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CHANNEL FIXED LINK – RAILWAY NETWORK

OPEN ACCESS STATISTICAL DECLARATION

The publication of this statistical declaration for one-off illustrative purposes and additional transparency is made above & beyond (and without affecting) all contractual and regulatory obligations related to the Railway Usage Contract and on contents of the Network Statement (Directive 2012/34/CE article 27.2 & annexe 4 and national regulations). It represents a voluntary communication by Eurotunnel without prejudice or creation of legal rights and without any commitment on recurring publication of updates.

1. Statistics on Capacity Allocation and Utilisation

Rail Passenger Market	2018	2019
Number of Applicants (Passenger RUs)	1	1
Number of Circulations (one way trains)	17.5k trains	17.5k trains
Number of Passengers (millions)	10.97 Mpax	11.05 Mpax

Rail Freight Market	2018	2019
Number of Applicants (Freight RUs)	5	3
Number of Circulations (one way trains)	2077 trains	2144 trains
Volume of Freight (million tonnes)	1.30 Mtonnes	1.39 Mtonnes

2. Statistics on Access Charges

Passenger Charges	2018	2019
Variable Tolls per Passenger	197M€	200M€
Fixed Annual Tolls	36M€	36M€

Rail Freight Charges	2018	2019
Variable Tolls per Freight Train	7M€	7M€

OMRC Charges (Operating Costs Recovery)	2018	2019
O&M – Operations & Maintenance Costs (Opex)	63M€	65M€
R –Renewals Costs (Capex)	8M€	8M€
Total OMRC Charges	71M€	73M€

(NB: amounts expressed in Euros combined at constant exchange rate of 1.15 EUR/GBP)

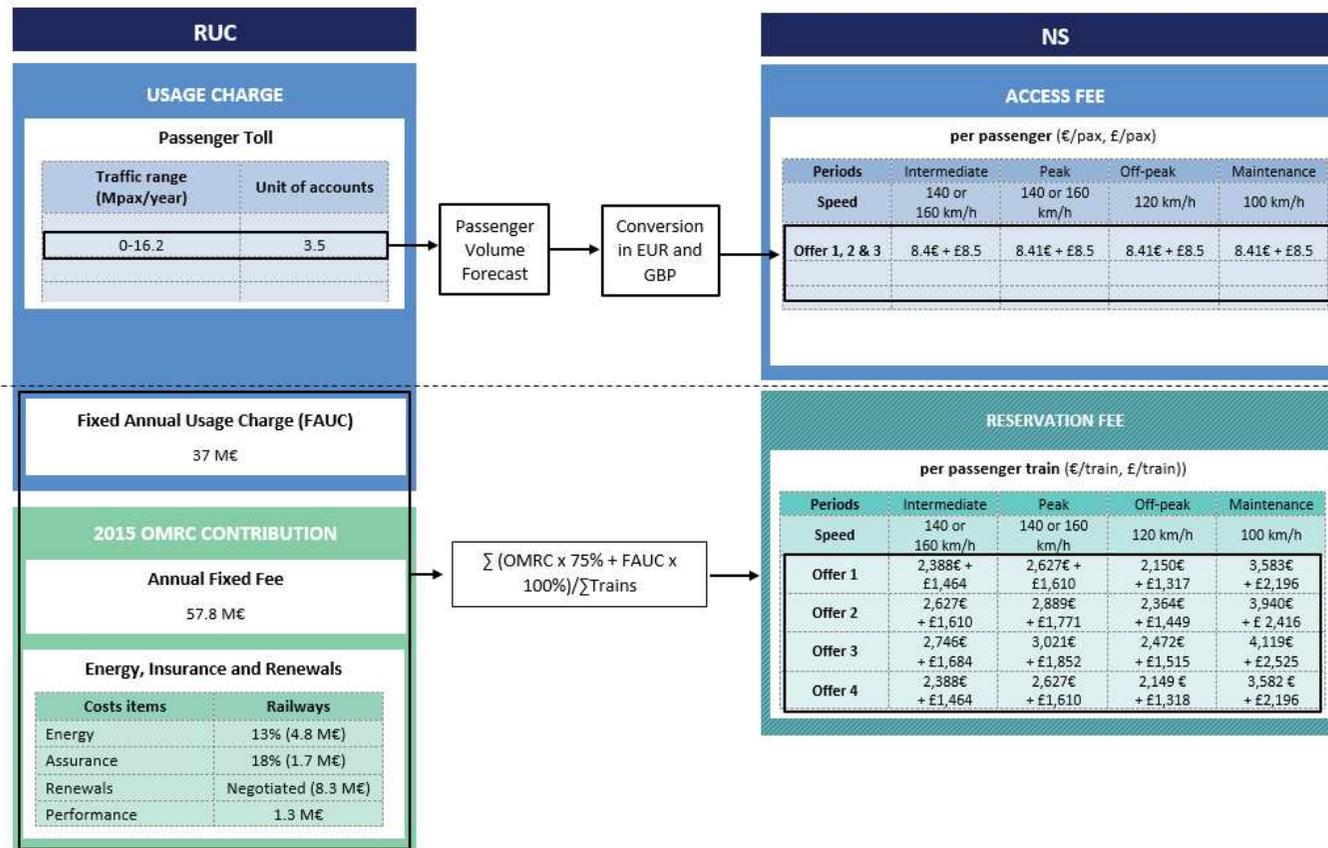
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(Annex 2 to ART-ORR Opinion 6/2/2020)

RUC/NS Articulation

An illustration of the mechanism for conversion of the total annual amounts of the RUC costs contribution into the amounts of unit charges per passenger and per passenger train in the Network Statement

Table 5. Articulation RUC/NS



Sources: ART/ORR

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LONG TERM COSTS RECOVERY ANALYSIS

Eurotunnel: a charging framework pioneer in concession tolls which also respects the European directives concerning the recovery of long-term costs for railway infrastructure

1. Legal basis of the Long Term Costs principle (LTC)

Charges for rail infrastructure are regulated by European law and the principles are set out in Directive 2012/34/EU with which Member States must comply by 16 June 2015 at the latest. Article 32.3¹ of this directive provides that rail infrastructure managers may levy charges “on the basis of long-term costs”. This principle has also been confirmed by the Intergovernmental Commission, as binational Regulator of the Fixed Link in its decision No. 2013-001 of 25 October 2013, and enacted by the Principals (the States) in the Binational Regulation of 23/3/2015². Below, Eurotunnel shows a method that validates that its tolls for passenger traffic ensure a reasonable return on investment.

2. Implementation of the LTC principle for the Channel Fixed Link

Eurotunnel’s charging framework for the use of its rail infrastructure has been established using a model based on the recovery of long-term costs

Railway tolls for the Fixed Link were set in 1987 based on the “Levelized Cost of Investment” (LCOI) method, using a constant real unit cost per traffic unit which allows for the recovery of the capital expenditure incurred, with a breakdown by type of traffic. This type of charging framework makes possible the recovery of the investment attributable to the activity of railway infrastructure manager over the duration of the concession, to the extent that initial forecasts in terms of capital expenditure and traffic volumes are met.

LCOI charging frameworks are commonly used in BOT financing schemes (Build-Operate-Transfer) for concessions, since the risks of the licensors are transferred to the concessionaires in compliance with the EU Directive³ on concessions approved in 2014. The charging framework for the Fixed Link established in 1987 was exemplary in that respect and is still relevant today.

The charging principle is to set a unit price so that the discounted net cash flows generated over the lifetime of the concession allow the investor to obtain for his investment the internal rate of return (IRR) as envisaged initially. The same principle applies when one looks not from an investor’s perspective, but at the project level (thus without any predefined equity or debt financing structure) using a Weighted Average Cost of Capital (WACC) discount rate.

This mechanism also allows the smoothing out of the level of unit charges between the start of operations (when traffic is low) and the end of the concession (when traffic levels are higher). In this way, users are not made to pay for the initial overcapacity of the infrastructure which would have been the case had the charging framework been based on a straight-line amortisation of the investment over the lifetime of the concession.

In the case of Eurotunnel, the original pricing mechanism (as detailed in the Railway Usage Contract or RUC) is composed of a maximum toll per passenger indexed to the annual RPI less 1.1%, plus a global fixed amount which decreases as traffic increases on a per-unit basis. Eurotunnel respects the initial charging principles of 1987, and in 2018 invoiced an average of €20.9⁴ per passenger for the recovery of IRC⁵.

¹ Replicating Article 8.2 of previous EU Directive 2001/14/EC.

² UK Statutory Instrument 2015/785 “The Channel Tunnel (International Arrangements) (Charging Framework and Transfer of Economic Regulation Functions) Order 2015” of 15/6/2016, and French Décret 2016-928 of 6/7/2016.

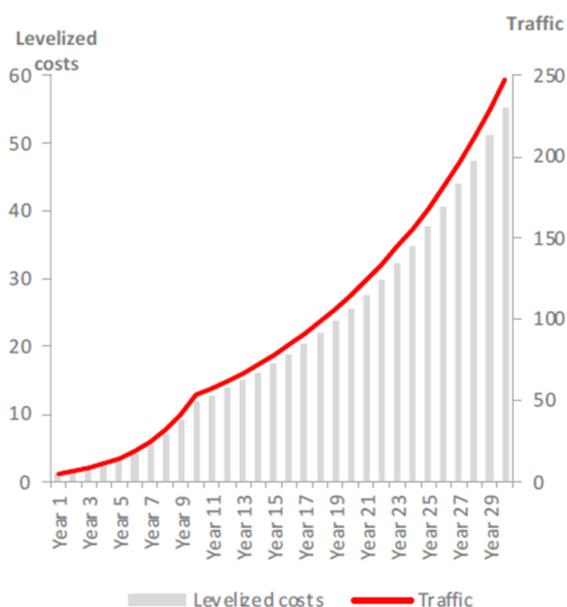
³ Directive 2014/23/EU of the European Parliament and of the Council on the award of concession contracts: “the main feature of a concession [...] always implies the transfer to the concessionaire of an operating risk of economic nature involving the possibility that it will not recoup the investments made and the costs incurred in operating the works or services awarded under normal operating conditions even if a part of the risk remains with the contracting authority or contracting entity.” (NB: text of general interest quoted for illustrative purposes only, without direct applicability to the Fixed Link).

⁴ The tolls for the Fixed Link are expressed in both Euros and Pounds Sterling, and inflation is applied on a monthly basis. We have expressed here the values in Euros using a conversion rate of 1.15 Euro per pound and the average per passenger revenue on a yearly basis.

⁵ IRC (Investment Recovery Charge) is the share of tolls attributable to the recovery of the initial construction costs. Long-term costs include both IRC and OMRC (Operation Maintenance and Renewal Costs) necessary for the operation and maintenance of the infrastructure. The

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Levelized cost approach in the context of a conceded infrastructure



The smoothed economic unit cost is used to determine the threshold of annual income such that the discounted (using the project WACC) sum of net cash flows equals the cost of the initial investment. It is fixed based on the projects initial cost and traffic forecasts:

$$\sum_t Net\ Cash\ Flows_t \times \frac{1}{(1+WACC)^t} = \sum_t CAPEX \times \frac{1}{(1+WACC)^t}$$

The model developed by Eurotunnel takes into account both capital investment and debt structure, including their changes since the start of the project (conversion into equity, new schedule and debt service costs). The discount rate used in the model is the Investor IRR.

3. Analysis of the actual level of recovery of Long Term Costs

It is important to note that the 1987 charging principles have never been adjusted to reflect the actual costs of construction in 1994 which exceeded the initial forecasts, the actual traffic levels which were also far below those originally envisaged, the renegotiation of the financing, or the extension of the concession until 2086.

For the purpose of improving the level of transparency, pursuant to the pluri-annual work programme agreed with ART and ORR, Eurotunnel has recalculated a real constant unit cost per unit of traffic expected on the basis of verifiable actual data and updated traffic forecasts. The model incorporates the actual investment costs, changes in the financial structure since the beginning of the concession (thus incorporating the effects of the renegotiation of 2007), the concession extension, the actual traffic between 1994 and 2018 as well as the latest projections of traffic and debt service costs.

This real unit cost per traffic unit, A, is determined by the formula below with d (t), D (t), E (t), Tax (t) and C (t) respectively equal to the financial costs of year t, with loan repayments in year t, capital increases in year t and taxes in year t, while Traf(t) corresponds to the actual historical traffic until 2012 and the forecasts for the remaining life-time of the concession:

$$A = \frac{\sum_t (d_t + D_t + E_t + C_t + Tax_t) \times \left(\frac{1}{1+IRR}\right)^t}{\sum_t Traf_t \times \left[\frac{(100+i-1.1)}{100}\right]^t \left(\frac{1}{1+IRR}\right)^t}$$

This methodology therefore consists in a comparison of the unit price resulting from the set of ex-ante assumptions (at the origin of the construction investment project, meaning RUC unit tolls) against the target LCOI price for LTC recovery resulting from ex-post conditions (combining actual experience for past periods and updated forecasts for future periods). This modelling approach achieves the combination in a coherent manner of a complex set of parameters and a wide volume of data over a long period (the duration of the Concession), resulting in the determination of the level of recovery of long term costs. This method thus produces a conclusive determination on the assessment of compliance with the long term costs principle

RUC defines the portion of these OMR costs attributable to the sole railway infrastructure which are then included in the toll each year at cost. Revenue derived from OMRC and OMR costs thus neutralise exactly each year and consequently have no impact in terms of assessment of the recovery of long-term costs.

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4. Parameters of the model and sensitivity analysis

Symbol	Parameter	Value	Source & Remarks
I	Investment Costs attributable to rail network	4 744€ million	Concessionaires combined accounts 1994: 13 555M€ Geographical analysis (71% common) & allocation of common section pro-rata railway share of capacity (50%) (RUC cost allocation Principles B & A) 71% x 50% =35%
t=1	Commencement date (of operations)	November 1994	Actual launch of Eurostar services on 14/11/1994
T	Length of Concession	99 years	Concession period: 1987 to 2086
Ir, IRR	IRR (investor return on investment)	11.87%	May 1994 Prospectus (taking into account the final amount of Fixed Link construction investment costs, being 88.9MdFRF / 6.55957 = 13.55MdEUR)
d _t	Interest paid on debt	<2018: effective rates 2019+ financing model	Based on effective financing costs up to 2018 and Internal financing model for 2019-2086. Expressed at historic annual exchange rates €/£ (past); and at internal budgetary rate 1.15€/£ (forecasts)
D _t E _t	Debt reimbursement of principal, Equity injection	<2018: effective costs 2019+ financing model	
Traf	Traffic (rail passenger)	13.2Mpax 12.1Mpax 10.5Mpax	Actual traffic until 2018, then internal forecasts 2019+ High, Base & Low traffic scenarios for sensitivity analysis (million passengers/year, average 2020-2029)
	Traffic (rail freight)	4.3 ktrains 3.2 ktrains 2.1 ktrains	Actual traffic until 2018, then internal forecasts 2019+ High, Base & Low traffic scenarios for sensitivity analysis (thousand trains/year average 2020-2029)
Tax _t	Profit tax (paid based on cash flow)	<2018: 31.22%, 2019+: 26.5%	As per applicable legal tax rates (average between UK and France) from Government announcements
C _t	Special Concession tax	59%	Payable from 2053 onwards (Concession agreement)
i	Inflation rate	<2018 actual rates Long term 1.82%	The model is based on 2018 as reference year, thus all results are expressed in €2018 values IPC & RPI (past), IMF forecasts (future)

The modelling based on reference year 2018 uses the latest forecasts for traffic and financing costs carried out in 2019: in a conservative approach for the purpose of this exercise, Eurotunnel has chosen to present forecasts prepared before the onset of the pandemic and economic crisis, and the changes in border constraints. Likewise, the model does not take into account revenue reductions resulting from the application of the ETICA incentive programme, nor from the RUC marginal toll band mechanism. The inclusion of these factors would lead to a further decrease in the level of recovery of LTC.

In order to further strengthen the level of confidence and transparency of the assessment, an analysis of sensitivities has been carried out to calculate the impact of reasonable variations in 3 main parameters of the model :

- Construction investment: simulation of the impact of cost variations of -15% and +15%
- Investor Rate of Return: simulation of variations in the expected rate of return of -1pt and +1pt (+/-8.5%)
- Traffic forecasts: high, base & low scenarios catering for a wide range of uncertainty of outcomes (>25% spread)

The sensitivity analysis shows that the spread of results for this range of parameters does not exceed 8pt of increase or decrease compared with the central value of the level of recovery of 35% of LTC. Expressed in terms of RUC return on investment on LTC, the resulting values remain within a range of 3% to 4%.

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5. Conclusion: Passenger tolls charged by Eurotunnel do not exceed the long-term costs

Taking into account this assessment, the model shows that the smoothed economic unit amount necessary to recover the investment costs over the lifetime of the concession amounts to €68.8 per passenger expressed in 2018 Euros.

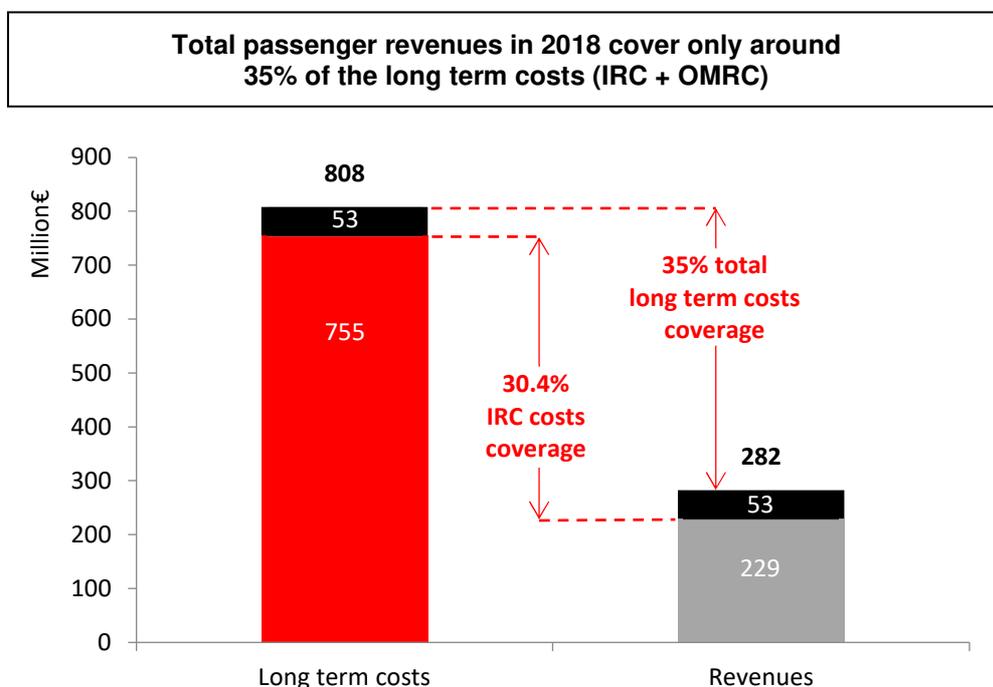
This amount of €68.8 for 2018 corresponds to the threshold beyond which (had it been achieved every year since 1994 and would continue to do so every year until the expiry of the concession) the initial investor⁶ will get over the term of the concession, the expected return on the capital invested.

Obviously the actual unit amount for 2018 is much lower than the calculated theoretical threshold (€20.9 compared to €68.8) being only 30.4% of the passenger toll (or 35.0% of total long term costs IRC+OMRC). In parallel, the total annual amount of actual passenger IRC revenues in 2018 (RUC passenger tolls and fixed annual tolls of 229M€) is much lower than the theoretical amount required for the recovery of LTC (755M€ for 2018).

Similar numerical applications show that this has also been the case every year since 1994. Finally, the sensitivity analysis over a wide range of variations in modelling assumptions results in the same conclusion, that there is no prospect of over recovery of long term costs under the RUC charging system.

In conclusion, the charging framework based on the recovery of long term costs calculated in 1987 is in full compliance with European law and its implementation into binational regulation. Passenger tolls are not only based on the recovery of long-term costs, but they also fully respect the charging principles set out in the RUC. Moreover, calculations also show that the current effective unit price represents less than 35% of the calculated threshold necessary to ensure a fair remuneration of the risk taken by an initial notional investor:

The RUC charging system does not lead to an over-recovery of long term costs.



⁶ We consider here a theoretical initial investor from the regulation's standpoint. This investor is not to be confused with a stock market investor who can buy or sell GET shares on an everyday basis with a return based solely on his investment strategy.