

# Table of contents

<b>Foreword</b> .....	7
<b>Richard Marshall</b> DWS Infrastructure	
<b>I. Decarbonising the transport sector</b> .....	9
<b>Ellie Gilbert</b> <b>Anna Sweeney</b> Addleshaw Goddard	
1. Introduction .....	9
2. International decarbonisation strategies .....	10
3. The UK's approach to decarbonisation .....	12
4. Early days of government climate action .....	13
5. Climate Change Act 2008 .....	14
6. Carbon budgets and carbon targets .....	14
7. Transport and meeting the UK's climate targets .....	16
8. Road to Zero Strategy .....	17
9. The UK's Ten Point Plan for a Green Industrial Revolution .....	18
10. The UK's transport decarbonisation plan .....	21
11. UK Hydrogen Strategy .....	23
12. Net Zero Strategy: Build Back Greener .....	23
and Powering Up Britain: Net Zero Growth Plan	

13. Electric vehicle infrastructure strategy .....	24
14. Carbon Budget Delivery Plan and ZEV Mandate .....	24
15. The UK general election 2024 .....	24
16. Middle East approach to decarbonisation .....	25
17. Conclusion .....	27
<b>II. Rail decarbonisation</b> .....	<b>29</b>
<b>Martin Fleetwood</b>	
<b>Ross Sandford</b>	
<b>Rachel Scott</b>	
Addleshaw Goddard	
1. The legal imperative: United Kingdom .....	29
2. Technology: “What does the future look like?” .....	35
3. How do we get there? .....	45
4. Reducing carbon in the supporting infrastructure .....	50
for new power systems	
5. Conclusion .....	56
<b>III. Zero and low emission road vehicles</b> .....	<b>59</b>
<b>Ellen Beardsworth</b>	
<b>Paul Dight</b>	
<b>Anna Sweeney</b>	
Addleshaw Goddard	
1. Zero emission road vehicles .....	59
2. Zero emission technology options .....	59
3. Impactful use cases .....	68
4. The legal imperative: the Zero Emission .....	70
Vehicle Mandate	
5. Challenges faced by the automotive industry .....	71
6. How is the market responding to the challenges? .....	78
7. Conclusion: why could zero emission vehicles .....	87
be helpful to reaching net zero target?	
<b>IV. Public transport and payments</b> .....	<b>89</b>
<b>Jack Houselander</b>	
<b>Euan Towers</b>	
Addleshaw Goddard	
1. Introduction .....	89
2. Payment services: the legal and compliance context .....	90
3. The payment service provider relationship .....	94
4. How does a payment transaction work? .....	94
5. ‘Open loop’ and ‘closed loop’ payments in transport .....	98
6. Models .....	103

<b>V. Connected autonomous vehicles: the future of mobility and their role in achieving net zero</b>	107
<b>Charles Christie</b>	
<b>Nathalie Moreno</b>	
<b>William Smith</b>	
Addleshaw Goddard	
1. Introduction	107
2. Understanding connected autonomous vehicles	107
3. Self-driving and levels of automation	108
4. Benefits of connected autonomous vehicles	108
5. Connected autonomous vehicles and net zero	110
6. Legal imperative and the current regulatory landscape	112
7. How do we get there?	115
8. The direction of travel across the globe	118
9. Conclusion	143
<b>VI. Green shipping</b>	145
<b>Ed Watt</b>	
Addleshaw Goddard	
1. Introduction: the fuel choice dilemma	145
2. International Maritime Organization	147
3. UK measures	148
4. Emissions trading schemes	150
5. Low emission technologies	151
6. Conclusion	161
<b>VII. Aviation and the jet zero ambition</b>	163
<b>Anna Ai</b>	
<b>Sophie Black</b>	
<b>Sheyda Rimmer</b>	
Addleshaw Goddard	
1. Introduction	163
2. Legal, political and regulatory background to sustainable aviation	164
3. What does the future look like for the aviation industry?	172
4. Conclusion	179
<b>Addendum</b>	183
<b>About the authors</b>	185
<b>About Globe Law and Business</b>	191