Structure of Track Access Charges Industry Workshop 20 April 2010

OFFICE OF RAIL REGULATION

Agenda

12.30	**Registration and lunch**	
13.00	Introduction	Paul McMahon, ORR
13.05	Background & Context	Emily Bulman & Ekta Sareen, ORR
13.25	Key objectives and issues for the review	Peter Swattridge, Network Rail
13.40	Key objectives and issues for the review	Richard Davies, ATOC
13.50	Key objectives and issues for the review	Lindsay Durham, RFOA
Context, approach and options for incremental changes to charges		
14.00	Issues and options	Paul Smith & Ian Alexander, CEPA
14.40	Discussion	All
15.10	**Tea/coffee**	
Options for fundamental changes to charges		
15.20	Issues and options	Paul Smith & Ian Alexander, CEPA
15.50	Discussion	All
16.20	Summing up and next steps	Paul McMahon, ORR
16.30	**Close**	

Background & Context

Emily Bulman & Ekta Sareen
20 April 2010

OFFICE OF RAIL REGULATION

Purpose of workshop

to discuss with stakeholders:

- current structure of track access charges
- issues and options for CP5 (2014 to 2019)
  - informed by CEPA's high level analysis of options

this forms part of an initial high level review

- Launch 2013 periodic review (PR13) in October 2010
- We will formally consult on any proposed changes to charges as part of the periodic review

Scope of workshop

Network Rail's track access charges

- Determined in PR08 for CP4 (2009 to 2014)
- Review to feed into PR13 (for 2014 to 2019)

Not explicitly in scope:

- *Franchise reform*
- *Schedule 4, schedule 8, station charges and other industry architecture*

But they are part of the wider context and the whole "package" must fit together

Purpose of track access charges

Track access charges provide:

- a mechanism for Network Rail to **recover the efficient costs** it incurs in providing infrastructure used by train operators
- a means to allocate costs to, and be recovered from, those that **cause those costs to be incurred**
- **price signals** to train operators, their suppliers and funders to incentivise the efficient use and development of vehicles and the infrastructure
- **incentives to Network Rail** to outperform its regulatory determination

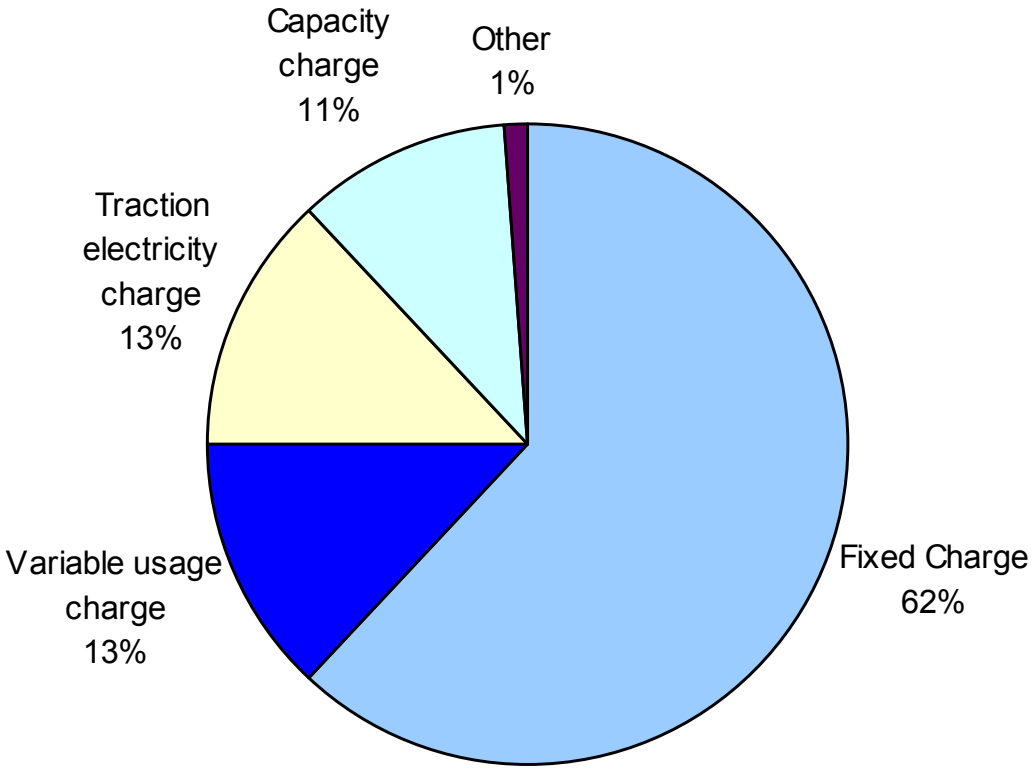
ORR charging objectives *(PR08)*

- promote objectives of our statutory duties and be consistent with objectives of funders
- incentivise all participants to deliver efficient...
  - ... utilisations and development of the network
  - ... whole industry costs
- not discriminate unduly
- be practical, cost effective, comprehensible, and objective in operation
- be consistent with relevant legislation
- reflect the efficient costs caused by use of the infrastructure
- enable Network Rail to recover its allowed revenue requirement

Current structure of track access charges

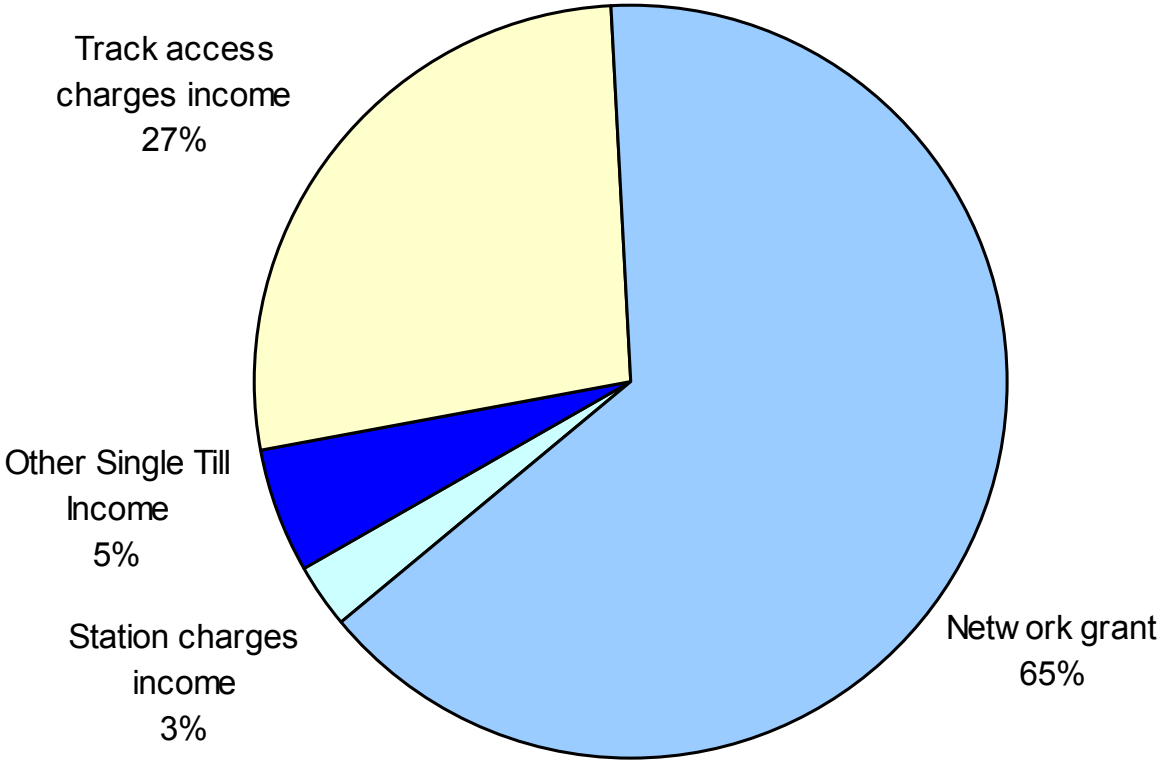
Charge	Purpose of charge
Variable usage charge	Recovers maintenance and renewal costs that vary with traffic
Capacity charge	Recovers the increased costs incurred by Network Rail as a result of increased traffic on the network
Traction electricity charge	Recovers the costs of providing electricity for traction purposes
Freight only line charge	Recovers the fixed costs associated with freight only lines
Fixed track access charge	Determined on basis of Network Rail's total revenue requirement
Other (electrification asset usage charge; coal spillage charge)	Recovers associated costs

Track Access Charges: Annual Income in CP4



Estimated annual income from track access charges in CP4
£1.5 billion (09-10 prices)

Total Network Rail Income



Estimated annual income in CP4 £5.5 billion (09-10 prices)

Reviewing charges

As the regulator we must keep the charges framework under review to:

- ensure that charges continue to be fit for purpose
- take account of improved cost knowledge
- take account of a “changing world”

Preliminary observations on current charges

- ✓ Reflective of Network Rail's steady state costs
  - ✓ fixed costs ⇔ fixed charge
  - ✓ variable costs (wear and tear etc) ⇔ variable charges
  - ✗ charges do not reflect cost of increasing network capacity
- ✓ Well established, and understood by industry
- ✓ Promotes efficient choice of rolling stock...
  - ✗ ...though not different routes or geographies on network
- ✓ Reflects congestion costs...
  - ✗ ....though not scarcity costs

Could the charges be more effective?

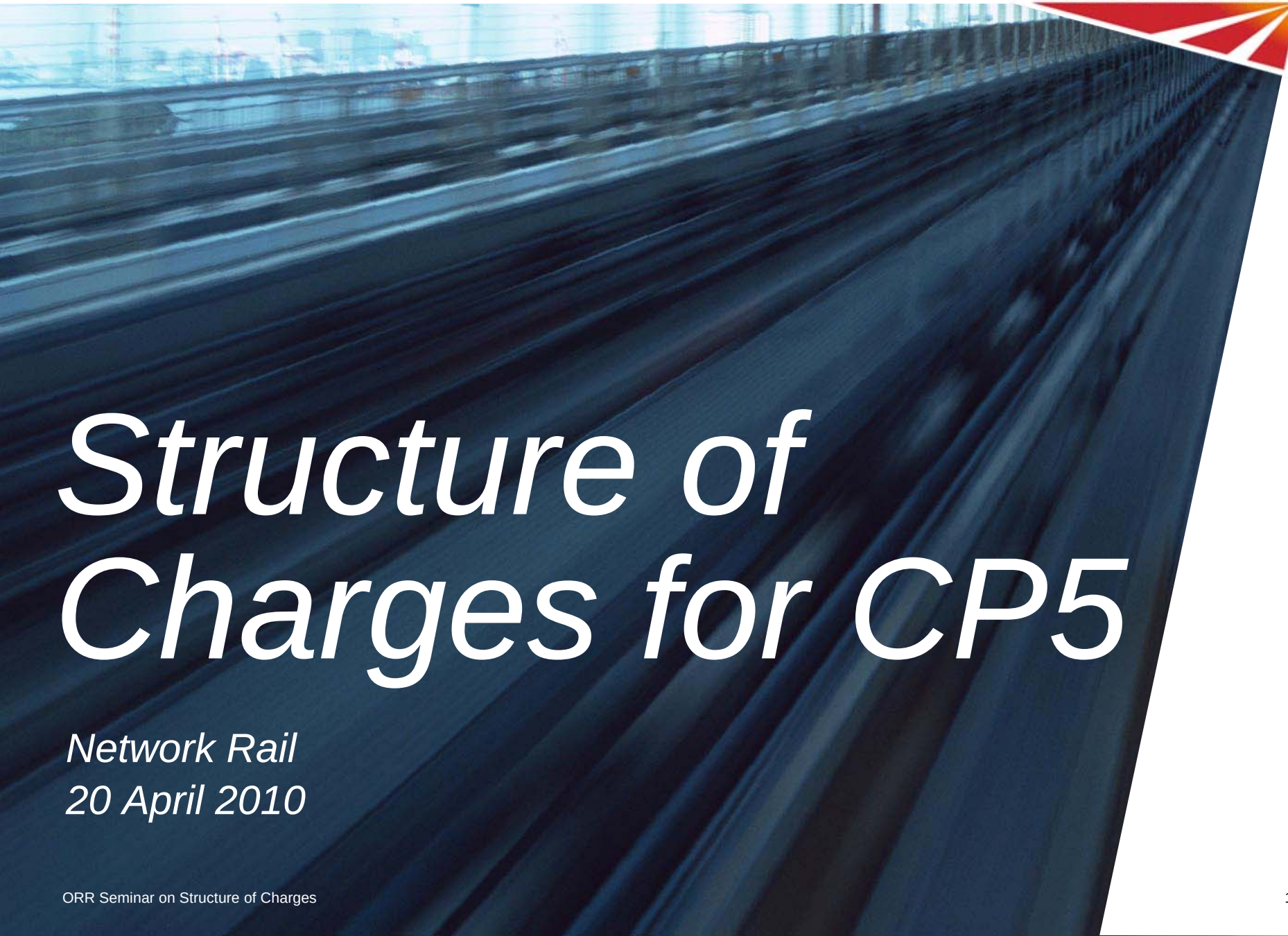
- Can charges be used to incentivise train operators, Network Rail and others to make decisions for the better use and development of capacity?
- Are charges too complex? ...and / or too uniform?
- Can they be structured to promote competition better?
- Should open access operators be dealt with differently?

Some terminology

	Current Charges	Short Run SRIC	Long Run LRIC	Average Cost
Wear & tear	√	√	√	√
Congestion	√	√	?	?
Scarcity		√		
Enhancements	(FC)	(FC)	√	√
Fixed costs	(FC)	(FC)	(FC)	√

Our next steps

- Publish the full CEPA report and seek views from the industry – to inform our thinking
- To discuss progress on thinking with ISG
- If we consider any strategic changes to the structure of charges is worthwhile, to consult on these in October 2010
- Detailed work on access charges to start in 2011-12



Structure of Charges for CP5

Network Rail
20 April 2010

Inconsistent views about current SoC

"TOO COMPLICATED" (too many individual charges for too many separate vehicles)

VERSUS

"NEEDS TO DO MORE" (e.g in relation to capacity and/or network location)

The industry challenge

- Competing views suggests a lack of industry clarity and consistency
- The challenge is to focus on what SoC is intended to achieve

A possible 'menu' of SoC aims

- ***Cost recovery***…of itself could imply a very simple system

  AND/OR

- ***Signals for decision-makers***…there are many different decisions and decision-makers so many possible signals. Consequently many variants of SoC (different 'bells and whistles')

  AND/OR

- ***Supporting competition***…working in tandem with administrative mechanisms without undermining industry affordability

Cost recovery…?

- Some sort of average charge, or more heavily weighted to a fixed charge / government grant.
- Fewer gradations for variable charges (per path?).
- Potential to remove confusion created by Network Grant (e.g. as subsidy declines)

Signals for decision-makers…?

- Currently signals are for vehicle design.
- Other options include:
  - signals for location of use (route-based charging);
  - time of use (peak vs off-peak);
  - optimal deployment of capacity (reflecting investment costs).
- This could be implemented as a set of information for Government re franchise design, or as a new set of charges.
- Any signals would have to form coherent package along with other levers in TAAs, Network Code, licence, franchise design etc.

Supporting competition…?

- Rules for allocating common and incremental costs between franchise and open-access operators.
- Part of this is defining core capability for each path (because this is what *incremental* is defined in reference to).
- Possible new market mechanisms for allocating targeted flows where this did not undermine affordability / other social goals.

SoC and the wider context

- Choosing between these aims means understanding how SoC fits within the entire regulatory & contractual framework
- SoC is sometimes a **complement** to other initiatives, sometimes a **substitute**…we need a view on the complete package which will deliver overall industry aims
- This is difficult to do because there is an element of 'chicken and egg'. Does SoC come before other parts of the framework?
- For example: how does SoC interact with capacity allocation, vehicle change, etc?

Key questions

- Resolving these challenges means answering some questions
  - What are the pros and cons of different options? That is, even *if* we decide to incentivise behaviour / decision-making, *can* we design a SoC to achieve this in practice?
  - Any option will need to address the identification and allocation of common and incremental costs

Network Rail preliminary views

- If appropriately packaged with broader regulatory & contractual framework, SoC can usefully do more than simply recover costs. BUT we must be clear what we are trying to achieve.
- Merit in further investigation around the opportunities for:
  - *Greater signals* – understanding the cost drivers across the network to enhance better coordination of franchise and network regulation.
  - *Supporting competition* – investigate pros and cons of competition for well-targeted portions of network capacity (e.g. long-distance inter-city services)
- Given the broader policy aims around modal positioning and environmental outcomes, there seems benefit in an early decision that freight continues to pay incremental costs

Next steps

1. Establish *processes* for industry dialogue and consensus building so that it is a broad not narrow debate.

2. Using these processes, *agree* on the aims for SoC and the wider context. What challenges are we facing and where should we target our efforts?

3. Develop the *evidence-base* for decision-making. What can SoC achieve in practice? The CEPA work provides an important platform.

Structure of Access Charges

April 2010

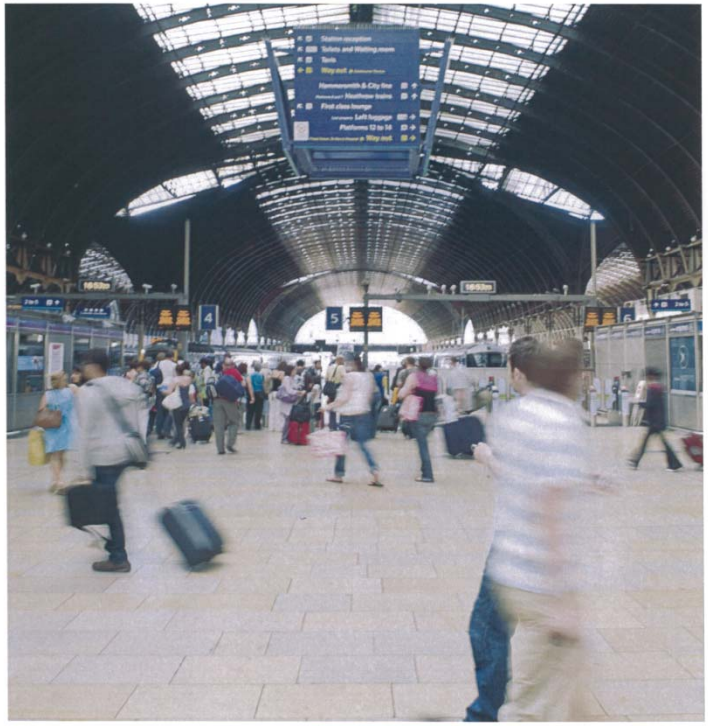
Richard Davies, ATOC

Franchise Reform

Train Operators Working Together ATOC

Franchise Reform

a better railway for passengers and for taxpayers



October 2009

ATOC

Association of Train Operating Companies

Structure of Charges

- Base case
  - 95% fixed, 5% variable
  - Highly specified franchises
  - Including number of ticket machines
- Possible changes
  - Franchise Reform
  - Longer, less prescriptive franchises
- Role of open access
- CEPA have looked at a range of options
  - Some have attractions, some not
  - Worth reflecting on what CEPA have said

ATOC
Association of Train Operating Companies

Rail Freight Operators' Association

Lindsay Durham

Chair

20th April 2010

Effects of Access Charges Changes

- Access charges are real for freight operators
  - We have no contractual protection
  - Changes directly affect our bottom line and our our ability to compete with road
  - £5 per container matters
- Rail freight operators are low margin businesses
  - 2008/9 - £853.7m turnover
  - £10.3m loss before tax and exceptionals
- Uncertainty of charges pushes customers to road where there is (relative) certainty of costs
- Uncertainty affects private sector investment by FOCs/customers/ports etc
- Contracts between customers and FOCs are renewed/retendered at any time during periodic review:
  - customers do not want cost re-openers that they do have on road contracts

Freight Access Charges - Structure

- Charges need to be simple and certain
  - so we can quickly quote customers
- What incentives are created by some of the current charges?
  - Capacity charges
    - Are these still relevant in world of reducing delay minutes?
  - Coal Spillage charges
    - Is there really an additional cost?
  - Ec4T charges
    - Uncertainty now is destabilising
- Network Rail billing issues now – is something more sophisticated really worth extra cost of billing complexities?
- Need to keep incentives on encouraging rolling stock that reduces overall wheel interface costs
- Don’t leave this detail to last minute (again) – should be looked at now to give early certainty

Freight Access Charges- Overview

- Directly incurred principle of EU/2001/14 must be retained
- Charges should be based on NR's long run costs and therefore not constantly changed every 5 years
- Freight is a small percentage of NR's overall income
- Freight charges could be ring-fenced to give certainty to freight customers and investors now
  - Certainty would give powerful message to attract new customers
  - More uncertainty will cause damage in an already tough and uncertain environment
  - Passenger structure then free to best align incentives of a different market




Cambridge Economic Policy Associates

CEPA

Structure of Charges Industry Workshop – Context, Approach and Incremental Changes

Tuesday 20 April

Contents

- *Provide an overview of the purpose of the project and the approach we have adopted.*
- *Explain the evaluation criteria used to consider options for changing track access charges.*
- *Explain the long list of options.*
- *Set out the short listed options.*
- *Discuss the evaluation of the incremental change options.*

- *The second presentation considers the fundamental change options.*
- *We then summarise our overall conclusions and recommendations.*

Purpose of the project and approach

An initial review to consider options to change track access charges:

- *The project will inform the options that ORR takes forward for CP5.*
- *Considered options that can be described as incremental changes, as well as more fundamental changes.*
- *The options have been developed from reviewing previous options considered by ORR, approaches in other countries and sectors.*
- *Seeking to identify options that have a genuine prospect of leading to improvements compared to the current structure.*
- *Worked closely with ORR and a steering group comprising Network Rail, ATOC and RFOA.*

BUT these initial recommendations are ours and should not be taken as meaning broader buy-in at this point

Constraints on changing track access charges

There are a number of aspects of the contractual and institutional arrangements in the rail sector that affect the impact of changing track access charges:

Clause 18.1 of franchise agreements

Franchised TOCs are only exposed to the financial impact of changes to track access charges for ***additional*** services or ***changes*** to core services during the period of their franchise.

The role of subsidy

Given the proportion of costs covered by subsidy, there could be a significant impact if the providers of subsidies did not support changes to track access charges.

The specification of services

The DfT specifies in substantial detail the services to be provided by each franchise TOC. This limits the flexibility for TOCs to instigate service changes that respond to changes in track access charges.

Freight and open access operators

In contrast to franchised TOCs, freight and open access operators are fully exposed to changes in track access charges.

Evaluation criteria

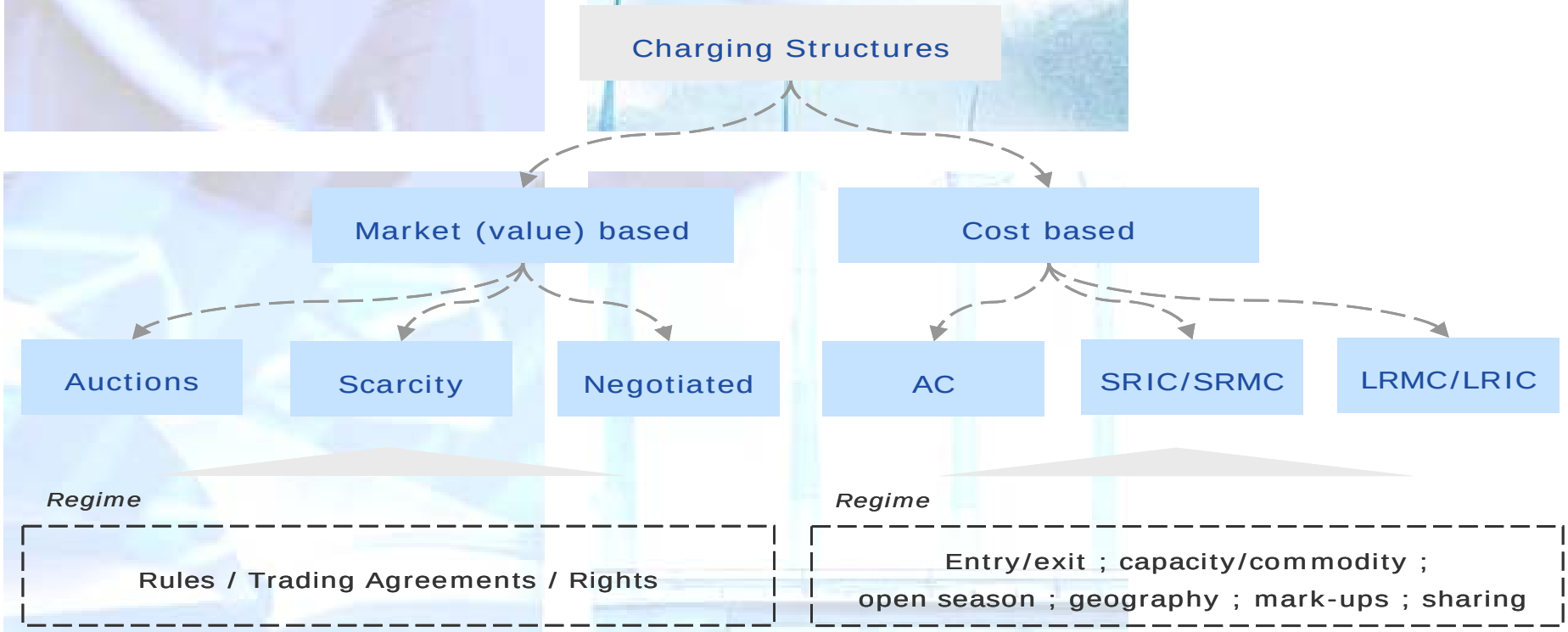
We have developed criteria to assess options to change track access charges based on ORR's objectives for the charging structure, Section 4 duties and the Better Regulation principles, which are:

1. *No undue discrimination*
2. *Practicality*
3. *Cost reflectivity*
4. *Revenue recovery*
5. *Optimise network use*
6. *Promotion of network growth*
7. *Effect on customers – Mainly distributional considerations given that most changes would not increase charges in total*
8. *Promote competition*
9. *Simplicity*

The long list of options

The long list of options can broadly be characterised as either market (value) based or cost based approaches:

- *The structure of the rail sector makes the implementation of market based approaches difficult.*



Applying the evaluation criteria

- *The criteria were used to evaluate a long list of options for changing track access charges to establish a short list of the most plausible options.*

- *Each long listed option was assessed against an explicit counter-factual of the current structure of track access charges.*

- *Implicitly all the criteria had an equal weighting.*

- *However, we placed particular emphasis on options that had reasonable prospects of being practically implemented in the rail sector.*

Short listed options

We short listed six options:

- *Cost benefit sharing.*
- *A regional Short Run Incremental Cost (SRIC) approach.*
- *Scarcity/ reservation charge.*
- *A regional Long Run Incremental Cost (LRIC) approach. We also consider the variant of this approach called Long Run Average Incremental Cost (LRAIC).*
- *An average cost approach, with a view to simplification.*
- *Track occupancy charge (based on the HS1 approach).*

The first three options are incremental in nature and could be implemented alongside the existing structure of charges. The next two options are fundamental change options. The final option could be implemented in a relatively incremental or more fundamental way

Cost benefit sharing – How it would work?

Train operators and Network Rail would share some revenue risk above and below an agreed baseline revenue

This approach would aim to better align incentives between Network Rail and train operators by:

- *Exposing Network Rail to a percentage of changes in operators revenues.*
- *It would build on the revenue sharing between DfT and franchised TOCs.*
- *The approach could very closely mirror these arrangements or have slightly different parameters.*
- *This option could lead to Network Rail's total revenues being higher or lower than allowed under the price control.*
- *If the approach was applied to open access and freight operators consideration would have to be given to how a baseline of revenue would be set.*

Cost benefit sharing – Assessment

There are some potential advantages and disadvantages:

- *Network Rail would have a stronger incentive to explore and develop options that could help boost revenues and minimise the risk of falling revenues.*
- *Network Rail's incentives would encourage it to seek opex and capex options.*
- *Likely to lead to a better alignment of costs and revenues.*
- *May reduce somewhat the risk premium that train operators include in their prices because revenues are less variable.*
- *There will be practical difficulties in applying the approach to freight and open access passenger operators.*

Recommendation: Further work should be undertaken by ORR with the key stakeholders to determine whether to introduce this option.

Regional SRIC – How it would work?

A proportion of charges would be differentiated on a geographic basis.

This approach would aim to set the current variable charges on a route or area basis by apportioning costs between the trains operating by:

- *Allocate/ apportion costs between different types of rail users (probably vehicle types) taking account of differences in costs between regions and routes.*
- *The costs would be intended to reflect the SRIC for each geographic area.*
- *Find a balance between cost reflectivity (by defining a large number of distinct geographic areas) and simplicity (by aggregating similar areas or routes).*

Regional SRIC – Assessment

There are some potential advantages and disadvantages:

- *Improved price signals on a geographic basis, although the impact will be limited by the effect of Clause 18.1 in the franchise agreements.*
- *Network Rail has already undertaken work using its Infrastructure Cost Model (ICM) that would facilitate the introduction of this approach.*
- *Risk that this approach leads to substantial complexity if sensible aggregation of vehicle types and geographic areas is not used.*

Recommendation: Further work should be undertaken by ORR and Network Rail to develop this option before further consultation with stakeholders.

Scarcity / reservation charge – How it would work?

Train operators would pay the opportunity cost of paths in congested network areas or routes by:

- *Requiring train operators to reserve train paths for those that were considered to be congested.*
- *Estimating the opportunity cost for alternative uses of the train paths would be challenging without a market to determine value.*
- *This approach would contrast with the current administrative approach to allocating train paths through ORR's track access policy, RUSs and the Network Code.*
- *We have considered a scarcity charge based on estimating the opportunity cost, but an alternative could be a flat rate reservation charge.*

Scarcity / reservation charge – Assessment

There are some potential advantages and disadvantages:

- *There are significant difficulties in estimating the opportunity cost for alternative uses of train paths in congested areas.*
- *However, a well functioning scarcity charge would provide strong incentives on train operators to economise on their use of track.*
- *The incentives to change behaviour will be largely limited to open access and freight operators. Therefore, a question as to whether the benefits of the charge would be sufficient to outweigh the costs.*

Recommendation: This option should be considered further by ORR, but without changes to Clause 18.1 of the franchise agreements the benefits are likely to be limited.

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Cambridge Economic Policy Associates

Structure of Charges Industry Workshop – Fundamental Changes

Tuesday 20 April

CEPA

Contents

- *Builds on the first presentation by analysing the fundamental change options.*
- *The overall conclusions and recommendations are then set out.*

Short listed options

We short listed seven options:

- *Cost benefit sharing.*
- *A regional Short Run Incremental Cost (SRIC) approach.*
- *Scarcity/ reservation charge.*
- *A regional Long Run Incremental Cost (LRIC) approach. We also consider the variant of this approach called Long Run Average Incremental Cost (LRAIC).*
- *An average cost approach, with a view to simplification.*
- *Track occupancy charge (based on the HS1 approach).*

The first three options are incremental in nature and could be implemented alongside the existing structure of charges. The next two options are fundamental change options. The final option could be implemented in a relatively incremental or more fundamental way

Regional LRIC – How it would work?

This option would estimate the long run incremental costs of increases in capacity on the network to provide a signal to users. The main elements would include:

- *Defining changes in capacity on the network and their long run incremental costs.*
- *LRIC can be applied at different levels of aggregation, so it could be applied to a number of distinct regions in the country or for each route and area.*
- *LRIC can be described as LRAverageIC if it is implemented on a relatively aggregated basis.*
- *Where investments are made in response to the price signals then the costs would be recovered in charges over the useful life of the assets.*
- *There would need to be a link to the investment decisions in Network Rail's price control.*

Regional LRIC – Assessment

There are some potential advantages and disadvantages:

- *Strong signals about the costs of different capacity increments to allow more informed decisions about willingness to pay.*
- *Complement and enhance existing processes for determining investment.*
- *A risk of volatile charges, but this can be addressed through smoothing increases over the useful life of assets.*
- *There are difficulties in defining the capacity increase to measure. A balance between simplicity at a relatively high level of aggregation and better signals through applying the approach to different areas and routes.*

Recommendation: This option should be considered further given the potential to significantly improve signals for new investment.

Average cost approach – How it would work?

This option would allocate Network Rail's current costs across different types of train operators depending on cost drivers by:

- *Defining a range of key characteristics of different users of the network.*
- *Allocating Network Rail's current accounting costs between these users based on appropriate cost drivers.*
- *The approach would develop average charges to apply across the whole network.*
- *A mark-up or the fixed charge would need to be used to ensure revenue recovery by Network Rail.*
- *The fixed charge is currently allocated based on train miles, which is a form of an average charge.*

Average cost approach – Assessment

There are some potential advantages and disadvantages:

- *The main potential benefit of this approach is simplicity.*
- *Average costs provide poor incentives to develop the network and to make the best use of the existing network.*
- *Charges for open access and freight operators could materially increase under this option, unless it was restricted to the current variable charges.*

Recommendation: Although this option is relatively simple to implement, we would not recommend it is pursued further given it has relatively poor incentive properties.

Track occupancy charge – How it would work?

This option is based on the approach for HS1 and would work by:

- *Levying a charge based on the time that trains occupy the tracks, which for HS1 is based on timetabled minutes.*
- *The HS1 approach includes a control to minimise the disincentive to slow down and stop at intermediate stations.*
- *Other variations of a track occupancy charge could be adopted.*
- *There are some parallels with the current structure of track access charges given that the fixed cost is apportioned to some degree based on relative vehicle miles per franchised TOC.*

Track occupancy charge – Assessment

There are some potential advantages and disadvantages:

- *A track occupancy charge has the potential to significantly simplify charges, although the degree of simplification depends on how issues such as timetabled vs actual track occupancy times are addressed.*
- *It is easier to apply to a single line than a whole network.*
- *A track occupancy charge could be a reasonable proxy for the variable costs of using the network, but is unlikely to provide good signals for network development.*

Recommendation: As this is a relatively new approach there is merit in further work to consider how it could work on the whole network, but there are significant issues to overcome before this could be considered a better option than the current approach or some of the other options we have considered.

Overall conclusions and recommendations

Four of the options considered have strong potential to represent an improvement compared to the current approach:

- *A regional SRIC.*
- *A scarcity/ reservation charge.*
- *Cost benefit sharing.*
- *A regional LRAIC.*

Further analysis will be required before these options could be implemented and to ensure that the impacts on different users are fully understood.

We do not recommend that the average cost option is further considered.

Although we have reservations about the track occupancy charge, further work to understand how it would operate in a network wide basis would allow a more informed decision about whether to pursue this option.

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PR13 – key dates

2010-11:	June 2010: NR/industry planning ahead – options October 2010: ORR starts PR13 – consultation on objectives and key strategic issues
2011-12:	2011-12: ORR consultations and development of the CP5 framework for setting outputs and funding/charges June 2011: NR/industry initial strategic business plan Feb 2012: ORR advice to ministers and framework for setting outputs and funding/charges
2012-13:	July 2012: Govt HLOSs and SoFAs Jan 2013: NR/industry strategic business plan
2013-14:	June 2013: ORR draft determination October 2013: ORR final determination March 2014: NR CP5 delivery plan