Network Rail's consultation on variable charges and station charges in CP6 – Electricity charge for traction (EC4T) and the electrification asset usage charge (EAUC)

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Purpose of this presentation

- On 28 July 2017 Network Rail published its consultation on the methodology for calculating variable and station charges in CP6
- The purpose of the consultation is to set out our proposed recalibration methodology and seek your views
- Purpose of this presentation: to talk through the EC4T and EAUC sections of our consultation
- We are discussing our approach to variable usage charges (18 September at the RDG PR18 working group) and station charges (27 September at the RDG Station Strategy Group) separately
- The consultation focuses on our proposed methodology for calculating charges in CP6, rather than the level of these charges as result of updating them for PR18 cost data
  - Our cost forecasts for CP6 will not be available until our SBP is published in December 2017
  - We are aiming to publish draft price lists reflecting PR18 cost data in February 2018

Electricity charge for traction (EC4T)

- Purpose: To recover the costs of traction electricity supplied by Network Rail to train operators to power electrified services
- In 2016/17, traction electricity charges recovered £298m
- CP5 Key features:
  - Paid by all operators who run electrified train services
  - Charged on the basis of meter readings (plus a mark-up for transmission losses) or modelled consumption rates, multiplied by the relevant pence per kWh electricity tariff
  - End of year volume reconciliation (volume 'wash-up')
    - Only modelled services participate
  - End of year cost reconciliation (cost 'wash-up')
    - Modelled and metered services
- ORR's conclusions: The loss incentive mechanism should be retained

Electricity charge for traction (EC4T)

- Proposed approach for CP6:
  - Removing power factor correction values
    - Appendix 2 of the Traction Electricity Rules
  - Introducing default modelled consumption rates for passenger services
    - A robust contractual basis for billing modelled services whilst waiting for a modelled consumption rate to be consented to / determined by ORR
    - A robust contractual basis for billing metered services whilst waiting for on-train metering to be consented to / determined by ORR

Electricity charge for traction (EC4T)

- Recalibrating Distribution System Loss Factors (DSLFs)
  - Our consultation includes a report which explains our proposed approach to recalibrating DSLFs for CP6
  - The recalibration makes use of data that was unavailable in PR13
  - The methodology seeks to address the recommendations made by the independent reporter in PR13.

System type	Estimated mark-up: CP5 approach and assumptions	Estimated mark-up: Proposed CP6 approach and assumptions
750 V D.C.	17.01%	11.13%
25 kV A.C.	3.85%	3.10%

Electricity charge for traction (EC4T)

- Recalibrating the modelled regenerative braking discounts
  - Current discount rates were set in PR08 on the basis of expert judgement
  - We now have a large amount of data available from metered trains which can be used to update these estimates

Current regenerative braking discounts

Type of infrastructure / service frequency	CP5 Discount (%)
AC, long distance (more than 10 miles between stations)	16%
AC, regional and outer suburban (less than or equal to 10 miles between stations)	18%
AC, local and commuter (less than or equal to 2.1 miles between stations)	20%
DC	15%

CP6 regenerative braking discounts proposed in our consultation

Type of infrastructure / service frequency	Proposed CP6 Discount (%)
AC, long Distance (more than 10 miles between stations)	16%
AC, suburban (less than or equal to 10 miles between stations)	22%
DC	15%

Electrification asset usage charge (EAUC)

- Purpose: To recover the variable costs of maintaining and renewing electrification assets
- In 2016/17, £16m was recovered through the EAUC
- Calculation in PR13:
  - Forecasted the annual average cost of maintaining and renewing AC and DC electrification assets, respectively;
  - Quantified the proportion of maintenance and renewal costs that are variable;
  - AC and DC variable costs were allocated to passenger and freight operators according to their share of AC and DC vehicle miles in 2011/12, respectively;
  - Calculated annual average electrified vehicle miles for passenger operators and annual average electrified thousand gross tonne miles for freight operators, split into AC and DC;
  - AC/DC EAUC rates for passenger operators were calculated by dividing the forecast annual average AC/DC variable costs by the forecast annual average AC/DC vehicle miles; and
  - AC/DC EAUC rates for freight operators were calculated by dividing the forecast annual average AC/DC variable costs by the forecast annual average AC/DC electrified thousand gross tonne miles.

EAUC: Cost variability assumptions

- Network Rail's proposed approach for CP6: To recalculate EAUC rates to reflect our latest forecasts of costs and traffic and to reassess the cost variability assumptions used to calculate EAUC rates in PR13

- Our consultation includes a report which explains our proposals for revised cost variability assumptions

Category	Traction type	Sub-category	PR13 Variability assumption	Proposed CP6 Variability assumption
Maintenance	AC	OLE maintenance	8%	Unchanged
	DC	ETE maintenance	20.80%	Unchanged
Renewals	AC	OLE Contact/Catenary Rewire	72%	Unchanged
	AC	OLE Mid-Life Refurbishment	42%	56%
	AC	OLE Full Renewal	10.50%	Unchanged
	AC	OLE Component Change	10%	20%
	DC	Conductor Rail Renewal	54%	Unchanged

Impact on operators

- The focus of our consultation is the charging methodology for CP6, rather than the level of charges, and we are not proposing any material changes in this area
- When we publish draft price lists in February 2018 we will include a full assessment of the expected impact of changes to the level of charges on train operators

Responding, key milestones and questions

- We are requesting responses to this consultation by close of play **20 October 2017**
- Please send responses to RegulatoryEconomics@networkrail.co.uk

Key future milestones

Key milestone	Information	Date
Network Rail SBP	Network Rail's CP6 business plan, including cost forecasts	December 2017
Our conclusions on this consultation	Network Rail's conclusions on its proposed charging methodology for CP6 and draft price lists reflecting PR18 cost data	February 2018
ORR Draft Determination	ORR's minded-to view in relation to setting structure of charges for CP6, including its views on our February 2018 conclusions	June 2018
ORR Final Determination	ORR's final view which will ultimately set the structure of charges for CP6	October 2018

Questions?