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2nd of May 2023

Dear Louise,

Proposal to supplement the CP6 Track Usage Price List.

The purpose of this letter is to propose a supplement to the Control Period 6 (CP6) Track Usage Price List, consistent with Schedule 7 of Merseyrail's Track Access Contract. In particular, a new Variable Usage Charge (VUC) rate for the Class 777 EMU vehicle type operated by Merseyrail Electrics.

This supplement to the Track Usage Price list has been agreed between Network Rail and Merseyrail. It is required because of the introduction of new Class 777 EMU vehicles into Merseyrail's fleet from 24 November 2022.

The new VUC rate proposed in this letter was calculated using the agreed CP6 VUC calculator developed by Network Rail in 2017/18 prices. The output sheet from the calculator, which sets out the proposed new rate and input information, is appended to this letter. Due to the vehicle's articulated design, we have used the methodology as described in the accompanying explanatory note, "*VUC methodology and Explanatory note- Stadler Class 777 – Issue 2*". The new rate is summarised in Table 1 as follows:

Table 1

Vehicle	Rate p/vm
777/T	3.1
777/M	5.54

If you have any queries in relation to the calculation of the proposed new VUC rate, or the content of this letter more generally, we would, of course, be happy to discuss this with you in more detail.

Yours sincerely

Devon Wall
Network Rail

George Williams
Merseyrail Electrics 2002 Limited



Appendix 1

CP6 VUC Calculator: Passenger vehicles

V7h: February 2022



Calculate another vehicle VUC rate

Vehicle data	
Vehicle name/class	777T (Trailer)
Vehicle type	Coach or Multiple Unit
Number of axles	2
Speed (max, mph)	75
Route speed (max, mph)	
Speed (operating, mph)	27.47 (User specified)
Tare weight (t)	19.22 Seats 25
Operating weight (t)	20.1575
Unsprung mass (kg)	875
Curving class	User defined
Ct factor	0.89

Calculated VUC		
2017/18 prices		
VUC	3.1	1.5387
	p/vm	£/kGTM
VUC Breakdown		
Track	1.98	0.9824
Structures	0.11	0.0561
Signals (variable)	0.05	0.0266
Signals (fixed)	0.22	0.1095
Surface damage	0.73	0.3641

User specified TGamma value for surface damage calculation			
Radius	Axle		
	1	2	
200	169	60.5	
400	70	5	
600	49	6	
800	27	4.5	
1000	15.5	3	
1200	11.5	3	
1400	8.5	3	
1800	6	3.5	
2200	3.5	2	
2600	2.5	2	
3000	2	1	
4000	1	1.5	
6000	1	2	
8000	1	2	
10000	1	2	



CP6 VUC Calculator: Passenger vehicles

V7h: February 2022

Calculate another
vehicle VUC rate

Vehicle data		
Vehicle name/class	777M	(Motor)
Vehicle type	Coach or Multiple Unit	
Number of axles	3	
Speed (max, mph)	75	
Route speed (max, mph)		
Speed (operating, mph)	27.47	(User specified)
Tare weight (t)	32.14	Seats 67
Operating weight (t)	34.6525	
Unsprung mass (kg)	1144	
Curving class	User defined	
Ct factor	0.89	

Calculated VUC		
2017/18 prices		
VUC	5.54	1.5982
	p/vm	£/kGTM
VUC Breakdown		
Track	4.00	1.1536
Structures	0.29	0.0844
Signals (variable)	0.11	0.0312
Signals (fixed)	0.22	0.0637
Surface damage	0.92	0.2653

User specified TGamma value for surface damage calculation			
Radius	Axle		
	1	2	3
200	180.5	54	118
400	72.5	5.5	39
600	45	5.5	24
800	25	4.5	14
1000	15	3	8.5
1200	11.5	3	7
1400	8.5	3	5.5
1800	6	3.5	5
2200	3.5	2	2.5
2600	2.5	2	2
3000	2	1	2
4000	1	2	2.5
6000	2	2.5	2.5
8000	1	2	1.5
10000	1	2	1.5