitive information is passed to other Bidders**.**

All requests for VTISM assistance are to be placed via the designated DfT Helpdesk details of which will be provided on the VTISM training day.

2.4.6 Access to other Stakeholders

Within the tender clarification process the Bidders shall include any questions they may have of stakeholders such as NRIL. Where the resolution of the clarification is complex then the Bidders may request a meeting with the relevant stakeholder. Bidders' requests for stakeholder meetings are to be made via and managed by the DfT. Bidders should note that all clarification provided by stakeholders, including at meetings, shall be made available to all Bidders.

2.5 Presentation and Submission of Proposals

2.5.1 Submission of Proposals

Bidders are required to submit their Proposals in accordance with the requirements listed in Section 3 of this ITT and in the following formats:

Hard Copy

Two hard copies are required of all parts of the submission. Contents should be contained in ring binders, each of which must be labelled clearly with the volume name, copy number, the Bidder's name and an index of the contents of the binder. One copy will be archived as a formal record of the Proposal and the other used for reference.

The Proposals must be submitted in boxes marked '**COMMERCIAL IN CONFIDENCE – IEP Competition in response to ITT**'. The boxes should not be marked in any way that would indicate the identity of the Bidder. Bidders should obtain a formal receipt from the DfT at the time of the submission of their Proposal.

The hard copy proposals are to be submitted to:

DfT Procurement IEP Team
Rail and National Networks Procurement
Department for Transport Rail Group
3/27 Great Minster House
76 Marsham Street
London SW1P 4DR

by 12.00 hours BST on 6th May 2008.

Electronic Copies

Bidders must load a full soft copy of all elements of its Proposal on the DfT's website, www.asite.com, hosted by BravoSolution.

by 12.00 hours BST on 6th May 2008.

No other documents or information shall be submitted with the Proposals.

Proposals received after the DfT's stated date for submissions or which are not duly completed and signed may be disregarded by the DfT. Nevertheless, the DfT expressly reserves the right, in its absolute discretion, to treat any Proposal as valid and to proceed with the inclusion of any Proposals notwithstanding any defect in relation to the submission of the Proposals.

All Proposals are required to be in English and amounts denominated in thousands of pounds sterling (£000's).

2.5.2 Size of Tender Return

Based on Bidder feedback the DfT will not be imposing either a word or page count limit on the Proposals. Bidders are asked to consider the extent of information that they provide with their Proposal and ensure that it is meaningful and relevant.

2.6 Post Submission Presentation

Bidders will be required to present key elements of their submissions to DfT within three working days following Proposal submission. The presentation will include a brief summary of all required tender return details, including technical and financial deliverability plans and concept designs but will not detail any financial aspects included in the value assessment (see Sections 3.4 to 3.5). Bidders are to limit their presentation to material lasting not more than 2 hours.

2.7 Validity of Proposals

2.7.1 Validity /Shelf Life

Bidders shall confirm the validity of their Proposals including the terms, Proposal price, and any subsequent changes for an agreed period of 365 calendar days from the date of Proposal submission.

2.7.2 Changes in Circumstances

Bidders are required to notify DfT of the occurrence of any of the events listed below (for the purposes of this Section 2.7.2 a 'Change in Circumstance') promptly, and in any case no later than 21 days after such Change in Circumstance occurs, and in any event not later than 21 days before Proposal submission. A Change in Circumstance means the occurrence of any of the following:

- any change to their corporate structure or the structure of the Proposal vehicle from that set out in their application to qualify to receive this ITT. This includes the grant of any options to acquire shares, any agreement

relating to the exercise of rights attaching to such shares, and any amendments to a shareholders' agreement, articles of association or similar constitutional documents;

- any changes to the information provided to DfT as part of the pre-qualification process; or
- any other changes to their circumstances, or the basis of their Proposals, which may be expected to influence DfT's decision on the suitability of the Proposal vehicle to be the TSP.

Any such notification shall provide full details of the proposed change, including final form copies of the documentation required to put such change into effect.

DfT reserves the right to reject a change to the corporate structure of the Proposal vehicle, or to impose such conditions as it considers appropriate.

Bidders are required to include in their Proposals in the format set out in the following table, details of any Change in Circumstance or competition matters that affect their bidding position.

Format of Statement of Changes in Circumstances and Competition Matters

Change	Reporting Required
Change in Circumstance	Bidders should include details in response to the instructions contained in Section 2.7.2 (Changes in Circumstances)
Competition Matters	Bidders should include full details of any matter under consideration, or which may reasonably be expected to be the subject of consideration, by OFT and/or the Competition Commission or the European Commission as referenced in Section 2.7.3 (Competition Matters)

2.7.3 Competition Matters

Bidders are responsible for complying with any applicable domestic and European competition law requirements and for obtaining any clearances required under these rules. For the avoidance of doubt, this includes but is not limited to any merger control clearances which may be required for the creation of the Proposal vehicle.

2.7.4 Non-Compliance Statements

Bidders are required, when submitting their Proposals, to list in the format set out in the following table, all requirements of this ITT with which they are not able to confirm compliance in full. Full details of the reasons for the non-compliance should be given. Any provision not so listed and detailed will be regarded as having been accepted unconditionally by the Bidder.

Bidders are also required when submitting their Proposals to list in the format set out in the following table, all clauses, sections and schedules of the IEP Agreements with which they are not able to confirm compliance in full. Full details of the reasons for non-compliance should be given. Any provision not so listed and detailed will be regarded as having been accepted unconditionally.

Format of Non-Compliance Statement

Document	ITT Sections/Terms and Conditions which have NOT been complied with	Details
ITT		
TARA		
MARA		

2.7.5 Non-Compliances

If any Proposal is found not to comply with DfT's requirements (including whether or not such non-compliance is specified in any Non-Compliance Statement), and lacks, in the opinion of DfT, any information necessary to enable evaluation, or is found to contain inconsistent information, DfT may:

- evaluate the Proposal as submitted in line with section 3 of this ITT; or
- seek additional information or clarification from the Bidder; or
- Reject the Proposal.

2.7.6 Restriction on Communications/Press Releases etc during IEP Competition

Bidders are reminded that external communication and press releases during the IEP competition are governed by the Intercity Express Programme Process Agreement (IEPPA) that includes the confidentiality agreement between the DfT and the Bidders.

2.7.7 Freedom of Information Act 2000

The Freedom of Information Act 2000 (FOIA) came into force on 1 January 2005 and provides a general right of access to all information held by public authorities. The DfT is a public authority. The general right of access to information is then limited by a number of exemptions. On a request for information, the DfT must release that information unless one of the exemptions applies.

In submitting their Proposals in response to this ITT, Bidders are invited to identify which parts, if any, of their Proposal are provided to the DfT in confidence or which they believe are commercially sensitive. Bidders should provide reasons why such information should not be disclosed following a request for information under the FOIA. Bidders should be aware of the Lord Chancellor's Code of Practice issued under section 45 of the FOIA (which can be accessed at http://www.dca.gov.uk/foi/codesprac.htm). This limits the circumstances under which a public authority should agree to hold information in confidence. It could be the case, therefore, notwithstanding confirmation that parts of a Proposal have been provided in confidence or are commercially sensitive, that the DfT will be obliged to disclose those parts.

Bidders' attention is also drawn to the provisions of the IEP Process Agreement (IEPPA).

2.7.8 Debrief for Bidders

Debriefing of Bidders is an important element to an open and transparent competition. This assists the DfT in the lessons learned process and provides input that may help shape the development of future competitions. Each Bidder will be invited to a separate debrief session after the contract award. The objective of this session is to help Bidders understand how their Proposal performed and how future Proposals could be improved. This will include the Bidder's overall evaluation result and ranking vis-à-vis other Bidders. The DfT will not disclose the breakdown of scores, or the scores or rankings of other Bidders.

Following the debrief session Bidders will be advised that they may submit a list of questions to which the DfT will provide a written answer. After that point, a letter of closure will be sent to the unsuccessful Bidder to close the process.

3 Proposals and Evaluation

3.1 Base Proposals

Bidders are required to submit the following four Base Proposals with their tender return:

Bid	Base Proposal	Information required
A	ECML Phase 1	Requires full supporting documentation including a financial model.
B	GWML Phase 1	Requires full supporting documentation including a financial model.
C	Priced Option 1: ECML Phase 1 + WCML (South)	Requires full supporting documentation (on an incremental basis from Bid A) including a financial model (showing the gross, not incremental, NPV of the option)**.**
D	Priced Option 2: ECML Phase 1 + WCML (South) + ECML Phase 2	Requires full supporting documentation (on an incremental basis from Bid A) including a financial model (showing the gross, not incremental, NPV of the option)**.**

3.2 Additional Service Proposals

Bidders are required to submit the following three Additional Service Proposals with their tender return:

Bid	Additional Services Proposal	Information required
E	Cross Country: Penzance/Plymouth, Edinburgh/Glasgow via Leeds and Newcastle (see sections 1.3.2 & 3.4.2)	Firm capital price at 31st March 2009 assuming indexation as in Section 6.3
F	GWML Phase 2: West of England (Berks and Hants line) (see sections 1.3.2 & 3.4.2)	Firm capital price at 31st March 2009 assuming indexation as in Section 6.3
G	Transport Scotland: 29 half length additional trains without whole-life servicing and maintenance, but including sufficient spares (see sections 1.3.2 & 3.4.2)	Firm capital price at 31st March 2009 assuming indexation as in Section 6.3

3.3 Alternative Proposals

Bidders may submit any, all or none of the following three Alternative Proposals with their tender return:

Bid	Alternative Proposal	Information required
H	ECML Phase 1: Alternative Delivery and Transition Plan (see section 4.4.5)	Details of indicative contract life price and a description of the plan and potential benefits. DfT may request a detailed financial model at a later date.
I	GWML Phase 1: Alternative Delivery and Transition Plan (see section 4.4.5)	Details of indicative contract life price and a description of the plan and potential benefits. DfT may request a detailed financial model at a later date.
J	ECML Phase 1: Supported Debt Proposal (see section 6.3.8)	Requires supporting financial documentation (on incremental basis from Bid A) and financial model (showing full price). DfT may also request this proposal for the Priced Options at a later date

3.4 Structure and Format of the Tender Returns

3.4.1 Tender Return

Bidders are required to provide the following details with their tender return:

Part	Description	Information required
ECML Phase 1 and GWML Phase 1		
Part 1	Executive summary	Short summary of Proposal in Word and/or PowerPoint formats with no pricing information. Signed letter of tender response.
Part 2	Contractor's Design Stage Plans	Standards Plan (Section 4.3.1) TTS Compliance (Section 4.3.2) TIIS Compatibility (Section 4.3.3) Concept Train Design (Section 4.3.4) Detailed Train Design Plan (Section 4.3.5) VTISM Model Results File (Section 4.3.6) Approvals Plan (Section 4.3.7) Annexes I and II of Appendix A
Part 3	Contractor's Manufacturing/ Bringing into Service Plans	Manufacturing Plan (Section 4.4.1) Testing, Commissioning & Acceptance Plan (Section 4.4.2) Training Plan (Section 4.4.3) Delivery and Transition Plan (Section 4.4.4)

		Alternative Delivery and Transition Plan (Section 4.4.5)
Part 4	Contractor's Maintenance and Whole Life Plans	Train Maintenance & Servicing Plan (Section 4.5.1) Depot, Servicing and Stabling Plan (Section 4.5.2) Modification and Upgrade Plan (Section 4.5.3) Hand Back Plan (Section 4.5.4)
Part 5	Contract Life Plans	Business Management and IEP Contractors Deliverables Plan (Section 4.6.1) Project Programme (Section 4.6.2)
Part 6	Contract Documents	Full mark up of the MARA and template TARA Completed information packs in relation to each TARA Fully developed heads of terms for supply agreements (Section 5.2) Full Equity and Company Documents (Section 5.2) Statements of Change in Circumstances and Competition Matters (Section 2.7.2) Non-Compliance Statements (Section 2.7.4)
Part 7	Financial Response	Information in respect of Funding Deliverability and Financial Robustness (Section 3.5.2) Financial models (Section 3.1) Financial model data-book assumptions and instructions (Appendix B) Financial Proformas (available from data site)
WCML (South) & ECML Phase 2 Priced Options		
Part 8	Priced Option 1	Incremental Data from Parts 1 – 7 Financial model Financial Proformas
Part 9	Priced Option 2	Incremental Data from Parts 1 – 7 Financial model Financial Proformas
Additional Service Proposals		
Part 10	Additional Services Proposals	See section 3.4.2
Alternative Proposals		
Part 11	Alternative Proposals	See section 3.4.3

3.4.2 Additional Services Proposal Tender Return

For Additional Service Proposals, Bidders are required to provide the following details with their tender return:

Part	Description	Information required
Part 1	Proposal Summary	A separate summary of the Additional Service Proposal setting out the incremental benefits and disbenefits (e.g. synergies with the Core routes) of the additional service as compared to the Base Proposal.
Part 2	General Contractor's Plan	Details of distinctive features of the additional service. Incremental effects and impacts of the Additional Service on the Base Proposal, or to confirm where there is no such change. Incremental specific detail for each of the Contractor's plans set out in the Base Proposal, or to confirm where there is no such change. Details of all spares, manuals and other critical resources required to deliver full maintenance and operation of each Alternative Service. Any opportunities and/or risks that will arise from implementation of the plan.
Part 3	Financial Response	The capital price of Trains, spares, equipment and facilities for the Additional Service.

3.4.3 Alternative Proposals Tender Return

Alternative Proposals

As part of their offering, Bidders may choose, at their discretion, to provide the following Alternative Proposals:

- **Alternative Delivery and Transition Plan ECML (Phase 1) and GWML (Phase 1)**

For the Alternative Delivery and Transition Plan (see section 4.4.5) Bidders are required to provide with their tender return, as a minimum, the following key pieces of information:

- The total price for the Alternative Delivery and Transition Plan (this price is not to be expressed as a payment per set, but is a gross increment on the Base Proposal), including all spares, manuals and resources that may be needed to deliver full maintenance and operation;

- The incremental benefits and disbenefits of the additional service as compared to the Base Proposal (e.g. depot synergies and general observations including how the depot solution will be made effective);

- A general plan which highlights any distinctive features of the additional service; and

- Any opportunities and/or risks that will arise from implementation of the plan.

- **Alternative Financing: 30% Government Supported Debt**

For the Alternative Financing: 30% Government Supported Debt (see section 6.10) Bidders are required to provide with their tender return, as a minimum, the following key pieces of information:

- a financial model;
- details of any changes to debt and equity documentation; and
- details of approvals from equity and debt providers,

3.5 Evaluation of Proposals

3.5.1 Stage 1 - Compliance Assessment

A Compliant Proposal will:

- be compliant with the competition rules and other legal obligations (as set out in section 2 of this ITT);
- be compliant in all material respects with the mandatory requirements of legislation, standards and the specifications;
- include the provision of full and comprehensive plans, models, designs and proformas as set out in Parts 1 – 9 of Table 3.4.1;
- deliver sufficient trains to run the diagrams for the Core Routes and Priced Options set out in section 1.3.2;
- deliver the trains into passenger service on the Core Routes and Priced Options so as to allow full operation of IE Trains by the dates set out in section 1.3.2;
- demonstrate substantial acceptance of the payment regime set out in the TARAs;
- demonstrate substantial acceptance of the allocation of risk as set out in the draft IE Agreements including the MARA and TARAs; and
- be capable of achieving Financial Close on 1 April 2009.

Proposals may not be taken forward for Stages 2 or 3 assessments if compliance has not been demonstrated to the satisfaction of the DfT.

The OJEU notice states that DfT will not accept variant Proposals. Therefore Bidders must not submit variant Proposals. In the event that variant

Proposals are submitted these will not be considered in the evaluation undertaken by the DfT.

3.5.2 Stage 2 - Evaluation of Deliverability

Proposals assessed as compliant will then be evaluated for their deliverability.

Deliverability scores will be weighted as follows: 30% Financial and 70% Technical. Any Bidder which fails to meet an overall combined Technical and Financial Deliverability threshold of 50% and with each sub-section scoring at least 40% may not be taken forward for Stage 3 evaluation.

The deliverability evaluation will assess the confidence in the financial and technical deliverability of the Bidder's proposal. The DfT requires evidence that the various plans identified in Sections 4 and 6 are sound and achievable. Bidders are not expected to repeat evidence of their general competency which will already have been submitted and assessed as part of the evaluation undertaken at the prequalification stage.

Technical Deliverability

In order that the DfT can satisfy itself that Bidders have thoroughly tested the technical deliverability of their Proposals, Bidders will be required to include a number of delivery plans within their tender returns as set out in Section 4 of the ITT.

The intention is that Bidders will provide sufficient detail within their delivery plans to give the DfT confidence that their proposal is developed to an appropriate level. Further guidance has been provided in Appendix A of the typical areas required to be addressed within each delivery plan. The DfT has also outlined the evaluation criteria that it will apply to evaluate the robustness and deliverability of each plan in Appendix A. The assessment of technical deliverability will use RADAR techniques for the assessment of relevant delivery plans.

To reflect the importance that the DfT places on aspects of the technical deliverability the delivery plans will be grouped and weighted as part of the evaluation as follows:

Plan	Weighting
Sub-section 1 - Design Stage Plans:	**35%**
Standards Plan	
TTS Compliance	
TIIS Compatibility	
Concept Train Design	
Detailed Train Design Plan	
VTISM Model Results File	
Approvals Plan	
Sub-section 2 - Manufacturing/ Bringing into Service Plans:	**25%**
Manufacturing Plan	
Testing, Acceptance and Commissioning Plan	
Training Plan	
Delivery and Transition Plan	
Sub-section 3 - Maintenance & Whole Life Plans:	**30%**
Train Maintenance & Servicing Plan	
Depot, Servicing and Stabling Plan	
Modification and Upgrade Plan	
Hand Back Plan	
Sub- section 4 - Contract Life Plans:	**10%**
Business Management and IEP Contractors Deliverables Plan	
Project Programme	
Total Weighting	**100%**

Technical deliverability criteria are set out in Appendix A of this ITT.

Financial Deliverability

Sub-section - Funding Deliverability (50% of financial deliverability score)

The degree to which funding terms and security arrangements proposed for Tranche 1 have previously been shown to be deliverable, or the degree to which DfT is satisfied with an explanation from the Bidder and its financiers and advisers of why they are deliverable on this transaction.

The strength of approvals provided by both equity and debt providers (and including where required letters of credit and credit enhancement) and the level of conditionality of the commitment for Tranche 1.

The extent to which the financing for GWML Phase 1 is shown to be deliverable on broadly the same terms as the Tranche 1 financing.

Sub – Section - Financial Robustness (50% of financial deliverability score)

The ability of the TSP, the manufacturer, maintenance provider and any guarantors to absorb the risks involved in the Project, taking into account the proposed financing structure (including commercial structure, hedging strategies, parent company guarantees, standby facilities, bonding arrangements, covenants, insurance arrangements and warranties provided).

The level of debt covenants, including maximum gearing ratios and minimum cover ratios.

Details of information that will be used to evaluate the Bidder's Financial Deliverability are set out in Section 6 and Appendix B of this ITT.

3.5.3 Stage 3: Assessment of Value - Evaluation Weighting Table

Core Route and Priced Option proposals have been weighted for the purpose of evaluation as follows:

Bid	Routes	Weighting
A + B	ECML Phase 1 and GWML Phase 1 only	**33**
C + B	ECML Phase 1 and GWML Phase 1 + Priced Option 1 (WCML (South) + synergies)	**33**
D + B	ECML Phase 1 and GWML Phase 1 + Priced Options 1 + 2 (WCML (South) + ECML Phase 2 + synergies)	**34**
		100

3.5.4 Stage 3: Assessment of Value

The aim of the assessment of value is to ensure that DfT receives tenders that balance train operating costs, revenue and infrastructure costs.

Value will be assessed over the Usage Undertaking period. The exception to this will be the adjustments under (iv), (v) and (vi) below which will be assessed over a 30 year period from the delivery of the first full fleet.

To allow Proposals to be compared on a consistent basis the assessment will include any normalisation adjustments required to make the bids comparable as listed below. Where a Proposal can not be normalised quantitatively, a qualitative assessment will be undertaken as part of the deliverability assessment.

The value metric is the NPV of the Project, which will (without duplication) be the sum of:

(i) maximum availability payments proposed to be payable to the TSP and other specified costs using a standardised assumption about the level of such requirements;

(ii) adjustments, as determined by DfT, based on the value of risk retained by DfT or the TOCs, including but not limited to the impact of any changes proposed by the Bidder to the MARA and TARA and any other project agreements, the degree of indexation and the impact of interest rate hedging strategies;

(iii) adjustments, as determined by DfT, to reflect any omissions or inconsistencies in the pricing and scope of the technical parts of Proposals, including any that affect the deliverability of the Project;

(iv) adjustments, as determined by DfT, to reflect the incremental cost to NRIL of the Proposals including but not limited to additional or reduced infrastructure costs identified by the evaluation of the Bidder's VTISM results file as set out in Appendix C of this ITT and any additional industry costs associated with maintenance and servicing depot works;

(v) adjustments, as determined by DfT, to reflect the additional or reduced third party (including TOCs) costs, revenues and economic benefits generated as a result of the Proposal's variation from the essential requirements of the TTS as set out in Appendix C of this ITT;

(vi) adjustments, as determined by DfT, to reflect any additional savings or costs to NRIL and the TOCs of the Bidder's proposed technical solutions including but not limited to maintenance and servicing, the impact of reconfiguring internal space, coupling and uncoupling of carriages;

(vii) adjustments, as determined by the DfT, to reflect any additional savings or costs to manage the transition of the existing fleet and the existing depot portfolio; and

(viii) any other appropriate adjustments, as determined by DfT, including outcomes of scenario testing, necessary to ensure that the Proposals are compared on a like for like basis.

The NPV of the Project will be calculated using a nominal interest rate of 6.35% (the product of the 3.5% Government discount rate, and 2.75% projected RPI inflation). DfT reserves the right to vary the projected inflation rate at its discretion and to inform Bidders of revised figures.

3.6 Stage 4 – Shortlisting and Selection

Once the Stage 3 evaluation is complete the DfT can elect to:

1) Select a Preferred Bidder on the basis that one Bidder offers the best value (as set in 3.3) for the required level of deliverability. Bidders are advised that the selection of a Preferred Bidder in no way obliges the DfT to award the IEP contract to that party; or

2) Run a BAFO competition with all three Pre-qualified Bidders; or

3) Announce a shortlist and run a BAFO competition with those Bidders short listed.

Should a BAFO stage be required this will represent an opportunity for Bidders to submit an improved and optimised proposal in accordance with instructions issued by DfT, but not a full re-bid. Details of any BAFO competition will be set out at the time. If there is a BAFO the Project timetable in section 2.1.2 will be adjusted accordingly.

Bidders should note that Additional Service Proposals and Alternative Proposals are for pricing information only. These are not weighted in the evaluation and will not form part of the shortlisting selection process. In the event that the DfT elects to proceed with any or all of the Additional Service Proposals and Alternative Proposals these may be called for in any subsequent BAFO instructions and/or contractualised prior to Financial Close.

3.6.1 Funding competition

In accordance with HMT best practice, the DfT reserves the right to hold a debt funding competition where Bidders do not demonstrate best value in their financial response to this ITT.

Bidders will be evaluated and, if appropriate, short-listed based on the financing structure and pricing that they submit in response to this ITT. Where Bidders do not demonstrate best value DfT may decide to hold a funding competition either before submission of any BAFO response or after the appointment of a Preferred Bidder.

Bidders must decide how they demonstrate best value. To assist the DfT in assessing best value Bidders should ensure that their financing structure and pricing is transparent.

3.6.2 Negotiation and Award

Following Proposal evaluation and clarification, the DfT reserves the right to negotiate with one, some or all Bidders.

The DfT reserves the right to include any, all or none of the Priced Options at the time of Contract Award. If not included at Contract Award, the DfT reserves the right to call a further competitive tender for the provision of alternative rolling stock for the routes covered by Options 1 and 2.

The DfT reserves the right to include any, all or none of the Additional Services at the time of Contract Award or to use any, all or none of the Additional Services as the basis of a future variation should it elect to place an order for the same in future. In the event that the DfT decides to include any, all or none of the Additional Services E and F (but not G) the Bidder will be required to produce a full financial model based on the relevant capital price only Proposal.

The DfT reserves the right to include any, all or none of the Alternative Proposals at the time of Contract Award or to use any, all or none of the Alternative Proposals as the basis of a future variation should it elect to place an order for the same in future.

4 Specifications, Plans, Inputs and Assumptions

4.1 General Instructions

In responding to this ITT the Bidders are required to submit a number of project plans, designs, model files and strategies, hereafter generally referred to as “Project Plans”.

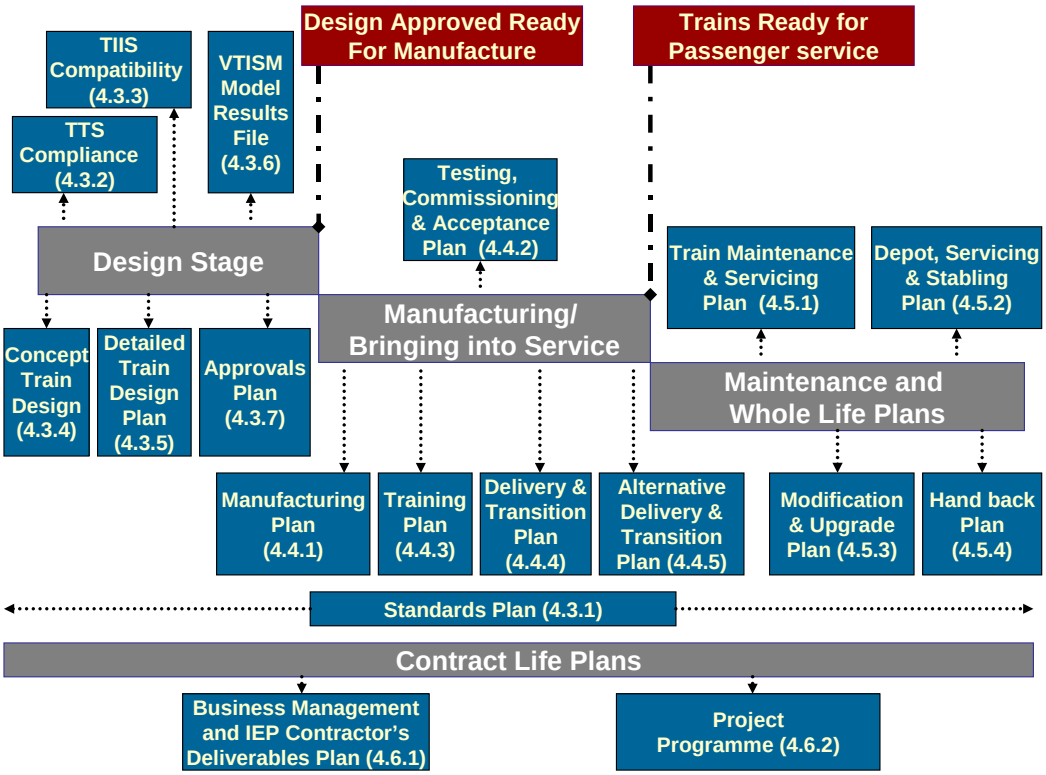
These Project Plans are needed to enable the DfT to evaluate the technical aspects of the Proposal and to assess the confidence level that the Bidder has, and will continue to have, the capability to carry out its obligations under the IE Agreements. A number of the Project Plans will be incorporated into the contract documentation in due course and the Bidder may be required to develop, implement, monitor, amend and update the Project Plans throughout the period of the contract.

In addition to the Project Plans the DfT will refer to the Whole Life Cost Model developed by the RSSB as a tool to inform the technical assessment where it considers this to be appropriate.

The Bidders should ensure and explain how all Project Plans are fully integrated with each other. Examples of the minimum expected content lists for each Project Plan are provided within later sections of this ITT. Bidders should note that the content of these lists is not intended to be exhaustive and that Bidders are responsible for providing suitable depth and detail in their Project Plans for the evaluation of their Proposal.

The Project Plans set out within this section of the ITT are grouped in three main Stages; Design Stage, Manufacturing/Bringing into Service and Maintenance and Whole Life Plans. A further group of plans, the Contract Life Plans, span the whole of the programme life.

The following schematic illustrates the flow of the plans in project chronological order:



The Bidders attention is drawn to the evaluation of technical deliverability (Section 3.5.2) and Appendix A and the requirement to provide comprehensive evidence.

4.1.1 Environmental Sustainability

One of the high level objectives of the IEP is to deliver an environmentally sustainable solution. In developing their Project Plans, Bidders should set out how they will incorporate sustainability principles into the design, manufacture, transportation, operation and disposal of both rolling stock and any supporting infrastructure such as depots and maintenance facilities. Proposals should draw from industry best practice and demonstrate, for example:

- How the TSP and their sub-contractors will minimise energy consumption, waste and pollution during manufacture, make use of recycled material and ensure the final product can be easily dismantled;
- How the TSP will integrate sustainability into the process for building or refurbishing any depot or stabling facilities;
- The environmentally sound selection of materials including minimising the use of hazardous materials and maximising the use of recyclable materials;
- How designs will enable materials to be easily recycled during maintenance, operation and asset disposal; and

- How energy and water consumption and environmental/occupational health impacts will be minimised during manufacture, operation and maintenance (examples of which might include how environmental damage from spillages of oil, coolants and other substances will be prevented).

4.2 Technical Parameters

4.2.1 Train Technical Specification - TTS

The Train Technical Specification (TTS) defines the outputs required from the IE Trains.

Some output requirements are called "essential" in the TTS. These have been deemed essential because the analysis that the DfT and its advisors have conducted indicates that these requirements are necessary to deliver a train that meets the DfT's key objectives and satisfies the DfT's business case. DfT would therefore expect Proposals to meet all of these essential requirements.

However, the DfT recognises that Bidders' may feel able to deliver a better overall solution that meets DfT's objectives without meeting all of the essential requirements. Failure to meet an essential requirement therefore may not necessarily lead to a Proposal being deemed non-compliant and being rejected, though Bidders should note that a failure to meet an essential requirement may attract a negative added value adjustment in the evaluation process. Conversely, exceeding an essential requirement may have a positive added value adjustment during evaluation. Variations from the essential requirement which are small or immaterial may be disregarded in the evaluation process.

Further details of the added value evaluation are outlined in Appendix C.

The TTS is the specification for the generic 'family' of trains and while some of the specified features are not required within this ITT, these features are to be taken into consideration in the overall train design.

4.2.2 Train Infrastructure Interface Specification - TIIS

The Train Infrastructure Interface Specification (TIIS) as set out in the Data Site of this ITT provides a description of the IEP infrastructure and its interfaces with the train. The TIIS is applicable to the IEP routes as detailed in the relevant TIIS Appendix.

If Bidders require any further information or details concerning the Great Britain Railway Infrastructure beyond that provided in the TIIS, this information should be requested through the Clarification Questions process described in Section 2.

Bidders are encouraged to include within their bids proposals for optimising the performance of the railway as a whole and for mitigating adverse system impact, including infrastructure/operational solutions where these are demonstrably good value for money overall. The DfT will coordinate Bidder discussions with NRIL and TOCs where required in order to develop, scope and agree implementation of such system solutions. Any such proposals should be provided in the Bidder's response to this ITT. Proposals may be discussed prior to the submission of the tender through the Clarification Question process set out in Section 2.

The TIIS commits NRIL to deliver improved standards of track maintenance prior to delivery of the IE Trains and during their operating life and provides initial predictions in a sensitivity comparator file of the likely impact of these standards on day to day track quality. These improved standards will be enforced by ORR within the existing regulatory structure through Track Access Agreements between NRIL and the TOC.

The DfT encourages Bidders to enter into discussions with NRIL prior to submission of Proposals to establish a baseline of track quality that NRIL will be able to support with sufficient confidence to allow Bidders to optimise their design proposals, with the objective of reducing train mass and impact on track maintenance cost. These discussions will be facilitated by the DfT as described in section 2.4 of the ITT. Bidders are to submit the agreed track quality parameters in their tender returns and these, together with the train mass and other relevant train parameters, will be used in the VTISM model to evaluate this aspect of the whole life, whole system cost implications of Bidders' Proposals.

Infrastructure Monitoring

IE Trains shall be capable of monitoring the railway infrastructure and interfaces between IE Trains and the infrastructure as specified in the TTS.

For each monitoring requirement Bidders shall provide a specification with their Proposal that, as a minimum, defines the outputs to be provided. NRIL have indicated their willingness to support Bidders in developing this specification prior to bid submission. Bidders should seek NRIL approval of the proposed monitoring equipment and information /data output before bid submission.

Train Location and Train Complete

The requirements for the train location and train complete systems are provided in the TTS. For each of the systems Bidders shall provide a specification with their Proposal that, as a minimum, defines the outputs to be provided. NRIL have indicated their willingness to support Bidders in developing this specification prior to bid submission. Bidders should seek NRIL approval of the proposed systems and information /data output before bid submission.

4.3 Technical Response – Design Stage

4.3.1 Standards

The requirements for Standards compliance during the design, construction, delivery, testing and commissioning, maintenance and operation of the vehicles is set out in the TTS.

The IE Trains shall achieve technical compatibility with the NRIL infrastructure over which they are planned to operate, including diversionary routes and access to any depots that the TSP intends to use. The intent of the IEP is that achievement of compatibility should extend to a fully optimised system based on a whole life, whole system cost basis; in particular the imposition of low physical impacts on the infrastructure and the train and low energy requirements.

It is anticipated that the IE Trains shall be authorised into service under the Railways (Interoperability) Regulations 2006. These mandate conformity with relevant TSI, relevant Notified National Technical Rules and verification of compatibility between the train and the rail system within which it will operate. That rail system will not necessarily be TSI compliant and the assessment of compatibility will need to consider the appropriateness of full TSI compliance for the IE Trains. Chapter 7 of the TSI makes reference to this scenario and the TSP should discuss any areas where full compliance is not appropriate with their notified body to agree the standards that will be used in the conformity assessment process.

Details on how technical compliance with the existing NRIL infrastructure might be achieved are identified in Railway Group and NRIL Company Standards. Where compliance with these standards or with the TSI requirements acts against the intent of compatibility extending to a fully optimised system based on a whole life whole system cost basis, in particular the imposition of low physical impacts on the infrastructure and the train and low energy requirements, then the standards should be challenged by the TSP. Early challenge is to be encouraged.

Throughout the standards challenge, infrastructure compatibility and system optimisation phases the successful Bidder will be required to maintain a regular dialogue with NRIL.

For some infrastructure interface issues it may be more cost effective or more beneficial to the overall system optimisation to modify the infrastructure rather than to modify the train design. Any such proposals should be discussed with NRIL and DfT before submission of the Proposal.

Bidders should note that the scope of the Railways (Interoperability) Regulations 2006 extends to maintenance depots. Technical compatibility between these and the existing infrastructure and rolling stock is also necessary.

In responding to this ITT, the Bidder shall provide a detailed comprehensive **Standards Plan** which shall outline how compliance with the applicable and reasonably foreseeable Standards will be demonstrated. The **Standards Plan** shall include the Bidder's proposed strategy for managing the rolling stock standards approval process. The successful Bidder will be responsible for ensuring that each IE Train complies at the date of acceptance with all standards required to enable the IE Trains to operate on the routes set out in the TIIS.

It is a requirement that the self-powered IE Trains shall satisfy the NRMM requirements for Class IIIb emissions. For the avoidance of doubt, in the event that the compliance date for Class IIIb is delayed, the IEP objective will remain the same; however a phased introduction of Class IIIb performance train sets will be accepted. In this situation the Bidder should set out within the **Standards Plan,** the timing of the phased introduction, the performance at each stage and the method by which improved performance will be delivered. The objective shall be to minimise the total length of any phased implementation to no more than 5 years.

This requirement applies equally to the PST sets.

The **Standards Plan** shall clearly describe the interfaces with and involvement of all Stakeholders in obtaining the required standards approval (such as the HMRI, ORR and NRIL) and shall identify known risks to the process and proposed mitigations.

Details of suggested plan content and evaluation criteria are set out in Appendix A.

4.3.2 Train Technical Specification Compliance

Bidders are to provide a clause-by-clause response to the TTS, in the format set out in the following table:

TTS Clause Number	We comply/ We do not comply Statement	Evidence in support of the We comply/ Do not comply Statement
e.g. Clause 1.1.1		
e.g. Clause 1.1.2		
e.g. Clause 1.1.3…..		

All responses are to follow one of the two options indicated below:

a) "We comply" – indicates that the Bidder's proposal fully complies with the requirements of the relevant clause of the TTS in every aspect; or

b) "We do not comply" – indicates that the Bidder's proposal fully complies with all the requirements of the relevant clause save for the aspects of non-compliance specifically notified.

In each case, where the response “we comply” is used, the Bidder shall support the declaration with a description of the proposed train system, supported by proven service historical evidence, where available, or engineering analysis, where solutions include innovative proposals.

In each case, where the response “we do not comply” is used the Bidder shall provide a full description of the area of non-compliance and the reason(s) for each non-compliance in sufficient detail to enable the DfT to fully understand the Bidder’s reasons for non-compliance, supported by proven service historical evidence, where available, or engineering analysis, where solutions include innovative proposals.

Bidders are advised that any clause-by-clause response that does not satisfy the guidelines set out above, or is a partial response, may be assessed as non-compliant or may attract a negative value adjustment.

4.3.3 Track Infrastructure Interface Specification Compatibility

Bidders are to provide evidence of compatibility against each area detailed in Section 3 of the TIIS in the format set out in the following table.

TIIS Clause Number and Heading	Evidence of Compatibility
e.g. Clause 3.1. Gauge	
e.g. Clause 3.2. Wheel-Rail Interface	
e.g. Clause 3.3. Structures	

Clauses 3.3.1, 3.3.3.1 and 3.4.2.4 of the TIIS allow for compatibility to be demonstrated by compliance with the requirements to the standard(s) or by an alternative approach. For these clauses only, the Bidders shall also outline their proposed approach and shall supply evidence which supports their compatibility.

4.3.4 Concept Train Design

Bidders are to provide a **Concept Train Design** that is fully compliant with the TTS and the clause-by-clause response. The **Concept Train Design** shall demonstrate how the Bidder’s proposed trains will comply with the TTS and be compatible to the TIIS. The **Concept Train Design** should provide a comprehensive description of the performance and aesthetic appearance of the Trains.

The **Concept Train Design** shall include cross-references to the relevant clauses within the TTS. The Bidder’s cost profiles should be based on the Bidder’s **Concept Train Design** offering**.**

The format and structure of the **Concept Train Design** is described in greater detail in Appendix A.

4.3.5 Detailed Train Design Plan

The Bidder shall provide a **Detailed Train Design Plan** which shall describe the process that will be adopted by the Bidder to develop the **Concept Train Design** into a detailed train design post-contract signing. It is an important aspect of the IEP that the detailed train design is not fixed at the time of tender return and that the design is optimised following tender return, utilising input from stakeholders such as NRIL and the TOCs.

The **Detailed Train Design Plan** shall also outline the process for optimising the solution between the various requirements contained in the TTS and establish how stakeholder involvement will be managed during the design and manufacturing phases in order to develop the optimum system solution using effective and open relationship management. Bidders are encouraged to include, within their plans, proposals for optimising the performance of the railway as a whole.

As part of the **Detailed Train Design Plan,** the Bidder shall provide a separate **Interface Management Plan** which shall outline the process for optimising the IE Trains with the infrastructure as described within the TIIS and on an on-going basis throughout the life of the asset. The plan shall propose a process for undertaking the optimisation and indicate which stakeholders may need to be included; it shall also highlight known interface risks and their mitigations.

Details of suggested plan content and evaluation criteria are set out in Appendix A.

4.3.6 VTISM Model Results File

The Vehicle Track Interaction Strategic Model (VTISM) is a PC-based decision support tool for strategic asset management for the UK Rail Industry. VTISM was commissioned by the Rail Safety and Standards Board (RSSB) within their Vehicle Track Interaction research programme and jointly developed by RSSB and NRIL. VTISM provides a means of predicting the influence of current decisions on future infrastructure costs. It has been developed by combining a vehicle dynamics simulation, VAMPIRE®, the Whole Life Rail Model (WLRM) and Track Strategic Planning Application (T-SPA) software.

To fully evaluate Bidder's Delivery Plans due consideration will be given to the impact that the proposed design offering will have on NRIL's infrastructure. Two Route/Traffic Mix Types have been chosen for the evaluation (referred to as Route A and Route B) to represent the range of track conditions and traffic mix the IE Trains will operate over. Applications for a user license can be obtained from RSSB (Contact Details: email: paul.richards@rssb.co.uk, tel: 020-7557-8993).

The resultant output from the VTISM evaluation will provide a value for the impact of each train type (detailed in the following table) on the infrastructure (Routes A and B) in terms of '£ per train mile'. The VTISM Model Results File will be evaluated as set out in Appendix C.

Train type	Power	Length	Routes
Type 1	Self-powered	Full (~260m)	A and B
Type 2	Bi-mode	Full (~260m)	A and B
Type 3	Electric	Half (~130m)	A and B
Type 4	Bi-mode	Half (~130m)	A and B
Type 5	Electric	Full (~260m)	A and B

To assess the impact of critical elements of the design proposal Bidders are required to provide all of the VTISM Model Results and Data Files which will be used to evaluate the interface impacts between the train and the NRIL infrastructure.

As part of the ITT suite of documents NRIL will provide a DVD containing the following:

- The sample track data files on which the VTISM evaluation will be based;
- Instructions for use and VTISM default settings;
- Matched wheel and rail part-worn profiles; and
- "VAMPIRE" file settings including; default gauge, friction, speed profile etc., (in responding Bidders are to note that they should use the Transient Response Analysis Programme).

To ensure that full evaluation can be undertaken including the confirmation of Bidders VTISM results (by the re-creation of the VTISM runs and their constituent parts) Bidders shall provide the following as part of their tender return:

A DVD containing, for each vehicle model and track variant:

- All VTISM files;
- Vehicle models;
- All VAMPIRE input files (e.g. " .veh, .con, .run" files);
- VAMPIRE output files; and
- Wheel and rail profiles used for the analysis.

4.3.7 Approvals

The IE Trains to be provided in response to this ITT shall be authorised to operate without restriction on the Core and Other Routes identified in Section 1.3 of this ITT. Restrictions may apply to diversionary routes.

The successful Bidder will be required to produce a risk assessment and file demonstrating compliance with the existing NRIL infrastructure and other railway undertakings' trains in operation on the routes. This process is described in Group Standard (GE/RT8270 issue 2) and the Bidders are required to acquaint themselves with the current standard.

In responding to this ITT, the Bidder shall provide a detailed and comprehensive **Approvals Plan** which shall include the Bidder's proposed strategy for managing the rolling stock approvals process and how the IE Trains will be authorised to enter into service on the required routes. The successful Bidder will be responsible for ensuring that each unit has obtained all approvals at the date of acceptance.

The Approvals Plan shall clearly describe the interfaces with and involvement of all stakeholders in obtaining the required authorisations (such as the TOCs, Notified Body, ORR and NRIL) and shall identify known risks to the authorisation process and proposed mitigations.

Details of suggested plan content and evaluation criteria are set out in Appendix A.

4.4 Technical Response - Manufacturing / Bringing into Service Plans

4.4.1 Manufacturing

The Bidders are to provide a **Manufacturing Plan** which shall describe the process and facilities to be used by the Bidder to procure and build the Trains.

As part of the **Manufacturing Plan**, the Bidder shall provide a separate validation and verification plan which shall explicitly outline the Bidder's approach to integration of the train and its sub-systems, extending to reliability growth during the commissioning stage and how the requirements of the TTS and compatibility with the TIIS will be satisfied.

Details of suggested content for the Manufacturing Plan and evaluation criteria are set out in Appendix A.

4.4.2 Testing, Commissioning & Acceptance

The successful Bidder shall be fully responsible for the testing, commissioning and acceptance of all the IE Trains and all other on and off-rail testing processes in order to fully test the IE Trains in all configurations required to demonstrate that the requirements of the TTS and compatibility with the TIIS are satisfied, and in order to gain the necessary approvals to operate over the required routes.

The Bidder shall be responsible for obtaining the necessary paths required to test the Trains on the NRIL network, and in respect of any testing shall be responsible for provision of crews, test facilities, movements to and from site,

stabling and maintenance facilities, insurance, and all other facilities and resources required.

In responding to this ITT, the Bidder shall provide a detailed and comprehensive **Testing, Commissioning & Acceptance Plan** which will demonstrate how the IE Trains ex-factory will be certified and brought into passenger service and how the requirements outlined in the TTS and compatibility with the TIIS will be achieved.

Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

4.4.3 Training

The Bidder shall be responsible for the provision of training and training materials to enable the TOCs (and 3rd Parties) to operate the IE Trains for the Contract Life of the IE Trains.

The TSP will be responsible for the development of training materials and the training of TOC (and any other 3rd party as the TOC may elect) drivers, on train staff, station and presentation staff and associated emergency services personnel. The TSP will also be responsible for the ongoing training and support of TOC trainers.

The TSP shall develop and maintain high quality training materials to use in the training of staff and to support the TOC driver trainers on an on-going basis.

In responding to this ITT, the Bidder shall provide a **Training Plan** which shall demonstrate how sufficient training would be provided to enable the TOC staff (and 3rd parties) to achieve the required competences to operate the IE Trains, in line with the Bidder's proposed deployment programme.

Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

4.4.4 Delivery and Transition

Trains that are made available to fulfil the diagram requirements as set out in section 1.3 shall be provided free of restrictions, the TSP having obtained all necessary approvals and put in place all other necessary arrangements for this.

During the introduction of IE Trains on each route, there will be a transition phase during which both IE Trains and existing trains will be used to deliver the timetabled services. This phase commences on the date at which the first IE Train enters into passenger service and ends at the date that no existing trains are required to deliver the full set of diagrams at the contracted level of availability.

For each of the Core and Other Routes, the Bidders shall provide a **Delivery and Transition Plan** that shall set out:

- The start and end date of the transition phase (noting the deployment requirements in section 1.3.2);
- On a week by week basis the number and type of IE Trains that will be introduced; and
- On a week by week basis, the additional IE Train availability that the relevant TOC will be able to require the TSP to provide.

The schedule for IE Train introduction set out in the **Delivery and Transition Plan** will be used by the TOC to plan the existing trains (together with the IE Trains) it requires to operate the full service. Bidders shall take into account the planned work they will need to do and an allowance for unplanned work and provide these assumptions in the **Delivery and Transition Plan**.

Any changes from the ITT indicative diagram requirements shall be managed in accordance with the Rules of the Fleet and Rules of the Depot (headings identified in the TARA). In particular Rules of the Fleet and Rules of the Depot (as defined in the TARA) must provide sufficient flexibility to accommodate existing operational scenarios including deployment onto emergency and diversionary routes to allow for engineering works together with response to perturbed operation.

The **Delivery and Transition Plan** shall set out how the Bidder will manage the phasing in of the new IE trains with the TOC. This shall also describe the maintenance, servicing and stabling arrangements during the Transition Phase.

Details of the suggested contents of the **Delivery and Transition Plan** and evaluation criteria are set out in Appendix A.

4.4.5 Alternative Delivery and Transition

In addition to their **Delivery and Transition Plan** offering as set out above, Bidders may propose an Alternative Delivery and Transition Plan as an Alternative Service (as Section 3.4.3). Under this alternative scenario the Bidder would take over the responsibility for management of some or all leases and/or maintenance and servicing responsibility for the transition vehicles and their phasing out of service during the delivery phase of the IE Train fleets.

Details of the suggested contents of the **Alternative Delivery and Transition Plan** is set out in Appendix A.

4.5 Technical Response - Maintenance and Whole Life Plans

4.5.1 Train Maintenance and Servicing

The successful Bidder shall be responsible for the maintenance and servicing of the IE Trains over the Contract Life consistent with best asset management practices. This shall also include responsibility for dealing with abnormal events as defined within the TARA.

The successful Bidder will have full responsibility for providing all maintenance and servicing, facilities, staff, equipment, documentation and manuals, and other items that are necessary to deliver the contracted level of availability and reliability including stabling and storage of vehicles. The successful Bidder will be required to provide to the TOC maintenance manuals and other information as required to support the TOC Safety Management System.

The maintenance and servicing of the IE Trains shall ensure that trains are presented for service in an acceptable condition as defined within the TARA.

The TSP's maintenance regime shall provide constant incremental improvement in the reliability of the train based on service experience and feedback.

Maintenance shall include:

- Vehicle maintenance (scheduled & unscheduled);
- Daily train preparation;
- Provision of rolling stock maintenance control;
- Technical support of the vehicles whilst in service;
- Materials provision; and
- Provision of management data.

Servicing shall include:

- Interior and exterior cleaning;
- Fuelling (where appropriate);
- Servicing of CET facilities;
- Emptying and replenishing of toilet & catering facilities (but excluding catering supplies which remain a TOC responsibility);
- Provision of management data; and
- Other activities required at stations, such as connection of shore supply.

In responding to this ITT, Bidders shall provide a detailed and comprehensive **Train Maintenance & Servicing Plan** which will set out how they will maintain, and service trains over their contract life. It shall demonstrate:

- How the availability and reliability requirements will be achieved and continuously improved throughout the life-cycle of the train;

- How the maintenance and servicing strategy will be optimised throughout the life-cycle of the train, including how changes to the train design would be made and implemented.

The TSP shall be responsible for ensuring that sufficient vehicle and component spares are available to ensure that the IE Trains can meet the availability and reliability requirements. This shall include consideration of strategic spares i.e. those components or materials the lack of which might materially affect the availability of the Trains.

Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

4.5.2 Depot, Servicing and Stabling

Bidders shall provide a detailed and comprehensive **Depot, Servicing and Stabling Plan** which shall demonstrate how the Bidder intends to use the facilities currently available and, if required, build new facilities in order to maintain, service and stable (including out of depot servicing and stabling points) the IE Trains required.

The **Depot, Servicing, and Stabling Plan** shall be closely integrated with the **Train Maintenance and Servicing Plan** set out earlier in this Section.

The **Depot, Servicing and Stabling Plan** shall describe how and why the Bidder has selected the locations, and the arrangements for the maintenance, servicing and stabling of IE Trains. It will need to recognise existing arrangements and describe how transition vehicles will be accommodated. The **Depot, Servicing and Stabling Plan** shall specifically include the arrangements for the PSTs. This includes consideration of temporarily operating slightly shorter than full length trains if delivery of any necessary depot enhancements is better scheduled for the full fleet operation.

The Plan shall describe the impact, if any, on all of the Other Routes that are exercised in the combinations that are possible. The Plan is required to demonstrate how the maintaining and servicing the vehicles for the Other Routes would be achieved, though this can include passive provision where appropriate (and shall be shown as such).

Bidders are to note that the existing Reading Depot will be relocated as part of the Reading Station remodelling project, which will provide a new servicing and maintenance shed of IEP train length and provision for 5 extra departure roads (the Reading Station Remodelling Project). It is a requirement that the successful Bidder shall:

- Be responsible for the delivery and funding of the departure sidings construction (in accordance with the depot phase 2 provision set out

in the NRIL design, drawing ref B40111-005 Issue P2, a copy of which is available within the IEP data site); and

- Make appropriate arrangements for the use of Reading's new depot for IE Train servicing (and maintenance if required). Such arrangements may include taking over as DFO at the appropriate time.

It is also a requirement of the successful Bidder that the overnight use of Old Oak Common shall be reduced (compared to current intercity vehicle use) and that they enter into agreements for the shared use of some of the stabling sidings with Cross London Rail Links (Crossrail)

The Bidder's plans at Reading and Old Oak Common, in accordance with the above requirements, shall be set out in the **Depot Servicing and Stabling Plan**.

The Bidders shall be responsible for identifying any sections of railway required to link their chosen maintenance, servicing and stabling locations with the gauge cleared main lines as described in the TIIS. The Bidders shall be responsible for identifying these approach routes, however any potential clearance works required shall be undertaken by NRIL.

Facilities including new build or enhancements will be subject to the normal regulatory controls.

Details of suggested content for the **Depot, Servicing and Stabling Plan** and evaluation criteria are set out in Appendix A.

4.5.3 Modifications and Upgrades

The successful Bidder shall during the life of the contract, continuously develop and improve the IE Trains and the processes and effectiveness of the maintenance, leading to improved efficiencies and better availability and reliability of the fleet.

The successful Bidder shall also be responsible for undertaking future modifications and upgrades as may be required of the IE Trains, including but not limited to refurbishments, franchise re-branding and reliability improvements through out the life of the vehicles.

In responding to this ITT, the Bidder shall provide a **Modification and Upgrade Plan** which shall clearly outline the process for improving the effectiveness of maintenance and the performance of the IE Trains throughout the term of the contract. The plan should also outline the process for controlling and the mechanism for implementing future modifications and upgrades required throughout the life of the IE Trains, taking due account of the costs, potential quantity of vehicles being produced and locations where these vehicles may be based.

Within the **Modification and Upgrade Plan**, the Bidder shall provide examples where the Bidder has previously controlled modifications and undertaken upgrades to improve the performance of a fleet of vehicles, identifying the range and size of modifications, and the process for evaluating modifications, ensuring collaborative working with Stakeholders and prioritising the modifications through the initial build processes and through the life of the contract.

Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

4.5.4 Hand back

If a Bidder's Proposal includes it being the owner and operator of any depots, maintenance or servicing facilities the Bidders shall provide a **Hand Back Plan** with their Proposals detailing how they intend to hand back these assets to NRIL. Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

Bidders may assume an agreement with NRIL will be in place at Financial Close under the terms of which land, premises, buildings or major items of plant and machinery (Assets) owned by them and used for the TSP train provision will be subject to put and call option arrangements which enable NRIL to call and the TSP to put those Assets including the following circumstances:

- the Secretary of State requires the train fleet to be deployed onto routes which the Assets cannot realistically serve. In this instance, the TSP has the right to sell the Depot to NRIL for a pre-agreed price; and

- the RV Date for the sets which the Assets support has passed and the TSP is not able to re-lease the sets for use on routes which the Assets can serve. In this instance, NRIL has the right to purchase the Assets from the TSP at a pre-agreed price.

The put and call agreement will contain a schedule setting out the exercise price for the option at any time, which is to be set on the basis that related finance is amortised on a straight line basis over the period of the relevant Usage Undertaking.

The option and/or the price is conditional on the Assets being in the required condition at the time of exercise. The TSP is required to provide a performance bond to cover remedial works if they are deemed to be necessary.

4.6 Technical and Business Response – Contract Life Plans

4.6.1 Business Management and IEP Contractor's Deliverables Plan

To reflect the importance that the DfT places upon the overall solution that the Bidder is offering in respect of deliverability and value of the Bidders' entire offering throughout the Contract Life and to ensure that the various plans set out within Section 4 are fully linked and integrated, Bidders are required to provide a **Business Management and IEP Contractors Deliverables Plan** for the entire Contract Life.

The **Business Management and IEP Contractors Deliverables Plan** shall demonstrate how the Bidder will manage and integrate all component parts of the project including the **Project Programme** for IE Services, management of the TSP, inter and intra-company management, customer service, supply-chain and stakeholder management throughout the Contract Life and any other skills and services that are of relevance to the successful delivery of the investment.

Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

4.6.2 Project Programme

The majority of plans set out in Section 4 require the Bidders to include within them a programme for the activities contained within those plans. To reflect the importance that the DfT places upon the deliverability of the overall programme solution that the Bidder is offering from the point of award to the end of the final Contract Life, Bidders are required to provide a fully integrated Level 3 **Project Programme** in Gantt format using Primavera including the soft copy XER file.

Further guidelines relating to the programme submission are set out in the Data site.

Details of suggested content for the plan and evaluation criteria are set out in Appendix A.

5 Contracts

All terms used in Section 5 including the synopses of the MARA and TARA are defined in the same unless the context requires otherwise.

5.1 IE Agreements

The following Agreements will be placed in the IEP data site:

- Master Availability and Reliability Agreement;
- Template Train Availability and Reliability Agreement;

As part of the tender return Bidders are required to confirm their acceptance of the detailed terms and conditions in the above documentation. If there are any clauses that Bidders cannot accept in their entirety they are required to follow the instructions in Section 2.7.4.

Bidders are also required to provide relevant information, requested in the MARA and TARA and in the Bidder Information Pack and Bespoke Population Requirements.

Relevant provisions of the TARA for each route including the Payment Mechanism to enable pricing will be made available within the Bidder Information Pack and Bespoke Population Requirements which will be placed in the IEP data site.

5.2 Other Project Agreements

Bidders are required to provide fully developed heads of terms of the following agreements with their tender returns:

- Manufacture and Supply Agreement;
- Maintenance/ Train Service Agreement;
- Depot and other Maintenance and Servicing Facilities Construction Agreements;
- Depot and other Maintenance and Servicing Facility Agreements;
- Depot and other Maintenance and Servicing Facilities Access Agreements; and
- Any services sub-contracts proposed with the TOCs.

In addition Bidders are required to provide the following full and final agreements with their tender returns:

- Equity Documentation; and
- Company Documents.

5.3 Synopses of MARA and TARA

5.3.1 General

This Section 5.3 is provided for information purposes only. Bidders are advised to refer to the MARA and TARA for full contractual terms when they are placed in the data site.

For the avoidance of doubt if the Synopses of the various IE Agreements set out in Section 5.3 of the ITT diverge from the MARA and TARA placed on the IEP data site the MARA and TARA shall take precedence.

All terms used in the Synopses of the MARA and TARA Agreements are defined in the same.

There are two key contracts which structure the TSP's role in providing the new trains which the IEP requires. These are the Master Availability and Reliability Agreement (MARA) and the Train Availability and Reliability Agreement (TARA).

The MARA is a contract between the Secretary of State and the successful Bidder. It provides commitments by the TSP to build and deliver new trains to an agreed delivery and acceptance schedule. It also contains commitments by the TSP to enter into individual TARAs with the train operating companies who are to use the IE Trains. The MARA contains a number of commitments from the Secretary of State. In particular, it commits the Secretary of State to ensure that there is always a TARA in force in respect of trains which have been accepted, until the RV Date of each train. The RV Date is the date after which the TSP is expected to take unsupported risk on the future use of the trains.

The TARA is an agreement between the TSP and the relevant TOC. Each TARA will last for the same length as the franchise of the TOC who is using the Trains (or possibly to the RV Date if earlier than expiry of the relevant franchise). The TARA commits the TSP to make a maximum number of trains available to the TOC on a daily basis, in a fully serviced and maintained condition. It commits the TOC to pay The TSP for the availability of the trains on the basis of the 28 day railway industry accounting period. The amount payable is variable in accordance with the quality of the TSP's performance, measured in terms of train availability, train reliability and scores recorded against certain key performance indicators.

5.3.2 MARA Primary Provisions

The MARA commits the TSP to design, construct, test, commission and bring into service the train sets which meet the requirements of the TTS. This will, in due course, be set out in the contract but, for now, it accompanies the ITT. The TSP is to perform this obligation to the standards that may be expected of an experienced and well qualified train service provider. As described elsewhere in the ITT, the development of the design and the process for testing and commissioning the trains is to be conducted in accordance with a series of plans which Bidders are to submit with their tenders. These will then be negotiated and absorbed into the MARA as contractual commitments prior to its signature.

The MARA will set out a schedule of dates for the delivery and acceptance of each train, to which the TSP will be committed. The dates may be adjusted in limited circumstances only, which are set out in the MARA. In general terms, the delivery and acceptance schedule may be extended only where there is delay attributable to:

- force majeure circumstances;
- breach by the Secretary of State of her obligations; or
- failure by NRIL to provide infrastructure which will allow physical clearance of the Trains to standards described in Section 3.1 of the TIIS which accompanies the ITT.

Where there is delay which is attributable to one of these causes, the TSP may be entitled to additional time for the performance of its delivery and acceptance obligation. It may also be entitled to receive financial compensation in respect of the period of delay resulting from one of these causes. The arrangements for compensation are also set out in the MARA.

Where there is delay in the delivery and acceptance of a train which is not attributable to any of these reasons, then the TSP will be in breach of its contractual obligations. At present, DfT does not propose that the TSP should be under any liquidated payment obligation in these circumstances. This is because DfT considers the TSP will be adequately incentivised by the adverse impact on it of delay in receiving payment for trains under TARAs. However, there is a termination right that accrues to the Secretary of State if there is significant delay in delivery and acceptance of the trains.

The acceptance process involves four stages, as follows:

- Type acceptance;
- Provisional Acceptance;
- Final acceptance; and
- Fleet acceptance.

Type acceptance is designed to demonstrate that each type of train is capable of achieving the requirements of the TTS. The Secretary of State envisages that she will play the lead role in relation to type acceptance. However, for the three remaining stages, the Secretary of State wishes that the TOC that will be the first user of the trains takes the lead. Trains may enter revenue earning service once Provisional Acceptance has been obtained, but will need to achieve a stated measure of fault free running in order to obtain a Final Acceptance Certificate. Fleet acceptance will be achieved once each train accepted in relation to a particular TARA has received its Final Acceptance Certificate.

5.3.3 Future Usage Commitments

Both the Secretary of State and the TSP give commitments about the future usage of each train for a period ending on its RV Date. The RV Date for each train falls 20 years after the date of the Provisional Acceptance of the first train of the fleet to which it belongs. For these purposes there are, initially, three fleets as follows:

- Pre-Series fleet;
- East Coast (ECML) main fleet;
- Great Western (GWML) fleet.

And so the RV Date for each train that is accepted into the Pre-Series Fleet will be 20 years after the Provisional Acceptance Date of the first train accepted into the Pre-Series Fleet. Similar considerations will apply to trains in all subsequent fleets.

The TSP agrees that it will, at the Secretary of State's request, enter into a TARA in respect of any train that has not passed its RV Date. A TARA, once entered into, will generally run for the duration of the franchise to which it relates. However, when approaching the RV Date, the MARA may only oblige the TSP to enter into a TARA that lasts until the RV Date. The Secretary of State, for her part, commits that there will be a TARA in place in respect of each train up until its RV Date. The MARA sets out the standard form of TARA that will be used for these purposes.

5.3.4 Depots

Bidders are referred to Section 4.5 of the ITT which explains requirements on bidders for development of depot proposals. These will be taken forward through the tendering process, and the preferred solution will be documented in the MARA.

5.3.5 Termination

Events that constitute TSP Default under the MARA include a cross default provision in relation to any termination event that arises under any TARA. However, as described in more detail below, a TOC does not have an

independent ability to terminate a TARA should a termination event arise in respect of it. In these circumstances, the Secretary of State may terminate any or all outstanding TARAs. Where all TARAs are terminated, the Secretary of State will also terminate the MARA.

The Secretary of State commits, in the context of termination following a TSP Default, that she will tender a contract in the same terms as the existing MARA and TARA package. The termination payment arrangements that will apply in these and other termination circumstances broadly follow the approach recommended by HM Treasury's Standardisation of PFI Contracts, Version 4 (SOPC4).

5.3.6 Financing commitment for Great Western

The MARA provides that the provisions in it relating to the Great Western fleet are conditional upon the TSP achieving financing for the performance of those obligations, and the TSP must use all reasonable endeavours to do so. The MARA sets out the basic framework around which the pricing of the Great Western obligations will be constructed. The construction costs of the Great Western fleet will, subject to indexation, be fixed on signing the MARA. Based on these costs, the TSP is obliged to put together a financial package to fund this fleet by no later than 2013 to achieve financial close by 2014. The framework will be more fully developed following tender returns, and negotiated and contracted with the winning Bidder. Refer to Section 6 for further guidance relating to the Great Western financing.

5.3.7 TARA Primary Provisions

The TSP will enter into a TARA with each TOC who is to use trains which are to be delivered under the provisions of the MARA. An initial TARA will be entered into with NXEC Trains Ltd, a subsidiary of National Express Group in respect of pre-series and subsequent trains for the ECML. Subsequent TARAs will be entered into with any TOC on whose franchise trains delivered under the MARA are to operate.

Each TARA will run for the scheduled duration of the TOC's franchise. If a franchise terminates early, the Secretary of State may require the TSP to continue acting under the TARA until a new franchisee is appointed. At that time, either a new TARA will be entered into, or the existing TARA assumed by the new franchisee.

5.3.8 Availability

The key deliverable under a TARA is daily availability of trains. Each TARA will state the size of the fleet to be maintained by the TSP to meet its availability obligation, and the maximum number of trains that a TOC may require to be available for service on any day.

In the tendering phase, Bidders are expected to make their own assessment of the number of trains required to operate the timetables supplied for bidding purposes. The choices made by the successful bidder will be contractualised, in the sense that the bidder will be required to deliver that number of trains by the provisions of the MARA, and then required to deploy a fleet of that size to meet its availability obligations under the relevant TARA.

The TARA provides that a TOC may notify the TSP on a periodic basis of its dispatch requirements for trains, in terms of time and depot of departure and required train formation. The dispatch requirements which a TOC may notify are constrained by a combination of the Rules of the Fleet and Rules of the Depot which are agreed with the TSP and the weekly despatch requirements which are notified to the TSP by the TOC. Tenderers are required to submit their proposed Rules of the Fleet and Rules of the Depot with tender returns and these will be negotiated and contractualised as part of the process of letting the contract. The indicative requirements for these are set out in the TARA.

Trains delivered into service need to meet presentation requirements which are set out in the set presentation requirements table in the TARA. The TSP is also responsible for ensuring that each train is fully stocked with fuel, water and other consumables, other than catering consumables which will be the TOC's responsibility. Provision is made as part of the handover process for the TSP to confirm compliance with these requirements, or to notify any shortcomings. The condition of the train against these standards will determine whether the TOC is required to accept it into service, and also feed into a key performance indicator regime, to which payment consequences are attached. Details of the regime are set out in the TARA and the payment consequences are summarised below.

The TARA does not limit the use of the trains to specific diagrams. This enables flexibility, within the constraints of the Rules of the Fleet and Rules of the Depot mentioned above, to meet timetable changes and changes on a short term basis. However, the TOC will only be permitted to use the trains on defined routes, being those that are covered in the TIIS.

The TOC is required to hand the train back each day at a time and place which meets the requirements of the Rules of the Fleet and the Rules of the Depot.

5.3.9 Maintenance

Maintenance is the TSP's responsibility and is to be performed at the TSP's expense unless express contrary provision is made. The TSP's maintenance/availability responsibilities generally extend to dealing with damage to trains however this may be caused. The prospect of damage has implications for maintenance costs, availability requirements and contract payments, which are each dealt with in the TARA.

5.3.10 In-Service Faults

The TSP is generally responsible for trains breaking down in service as set out in the TARA.

The set presentation requirements table categorises all faults specified in it according to their severity and impact. Each category has a specified consequence in terms of availability and/ or KPI payments.

For some faults the TOC has discretion to remove trains from service, in which case it must act reasonably in making this decision, taking into account the nature of the fault, the likely impact on passengers, and the proximity of the TSP's resources to attend the train. The TSP is to provide technicians to attend faulty in-service trains where possible. The TSP is responsible for providing rescue traction for broken down trains.

5.3.11 Performance and payment

The payment regime is structured so that the principal payment stream receivable by the TSP is linked to the provision of Available Sets.

The TSP will receive:

- Reliability Growth Payments for achieving specific reliability milestones as measured by fleet MDBF;
- Availability Payments for the provision of the Available Sets, which will be subject to adjustments;
- KPI Payments for achieving certain standards relating to equipment availability, cleaning and audits;
- Marginal Set Payments for any additional Available Sets requested by the TOC for additional diagrams and provided by the TSP; and
- Reimbursable Item Payments.

5.3.12 Reliability Growth Payments

In order to incentivise the TSP to manage reliability growth it will be paid Reliability Growth Payments by the TOC upon achieving MDBF reliability requirements as specified in the TTS.

The MDBF reliability requirements are to be achieved within a fixed period from full deployment of each respective fleet. If, after the fixed period, the MDBF reliability requirements have not been achieved the incentive payment will reduce in each consequential Period until either the TSP achieves the MDBF reliability requirements or the incentive payment becomes zero.

5.3.13 Availability Payments

Once sets have been delivered into revenue service the TSP will be paid a "Set Availability Payment" (SAP) for each day that the Set is made available which will be subject to Adjustments in respect of:

- Retentions where Sets are yet to satisfy certain acceptance tests;
- Unavailability;
- Reliability (including an ability to earn a bonus over a certain benchmark based on an allowable level of the TSP Minutes Delay); and
- Mileage where the number of miles travelled by Sets during a period is greater or less than a pre determined number of miles.

5.3.14 Retentions

A percentage of the SAPs payable will be retained by the TOC until the Sets meet specified acceptance criteria.

5.3.15 In-service Reliability

The TSP will be subject to reliability measurement based on TRUST delay minutes attributable to the TSP. Delay minutes resulting from incidents attributable to the TSP (TSP Minutes Delay), as recorded by NRIL's TRUST system, will determine reliability over a given period.

There will be an allowable benchmark number of the TSP minutes delay. If the TSP's minutes delay are less than the benchmark, it will receive a bonus while if the benchmark is exceeded, the TSP will suffer deductions. In each case the calculation is based on the difference between the number of minutes delay incurred and the benchmark, with minutes delay valued at a standard rate per minute.

Where a Set suffering a reliability incident incurs more than 30 minutes of delay it will be considered significantly delayed and, in addition to any payment deductions resulting from the accumulation of delay minutes, the TSP will suffer a lump sum deduction. Only the first Set of all the Sets affected by a delay incident to be delayed for 30 minutes will receive a Significant Delay Deduction.

The TSP will receive a Set out of service deduction (Deemed Unavailable) if, as a result of a fault or other incidents the TOC is permitted to and decides to take a set out of service.

The table below illustrates the different categories by which availability and reliability is measured and how deductions are applied.

5.3.16 Summary of Availability and Reliability Deductions

Time of incident	Description	Nature of deduction
Prior to acceptance in the morning	Up to 15 minutes late	TSP Minutes Delay (TRUST)
	Greater than 15 minutes late	Unavailable
After acceptance in the morning	Between 3 and 30 minutes late	TSP Minutes Delay (TRUST)
	Greater than 30 minutes late (Significantly Delayed)	Lump sum deduction (in addition to TSP Minutes Delay)
	Set taken out of service	Deemed Unavailable

The impact of incidents occurring prior to acceptance will be captured by TRUST at the point the Set moves from the depot on to the running line. The TOC may, at its discretion, absorb such impacts where it is satisfied that required procedures carried out by drivers and other train crew can be completed prior to the train entering service.

Where a Set is Unavailable in the morning or Deemed Unavailable during the day and is later put back into service the applicable deduction will be reduced.

5.3.17 Bedding-in

All Availability and Reliability Adjustments will be allowed a Bedding-in Period.

5.3.18 Mileage Adjustment

The calculation of the SAP is to be established on the basis of a total number of miles travelled by Sets, being:

- Miles travelled by Sets undertaking diagrams as scheduled to start and end at specified stations; and
- Miles travelled by Sets being delivered from and returning to depots and stabling facilities.

DfT will specify the periodic mileage expected by Sets in passenger service for each TARA. It is for TSP to specify the periodic mileage expected to be completed by Sets delivered from and returning to depots.

Where mileage of Sets is within a defined band which TSP will receive no Mileage Adjustment. Where the mileage is outside of the band TSP will pay or receive a Mileage Adjustment depending on the actual miles run. The intention is not to transfer volume risk, but to neutralise it.

The Mileage Adjustment for each fleet will only apply once all Sets have been delivered into revenue service.

5.3.19 KPI Payments

KPI Payments will be determined by performance against KPIs that address aspects of service performance not dealt with by the Availability and Reliability Adjustment mechanism. KPI Payments will be capped.

KPI	Objective	Test	Weighting
Train Presentation KPIs	To motivate the TSP to minimise defects at hand over and to rectify defects within set times as set out in the Set Presentation Requirements Table	TSP self-testing regime	60%
Cleaning	To motivate the TSP to clean the sets at the required times to the standards set out in the Set Presentation Requirements Table	TSP self-testing regime	20%
Audit and Reporting	To ensure the TSP is motivated to self-report defects and other required information accurately	TOCs undertake ad hoc tests and period tests based on sample audit of Vehicles	20%
Total per Period			100%

5.3.20 Marginal Set Payments

TOC may, from time to time, request the TSP to provide additional Available Sets, over and above the Availability Requirement. The Marginal Price per Set should reflect the marginal cost to the TSP of making that Set available.

5.3.21 Reimbursable items

There will be some services and items that will be classified as reimbursable. The TSP will bear the cost of most vandalism and crash damage, as an incentive to minimise the overall cost. However some costs will be reimbursable by the TOC.

5.3.22 Indexation

Under all Proposals, the SAP may be indexed in whole or in part to RPI. It is for bidders to decide what proportion of the SAP they want indexed. 100% of Availability and Reliability Deductions, the KPI Payments, the Marginal Set Payment Adjustment and the Mileage Adjustment must be indexed by RPI. Proposals must not require TOCs to index payments to TSP on any basis other than RPI.

5.3.23 Market testing/ benchmarking and Re-basing

In order to share the risk of potential movements in maintenance costs after the delivery of the full fleet, the MARA contains provisions for;

- Benchmarking or market testing of cleaning and light maintenance. Bidders may identify up to a maximum of 15% of their operational costs to be benchmarked or market tested. It will be at the discretion of the DfT which of benchmarking or market testing is undertaken; and

- Re-basing for differential inflation of labour rates for heavy maintenance. Maintenance costs (excluding those subject to market testing or benchmarking) will be re-based to take account of the impact of wage inflation since Financial Close on that element of the TSP's projected costs in its Base Proposal Financial Model which comprises direct labour. This will be achieved by reference to labour price indices produced by an appropriate UK statistical authority approved by DfT.

Re-basing, market testing or benchmarking will occur 10 years after financial close and subsequently every 5 years.

5.3.24 Fuel, ride quality, emissions, noise

The performance of the trains in terms of fuel consumption, emissions, noise and ride quality is important and each of these characteristics will be tested against the TTS as part of a train's acceptance process. It is also important that the standards achieved are maintained for so long as a train remains subject to a TARA.

Provision has therefore been made in the TARA for a TOC to require the TSP to demonstrate compliance with these standards. The frequency with which this may be required is regulated and the costs of testing follow the result, so the TSP will recover its costs unless the train fails the test. In these circumstances, the TOC may require more extensive testing to be carried out and may also invoke the provisions of the remedial plan regime described below. Non-compliance could ultimately lead to an on-going payment deduction.

5.3.25 Contract Management

The TARA provides for the TSP and the TOC each to appoint a Contract Manager who is responsible for the day-to-day management of the contract. It also provides for information sharing and record keeping. In relation to delay minutes, it sets out the TSP's role in the fault attribution process that takes place between the TOC and NRIL.

The TSP is required to notify the TOC (and the Secretary of State) whenever a "Notifiable Event" occurs. These relate to a failure by the TSP to meet certain levels of availability and reliability periodically. If a specified number of Notifiable Events occur in a given period, that shall constitute a TSP Default.

The TSP and TOC shall hold regular performance review meetings, after each railway industry period.

5.3.26 Remedial plans

A TOC may call for a remedial plan in the circumstances described above, and may also do so when performance against key performance indicators falls beneath a stipulated level, when reliability over stipulated periods falls beneath stated levels, or where the TSP is in breach of its contractual obligations.

The remedial plan process makes provision for the remedial plans to be agreed where possible or, where this is not possible, for the TSP to explain its reasons for dissenting from proposals which the TOC may have made for rectifying the situation. There is no immediately adverse consequence for the TSP as a result of a remedial plan failing to perform as intended. But there is provision for a persistently unrectified state of affairs to register as a persistent breach of the TARA, and this is a condition in which a termination event may arise.

5.3.27 Termination events

Termination events arise for the TSP if the TOC fails to make contract payments and in a range of other circumstances. The TSP's ability to exercise its termination right is regulated by provisions in the MARA, which enable the Secretary of State to prevent the TSP terminating, but only on the basis that she assumes an appropriate responsibility for the TSP's claim on the TOC.

A TOC's ability to exercise termination rights that accrue to it is also regulated by the MARA. Given the arrangement described in Section 5.2.5 relating to tendering of the contracts, termination in many circumstances may amount to a substitution of the trains' maintenance function.

6 Finance

6.1 General

The TSP must raise finance to fund the design and manufacture of the IE Trains (including all support systems) and the design and construction and/or refurbishment of the maintenance, servicing and stabling facility works to cover its obligations under the IE Agreements.

This section gives an overview of the finance arrangements. For the ITT submission Bidders are required to provide all the information set out in Appendix B.

6.2 Tranched Financing and Level of Commitment

The procurement of the IEP will be split into two financings in order to assist deliverability and value for money of the financing solution. Bidders are required to arrange underwritten finance for Tranche 1. DfT expects low levels of conditionality in the underwriting for these Proposals. A separate later financing for GWML Phase 1 will take place from 2013. Financial close is expected to occur in 2014.

For the financing of the GWML Phase 1 Bidders will be required to underwrite their maximum equity rate of return and to provide comparable security, bonding and other arrangements to demonstrate the deliverability of the second financing on broadly similar terms to the first financing.

The financing of GWML Phase 1 is required to be transparent and DfT will require access to all funding documentation throughout the financing process.

6.3 Construction price risk

For Tranche 1 Bidders will be required to take the risk of movements in underlying construction costs.

For the GWML Phase 1 fleet Bidders should bid a construction price excluding any escalation as at the price base date of 31st March 2009. This price will be subject to an escalation mechanism based on:

- For 85% of costs a combination of RPI and/or AEI and/or PPI the mix of which shall be chosen by Bidders. Assumptions as to the rate of each index are set out in Appendix B.

- For 15% of costs an index or combination of indices to be chosen by Bidders. Bidders are allowed to choose any index provided it is published by an appropriate statistical authority approved by DfT.

The escalation mechanism will be used to fix the construction price in the financial model once the second financing is initiated in 2013.

6.4 Interest Rate and Foreign Exchange Currency Risk

DfT will accept full interest rate and foreign exchange currency risk up to Financial Close for each Tranche.

Bidders are required to set out in their Base Proposals the forecast expenditure on major components in foreign currencies which will be limited to Euro, Yen and US dollar, the assumed exchange rates for those currencies and the basis of the calculation of those exchange rates. If Bidders can demonstrate that it would be better value for money to use other currencies they can raise this through a Clarification Question. At Financial Close, the exchange rates used will be reset to take account of any movements between the date of bid submission and Financial Close, using an identical calculation to that used for the Base Proposal, and the financial model adjusted accordingly.

6.5 Residual Value

Upon expiry of the MARA, the TSP will remain the owner of the Trains. The current structure of the rail industry is such that DfT is not the economic owner of rolling stock. It is important to DfT that this structure is maintained. Bidders are required to demonstrate in their submission, how their IE Services proposal is consistent with this structure.

6.6 European Investment Bank (EIB)

Some of the IE routes have been designated part of the Trans-European Networks (TENs), which underpin the developmental and integration goals of the European Union. One objective of the EIB is to assist the financing of TENs projects. DfT has held initial discussions with EIB to familiarise it with the IEP. Bidders are encouraged to discuss directly with the EIB the terms on which it might be prepared to lend. Bidders must make their own judgement whether to include EIB funding in their financing. DfT will only assess the contribution of EIB in Bidders' submissions as part of the overall value criteria. Any EIB funding would be excluded from a funding competition.

6.7 Security Bonds

The Bidders must provide DfT with a combined Delivery Phase and Maintenance and Servicing Facilities Construction Bond for £10 million as a condition precedent to Financial Close.

If, following the conduct of a condition assessment of the Maintenance and Servicing Facilities during the 5 years before the end of ECML and GWML Usage Undertakings, it is agreed or determined that rectification works are required to ensure the Maintenance and Servicing Facilities will comply with the return conditions on the expiry date, the TSP must (if required by DfT) provide DfT with a Return Condition Bond for an amount equal to the

estimated total cost of carrying out such rectification works.

6.8 Refinancing

Bidders are encouraged to anticipate the gain from future refinancing(s) within their Base Proposal. DfT will not seek to share in the gain when such a refinancing actually occurs to the extent that it is already clearly and fully included in the Base Proposal Financial Model. Should the actual gain exceed that anticipated in the Base Proposal Financial Model DfT will share the excess 50:50.

6.9 Funding competition

In accordance with HMT best practice, DfT will reserve the right to hold a debt funding competition where Bidders do not demonstrate best value.

Bidders must decide how they demonstrate best value. To assist the DfT in assessing best value Bidders should ensure that their financing structure and pricing is transparent.

If DfT requires the funding to be re-competed, it will tolerate a pre-defined "right to match" provision from funders but for no more than 50% of the funding requirement. DfT will not seek to alter the commercial proposal put forward by Bidders when competing finance.

Equity will not be competed.

In addition, DfT will reserve the right to compete the financing for the GWML Phase 1 where the TSP does not demonstrate best value.

6.10 Alternative Proposal - Supported Debt

The DfT may consider guaranteeing upon termination for contractor default the payment of up to 30% outstanding debt once full delivery of the Sets into revenue service has been achieved. The final decision on whether to proceed with a supported debt solution will depend on whether such a solution can be shown to demonstrate value for money. Therefore, Bidders are allowed to submit their ECML Phase 1 proposal with an alternative financing on the basis of a supported debt proposal which will include a fully worked up financial model.

Bidders should note that the 30% of supported debt would be derived from the outstanding debt at the time of termination as forecast in the Base Proposal Financial Model at Financial Close (as updated for any refinancings). The supported debt proposal will be structured as a shortfall indemnity guarantee payable once the contractual provisions in respect of termination have run their course. It would not cover the cost of breaking hedging arrangements or any other break fees associated with the termination of the financing arrangements.

6.11 Alternative Financing Solutions

In developing an optimal value for money solution Bidders may develop more than one financing solution. Bidders should provide, in response to this ITT, a brief description within their financing plan of any alternative financing solution noting the potential value for money benefits, but they should not provide a financial model. DfT may request a financial model at a later date.

7 Appendices

Appendix A - Technical & Business Deliverability Plan Evaluation Criteria

Appendix B - Financial Response Requirements

Appendix C - Evaluation of Added Value

Appendix D - Journey Time Requirements

Appendix E - Train Technical Specification (provided as a separate attachment)

7.1 Appendix A - Technical & Business Deliverability Plan Evaluation Criteria

In completing the following deliverability plans Bidders are advised to note that the contents list for each plan set out below is not intended to be comprehensive or exhaustive but to provide guidance and direction for Bidders. Bidders are to include details of how each of the listed criteria will be met under the relevant sections of their plans and further identify how they meet RADAR components as per 7.1.1 below.

7.1.1 Application of RADAR

RADAR® scoring is the evaluation method used to score for the European Quality Award. The assessment of technical and business deliverability will use RADAR techniques for all relevant delivery plans. The RADAR® Logic states that an organisation needs to:

- Determine the **R**esults aimed for as part of its policy and strategy making process
- Plan and develop an integrated set of sound **A**pproaches to deliver the results both now and in the future
- **D**eploy the approaches in a systematic way to ensure full implementation
- **A**ssess and **R**eview the approaches, including the making of improvements as needed

The weightings adopted for each RADAR® component reflect the application of this system to Delivery Plans for a new business. Bidders are encouraged to identify the RADAR® components of their response in respect to each operating criterion, which will be applied as follows:

RADAR component	Contents	Weighting
Results	A short statement of the desired outcome - this should be derived from the DfT specification and objectives.	10%
Approach	The Bidder's description of the outcomes which will be achieved and why. This component should include analysis of the existing position supporting the approach proposed and the expected future results.	20%
Deployment	How the outcomes proposed by the Bidder will be delivered. In addition to describing what resources are required and how they will be deployed, this component should include evidence that promised improvements can be secured.	35%
Assessment	What KPIs the Bidder will measure in order to ensure the delivery of outcomes.	10%
Review	How the business is structured and what processes are in place to react if the desired results are not achieved. This component should consider the risks to delivery and how the Bidder would manage and mitigate them.	25%

7.1.2 Design Phase Plans

Standards Plan
Suggested Plan Content
As a minimum the **Standards Plan** shall include: a) The standards management process b) The standards management organisation and accountabilities c) The standards management programme d) Standard challenges to be sought and mitigations in the event that standard challenges are not successful, (see below) e) Reporting f) Resource management g) Stakeholder management h) Risk management i) Involvement of external bodies such as Notified Bodies, NRIL j) Review process k) Areas where it may not be possible to comply with HMRI for compatibility reasons and where local standards (e.g. NRIL, Railway Group Standards (RGS's)) may need to take precedence and the process of how this would be "regularised". Within the **Standards Plan**, where a Bidder considers that an optimum Trains solution requires a change to the current standards or the interpretation of current standards to be challenged, the Bidder shall outline; the proposed change or interpretation, l) the potential performance and/or whole life cost benefits, m) the proposed process for achieving the change, n) the requirements on 3rd parties or stakeholders, o) the risks involved, and p) the mitigations if the change in standard is not implemented.
Evaluation Criteria
Demonstration of the Bidders understanding of the criticality of the standards planning and management in their plan
Understanding of relevant and applicable standards
Defined process for the application of standards
Identification of critical derogations sought
Existence of workable derogation process
Risk identification and mitigation process
Optimisation of proven and new technology and consequential impact on standards management

Concept Train Design

Suggested Content

The **Concept Train Design** should provide a comprehensive description of the functional operation, performance and aesthetic appearance of the Trains. It should be structured as outlined below and include:

a) a description of the functional configuration and performance of the equipment in each sub-system, supported by product information
b) drawings and diagrams to enable a full understanding of:
    a. the overall Train control, traction and auxiliary system architecture
    b. each sub-system
    c. the interior and exterior appearance of the proposed Trains
c) examples of sub-system and component previous usage and service history and reliability
d) examples of innovative sub-systems
e) Engineering analysis for the concept design
f) 3D visualisations of the example fitouts

The suggested format of the **Concept Train Design** is set out below. Bidders should note that the content in the various sections is intended to be indicative, not exhaustive or leading, and that it is the responsibility of the Bidders to provide a full and comprehensive description of the design of the Trains to be offered.

Section 1. Introduction

The Bidder should outline in the introduction how the **Concept Train Design** document is structured and highlight any key or unique areas and innovations which are beneficial and value for money to the DfT

Section 2. Design and Development Philosophy

In this section the Bidder should outline the philosophy behind the design and development of the proposed IE Trains, this section should cover the Bidders approach to ensuring product reliability, including the use of proven solutions, product development, innovation, supplier selection, validation and test programme and service experience

Section 3. General vehicle overview

In this section the Bidder should describe at a high level the unit configuration and equipment, standard features and overall image. The Bidder should provide high quality pictorial representations of the exterior and interior of the train and the cab

Concept Train Design
The Bidder should complete the Proforma set out in Annex I of this Appendix.
Section 4. Standards The Bidders should describe the standards the IE Train set will be designed, manufactured, tested and operated to, and if the Bidder wishes to propose an alternative standard to those described in the TTS, full justification should be provided. Bidders should provide details of standards challenges, and details of "local standards" (NRIL Company Standards and Railway Group Standards) which may need to take precedence over TSIs)
Section 5. Interior Scenarios The essential requirements for train interior design are described in Section 5 of the TTS. The IE Trains will be required to operate a number of different service types, for the purposes of evaluation for this ITT the Bidders are required to consider three operational scenarios: 1) Inter City; 2) Interurban; and 3) Commuter. These scenarios are described in more detail in the TTS For each of the above scenarios, and for each train type (electric, self - powered and bi-mode), Bidders should describe the interiors and provide as a minimum the following drawings, models and pictorial representations, sufficient to enable the interior proposals to be evaluated: • List of the interior elements • Individual vehicle layout drawings • Train set layout drawings • 3 Dimensional pictorial representations of key areas, such as vestibule, seating area, lighting, catering areas • A virtual reality model • A schedule of finishes • Example fabric and interior panel finishes
Section 6. External Interfaces In this section the Bidders should describe the physical interfaces with

the railway network and external environment, e.g. gauge, stepping distances, power, signalling , management of EMC communication systems, coupling compatibility with other existing trains and rescue arrangements

Section 7. Technical Features

In this section the Bidders should describe, in sufficient detail, the technical features of the main components of the bi-mode, electric and self powered IE Trains, these will include:

1. Car body
2. Body-shell construction
3. Corrosion prevention
4. Under-frame equipment mounting
5. Welding processes
6. Painting
7. Cab
8. Passenger doors
9. Cab doors
10. Couplers
11. Gangways
12. Windows
13. Body additions
14. Bogies
15. Ride performance
16. Fire safety design strategy
17. Wheel sets
18. Suspension
19. Bogie frame
20. Power unit
21. Power supply
22. Propulsion
23. Auxiliary power
24. Braking
25. Brake system
26. Main air system
27. WSP system
28. Interior environment
29. Saloon environment
30. Driver environment
31. Passenger environment
32. Amenity area
33. Saloon air conditioning
34. Seats
35. Toilets
36. Interior doors

Concept Train Design
37. Catering equipment 38. Lighting 39. Noise 40. Control and communication 41. Radio systems 42. Train/vehicle safety/control systems 43. Train servicing requirements
44. Fault/diagnostic systems 45. Passenger Information 46. CCTV 47. Stabling Requirements 48. Train servicing requirements 49. Driver only operation (DOO) and Driver guard operation (DGO) systems
Section 8. Performance Requirements In this section the Bidders should detail the performance of the IEP self powered and electric train sets in terms of: • Passenger capacity (Furnishable space) • Train performance (MDBF reliability growth targets) • Traction performance (including power consumption, acceleration, braking, dwell times etc). • Vehicle ride
Section 9. Appendices Appendix A IE Train data sheets; Proforma attached as Annex I, to be completed for each of the following: 1. Electric, full length, Inter City interior 2. Electric, half length, Commuter interior 3. Self powered, full length, Inter City interior 4. Self powered, full length Inter Urban interior 5. Bi-mode, full length, Inter City interior 6. Bi-mode, half length, Commuter interior 7. Bi-mode, intermediate length (c210m), Inter Urban interior Appendix B Drawings Appendix C Train performance simulations Appendix D Proposed key equipment suppliers
Evaluation Criteria
Demonstration that concept designs meet and/or exceed target requirements identified in the TTS and journey time requirements in Section 1

Concept Train Design
The extent to which the offering is considered achievable
Practicality of design
Clarity of solution
Demonstration of Bidder's clear understanding of the important aspects of the DfT's requirements being reflected in their proposed solution
Blended mix of proven and innovative elements of design
The extent to which all aspects of the design are addressed
Clarification of those areas of the design that are not developed and programme for closing these out

Detailed Design Plan
Suggested Plan Content
As a minimum the **Detailed Train Design Plan** shall include: a) The design management process; b) The engineering and design organisation and accountabilities; c) Process for requirements capture / definition; d) The design programme; e) Reporting; f) Resource management; g) Open relationship management; h) Stakeholder involvement; i) Risk management; j) Sub-system interface management; k) The Bidder's work breakdown structure; l) Subcontractor design interface management; m) Design and system assurance process – in particular this should set out how inputs from external parties (such as TOCs/DfT) will be considered in the design development and system optimisation; n) RAMS plan in accordance with the methodology outlined in BS EN 50126:1999 or similar; o) Maintainability reviews; p) Hazard analysis; q) Configuration management; r) Design verification (including independent verification of critical areas) ; s) Design certification; t) The technical and design review process (internal and external) for each major sub-system; u) Software development and validation; v) Independent verification; w) FMECA; x) Maintainability; y) Simulations and modelling; z) Proposals for optimising interfaces between NRIL infrastructure and key aspects of train specification; and aa) Interface management plan.
Evaluation Criteria
Evidence of how stakeholder input has been managed on previous projects to positive effect will be particularly important. Demonstration of a robust design management process, outlining the key accountabilities within the organisation and the methods for management of sub-contractor design interfaces.

Detailed Design Plan
Evidence of a robust design / system assurance process outlining the Bidder's approach to requirements capture, design review, verification, validation, configuration management, risk management and hazard analysis Provision of a robust design programme, outlining the methods for management of resources, sub-system interfaces, reporting mechanisms within the Bidder's organisation and between relevant stakeholders Provision of a detailed work breakdown structure which identifies the resources, process, tools and techniques (e.g. simulations, modelling, mock-ups etc.) to be applied throughout all phases of the design process to ensure design certification within the agreed programme Demonstration that the Bidder will consider the whole-life environmental impact of the design and its sub-systems and the process / systems to be applied during the validation process Flexibility of design process to cater for optimisation with infrastructure

Approvals Plan
Suggested Plan Content
As a minimum the **Approvals Plan** shall include: a) The approvals management process; b) The approvals organisation and accountabilities; c) The approvals programme, including testing; d) Reporting; e) Resource management; f) Stakeholder management; g) Risk management; h) Engagement plan for the involvement of external bodies such as Notified Bodies, NRIL etc; and i) Review process.
Evaluation Criteria
Evidence of a robust strategy for managing the IEP vehicle approvals process to ensure that the vehicles are authorised to operate in service on the required routes within the agreed delivery programme Evidence of a robust approvals process outlining the approvals organisation, key accountabilities and the interface management methods to be applied between stakeholders and the necessary railway authorities Provision of detailed programme outlining the route to approval and incorporating proposed timescales for the necessary tests / trials to ensure approval of the IEP vehicle and its sub-systems within the agreed programme Evidence of a robust risk management process to ensure that risks to approval can be identified and mitigated without disruption to the delivery programme

7.1.3 Manufacturing and Bringing into Service Phase Plans;

Manufacturing Plan
Suggested Plan Content
A critical deliverable of the **Manufacturing Plan** will be that the Bidder commits to providing the required manufacturing capacity to achieve the programme of trains into service. The Bidder will be required to provide an unequivocal statement that its parent company and/or supply chain can provide the required number of production slots, alongside details of the total capacity available. As a minimum the **Manufacturing Plan** shall include: a) The manufacturing methodology, process, location, facilities and capacity; b) The manufacturing management process; c) The manufacturing organisation and accountabilities; d) The manufacturing programme; e) The parent/supply chain committed capacity; f) The parent/supply chain total capacity; g) Resource management; h) Competence management; i) Sub-system procurement; j) Sub-supplier and sub-contractor management; k) Materials management; l) Quality assurance and quality control; m) Q & HSE management; n) Maintainability reviews; o) Reporting; p) Risk management; q) Configuration management and change control; r) Prototyping; s) Factory acceptance testing; t) Independent verification; u) FMECA; and v) A Validation and Verification plan which shall as a minimum include: o The process for managing validation and verification; o The validation and verification organisation and accountabilities; o How each sub-system interface will be proven; o How the train system as a whole will be proven; o How the requirements of the TTS will be verified and demonstrated; and o How sub-contractor validation and verification activities will be monitored and managed.
Evaluation Criteria
Demonstration of a robust / mature manufacturing management process,

Manufacturing Plan
detailing the available facilities, committed and total capacities and the manufacturing methodology to be applied to ensure delivery of vehicles within the agreed programme Provision of a detailed description of the manufacturing organisation, its accreditations, key accountabilities, and the competence and interface management techniques applied within the organisation, between its sub-suppliers and the relevant stakeholders Evidence of a robust strategy for sourcing, procurement and management of materials / sub systems and component parts, along with a process to demonstrate how sub-contractor validation and verification activities will be monitored Provision of a manufacturing programme outlining the proposed timescales, resource management, key milestones, factory acceptance testing requirements, validation and verification and the reporting mechanisms applied to ensure delivery of the vehicles within the agreed programme Evidence of a robust Quality, Health, Safety and Environmental management process to demonstrate the methods / techniques applied to risk management, configuration management, change control and the environmental impact of the manufacturing facility Demonstration of flexibility and contingency to ensure programme can be achieved

Testing and Commissioning & Acceptance Plan
Suggested Plan Content
As a minimum the **Testing, Commissioning and Acceptance Plan** shall include: a) The testing and commissioning and acceptance methodology, process and facilities; b) The testing and commissioning and acceptance organisation and accountabilities; c) The testing and commissioning and acceptance programme; d) Interface with approvals to test and operate the Trains; e) Specific requirements for use of NRIL Infrastructure including location; time and access to other NRIL and TOC specialist resources; f) Interface and engagement plan with NRIL; g) Involvement of the ICEC TOC; h) The involvement of other stakeholders; i) Pre-series testing and any full series incremental testing required; j) Resource management; k) Safety management; l) Configuration control and problem feedback to the design and manufacturing organisation; m) Risk management; and n) Acceptance of first IE Train into service. The plan shall clearly identify the required level and type of access to the Network, and TOC staff and facilities required to facilitate testing of the Trains prior to introduction into passenger service.
Evaluation Criteria
Evidence of a robust testing and commissioning management process, outlining the organisation, facilities available, key accountabilities and the interface management methods to be applied between stakeholders and the necessary railway approval authorities Evidence of a robust strategy outlining available resources, safety requirements, configuration control techniques and the mechanism employed to give feedback on problem areas to the design and manufacturing organisation

Testing and Commissioning & Acceptance Plan
Provision of a testing and commissioning programme outlining pre-series and full series incremental testing requirements for acceptance of the first IEP train set into service including; requirements for use of NRIL infrastructure, proposed times and locations and any access requirements to other specialist resource Evidence of a robust risk management process to ensure that risks associated with testing and commissioning are identified and mitigated without disruption to the testing / commissioning programme

Training Plan
Suggested Plan Content
As a minimum the **Training Plan** shall include: a) The process for management of the training to be provided; b) The training facilities; c) The anticipated training content and duration, the training materials to be provided; d) How training materials will be updated throughout the life of the vehicles; e) The training organisation and accountabilities; f) The training programme, both for the PST and all other deployments; g) Resource management; h) Management of the interfaces with the relevant TOCs; i) Requirements of the relevant TOCs; and j) Assumptions made by the Bidder in assessing the extent of training required.
Evaluation Criteria
Evidence of a robust process for management of training outlining the organisation, resources, facilities, key accountabilities and management of the interface with the TOC and other relevant stakeholders Provision of a training programme outlining the training requirements for both pre-series trains and the Contract Life IEP which incorporates the anticipated training content, the duration of training and training materials to be provided. Evidence to demonstrate a structured approach to training, the techniques and methodology applied, any assumptions made on the extent of training required and how training materials will be updated throughout the life of the vehicles. Evidence that the Training Plan is capable of integration with the TOC's business and resourcing plans and optimises use of critical resources and infrastructure.

Delivery and Transition Plan
Suggested Plan Content
As a minimum the **Delivery and Transition Plan** shall include: a) The delivery and transition strategy – including methodology, and assumptions b) The delivery and transition organisation and accountabilities c) The start and end date of the transition period d) The schedule of diagrams and schedule of vehicle introduction dates which underpin it e) Interfaces with stakeholders f) Resource management – including details of the how the TSP would respond to initial teething problems g) Risk management – describe the anticipated risks and mitigations that will be taken h) Transition maintenance, servicing and stabling arrangements including any additional temporary IE Trains storage facilities.
Evaluation Criteria
Evidence of a robust strategy for managing the delivery and transition phases of the IE Trains outlining the methodology to be applied, the rates of introduction of the IE Trains and any assumptions that may have been made to ensure that IE Trains are delivered within the agreed programme Evidence of a robust delivery and transition management process outlining the organisation, key accountabilities, resources to be employed, the process for managing diagram changes and the methods employed for management of stakeholder interfaces Provision of a robust delivery and transition programme outlining the total number and type of trains, their scheduled delivery dates, transition maintenance, servicing and stabling arrangements and the methods / techniques applied to risk management to ensure delivery of train sets within the agreed programme Evidence of the process to be adopted for managing alternative delivery and transition phase scenarios outlining the commercial arrangements, benefits to stakeholders, the process for risk management, identification of possible interfaces with existing leasing companies and users of existing facilities along with the methods employed to manage these stakeholder interfaces and ensure delivery of the train sets within the agreed programme

Alternative Delivery and Transition Plan
Suggested Plan Content
As a minimum the **Alternative Delivery and Transition Plan** shall include all the minimum requirements set out in the **Delivery and Transition Plan** plus; a) A statement of the proposed scope of responsibility for transition vehicles b) A clear description of the benefits to the stakeholders and change in risk profile. c) Interfaces with the existing leasing companies d) Interfaces with other users' rolling stock maintained and/or serviced at the existing facilities. e) Any opportunities that arise from implementation of the plan.

7.1.4 Maintenance and Whole Life Plans

Train Maintenance and Servicing Plan
Suggested Plan Content

As a minimum the **Train Maintenance and Servicing Plan** shall include:

a) The maintenance strategy;
b) The servicing strategy
c) The cleaning strategy;
d) The spares provision strategy;
e) Overhaul, refurbishment and heavy maintenance plans;
f) The maintenance and servicing organisation and accountabilities;
g) Resource management;
h) Competence management;
i) Quality safety and environmental management;
j) Maintenance plans (further details set out later in this plan);
k) Cleaning plans (further details set out later in this plan);
l) Servicing plans (further details set out later in this plan);
m) Computer based systems;
n) Control strategy (further details set out later in this plan);
o) How the issue of obsolescence and how use of 'standard components' will be managed;
p) Service failure management and outline procedures for rescuing trains in the event of mechanical failures;
q) Materials and spares management, including cover for abnormal events (such as vandalism and crash damage) and strategic spares;
r) Engineering change and configuration control (further details set out later in this plan); and
s) How the reliability growth profile will be achieved, both to reduce the rate of failures and also to reduce average minutes delay as a result of each failure.

Train Maintenance and Servicing Plan

Maintenance Plans

The maintenance plans for the vehicles should be submitted for the Contract Life of the vehicles, the plans should include as a minimum the following items.

- Maintenance periodicity
  - Structure and content of examination and overhaul regime;
  - Component change philosophy and assumed life of major components;
  - Labour hours required to complete examinations by competence/grade;
  - Anticipated unit downtime per exam;
  - Levels of arising work included in the plans;
  - Anticipated types of maintenance facilities and plant, including type(s) of plant for changing major equipment;
  - Anticipated specialist tooling and equipment, including for condition-monitoring if appropriate;
  - Assumptions on levels of work arising and unscheduled maintenance, including damage and vandalism repairs;
  - Anticipated wheel re-profiling periodicity;
  - Anticipated axle NDT periodicity; and
  - Anticipated refurbishment periodicity.

Cleaning Plans

The cleaning plans for the vehicles should be submitted for the Contract Life of the vehicles, the plans should include as a minimum the following items:

- Periodicity of cleans;
- Structure of cleaning regime;
- Labour hours required to complete each clean type;
- Anticipated unit downtime per clean; and
- Anticipated cleaning facilities, specialist tooling and equipment.

Train Maintenance and Servicing Plan
Servicing Plans
The servicing plans for the vehicles should be submitted for the Contract Life of the vehicles, the plans should include as a minimum the following items. o Structure of servicing regime; o Labour hours required to complete each service type; o Anticipated unit downtime per service; o Anticipated servicing facilities; and o Requirements for specialist tooling and equipment.
Control Strategy
The in-service management and planning of fleet maintenance and servicing activities will require an interface to the operator of the vehicles. The Bidder should outline how this control of the fleet and interface with the operator will be delivered. The strategy as a minimum should include the following items: o Location and organisation of control staff; o Level of cover provided, including provision of staff to attend to trains in service; o Identification and description of any systems used; o Process for management of in-service failures; o Provision of support to operations staff; and o Control of vehicles requiring planned/unplanned maintenance or servicing.
Engineering change and configuration control
The method by which the Bidder will manage the configuration of the vehicles to ensure compliance with the relevant TSIs, NNTRs and any other technical requirements for the vehicles should be described. The following items should be included as a minimum; o Configuration management; o Approval of physical changes; o Updating of documentation; and o Design Authority.
Evaluation Criteria
Evidence of a robust / mature management process for the maintenance, servicing and cleaning and spares provision for the IE Trains, outlining the organisation, key accountabilities and management of the interface between

Train Maintenance and Servicing Plan
the TOC and other relevant stakeholders. Provision of detailed maintenance, servicing and cleaning plans incorporating the overall philosophy, periodicities, anticipated labour hours and vehicle down times, along with the types of facilities and plant that may be required for use throughout the whole life of the vehicle. Demonstration of a robust process for material provision and spares management, and how requirements at overhaul, refurbishment, heavy maintenance or in the case of abnormal events (i.e. crash damage and vandalism) would be managed. Evidence of a robust Quality, Health, Safety and Environmental management process to demonstrate the tools and techniques applied to service failure management, engineering change, configuration control and the environmental impact of the maintenance and servicing function

Depot, Servicing and Stabling Plan
Suggested Plan Content As a minimum the **Depot, Servicing and Stabling Plan** shall include: a) A clear statement of the rationale supporting the decision to select the proposed portfolio of facilities set out in b) below; b) Details of those facilities within the **Depot, Servicing and Stabling Plan** that are: o existing facilities o enhanced/ refurbished existing facilities o new or new build facilities c) For each location in b) above details of the: o maintenance to be undertaken (quantified) o servicing to be undertaken (quantified) o physical location o train access arrangements into and out of the facility o depot ownership o DFO responsibility and all other leasing issues o the extent of 3rd party arrangements and dependencies e.g. access to NRIL leased land/facilities. o Utilisation (stabling and servicing) o evidence of adequate capacity for all activities to be undertaken o infrastructure requirements including any modifications (within the facility boundary, at the interface, and outside the boundary) o existing third party work management (where applicable) o extent of spare capacity (including possible passive provision) for maintenance/ servicing/ stabling of additional vehicles and in particular how this accommodates deployment on to the Other Routes. d) Identification of all necessary approach routes required, i.e. from the depot site boundary (as defined by the Bidder) to the point of gauge cleared main line (set out in the TIIS); e) Calculation of route capacity on lines to and from the depot and evidence that this core can be satisfied given timetable plans for these lines and NRIL's need for maintenance access; f) Calculation of the empty coach stock movements in km total per full week for each route, defined as the distance from the depot entry point to the start of the passenger service (at a station). The empty coach stock analysis should also include total driver hours required for the movement; g) Concept Designs for each maintenance, servicing and stabling facility. These shall describe the Bidder's proposed modifications to existing maintenance, servicing and stabling facilities, proposals for new facilities and retention of existing facilities and shall include:

Depot, Servicing and Stabling Plan

o Layout drawings of the facilities including proposed enhancement works
o Process flow through the facilities
o Drawings of infrastructure connections to NRIL both physical and operational and agreed definition of boundaries
Bidders shall describe the physical and operational boundaries for each of the maintenance, servicing and stabling facilities they have selected. Within the defined boundaries the TSP shall be responsible for ensuring the facilities are suitable for their intended use and that the necessary legal agreements and approvals, etc are in place for the proper functioning of the facilities. Any lack of definition and agreement of boundaries and interfaces shall be at the Bidder's risk
h) A depot and facilities implementation plan. The depot and facilities plan shall describe the process that will be adopted by the successful Bidder to develop the concept designs into working facilities;
i) Construction programme(s);
j) Depot organisation(s) and accountabilities;
k) Construction organisation and accountabilities (including the use of 3rd party civil engineering contractors);
l) The management of interfaces with NRIL and TOCs;
m) TUPE management and railway pension issues including management of industrial relations with stakeholders;
n) Asset management practices;
o) Risk management process;
p) Train crew facilities:
The TSP shall be required to provide details of the type and extent of train crew facilities at nominated locations for use by TOCs. Bidders shall describe what train crew facilities that will be made available at each of their maintenance, servicing and stabling locations.
q) Plans for the management of transition vehicles - anticipated impact on existing facilities and staff and detail the mitigation measures that will be taken to minimise overall industry issues.

Evaluation Criteria
Demonstration of robust strategy for determining which depots, servicing and stabling facilities will be enhanced and those which are to be newly built, including the rationale applied to the strategy and evidence that it can be applied to meet the agreed programme. Evidence of full consideration of total industry costs and optimisation across the railway system in pursuit of a value for money solution.

Depot, Servicing and Stabling Plan
Demonstration of a robust process for management and realisation of the concept design for each maintenance, servicing and stabling facility, including a detailed description of any proposals to build new, retain or modify existing facilities. Evidence of a robust process for managing the development of the depot and facilities concept designs into working facilities, outlining the organisation(s), key accountabilities and the methods employed to manage stakeholder interfaces Provision of a robust construction programme outlining the construction organisation, key accountabilities, the methods/ techniques applied to risk management and the process to be adopted for managing stakeholders to ensure delivery of the facilities within the agreed programme. Evidence of a robust process for the management of transition vehicles, identification of train crew facilities, the anticipated effect on existing train and staff facilities, anticipated costs, along with any issues that may arise and demonstration of how these will be mitigated

Modification and Upgrade Plan
Suggested Plan Content
As a minimum the **Modification and Upgrade Plan** shall include: a) Areas where likely improvements and efficiencies may be achieved; b) The modification and upgrade process to be adopted; c) How modifications and upgrades will be prioritised; d) Assumptions made within the Bidder's costs e) How value for money will be demonstrated; f) The processes for avoiding the effects of monopoly situations; and g) How the benefits of improved performance may be shared with the DfT and TOCs.
Evaluation Criteria
Evidence of optimisation of all elements of the pre-series phase so as to deliver a step change in the performance of the vehicles when introduced into full fleet service. Evidence of a robust strategy for improving the effectiveness of maintenance and performance of the IE Trains throughout the life of the vehicles taking into account costs and how the benefits of these improvements may be shared with the DfT and TOCs Evidence of a robust process for management of modifications and upgrades throughout the life of the IE Trains outlining the process for control, consideration of costs and the mechanism for implementing future modifications and upgrades Evidence of previous experience of managing modifications and upgrades to improve performance of a fleet of vehicles, outlining stakeholder collaborations and the process used for evaluating and prioritisation of modifications to ensure minimum disruption Provision of a robust programme for improvements and modifications, outlining the organisation, key accountabilities, the process used to identify where improvements and efficiencies may be achieved, how value for money will be demonstrated and the methods employed to ensure stakeholder collaboration

Hand Back Plan
Suggested Plan Content
As a minimum the **Hand Back Plan** shall include: a) A comprehensive list of assets that revert to NRIL; b) Details of any Liabilities that it proposes to pass to NRIL; c) The assumed condition, residual value and residual asset life of the assets handed back; d) Any special operating requirements related to the relevant assets; e) Detail of how information on staff and associated pension arrangements will be provided; f) Any TUPE implications; and g) The assumed programme for hand back of facilities.
Evaluation Criteria
Identification of dilapidations
Rectification of dilapidations
Transition management process
Training
Returning assets to NRIL
Proposals for the recovery of asset investment
Planned and achievable programme

7.1.5 Contract Life Plans;

Business Management and IEP Contractor's Deliverables Plan
Suggested Plan Content
The **Business Management & IEP Contractor's Deliverables Plan** will consider the overall Contract Life solution in which the Bidder is proposing to manage and integrate the delivery of the IE Services. As a minimum the **Business Management & IEP Contractor's Deliverables Plan** shall include: a) Structure and inter-company relationship of Bidders; b) The structure of the TSP and the IEP contract management and project management teams and organisation charts ; c) Resource plans including roles and responsibilities, clearly showing how lines of responsibility are arranged to provide the required project outputs and accountability; d) Supply-chain management process; e) Proposals for the management of interfaces with stakeholders including (TOC, DFT, NRIL, Notified Body etc); f) Third party relationship management proposals; g) Management tools used for project planning and control; h) Project management processes used by the TSP to manage project outputs throughout the TSP's organisation; i) Process for managing change proposals; j) Process for establishing and developing relationships with customers and suppliers k) Commercial arrangements including representation and mandate; l) Whole-life-whole-business proposition; m) The processes for identifying gaps between the plans; n) The integration of key deliverables and activities between plans; o) Method of identifying and developing processes to manage interfaces; p) Risk assessment of the overall offering and management of the project risk mitigation process; q) Application of quality assurance; r) Application of project quality management system; s) Systems integration of plans process; t) Proposed use and application of project programme information throughout the Contract Life; u) Details of all aspects of the overall Bidder proposals not already captured within any of the Section 4 Technical and Business plans; and v) Interface and stakeholder activities.

Business Management and IEP Contractor's Deliverables Plan
Evaluation Criteria
Demonstration of the Bidders understanding of the importance of a seamless business process linking Bidders and supply-chain
Robust and considered approach to delivering the IE Services throughout the Contract Life
Logical business resource plan
Structure and mandate of the TSP Management team and clarity of "where they fit" within inter-Consortia company structure
Level of authority to make key decisions
Seniority of resourcing, in particular IEP project top-team
Experience in similar project environments and client testimonials
Approach to long-term customer, supplier and stakeholder relationships
Approach to project controls
Demonstration of the Bidder's understanding of the dynamics between the various plans
Bidder's review process to analyse Section 4 plans holistically to capture gaps
Presence of a robust mechanism for gap analysis and mitigation
Process by which interfaces and dependencies are managed
Clear process for consulting with key stakeholders
Demonstration that the Bidders have considered the system integration of implications of all of the plans and have a process to manage out issues/ impacts

Project Programme
Suggested Plan Content
As a minimum the **Project Programme** shall include and show activities associated with: a) Programme systems to be used b) Frequency of updates and level of information that will be provided to key stakeholders c) Milestone and critical path management d) Proposals for the use of other project control systems including earned value e) Stakeholder visibility of information f) Requirements definition and standards management g) Development and preliminary and detail design of subsystems and vehicles h) Procurement i) Manufacture j) Verification and validation, type and routine testing k) Approvals l) Delivery and commissioning m) Training n) Through Contract Life maintenance cycles o) Transition plan p) Roll out of depots and other maintenance facilities strategy q) Future works to depot and other maintenance facilities r) Interface and stakeholder activities
Evaluation Criteria
Demonstration of the Bidder's understanding of the criticality of key activities in their programme
Confidence that programme is considered, realistic and achievable
Extent to which information will be made available
Logical and integrated programme
The process for gathering from and consulting with key stakeholders
Process for identifying and managing interfaces
Granularity of information and dissemination of the same
Regularity of updates and level of information to stakeholders
Link to the Business Management & IEP Contractor's Deliverables Plan

Appendix A – Annex I

Concept Design Proforma Train Datasheet

Section	Summary Description/Parameter
Vehicle General	
First class;	
Number of seats	
Configuration	
Number of standing passengers	
Standard class;	
Number of seats	
Configuration	
Number of standing passengers	
Performance	
Maximum constant speed	
Maximum acceleration (traction characteristic and acceleration curve to be provided)	
Service braking rate (from max speed)	
Emergency braking rate (from max speed)	
Jerk rate limit	
Maximum ED brake performance (in all performance modes, for example regenerative braking, or other modes of dissipating braking energy if used, e.g. rheostatic/energy storage)	
Adhesion assumptions for Tare Train	
Adhesion assumptions for Fully Laden Train	
Overall dimensions	
Unit lengths (coupler to coupler)	
Vehicle lengths (coupler to coupler)	
Width over bodyside (kinematic envelope and body profile to be provided)	
Interior width	
Floor height	
Number of passenger doors per vehicle	
Passenger door throughway width	
Vehicle length over bodyends	
Cab nose overhang	
Bogie centres	
Weight	
Individual vehicle and axle weights (tare train)	
Individual vehicle and axle weights (fully seated)	
Individual vehicle and axle weight (crush laden)	

For each vehicle the weights of the following major components:	
Bodyshell	
Bogie	
Traction equipment	
Interior	
Vehicle Route Availability	
Gauging and Curving	
Track gauge	1435 mm
Kinematic envelope / swept envelope	
Min horizontal curve within gauge	
Worst case reverse curve limit	
Fire performance (according to BS6853)	
Car body	
Structure (material)	
Equipment mounting	
Coupler(s)	
Passenger access doors	
Cab access doors .	
Gangways	
Windows	
Bogies	
Bogie yaw stiffness	
T-Gamma characteristic (plot to be provided). (powered and non powered bogies).	
Other characteristics used in VTISM modelling.	
Bogie architecture type	
Unsprung mass (powered and non powered bogies)	
Wheel profile	
Wheel diameter	
Bogie wheelbase	
Power Supply	
Voltage range	
Max power	
Pantograph	
Type	
Number	
Location	
Propulsion	
Power at rail	

DC Link voltage	
Motor Size	
Quantity of motors (per car)	
Motor mounting position	
Isolation of converter/motor groups and performance impact	
Auxiliary Power	
Power capacity	
Spare capacity	
Braking	
Pad types	
Pad mounting	
Disc types	
Disc mounting	
ED Braking type(s)	
Interior Environment	
Maximum standard toilets per train/car	
Standard toilets - position	
Maximum disabled toilets per train/car	
Disabled toilets - position	
Interior doors (quantity per vehicle)	
Interior doors (position)	
HVAC – Heating type	
HVAC – Heater location(s)	
HVAC – Cooling type	
HVAC – Quantity per vehicle	
Lighting – Type	
Lighting - Power	
Control & Communication (Indicate where systems are novel)	
Control Type (hard wired/computerised)	
CCTV - Quantity of cameras per car	
PIS – Quantity of displays per car	
Radio – Type (s) and system details	
TMS /OTMR wireless download capability type	
Access type to TMS / OTMR downloads for TOC	
Visibility from Drivers seat (sight lines)	
Performance Calculations	
VTISM Cost per Track Mile	
Interior Noise Level (Chart to be provided)	
Ride Quality - Simplified Comfort Index	

Appendix A – Annex II

Journey Time Proforma

Calculations to be provided on the same basis as described in Appendix D. The following proforma is to be filled in for each IEP train type on each route.

Route	IEP Train Type	Journey Time Requirement* (mins)	Energy Consumed (Mwh) / Fuel consumed***	No. signal stops on level sections, duration 0 seconds for the speed stated below.	No. 30mile/h TSR's on level sections of 500m length for the speed stated below.	Journey Time Requirement* (mins) Including Signal Stops and TSR's	Energy Consumed (Mwh) / Fuel consumed*** Including Signal Stops and TSR's
Kings Cross to Edinburgh Kings Cross Peterborough York Darlington Newcastle Berwick Edinburgh	Electric Half length set (130m) or 2 sets coupled Bi-Mode Half Length set (130m) (Electric Op) Electric Full Length set (260m) Bi-Mode Full Length set (260m) (Electric Op) 2 x Bi-Mode Half Length set (130m) in multiple (Electric op)			2 (from 125mph)	2 (from 125mph)		
Kings Cross to Newcastle Kings Cross Peterborough Grantham Newark Retford Doncaster York	Electric Half length (130m) or 2 sets coupled Bi-Mode Half Length set (130m)			1 (from 125mph	2 (from 125mph)		

Northallerton Darlington Newcastle	(Electric Op) Electric Full length set (260m) Bi-Mode Full Length set (260m) (Electric Op) 2 x Bi-Mode Half Length set (130m) in multiple (Electric op)						
Edinburgh to Aberdeen Edinburgh Haymarket Inverkeithing Kirkaldy Leuchars Dundee Arbroath Montrose Stonehaven Aberdeen	Bi-Mode Full Length set (260m) (Self-Power op)			1 (from 90mph)	1 (from 90mph)		
Paddington to Bristol Paddington Reading Didcot Swindon Chippenham Bath Bristol	Self Powered – Full length set (260m) Bi-Mode Half Length set (130m) (Self-Power op) 2 x Bi-Mode Half Length (130m) in multiple			1 (from 125mph)	2 (from 125mph)		
Edinburgh to Plymouth Edinburgh Waverley Newcastle Durham Darlington	Bi-Mode Intermediate Length set (c 210m); Electric where 25KV available, self			1 (from 125mph on Electric) plus 1	1 (from 125mph on Electric) plus 1		

York Leeds Wakefield Westgate Sheffield Derby Birmingham New St Cheltenham Spa Bristol Parkway Bristol Temple Meads Taunton Tiverton Parkway Exeter St Davids Newton Abbot Totnes Plymouth	powered elsewhere.			(from 125mph on Self Power)	(from 125mph on Self Power)		
Edinburgh to Inverness Edinburgh Haymarket Falkirk Grahamston Stirling Gleneagles Perth Pitlochry Kingussie Aviemore Inverness	Bi-Mode Full Length set (260m) (Self-Powered op)			1 (from 90mph)	1 (from 90mph)		
Doncaster to Hull ** Doncaster Selby Brough Hull	Bi-Mode Half Length Set (130m) (Electric Op as far as the Electrification extends to Temple Hirst)			0	0		

Footnote;
(*) Please refer to conditions above.
(**) There is no journey time requirement for this route, the bidder however will provide details of the timings the Bi-Mode Full Length set is capable of achieving on these routes.
(***)Where a journey consists of a bi-mode Train running on both electric and self-powered sources the energy consumed and the self-powered fuel consumed shall both be provided.

7.2 Appendix B - Financial Response Requirements

7.2.1 Funding Deliverability and Financial Robustness (Tranche 1)

Bidders are required to complete the following table with the information requested.

Information to be provided	Base Proposal reference
(a) Financing track record	
1. Bidders are required to: Show where a similar financing structure has previously been shown to be deliverable in similar circumstances; or	
2. Explain why the financing plan is deliverable on this transaction.	
(b) Strength of approvals	
The level of commitment should be demonstrated by providing the following documents:	
1. Board minutes from all equity investors committing to subscribe equity, including third party equity investors, evidencing adequate funds are available and their willingness to provide funding on the terms set out in the Equity Documents required to be submitted.	
2. Where any future injection of equity is to be guaranteed by a consortium member's parent company or a bank letter of credit, a copy of the proposed guarantee/letter of credit together with a letter from the parent company/bank stating that it is willing to provide the guarantee.	
3. Letters from the underwriting banks, monoline insurers and other financial institutions (if applicable) offering underwriting of the full debt facilities or financial guarantees to the TSP on the basis of detailed term sheets and a detailed plan for achieving full underwriting of the whole financing in the next stage of the procurement and prior to the appointment of preferred Bidder on the terms proposed.	

Information to be provided	Base Proposal reference
4. Evidence of credit committee approvals or financial guarantees for all forms of debt funding explicitly stating the extent to which and conditions on which funds are committed and indicating the level of completeness of financier due diligence and the extent of due diligence that will be carried out prior to the appointment of a Preferred Bidder, including the overall scope and timetable of financier due diligence up to appointment of a Preferred Bidder.	
5. A letter from the Bidder's financial advisors stating that the proposed funding structure is realistic and achievable and that the financing proposals are sufficient to enable the TSP to meet its obligations under the draft IE Agreements.	
(c) Equity	
In addition to the full Equity Documents to be included in Part 6 of the submission, Bidders must submit the following information for each major type of equity:	
1. Identity and credit status of the investors.	
2. Amounts to be subscribed by each investor.	
3. Timing of injection of equity.	
4. Where equity holders are a company, joint venture, trust, or other form of interposed entity, a description of the relationship of the beneficial interests to its holding company.	
5. A summary of the commercial terms attaching to the equity financing arrangements including:	
(a) minimum return requirement for each class of risk capital and the basis of any IRR calculations;	
(b) details of arrangement, management, directors and commitment fees;	
(c) terms and conditions of the subscription;	
(d) coupon rights attaching to the subscription;	
(e) dividend rights attaching to the subscription;	
(f) dividend policy;	
(g) voting rights attaching to the subscription;	
(h) any other rights attaching to the subscription;	
(i) terms and any other agreements between the investors in their capacity as investors in the TSP;	

Information to be provided	Base Proposal reference
6. The length of time each class of risk capital will remain in the TSP.	
7. Equivalent information is required for quasi-equity.	
(d) Debt finance	
Bidders must submit the following information for each class of debt finance:	
1. Identity of the financiers.	
2. Amounts to be provided by each financier.	
3. Termsheets detailing all terms and conditions attaching to the financing arrangements including:	
(a) interest rates and margins;	
(b) fees;	
(c) financial ratios and covenants (base case, lock up and default) explicitly stating the basis of calculation;	
(d) default clauses;	
(e) conditions precedent;	
(f) guarantee structure and security required;	
(g) reserve requirements or other conditions on distribution;	
(h) working capital requirements and how this will be financed; and	
(i) Residual value assumptions (and the basis of the calculation).	
4. To the extent that the proposed financing structure incorporates financing of any description outside of the TSP (for example external financing for, or prepayment of, the residual value of the fleet) the financial submission and financial model should provide sufficient detail so that the arrangements for this financing are transparent and can be understood by DfT.	
(e) Hedging strategy	
Bidders must provide the following details:	
1. The manner in which the Bidders will address the risk of future movements in interest rates, including a description of its interest rate hedging strategy.	
2. Details of any financial instruments which will be used to provide protection against interest rate movements, and the cost of such protection. This information should include a termsheet, a pricing quote and supporting yield curve (as at 11.00 a.m. on 8 April 2008). Any fees included in the	

Information to be provided	Base Proposal reference
swap rate such as credit spread should be clearly identified.	
3. Assumptions regarding the data points on the swap curve from which hedging arrangements have been priced.	
(f) Foreign exchange rate assumptions	
Bidders must provide the following details:	
1. The manner in which they will address the risk of future movements in exchange rates, including a description of any exchange rate hedging strategy.	
2. The method for determining each projected exchange rate. All exchange rates included should be readily verifiable by DfT. The Bidder should identify the source information used in determining each projected exchange rate (which must be publicly available), and provide clear assumptions/calculations showing how the rate used has been derived. Bidders should derive exchange rates from a published forward exchange rate curve as at 11.00 on the 8 April 2008.	
3. The same method used in the submission will be applied in determining exchange rates at Financial Close for each financing.	
(g) Bonds and Sub-contractor Guarantees	
Bidders must provide information about the Bond to be provided to DfT as required by the MARA and details of performance guarantees provided by parent companies and sub-contractors.	
Bidders must state the following details with regard to each Instrument:	
1. Details of the issuer, including the issuer's current credit rating;	
In addition to the documented key sub-contractor guarantees, Bidders must state the following details with regard to each key sub-contractor guarantee:	
1. Details of the provider of the performance guarantee, including the provider's current credit rating and its relationship to the relevant key sub-contractor;	
2. Duration of the performance guarantee;	
3. Limitations on liability;	
4. Any exclusions; and	

Information to be provided	Base Proposal reference
5. Copies of Board minutes showing in principle approval of the key sub-contractor guarantee.	
(h) Insurance	
Bidders should ensure transparency. Bidders are required to provide detailed Required Insurances premium calculations and full details of associated Project insurance related costs (e.g. insurance "risk contingencies").	
Bidders must include in their Proposal:	
1. A mark up of the insurance arrangements in the MARA and TARA clearly identifying where:	
(a) there will be full compliance with the Secretary of State's insurance requirements	
(b) the Bidder proposes alternative solutions to satisfy the Secretary of State's requirements	
(c) there are points of clarification required.	
2. Completed Insurance Cost and Technical Proforma.	
3. A letter from the Bidder's Insurance adviser stating that the insurance arrangements are achievable on the terms and prices included in the Bidders Proposal.	
(i) Taxation	
Bidders must include in their Proposal:	
1. Advice from a specialist taxation advisor regarding the taxation (including VAT) implications of the Proposal (including the funding structure), supported by adequate opinions and relevant precedents;	
2. Confirmation from the specialist tax advisor that the financial model is consistent with their advice; and	
3. Strategy for obtaining the tax rulings required under the IE Agreements if any;	
(j) Accounting	
Bidders must include in their proposal an accounting opinion that demonstrates:	
1. the financial model has been prepared in accordance with International Accounting Standards; and	
2. The TSP or a member of its consortium is the economic owner of the train assets.	

Information to be provided	Base Proposal reference
(k) Alternative Financing Solution	
Bidders may include in their proposal a description of an alternative financing solution which would include as a minimum:	
1. An explanation of the alternative financing solution;	
2. A description of the capital and contractual structure; and	
3. A description of the potential benefits to DfT and the circumstances in which this value might be realisable.	

7.2.2 Financial Deliverability and Robustness (GWML – Phase 1)

Bidders are required to complete the following table with the information requested.

Information to be provided	Base Proposal reference
(a) Financing plan for GWML – Phase 1	
Bidders are required provide a detailed plan demonstrating how they would deliver the GWML Phase 1 financing setting out their approach to:	
1. Finalising security arrangements including performance bonding, letters of credit, parent guarantees, limits of liability, and caps;	
2. Finalising taxation arrangements;	
3. Due diligence and the timeframes for undertaking this once DfT had decided to proceed with the Tranche 2;	
4. Agreeing the debt financing documentation with funders and DfT;	
5. Achieving final credit committee approval and full underwriting of all the debt facilities;	
6. Satisfying the conditions precedent assuming they were broadly similar to those on the Tranche 1 financing; and	

Information to be provided	Base Proposal reference
7. Demonstrating transparency to the DfT and that the financing will be value for money.	
b) Equity	
Board minutes from all equity investors committing to subscribe equity, including third party equity investors, evidencing that they are willing to subscribe to the GWML financing on the same terms as the Tranche 1 financing.	

7.2.3 Financial projections

Bidders are required to submit in support of their Submission the following:

a) a financial model for Bid A (PST and ECML Phase 1 financing);

b) a financial model for Bid B (GWML Phase 1 financing);

c) a financial model for Bid C (ECML Phase 1 and West Coast Main Line South financing);

d) a financial model for Bid D (ECML Phase 1, West Coast Main Line South and East Coast (Phase 2) financing);

e) a financial model databook assumptions and instructions; and

f) the Proformas – for each of the above Bids on a gross basis.

7.2.4 Financial model

Financial model structure

Bidders must submit financial models in accordance with the following requirements:

(i) the financial models must be compatible with Microsoft Excel 2003;

(ii) all amounts are to be in sterling, rounded to the nearest £1,000;

(iii) the financial model should be constructed in line with best practice, with the model constructed such that there is formula consistency across rows and columns where practical;

(iv) redundant coding should be kept to a minimum;

(v) the models must be dynamic i.e. contain and show all the formulae required to undertake all calculations;

(vi) there are to be no hard coded figures apart from the assumptions used and these should be clearly identified and located in a separate worksheet from the working calculations;

(vii) the models, together with all sheets and cells within the model should be unlocked;

(viii) all model functions, formulae and linkages should be operational and no part of the model, including macros, should be password protected (unless the password is clearly provided for each level of protection), nor should any cells containing input or output data be hidden away from view in any way;

(ix) financial projections should be provided monthly until delivery of the final set into revenue service and semi annually afterwards assuming year end of 30 March; and

(x) in the event that there is a discrepancy between the financial model and the written Proposal the financial model will take precedence.

Financial model inputs	**Base Proposal reference**
As a minimum the financial models must include:	
1. The following payments (a) the half set SAP (Real); (b) the full set SAP (Real); (c) Availability and Reliability Adjustments; (d) KPI Payments; and (e) Fleet Introduction Payments.	
2. The Base Periodic Charge (Real)	
3. Mileage Adjustments – the ability to vary the actual operational mileage. However, the model shall assume there is no mileage adjustment in the Base Proposal.	
4. The Marginal Set Payment Adjustment (Real)	
5. A monthly train delivery schedule;	
6. Analysis of bid costs (including professional fees) (Proforma 10);	

7. Assumptions on deposit and overdraft rates;	
8. Capital and operating cost assumptions which must cross refer to the Proformas;	
9. Time based assumptions (those that change over time, such as indexation); and	
10. Non time based assumptions including financing costs, working capital, tax and accounting assumptions.	
(c) Financial model calculations	
The financial model calculations must include the following:	
1. Nominal and real payments from the TOC monthly until delivery into revenue service of the final set and semi annually afterwards (see Proforma 11):	
2. Projected cash cascade showing the priority of the distribution of cashflows as set out in accordance with the finance documents. This should include the priority of payments to reserve accounts, senior debt, mezzanine debt, service providers, etc projected taxation schedule;	
3. Funding schedules for each form of finance setting out drawdown, repayment amounts, interest payments, distributions and timing;	
4. Projected taxation schedule with calculations of categories of allowance;	
5. Debt Service Reserve Account or facility;	
6. Maintenance Reserve Accounts;	
7. Any other reserve accounts (please specify);	
8. Values of inventories held by the TSP; and	
9. Depreciation schedule (tax and accounting).	
(d) Financial model outputs	
The financial models must produce outputs including the following:	
1. The finance plan;	
2. Projected profit and loss accounts;	
3. Projected balance sheets;	
4. Projected cashflow statements;	
5. Project IRR before financing pre and post tax in both real and nominal terms;	
6. Return on equity and sub-debt pre and post tax in both real and nominal terms and a blended equity return, that incorporates all sub-senior debt finance;	

7. The equity return is to include all payments to/from equity investors including, but not limited to:	
(a) dividends;	
(b) equity principal repayment;	
(c) capital distributions;	
(d) shareholder loans;	
(e) success fees or completion fees; and	
(f) non arms length management fees;	
8. Debt to equity ratio;	
9. Annual Debt Service Cover Ratio, Loan Life Cover Ratio and Project life cover ratio for each period of each loan and in aggregate with minimum and average ratios (calculated in accordance with the term sheet);	
10. Any other ratios which are considered relevant to the proposed financial structure;	
11. The precise timing of any equity injections and details of the phasing if appropriate;	
12. NPV of availability payments, assuming no adjustments for availability and reliability, calculated assuming annual end-period cash flows (i.e. assuming that all payments arise at the end of the year), year ending 31st March, at a nominal discount rate of 6.35%;	
13. The financial model should contain a switch that allows anticipated availability and reliability deductions as set out in Proforma 14 to be included in the financial model as a sensitivity in the calculation of equity returns; and	
14. Any other specific outputs considered appropriate by the Bidders.	
(e) Sensitivity analysis	
The following separate sensitivities are to be provided for the Base Proposal, and in the relevant format (see Proforma 12), taking account of the risk allocation within the Bidder's group:	
1. Increase in interest rates pre Financial Close of 0.5%, and 1.0%;	
2. 6 month delay in achieving Financial Close with an analysis and rationale for any costs movements;	
3. Increase/decrease in RPI the day after financial close for the duration of the contract of 1%;	
4. Total manufacturing and design costs increase by 10%;	
5. Delivery of each set is delayed by 6 months;	
6. Operational costs increase by 10%;	
7. Maintenance costs increase by 10%;	
8. Refurbishment costs increase by 10%;	

9. Availability and reliability deductions of -3% and -5% of the availability payment;	
10. Funder ratio breakeven sensitivity (achieved by flexing operating costs);	
11. Lifecycle cost breakeven sensitivity; and	
12. RPI mismatch breakeven sensitivity.	
In addition to the above, Bidders should provide a summary of the results of any other principal financial sensitivities performed including the principal downside sensitivities required by financiers.	

7.2.5 Financial model databook assumptions and instructions

Bidders are required to provide databook assumptions and instructions supporting the financial models.

Information to be provided	Base Proposal reference
(a) Financial model databook assumptions	
The databook assumptions should include the following details as a minimum:	
1. A table of all inputs to the financial models with the cell reference and source;	
2. Sufficient information to be able to calculate Mileage Adjustment sensitivities;	
3. Copies of source documents (e.g. construction cashflow) or a clear indication where these may be found elsewhere in the Bidder's Proposal;	
4. Copies of relevant market related financial screens that detail the interest rates and exchange rates, (including those set out in Proforma 8), used in the calculation of the Proposal are to be provided. This should include the date and time of day (as specified) and information relating to whether the rates are monthly, bi-monthly, quarterly, semi-annual annual, or longer and all necessary supporting information to document clearly the basis for determination of the interest rates and exchange rates;	
5. An explanation of the methodology used to generate the financial projections;	
6. A definition of how the financial ratios are calculated, (which must be consistent with the financiers' term sheets), and that the underlying values are confirmed as acceptable to financiers in their support letter;	

Information to be provided	Base Proposal reference
7. Details of dividend policy including any limitations arising from financing agreements with financiers or any shareholder agreements made or proposed; and	
8. A detailed statement of the assumptions used in relation to tax (including VAT), detailing in particular the assessment of capital costs for capital allowances and how maintenance and refurbishment expenditure is treated for tax purposes.	
(b) Financial model databook instructions	
The databook instructions should include the following details, as a minimum:	
1. Details of the mechanisms contained within the financial model and an explanation of how key tasks in the financial model are carried out;	
2. How to adjust and recalculate the financial model and availability payment and mileage adjustment in order to run sensitivities;	
3. Where relevant, instruction on how to switch between the Base Proposal financial model and any alternative financing proposal financial model (if within the same financial model); and	
4. Instructions on how to adjust the financial model to calculate the change in the availability payment as a result of interest rate movements and exchange rate movements prior to Financial Close.	
5. A discussion of each macro contained in the financial model where/when these are used.	

7.2.6 Proforma requirements

Bidders are required to set out all projected costs as outlined in the Proformas provided in the Excel spreadsheet in their financial model. The Proformas are to reconcile exactly with the inputs of the financial model. Proformas are provided as minimum requirements and where relevant the Bidder should include further details and information to assist in evaluation of their Proposals. The financial model must clearly identify any exclusions.

7.2.7 Financial assumptions for Tranche 1

Bidders are to ensure that the assumptions contained in the following table are used as the basis of the financial model and other financial information for the Tranche 1 Proposal.

Tranche 1 Proposal financial model assumptions	Base Proposal reference
(a) Time based assumptions	
1. Financial Close is assumed to be 1 April 2009.	
2. The Usage Undertaking for each fleet will be 20 years from delivery of the first set into revenue service.	
3. All costs and revenues should be based as at 31st March 2009	
4. The NPV date of the project should be 31st March 2009.	
5. All cash flows should be assumed to occur in the middle of each month until delivery of the final set into revenue service and in the middle of each period afterwards.	
(b) Economic assumptions	
1. Bidders are to bid the proportion of the SAP that is be indexed at RPI.	
2. 100% of availability and reliability adjustments, KPI Payments, Mileage Adjustments, Marginal Set Payments, shall be linked to RPI	
3. Fleet Introduction Payments are not indexed	
4. Indexation to be applied annually.	
5. The annual effective inflation rate (RPI) is assumed to be 2.75%.	
6. Bidders should set out their own assumptions about the level of KPI Payments they will receive.	
7. Bidders should assume that they achieve the target of no availability deductions and the reliability benchmark in respect of TSP delay minutes.	
(c) Accounting assumptions	
Financial projections must be prepared in accordance with IFRS.	
(d) Taxation assumptions	
1. All rates and taxes (such as VAT and corporation tax etc) will be applicable to this Project as per the relevant legislation unless otherwise specified in this ITT.	
2. Amounts should be VAT exclusive with the VAT amount to be shown as a separate line item as applicable.	

Tranche 1 Proposal financial model assumptions	Base Proposal reference
(e) Financing assumptions	
1. The underlying interest rate assumption and exchange rate assumptions should be quoted as that available in the market at 11.00 a.m. on 8 April 2008.	
2. All rates must be recognised in the market, be publicly available and be easily verifiable.	
3. Bidders will not be required to have in place committed stand by facilities to accommodate DfT initiated variations. DfT will meet the cost of any DfT initiated variations.	
(f) Foreign exchange rate assumptions	
1. Foreign exchange rate assumptions, including the bases of their calculation, should be clearly stated.	
2. All rates and methods of calculation must be publicly available and be easily verifiable, (or if not, they should be comprehensively explained in the Proposal).	
3. The financial model should provide for adjustments to foreign exchange rates to be applied across all time periods for the purposes of the financial evaluation.	

7.2.8 Financial assumptions for GWML (Phase 1)

Bidders are to ensure that the assumptions contained in the following table are used as the basis of the financial model and other financial information for the GWML Phase 1 Base Proposal. Unless stated below Bidders should use the same assumptions for the GWML Phase 1 as for Tranche 1.

Base Proposal financial model assumptions	Base Proposal reference
(a) Time based assumptions	
1. Financial Close is assumed to be 30th June 2014.	
2. The Usage Undertaking is 20 years from delivery of the first set into revenue service.	
(b) Economic assumptions	
1. The construction cost price base date is 31st March 2009	

Base Proposal financial model assumptions	Base Proposal reference
2. Bidders may index up to 85% of construction costs using a combination of AEI and/ or PPI and/or RPI.	
3. The annual effective rate for AEI is assumed to be 4.4[1]%.	
4. The annual effective rate for PPI is assumed to be 4.2%[2].	
5. Where Bidders propose an indexation formula for the remaining 15% of the GWML manufacturing costs different to RPI, AEI and PPI, they should detail their assumptions and how it is proposed the formula will be applied	

[1] AEI Manufacturing excluding bonuses not seasonally adjusted
[2] PPI Series PLLV, Output prices (home sales) Manufacturing excluding food, not seasonally adjusted

7.3 Appendix C – Evaluation of Added Value

7.3.1 Introduction

Added value forms part of the value assessment of bids (see Section 3.5.4 of the ITT).

The business case for IEP is based on a “reference train” which meets, but does not exceed, the essential requirements in the TTS.

A bid which meets, but does not exceed, the essential requirements in the TTS will receive a zero added value adjustment.

DfT may accept a Bidder’s technical solution which varies from these essential requirements. For some of the essential requirements, the extent to which Bidders exceed or fall short of the requirement will be reflected in an added value adjustment to the bid price as set out below.

The methodology and parameters which will be used to evaluate added value are consistent with those used in the business case. They represent the discounted value of the outputs over a 30 year asset life.

7.3.2 Added Value Metrics and their relationship with the TTS

Although the TTS includes some system inputs (such as weight and acceleration) as essential requirements, these will not be valued directly. Added value will be assessed on the basis of whole-life whole-industry outputs. These will often be a function of more than one input.

The added value metrics reflect incremental impacts of the outputs compared with what would be achieved by the reference train, including:

- Impact on TOC revenues (e.g. from shorter journey times);
- Impact on TOC or NRIL costs (e.g. from lower fuel consumption or reduced track wear and tear);
- Passenger benefits (e.g. from reduced crowding); and
- Wider economic benefits (e.g. from lower emissions of greenhouse gases).

The table below summarises the added value metrics, and how they correspond to essential requirements in the TTS and the objectives of the programme. Full details of the information Bidders are required to provide are given in Appendix A – Annexes I and II, however an indication of which

information will be used to assess each added value metric is also included in the table below.

Added value metric	Programme objectives	Requirements in the TTS	Information used in assessment
Seating and standing capacity	Increased carrying capacity	Furnishable space, train fit-out	Number of seats and standing passengers (Appendix A – Annex I)
Journey times	Fast, reliable journey times	Acceleration, top speed, braking, dwell times, split/join times, reliability/availability, floor height	Timings for each station to station pair for the journeys shown in Appendix A – Annex II
Quality	Meeting other customer requirements Improving safety and security	Floor height, train fit-out and systems, ride comfort, interior noise, windows, CCTV	3D visualisations (Concept Train Design Section 5) Other relevant technical parameters (Appendix A – Annex I)
Energy consumption	Environment Minimise additional costs	Weight, acceleration, top speed, energy efficiency, recovery of braking energy, efficiency of auxiliary systems	Energy consumption for the journeys shown in Appendix A – Annex II
Track wear & tear	Minimise additional costs	Weight, acceleration, top speed	VTISM model results (Section 4.3.6)
Other third party costs	Minimise additional costs	Impacts on NRIL, TOCs and other third parties	Impacts on NRIL, TOCs and other third parties

7.3.3 Added Value Metric: Seating and standing capacity

Although furnishable space is the requirement in the TTS, the output which it provides, and which will be valued, is seated and standing capacity. Bidders will be required to submit number of seats and standing passengers for a number of example fitouts from which this can be evaluated, as described in the Concept Train Design.

In order to provide a level playing field for this evaluation, the example fitouts submitted by Bidders must conform to a set of minimum requirements for each of three interior layout types, Intercity, Interurban and Commuter. These are specified in the TTS Section 6.4 Interior Scenario Definition.

Each fitout will be evaluated according to the incremental seated and standing capacity it provides, relative to that provided by the reference train.

7.3.4 Added Value Metric: Journey Times

Bids will be evaluated against the timings which the trains can deliver on the journeys given in Appendix A – Annex II.

Bidders are required to provide station to station times for these journeys (*excluding* dwell times and NRIL timetable allowances). The journey time calculations should assume the conditions set out in Appendix D.

Minimising station dwell times is crucial to meeting the objectives of the IEP. DfT reserves the right to adjust the Proposal if inadequate evidence is provided to demonstrate compliance with the TTS. Evidence of robustness of dwell times and cycle times achieved by Bidders will be evaluated within the Concept Train Design and DfT reserves the right to make dwell time adjustments in the added value evaluation if significant risk to delivery of the essential requirement is perceived by the evaluators.

Bidders' station to station times will be combined with dwell times on key origin-destination flows. These will then be compared with the timings achieved by the reference train and the differences valued using business case parameters. Values calculated from the specific journeys above will be scaled to reflect the full timetable to be run by the IE fleet.

7.3.5 Added Value Metric: Quality

This objective includes a range of aspects relating to the overall quality of the train, and how this is perceived by passengers.

The evaluation will include use of a 3D virtual reality flythrough of the example fitouts and other technical parameters provided by Bidders as part of Appendix A – Annex I.

The following aspects of quality for each fitout will be assigned a weighting and combined to give a total quality score:

Aspect
Comfort of seating and ride quality
Ease of being able to get on and off
Information facilities
Security facilities
Toilet facilities
Catering facilities
Overall interior ambience
Space for luggage
Noise
Lighting
Exterior

The total quality score will be valued using parameters in Passenger Demand Forecasting Handbook (PDFH). The base against which bids will be compared will be the 4% fare-equivalent value of a new train, as assumed in the business case**.** The valuation will take into account a gradual degradation in quality over time and an improvement when trains are refurbished.

7.3.6 Added Value Metric: Energy Consumption

Bidders are required to provide details of their energy consumption based on the journeys set out in Appendix A – Annex II.

This energy consumption will be scaled up to forecast annual energy consumption for the full IE fleet running the full timetable. The incremental energy consumption, compared with the reference train will be valued using business case parameters.

The added value adjustment for energy consumption will take into account direct financial impacts and environmental (CO_2 emissions) impacts.

7.3.7 Added Value Metric: Track wear and tear

The results of the VTISM modelling described in Section 4.3.6 of the ITT will be used to evaluate the whole life impact of the proposed Bidders' solutions on the infrastructure track components.

VTISM modelling only analyses specific cost components for track maintenance. In order to allow for the costs that VTISM does not cover, NRIL has undertaken analysis using the Infrastructure Cost Model (version 1) to define scaling factors to be applied to the VTISM outputs.

Bidders will provide VTISM results for Route A and Route B. These will be multiplied by the scaling factors calculated by NRIL and then combined to give an average track wear and tear cost per train mile for each train type.

The incremental track wear and tear costs per train mile, compared with those of the reference train, will be multiplied by the forecast mileages over 30 years and the resulting cost stream discounted.

7.3.8 Added Value Metric: Other third party costs

Further ad-hoc assessment will be required if characteristics of a particular bid have other implications for third-party costs, for example by affecting TOC or NRIL operations. This will include additional costs imposed on third parties from a Bidder's depot solution which are not covered elsewhere in the evaluation e.g. additional TOC drivers required for ECS moves.

7.4 Appendix D – Journey Time Requirements

The bidder shall deliver trains to meet, as a maximum, the journey times detailed below. These times shall be achieved under the following conditions:

- A passenger loading of 108 passengers per intermediate car.
- A passenger loading of 88 passengers per driving car (where this contains seating).
- A mean passenger mass of 80kgs.
- Use of the existing infrastructure without any proposed enhancement with the exception that the section from Bromsgrove to Barnt Green is assumed to have 25kV electrification installed.
- Current line speed profiles
- No allowance for en route or at destination performance, pathing or engineering times
- Station dwells to be assumed to take 0 sec
- Maximum acceleration and 6%g constant deceleration.

Route	**IEP Train Type**	**Journey Time Requirement* (mins)**	**No. signal stops on level sections, duration 0 seconds for the speed stated below.**	**No. 30mile/h TSR's on level sections of 500m length for the speed stated below.**	**Journey Time Requirement* (mins) Including Signal Stops and TSR's**
Kings Cross to Edinburgh Kings Cross Peterborough York Darlington Newcastle Berwick Edinburgh	Electric Half length set (130m) or 2 sets coupled Bi-Mode Half Length set (130m) (Electric Op) Electric Full Length set (260m) Bi-Mode Full Length set (260m) (Electric Op) 2 x Bi-Mode Half Length set (130m) in multiple (Electric op)	225	2 (from 125mph)	2 (from 125mph)	238
Kings Cross to	Electric Half length (130m) or 2 sets	157	1	2	168

Newcastle Kings Cross Peterborough Grantham Newark Retford Doncaster York Northallerton Darlington Newcastle	coupled Bi-Mode Half Length set (130m) (Electric Op) Electric Full length set (260m) Bi-Mode Full Length set (260m) (Electric Op) 2 x Bi-Mode Half Length set (130m) in multiple (Electric op)		(from 125mph	(from 125mph)	
Edinburgh to Aberdeen Edinburgh Haymarket Inverkeithing Kirkaldy Leuchars Dundee Arbroath Montrose Stonehaven Aberdeen	Bi-Mode Full Length set (260m) (Self-Power op)	131	1 (from 90mph)	1 (from 90mph)	137
Paddington to Bristol Paddington Reading Didcot Swindon Chippenham Bath Bristol	Self Powered – Full length set (260m) Bi-Mode Half Length set (130m) (Self-Power op) 2 x Bi-Mode Half Length (130m) in multiple	76	1 (from 125mph)	2 (from 125mph)	88
Edinburgh to Plymouth Edinburgh Waverley Newcastle Durham Darlington York Leeds Wakefield Westgate Sheffield	Bi-Mode Intermediate Length set (c 210m); Electric where 25KV available, self powered elsewhere.	423	1 (from 125mph on Electric) plus 1 (from 125mph on Self Power)	1 (from 125mph on Electric) plus 1 (from 125mph on Self Power)	439

Derby Birmingham New Street Cheltenham Spa Bristol Parkway Bristol Temple Meads Taunton Tiverton Parkway Exeter St Davids Newton Abbot Totnes Plymouth					
Edinburgh to Inverness Edinburgh Haymarket Falkirk Grahamston Stirling Gleneagles Perth Pitlochry Kingussie Aviemore Inverness	Bi-Mode Full Length set (260m) (Self-Powered op)	181	1 (from 90mph)	1 (from 90mph)	187
Doncaster to Hull ** Doncaster Selby Brough Hull	Bi-Mode Half Length Set (130m) (Electric Op as far as the Electrification extends to Temple Hirst)	** (See note Below)	0	0	** (See note Below)

Footnote:

(*) Please refer to conditions above.

(**) There is no journey time requirement for this route, the bidder however will provide details of the timings the Bi-Mode Full Length set is capable of achieving on these routes.

7.5 Appendix E – Train Technical Specification

Provided as a separate attachment