

National Infrastructure Commission Meeting Minutes July 2018 – April 2020

- 1.1 The National Infrastructure Commission's Commissioners meet once per month.
- 1.2 The Commission secretariat will aim to publish minutes of these meetings, redacted for GDPR purposes, within three months of the meeting date.
- 1.3 The below minutes cover the period from the publication of the National Infrastructure Assessment in July 2018 to April 2020.

Meeting: Commission Meeting Date: 17 July 2018 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt CBE	(Chair)
Professor Sir Tim Besley CBI	Commissioner)
Professor David Fisk CB	(Commissioner)
Professor Sadie Morgan	(Commissioner)
Julia Prescot	(Commissioner)
Bridget Rosewell OBE	(Commissioner)

Secretariat:

Philip Graham	(Chief Executive)
James Richardson	(Chief Economist)
	(Head of Transport, Energy and Digital)
Sasha Morgan	(Chief Operating Officer)
	(Head of Water, Waste and Cross-cutting)
	(Head of Modelling and Analysis)
	(Head of Strategic Communications and Media)
	(Head of Freight Study)
	(Senior Policy Adviser)
	(Senior Policy Adviser)
	(Senior Policy Adviser)
	(Cities Lead)
	(Policy Adviser)
	(Private Secretary to the Chair)
	(Commission Secretary)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting. Apologies for absence had been received from Dame Kate Barker, Andy Green and Adam Cooper.

2 Minutes and Matters Arising

2.1 The minutes of the Commission meeting held on 20 June 2018 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1.

2.2 Commissioners were reminded that the minutes for the meetings that had taken place since the Commission's establishment as an Executive Agency would soon be published on the website. Bridget Rosewell (BR) questioned what steps had been taken to manage conflicts of interest. The Chief Executive (PG) explained that legal advice had been sought from the NIC's counsel, who had indicated that he was satisfied that due process had been followed.

3 Chair's Update

- 3.1 The Chair noted that the meeting was the first since the successful launch of the NIA and congratulated Commissioners and the Secretariat.
- 3.2 Commending the Chief Operating Officer (SM), the Chair highlighted the work that had gone into setting up the new office in Finlaison House and welcomed that it was now fully functional. It was noted that this would be the location for all meetings of the Commission going forward.
- 3.3 The Chair gave a brief overview of his engagement and activity since the last Commission meeting, highlighting the positive reception the NIA had received from a broad spectrum of stakeholders, as well as its wide-ranging media coverage.
- 3.4 Professor Sir Tim Besley (TB) asked how extensive the engagement with the National Infrastructure Commission for Wales (NICfW) had been. PG confirmed that there had been a number of constructive conversations with their representatives leading up to the NIA and welcomed the opportunity its publication presented to work together even more closely. It was agreed that a visit or meeting should be organised for Commissioners and the Chair of NICfW.
- 3.5 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

Action: Secretariat to organise a meeting or visit with the National Infrastructure Commission for Wales.

4 Chief Executive's Update

- 4.1 PG noted the various events that had taken place to mark the launch of the NIA in London, Leeds and Bristol. PG informed Commissioners that conversations had already begun with HM Treasury about what their process for responding to the report would be, noting that they were considering a phased response, addressing different sectors separately, rather than necessarily publishing a single complete response.
- 4.2 It was noted that a response to *Data for the Public Good* was anticipated for the coming Thursday (19 July 2018), with the Exchequer Secretary to the Treasury, Robert Jenrick MP, expected to reference it in a speech.
- 4.3 PG explained that there was an appetite to turn the resilience review into a formal study, and that similar discussions were taking place to establish whether this could also be the case for the regulatory review.
- 4.4 Commissioners were told that the first meeting of the Young Professionals Panel would be happening the following week.

- 4.5 PG provided an update on staffing, informing Commissioners that Adam Cooper would be leaving to take up a role at the Competition and Markets Authority and that Katie Black was being promoted to Head of Policy to oversee the process for monitoring the implementation of NIA recommendations, and the development of plans for the second NIA.
- 4.6 Commissioners noted the list of key meetings, visits and events undertaken by the Chief Executive at appendix 1.

5 Reflections on the NIA

- 5.1 Commissioners were invited to share their early thoughts on the reaction to the NIA. PG explained that there would be a full 'lessons learnt' process during which they would have the opportunity to provide more detailed feedback. Key points made in the discussion included:
 - The response of the nuclear industry to the energy recommendations and the need to engage with them.
 - The power of the message that the Chair had changed his mind about nuclear's role in future energy production based on the evidence that had emerged.
 - The importance of maintaining dialogue with a broad group of stakeholders.
- 5.2 TB suggested that hard copies of the report should be sent to key opinion-formers.

GT explained that a list had already been compiled and confirmed that the mail-out was expected in the coming weeks.

Action: Secretariat to send hard copies of the NIA to key opinion-formers.

6 Freight Study

6.1 SL shared an update on work on the freight study and confirmed that its

emerging thinking would be outlined at the next meeting in September. Commissioners were informed that the first meeting of the advisory panel would be held the following week. SL provided a summary of the stakeholders that were being consulted as part of the study, noting engagement with Metro Mayors and Combined Authorities, as well as representatives from industry.

- 6.2 SL explained that one of the key issue that had come to light was the lack of available data on freight and invited Commissioners to consider whether the team should undertake more detailed work to identify potential recommendations to government on how to improve data collection to support decision making. Commissioners agreed that the identification of this gap was, in itself, a valuable observation and agreed the approach.
- 6.3 The price elasticity of freight was highlighted and SL explained the complexity of road and rail charges. Commissioners were advised that searching for a conclusive solution to the issue of freight pricing within the scope and resources of the study would be very challenging. SL recommended that pricing should not be a focus of the report, which was agreed.

- 6.4 SL highlighted the terms of reference for the study which state that an interim report must be published in Autumn 2018. Noting that previous practice with NIC study reports had been to publish ahead of the Budget, SL recommended that the publication of the freight study's interim report should not be tied by the date of the Budget. This was because the report would focus on making the case for investment into freight, with recommendations around process, regulation and planning, rather than seeking to influence specific spending decisions. Commissioners agreed that the publication of the interim report should not be determined by the date of the budget.
- 6.5 SL noted the three pieces of in-depth research that had been commissioned for the study and recommended that these be published either slightly ahead of the interim report or in tandem with it. Commissioners agreed the publication approach.

Decision: Commissioners agreed that more work should be undertaken to identify potential recommendations to government on how to improve data collection within the freight sector.

Decision: Commissioners agreed that the study should not explore road and rail charges in detail.

Decision: Commissioners agreed that the publication of the interim report should not be determined by the date of the budget.

Decision: Commissioners agreed that the pieces of in-depth research that had been commissioned for the freight study should be published either slightly ahead of the interim report or in tandem with it.

7 Cities Work

- 7.1 PG introduced the cities item, highlighting the commitment in the NIA that the Commission would undertake engagement and research work with cities. Commissioners were informed that the discussion would provide an opportunity to build up a more detailed picture of what the work would consist of. Decisions needed to be taken on what the objectives of the work would be, what the work plan would look like and which cities it would involve.
- 7.2 Commissioners engaged in discussion and concluded that the NIC should have an engagement and outreach role with cities. It was decided that as part of this work a toolkit should be produced to support city leaders to plan effectively. Key points made included:
 - The need to highlight the importance of strategic spatial planning.
 - The potential for the NIC to exercise convening power to bring cities together.
 - The existence of pre-existing cities networks and the value of tapping into them.
 - The importance of showing how conclusions were reached about which cities to work with.
 - The need to reiterate that city leaders should develop integrated strategies for transport, employment and housing.
 - The unique role of the NIC, particularly in regard to its proximity to central government.
 - The NIC's success in playing the role of a critical friend.
 - The need to work with HM Treasury to get the Department to buy into the proposal.

7.3 GM confirmed that he would begin to prime stakeholders and set up a programme of meetings to progress the work.

Decision: Commissioners agreed that the NIC should have an engagement and outreach role with cities, and that it should produce a toolkit to help their leaders plan effectively.

- 8 A.O.B.
- 8.1 Commissioners were reminded of the NIA regional engagement programme that was being organised, consisting of visits across the country to promote the report's recommendations in every region. Commissioners agreed that it would be valuable to consult the Scottish Futures Trust on engagement with Scotland and PG agreed to follow up with its Chief Executive.
- 8.2 The meeting ended at 15.45.

Action: Secretariat to follow up with the Chief Executive of the Scottish Futures Trusts.

Meeting: Commission Meeting Date: 11 September 2018 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt CBE	(Chair)	
Dame Kate Barker DBE	(Commissioner) (Items 1 – 8)	
Professor Sir Tim Besley CBE (Commissioner)		
Professor David Fisk CB	(Commissioner)	
Andy Green	(Commissioner) (Items 1 – 10)	
Bridget Rosewell OBE	(Commissioner) (Items 1 – 10)	

Secretariat:

Secretariat.	
Philip Graham	(Chief Executive) (Items 5 – 11)
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
	(Senior Regulatory Adviser)
	(Head of Resilience Review)
	(Head of Strategic Communications and Media)
	(Head of Freight Study)
	(Senior Policy Adviser)
	(Senior Policy Adviser)
	(Senior Policy Adviser)
	(Cities Lead)
	(Senior Economic Adviser)
	(Policy Adviser)
	(Private Secretary to the Chair)
	(Commission Secretary)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting. Apologies for absence had been received from Professor Sadie Morgan and Julia Prescot. An apology for lateness had been received from the Chief Executive.

2 Minutes and Matters Arising

2.1 The minutes of the Commission meeting held on 11 September 2018 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1.

3 Chair's Update

- 3.1 The Chair gave a brief overview of his engagements and activity since the last Commission meeting, noting that the NIA continued to be received positively.
- 3.2 Commissioners discussed recent developments with HS2. The Chair and Bridget Rosewell (BR) expressed their keenness to engage with the Department for Transport to explore any future role for the NIC as the project progresses. It was agreed that they should meet with the Chief Executive to discuss this further.
- 3.3 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

Action: Secretariat to organise a meeting between the Chair, Bridget Rosewell and the Chief Executive to discuss HS2.

4 Conflicts of Interest

4.1 Commissioners were asked to note the NIC's updated conflicts of interest policy at appendix 1 and encouraged to inform the Commission Secretary if its revised provisions required them to make a new declaration.

5 Freight Study

- 5.1 SL presented to Commissioners and invited them to review and share their thoughts on the draft executive summary for the interim report. Commissioners were informed that good progress had been made on the consultancy-led work, with each of the reports expected to be delivered within the timescales agreed during procurement.
- 5.2 SL highlighted that the interim report would focus on the problems with the current approach to planning for freight and the imperative for this to change to a more systematic approach. Commissioners noted that its contents would include discussion of the issues surrounding land use planning, regulation and data. SL shared his view that the interim report should not include any recommendations and that it should instead serve as a problem statement, which was agreed.
- 5.3 Commissioners engaged in discussion about the draft executive summary. Key points made included:
 - The effects of continuing growth in e-commerce.
 - The need for the report to articulate what policy failure it sought to address, with this being identified as the externalities created by the freight industry.
 - The aim of the report to set out how a better policy framework could be achieved for freight, rather than acting as a 'national freight plan.'
 - The mixed quality of the available data.
 - The opportunity to set parameters that would help the industry to make better choices.

- The value of including specific examples in the interim report, for example of problems congestion issues or problems resulting from the planning process.
- The viability of rail freight.
- The need to create an 'innovation environment' and the role of technology.
- The need for the report to include a description of how a freight system is defined.
- The problems associated with empty running.
- 5.4 SL sought approval for the Freight Study's lead Commissioners Bridget Rosewell and Andy Green – to sign off the interim report in consultation with the Chair, which was agreed. The Commission was advised that the expert panel would next meet in two weeks' time and that the interim report would be published in November after the Budget.

Decision: Commissioners agreed that the interim report for the freight study should not include any recommendations.

Decision: Commissioners agreed to delegate authority for final sign-off to the Chair, Bridget Rosewell and Andy Green.

6 Chief Executive's Update

- 6.1 The Chief Executive (PG) provided an update on recent developments. PG noted that the NIC was going through a transition phase, with good progress being made on a proposed new structure for the Secretariat to resource the forward work programme.
- 6.2 Commissioners noted the list of key meetings, visits and events undertaken by the Chief Executive at appendix 1.

7 Regulatory Review

- 7.1 SH sought Commissioners' views on the opportunity to turn the regulatory review into a formal study. It was recognised that while defined terms of reference would mean there would be less flexibility to alter the direction of the work, discussions with HM Treasury had shown that they were broadly aligned with the NIC's intentions for the scope of the study. SH noted that a formal response from government would also help the report to gain more attention.
- 7.2 SH invited Commissioners to review the draft terms of reference for the study and asked whether they were content for it to cover the four areas that had been proposed. These were: what future changes will affect the regulated sectors; competition and innovation; regulatory consistency; and how government and regulators work together. Commissioners engaged in discussion before approving the terms of reference and key themes. Key points made included:
 - The relationship between competition and returns.
 - How effectively regulators had modelled their respective industries.
 - The need for regulators to think longer term.
 - The impact of the cost of capital.
 - Public opinion on ownership of infrastructure assets.
 - The need to draw upon some historical case studies.

• The importance of providing a definition of vulnerable consumers and the need to consider how this group is impacted.

Decision: Commissioners agreed to pursue discussions with HM Treasury on making the regulatory review a formal study

Decision: Commissioners agreed the broad themes proposed for the study's terms of reference.

8 NIA Monitoring Update

- 8.1 GT presented a summary of the responses to the NIA and outlined how the recommendations for each sector had landed with stakeholders, welcoming that reactions had been broadly positive. It was noted that critical comments had mainly been voiced by special interest groups with entrenched views or longstanding campaigns. Commissioners were reminded that the Government would be required to issue a formal response as soon as practicable, and within 12 months from publication.
- 8.2 GT sought the Commission's steer on the frequency and format for receiving updates on progress with implementing NIA recommendations. Commissioners indicated that their preference would be for a quarterly summary.

Decision: Commissioners agreed that they should receive a quarterly summary to update them on progress with implementing NIA recommendations.

9 Communications and Stakeholder Engagement Strategy

- 9.1 SS presented a proposed set of NIA recommendations to Commissioners and sought agreement that they should be prioritised for promotion in the media. The recommendations on cities, energy and electric vehicles were put forward as priorities for proactive media, and those on water, flooding and financing of infrastructure were identified as the likely focus for reactive handling. Commissioners agreed the outlined approach and SS highlighted various forthcoming media opportunities.
- 9.2 SS noted that work would soon be starting to refresh the NIC's website, which was welcomed by Commissioners.

Decision: Commissioners agreed that proactive media activity should prioritise the NIA recommendations on cities, energy and electric vehicles. Decision: Commissioners agreed that reactive media handling should be focussed on water, flooding and financing of infrastructure.

10 NIA 'Lessons Learnt'

10.1 SW presented the proposed objectives and methodology for the NIA

'lessons learnt' process to Commissioners, noting that the review would draw upon views from a wide range of stakeholders and that its outputs would underpin the approach to the next NIA. It was suggested that the findings should be published with a clear set of recommendations by Spring 2019, followed by a consultation later in the year on the scope, process and methodology for the next NIA. Commissioners agreed the outlined approach. 10.2 SW sought Commissioners' views on how they would like to engage with the process and it was decided that this should be at the Secretariat's discretion.

Decision: Commissioners agreed the proposed objectives, methodology and publication schedule for the 'lessons learnt' process.

11 A.O.B.

- 11.1 There were no other items of business.
- 11.2 The meeting ended at 16.15.

Meeting: Commission Meeting Date: 24 October 2018 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt CBE	(Chair)	
Professor Sir Tim Besley CB	E (Commissioner)	
Professor David Fisk CB	(Commissioner)	
Andy Green	(Commissioner)	
Julia Prescot	(Commissioner)	
Professor Sadie Morgan	(Commissioner)	
Bridget Rosewell OBE	(Commissioner)	

Young Professionals Panel Members:

Victor Frebault	
Madeleine Kessler	
Petra Marko	

Secretariat:

Philip Graham	(Chief Executive)
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
Sasha Morgan	(Chief Operating Officer)
	(Senior Regulatory Adviser)
	(Head of Resilience Review)
	(Head of Strategic Communications and Media)
	(Cities Lead)
	(Senior Economic Adviser)
	(Commission Secretary)
	(Assistant Economist)
	(Student Economist)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting. An apology for absence had been received from Dame Kate Barker.

2 Minutes and Matters Arising

2.1 The minutes of the Commission meeting held on 11 September 2018 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1 and the NIA monitoring report at appendix 2.

3 Chair's Update

- 3.1 The Chair gave a brief overview of his engagements and activity since the last Commission meeting, noting that the NIA continued to be received positively.
- 3.2 A recent meeting with representatives from the newly-established National Infrastructure Commission for Wales was noted and the Chair highlighted opportunities for information sharing between the two Commissions.
- 3.3 The Chair welcomed the success of the NIC roundtable meeting in Exeter, which had been organised as part of a programme of regional engagement to share the findings of the National Infrastructure Assessment (NIA). Commissioners were informed of the ambition of local stakeholders to commission a study on the South West corridor.
- 3.4 Commissioners discussed the need to develop the NIC's position on HS2 and it was agreed that the Chief Executive should prepare a paper.
- 3.5 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

Action: Chief Executive to develop a position paper on HS2.

4 Chief Executive's Update

- 4.1 The Chief Executive (PG) provided an update on recent developments. PG noted that a formal response to the study on the Cambridge-Milton Keynes-Oxford Arc would be published to coincide with the forthcoming Budget. The launch of the new resilience study was also expected to be announced. The recent progress of the study was highlighted, as well as the work on regulation. PG advised Commissioners that a first draft of the interim report for the freight study had been shared with the lead Commissioners.
- 4.2 Commissioners noted the list of key meetings, visits and events undertaken by the Chief Executive at appendix 1.

5 Appointment of Lead Commissioners

5.1 PG highlighted the suggested list of lead Commissioners at appendix 1. Commissioners agreed that they were content with the proposal.

Decision: Commissioners agreed the proposed list of lead Commissioners.

6 Cities Workstream

6.1 TB provided an update on recent progress with the cities workstream, noting that a number of cities had expressed an interest in working with the NIC and that the overall

response had been overwhelmingly positive. Commissioners were asked to review the proposed shortlist of cities that had been identified as suitable candidates for case studies, having been scored on their level of ambition, relevance, commitment and infrastructure pressure. Those chosen would be offered targeted support in developing infrastructure strategies. TB sought Commissioners' approval of the shortlist, which was provided.

- 6.2 TB invited Commissioners to share their views on the second stream of the work to organise a rolling programme of knowledge sharing events, from which the NIC could collate examples of best practice to feed into online resources. TB explained that bigger cities, like Manchester and Birmingham, would be invited to take up advisory roles. Commissioners engaged in discussion before agreeing the approach. Key points included:
 - That roundtable and workshop sessions had proved to be a format that worked well during the development phase of the NIA.
 - The need to define what the NIC would expect from the cities that had been selected as case studies and vice versa.
 - The importance of identifying the barriers and challenges cities face.
 - The value of collecting data on public opinion as part of the process.

Decision: Commissioners approved the proposed shortlist of cities. Decision: Commission agreed the proposed work programme for the cities workstream.

7 Resilience Study

7.1 MC invited Commissioners to review the draft terms of reference for the

resilience study and reiterated that it would be formally announced at Budget.

- 7.2 MC sought Commissioners' approval of the draft narrative for the study, noting that it would be useful to agree it at an early stage to aid the communications and engagement strategy for the work. Bridget Rosewell (BR) asked that 'continuous pressures' be included in the narrative, as well as 'shocks,' then Commissioners indicated that they were content with the narrative.
- 7.3 MC presented the recommended approach to the work, outlining the suggested issues for consideration during the scoping phase and opportunities to collaborate with other organisations involved in the infrastructure resilience space. Commissioners welcomed the broad scope that had been proposed for the study and engaged in discussion. Key points included:
 - The need to look across sectors and at infrastructure systems as a whole, rather than taking a siloed approach.
 - The NIC's longstanding ambition to examine resilience, with the bespoke study providing the time and resources required to do the subject justice.
 - The need to consider redundancy and recovery as elements of resilience.
 - The value in exploring work being undertaken by insurance companies.
 - The importance of drawing upon international and sectoral examples of best practice.
 - That the NIC couldn't and shouldn't attempt to do the job of GCHQ.

7.4 Commissioners identified the Association of Risk Management and the Data and Analytics Facility for National Infrastructure as useful organisations to engage with the work.

Decision: Commissioners agreed the proposed narrative for the resilience study (subject to the change put forward by Commissioners).

Decision: Commissioners agreed the proposed approach and scope of the resilience study.

8 Young Professionals Panel

- 8.1 The Chair welcomed Madeleine Kessler (MK), Petra Marko (PM) and Victor Frebault (VF) from the Young Professionals Panel (YPP), who had been nominated to represent the Panel at the meeting and share its proposed work programme with the Commission.
- 8.2 Commissioners received a presentation on the YPP's content piece proposal, 'How a generational shift is changing the demands of UK infrastructure.' The YPP's keenness to engage with young people and raise awareness of their infrastructure needs was highlighted as the motivating factor behind the idea.
- 8.3 The group outlined the key objectives for the work and identified that a clear methodology should be developed to take it forward, explaining that they planned to use literature reviews, case studies and surveys. From this, the YPP would identify no more than four key trends to explore in more detail.
- 8.4 Commissioners praised the presentation and expressed their enthusiasm for the YPP. Discussion ensued about the proposal for the work. Key points included:
 - The need to allocate sufficient resources to the YPP.
 - The importance of developing a communications strategy to support the YPP's work.
 - The potential to carry out social research.
 - The need to distinguish between cohort and age group.
 - The importance of engaging with a diverse group of young people.
 - The opportunity to incorporate the NIC's quality of life objective into the work.
- 8.5 Commissioners agreed that a new standing item should be added to the agenda for future Commission meetings to give the YPP an opportunity to provide an update on their work and activities.

Action: Secretariat to introduce a new standing agenda item for a Young Professional's Panel update.

9 Communications Strategy Update

9.1 SS outlined a number of forthcoming proactive media opportunities to

promote the findings of the NIA, in line with the Commissioners' previously agreed priority list focussing on the energy, cities and EVs recommendations.

9.2 SS highlighted that the Mayors of the West Midlands and Greater Manchester, Andy Street and Andy Burnham, had agreed to write a joint op-ed to urge the Government to implement the cities recommendations, which was welcomed by Commissioners.

9.3 Commissioners engaged in discussion about the communications strategy. Key points included:

- The potential merit in highlighting the need for EV charging points to be interoperable.
- The need to review toplines to keep them contemporary.
- The value of thinking creatively and 'outside the box' to raise the NIC's profile and reach new audiences.
- 9.4 Commissioners expressed their preference to receive more links to NIC media coverage online and it was agreed that these would be incorporated into the NIC's communications update.

Action: Secretariat to include more links to media coverage in the weekly communications update.

10 A.O.B.

- 10.1 There were no other items of business.
- 10.2 The meeting ended at 16.20.

Meeting: Commission Meeting Date: 22 November 2018 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt CBE	(Chair)	
Dame Kate Barker DBE	(Commissioner)	
Professor Sir Tim Besley CB	E (Commissioner)	
Professor David Fisk CB	(Commissioner)	
Andy Green	(Commissioner)	
Julia Prescot	(Commissioner)	
Professor Sadie Morgan	(Commissioner)	

Young Professionals Panel Members:

Charlotte Mitchell	
Christian O'Brien	

Secretariat:

Secretariati	
Philip Graham	(Chief Executive)
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
Sasha Morgan	(Chief Operating Officer)
	(Senior Regulatory Adviser)
	(Head of Resilience Review)
	(Transport Lead)
	(Senior Economic Adviser)
	(Senior Policy Adviser)
	(Commission Secretary)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting. An apology for absence had been received from Bridget Rosewell.

2 Minutes and Matters Arising

2.1 The minutes of the Commission meeting held on 24 October 2018 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1.

3 Chair's Update

- 3.1 The Chair gave a brief overview of his engagements and activity since the last Commission meeting.
- 3.2 Following the announcement at Budget that PFI would be scrapped, the Chair raised concerns about how this would impact the Lower Thames Crossing and the A303. It was noted that many in the infrastructure sector wanted more detail about what it would be succeeded by.
- 3.3 The Chair updated Commissioners on the visit to Southampton that had taken place that week and noted the continued success of the regional roundtables. A number of local authorities had requested bespoke studies to examine particular corridors.
- 3.4 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

4 Chief Executive's Update

- 4.1 The Chief Executive (PG) provided an update on recent developments. It was noted that the terms of reference for the regulation study had not yet been published. Commissioners were informed that the interim report for the freight study was nearly ready and a first draft of a report for the cities workstream was coming together, with five case studies having been selected.
- 4.2 With the NIA now published, PG highlighted the changing nature of the NIC's work and the need for it to take on more of a lobbying role to ensure its recommendations get accepted. With several members of the Secretariat having left to take up new roles and various secondments coming to an end, PG noted that the team currently stood at less than 30 people, having reached 45 at its peak. Commissioners were made aware however that around ten new members of staff would be starting in the coming months to help deliver the forward work programme, with further recruitment planned.
- 4.3 PG said the Secretariat was developing proposals for the NIC to publish a list of short-term infrastructure priority actions for the Government in the New Year and the Annual Monitoring Report in February.
- 4.4 Commissioners noted the list of key meetings, visits and events undertaken by the Chief Executive at appendix 1.

5 Young Professionals Panel Update

5.1 Charlotte Mitchell (CM) and Christian O'Brien (CO) gave an update on the YPP's recent work. With the Commissioners having approved their proposal for a content piece on millennials' relationship with infrastructure at the last meeting, CM advised that the YPP were now finalising their objectives for the work and identifying a long list of themes for consideration. It was noted that a communications strategy was also being developed and there were plans to expand the YPP's presence on the NIC's website.

NATIONAL INFRASTRUCTURE COMMISSION

- 5.2 Commissioners were informed that the YPP had nominated lead members for each of the NIC's workstreams.
- 5.3 The enthusiasm for the YPP was welcomed, with PG noting that the GLA had plans to introduce a similar initiative and that BEIS had been in touch with the NIC around advertising its secondee programme to YPP applicants.

6 Forward Work Programme

- 6.1 PG presented the proposal for the forward work programme. Drawing upon his recent one-toone meetings with each of the Commissioners, PG highlighted the strength of feeling that had emerged about the importance of building upon the NIC's existing recommendations and the appetite to pick up the social and fairness agenda. It been noted that at some point the question of how involved the Commission should get with the efficiency of decision-making and delivery in infrastructure would need to be addressed. There had also been recognition that the Commission would have more to do to be able to answer the questions around prioritisation of public investment between regions, cities, projects and modes.
- 6.2 PG outlined that the work for the period would seek to achieve three aims: to sustain the current suite of recommendations; to lay the foundations for the second NIA; and to build the NIC's evidence base and analytical capability.
- 6.3 Commissioners were invited to share their views on which areas were of most interest and greatest priority. Key points included:
 - The importance of refining the narrative on decarbonising heat and the need for an ambitious research and development programme to support it.
 - The need to exercise caution when getting involved in issues of delivery.
 - The importance of maintaining the Commission's public profile in the period before the next NIA.
 - The need to put sufficient resources into public engagement and build political consensus.
 - The ambition to look at how to create an environment in which decisions about infrastructure can be taken and delivered in the right way.
 - The importance of meeting the Commission's quality of life objective and ensuring that it is reflected clearly in every report.
 - The need to allow a period of stability around existing recommendations.
 - How think pieces could be used to highlight areas of interest without being too resource-intensive.

Decision: Commissioners agreed the proposal for the forward work programme (subject to the considerations raised in the meeting – and particularly the inclusion of a work package on better decision-making).

7 Paying for Road Use Workstream

7.1 TW presented the proposal for the work on road pricing and outlined how a 'deliberative engagement' process could be run to involve the public and improve

understanding of their priorities on this issue. TW pointed to examples of similar processes that had been run by other organisations and noted the importance of ensuring the question is framed in the right way. Key points from the discussion included:

- The need to think carefully about the methodology so as to combat the 'focusing illusion.'
- The importance of defining what the process would seek to achieve.
- The opportunity to draw upon similar work undertaken by Infrastructure Australia.
- The need for the exercise to form part of an ongoing programme to support the consideration of road user charging (and other approaches) in the second NIA.

Decision: Commissioners agreed the proposal for the proposed deliberative engagement work (subject to the considerations raised in the meeting).

8 Housing Workstream

- 8.1 FL presented the terms of reference for a project to analyse the role of utilities in the delivery of housing, with the Commission having committed in the NIA to explore the issue in more detail. The work would examine transport and utility infrastructure barriers which inhibit the delivery of housing and set out policy recommedantions to address them.
- 8.2 FL explained that the work would seek to do three things: explain the lack of alignment between the planning and delivery of infrastructure to support housing and make recommendations (or establish conclusions towards) improving it; identify the principal causes of poor coordination between how transport and utilities infrastructure is planned, invested and delivered in relation to housing; and assess the responsiveness within transport and utilities infrastructure frameworks to market signals, whereby infrastructure provision is not matching housing growth. It was noted that the proposal included the suggestion that case studies should be used to investigate the problem. Key points from the discussion included:
 - The importance of comparing different scales of housing developments.
 - The connection between economic infrastructure and social infrastructure.
 - The importance of wireless as well as broadband and the need for co-investment.
 - The need to consider the planning landscape in Wales, Scotland and Northern Ireland.
 - The role of spatial plans and the importance of working within the NIC's remit.
 - The need to consider how the housing work fits with the regulation study.

Decision: Commissioners agreed the proposal for the housing work (subject to the considerations raised in the meeting).

9 International Engagement

9.1 SH and MC invited Commissioners to review the suggested

approach to international engagement. It was noted that Commissioners and Secretariat staff were increasingly being invited to share their expertise with other countries, with a few recent examples including bilateral engagement with New Zealand, Canada and Australia.

- 9.2 Commissioners were asked to share their thoughts on how much resource should be allocated to international engagement and the best way to manage the growing number of requests. Key points from the discussion included:
 - That wherever possible, countries with an interest in the NIC's work should send a delegation to the UK or agree to cover expenses, to keep cost down.
 - The importance of learning from countries that had found effective solutions to the problems the Commission endeavours to solve.
 - How Commissioners could look for opportunities to use work trips abroad in their other capacities to carry out international engagement for the NIC.
 - The need to get outside of the anglosphere.

Decision: Commissioners agreed that the priority for international engagement should be knowledge-sharing with countries facing similar challenges to the UK – both through the key international institutions and bilateral engagement.

10 A.O.B.

- 10.1 Commissioners were reminded to make the Commission Secretary aware whenever they are due to participate in events that are related to the NIC's work.
- 10.2 The meeting ended at 16.00.

Meeting: Commission Meeting Date: 12 December 2018 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt CBE	(Chair)
Dame Kate Barker DBE	(Commissioner) (Items 1 – 5)
Professor Sir Tim Besley CB	E (Commissioner) (Items 1 – 6)
Professor David Fisk CB	(Commissioner)
Andy Green	(Commissioner) (Items 1 – 8)
Professor Sadie Morgan	(Commissioner)
Julia Prescot	(Commissioner)
Bridget Rosewell OBE	(Commissioner)

Young Professionals Panel Members:

Rosie Hughes

Secretariat:

Philip Graham	(Chief Executive)
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
Sasha Morgan	(Chief Operating Officer)
	(Senior Regulatory Adviser)
	(Head of Strategic Communications and Media)
	(Head of Economic Analysis)
	(Transport Lead)
	(Design Lead)
	(Senior Economic Adviser)
	(Senior Policy Adviser)
	(Senior Policy Adviser)
	(Private Secretary)
	(Commission Secretary)
	(Diary Secretary)

Other guests:

For Item 6 (Infrastructure Design Discussion):

(Design Task Force)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, noting that Andy Green would be joining the meeting by teleconference.

2 Minutes and Matters Arising

2.1 The minutes of the Commission meeting held on 22 November 2018 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1.

3 Chair's Update

- 3.1 The Chair gave a brief overview of his engagements and activity since the last Commission meeting.
- 3.2 Commissioners noted the need to continue work to raise the profile of the Commission and to differentiate between the role of the NIC and the Infrastructure and Projects Authority.
- 3.3 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

4 Chief Executive's Update

- 4.1 The Chief Executive (PG) provided an update on recent developments. It was noted that the cities programme would be launched just before Christmas, along with the interim report for the Freight Study, and that the terms of references for the Regulation Study had still not been published.
- 4.2 PG highlighted a recent meeting with Peter Reekie, the Chief Executive of the Scottish Futures Trust, and informed Commissioners that he expected the Scottish Infrastructure Commission to be launched before the end of the year.
- 4.3 It was noted that a submission was being prepared for the House of Common's Business, Energy and Industrial Strategy's inquiry into carbon capture, usage and storage, which would be signed off by the Chair in consultation with the relevant lead Commissioners.
- 4.4 Commissioners noted the list of key meetings, visits and events undertaken by the Chief Executive at appendix 1.

5 Young Professionals Panel Update

- 5.1 Rosie Hughes (RH) gave an update on the YPP's work, noting that it would be split out into four broad themes: collective identity; broadening the conversation; digital communications; and creative content.
- 5.2 RH highlighted progress in a number of areas, with members assigned portfolios for NIC workstreams and lead roles allocated in communications and research. Commissioners were informed that the Panel's executive sponsor, Katie Black (KBI), had been working closely with

them to scope their creative content piece and refine its methodology. There had also been positive steps forward in developing a communications strategy to promote the Panel's work.

5.3 Commissioners welcomed the progress with the Panel's work. RH noted that members of the YPP were receiving various invitations to represent the NIC at meetings and events, and it was agreed that they should seek advice from the Commission before accepting them to ensure alignment with the NIC's wider agenda and objectives.

6 Infrastructure Design

6.1 Professor Sadie Morgan welcomed HK from the Design Task Force to the meeting,

as well as KH who had joined the Secretariat on a temporary basis to put into practice the infrastructure design recommendations in the NIA

- 6.2 HK presented to Commissioners and highlighted three examples of infrastructure projects that had benefited from a design-centred approach, including Birmingham New Street station, and Denmark's Superkilen Park and Copenhill waste-to-energy plant. HK outlined how each project had achieved wide-ranging benefits, with positive social, environmental and economic impacts.
- 6.3 KH outlined that the proposed next steps for the work would be to develop design principles for national infrastructure and to launch the independent National Infrastructure Design Group (for which Sadie Morgan was suggested as Chair). Key points from the discussion included:
 - The risk that the design recommendations might not be accepted.
 - The link between the design work and the Commission's quality of life objective.
 - The need for the Commission to have oversight of the Design Group's work.
 - The importance of emphasising how good design can save money.

Decision: Commissioners agreed that the National Infrastructure Design Group should launch in April 2019 with dedicated support provided within the NIC Secretariat. Decision: Commissioners agreed that Professor Sadie Morgan should Chair the National Infrastructure Design Group.

7 Annual Monitoring Report

- 7.1 Katie Black (KBI) updated Commissioners on plans for the Commission's second Annual Monitoring Report, noting that it wouldn't cover the National Infrastructure Assessment, given that the Government had not yet published its formal response.
- 7.2 KBl outlined a suggested approach, recommending that the body of the report should be shorter than last year's, with more narrative. It was noted that the Secretariat were engaging a broad range of stakeholders in the process to seek their views, as well as government, and that subject to the Commission's approval, the report would be published in February. KBl also highlighted that consideration was being given to whether any of the recommendations had reached the stage where they could be closed. Key points from the discussion included:
 - The importance of highlighting the need to get on with existing projects.
 - The need in the current context for the report to make a positive case for infrastructure.

- The need to highlight good progress as well as holding the Government to account.
- That the narrative should emphasise that recent delays to projects shouldn't undermine the value of infrastructure investment.
- 7.3 Commissioners signalled that they were content with the outlined approach and agreed that the report should be published in February 2019.

Decision: Commissioners agreed the suggested approach for the Annual Monitoring Report (subject to the considerations raised in the meeting).

Decision: Commissioners agreed that the Annual Monitoring Report should be published in February 2019 – and that the detailed drafting of the report should be overseen by Sir John Armitt

8 Priority Actions for Government ('New Year's Resolutions')

- 8.1 PG invited Commissioners to share their views on plans to publish a statement setting out ten new year's resolutions for the Government in early January.
- 8.2 Following discussion, Commissioners agreed that publishing the priorities and the Annual Monitoring Report so close together could create confusion, and that the priorities should instead be incorporated into a letter to the Chancellor for publication on the website.

Decision: Commissioners agreed that the infrastructure priorities should form the basis for a letter to the Chancellor.

9 Communications Strategy

- 9.1 SS presented a suggested communications strategy to the Commission, noting two separate phases before the publication of the National Infrastructure Strategy and beyond it. It was noted that the strategy was underpinned by the Commission's objective to position the NIC as the most influential, forward-thinking and credible voice in the infrastructure debate. Key points in the discussion included:
 - The importance of having a succinct and consistent narrative.
 - The value in engaging with All-Party Parliamentary Groups.
 - How the political climate meant that securing coverage was more difficult than it had been in the past.
 - The need to highlight the Commission's quality of life objective wherever possible.
 - The importance of setting out a positive case for infrastructure.

Decision: Commissioners agreed the communications strategy (subject to the considerations raised in the meeting).

10 A.O.B.

10.1 There were no other items of business.

10.2 The meeting ended at 16.00.

Meeting: Commission Meeting Date: 30 January 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Professor Sadie Morgan	(Acting Chair)
Dame Kate Barker DBE	(Commissioner)
Professor Sir Tim Besley CBE (Commissioner) (Items 1 – 5)	
Professor David Fisk CB	(Commissioner)
Andy Green	(Commissioner)
Julia Prescot	(Commissioner)

Young Professionals Panel Members:

John Bradburn	(Young Professionals Panel Member)
Henry Metcalf	(Young Professionals Panel Member)

Secretariat:

Secretariati	
Philip Graham	(Chief Executive)
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
	(Head of Resilience Study)
	(Head of Strategic Communications and Media)
	(Transport Lead)
	(Principle Regulatory Adviser)
	(Head of Freight Study)
	(Senior Policy Adviser)
	(Senior Policy Adviser)
	(Senior Technical Adviser (Water))
	(Senior Economics Adviser)
	(Communications Manager (Press and Digital))
	(Policy Adviser)
	(Policy Adviser)
	(Private Secretary)
	(Commission Secretary)

1. Apologies and Welcome

1.1 The Acting Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from Sir John Armitt and Bridget Rosewell and that Julia Prescot would be joining the meeting by teleconference.

2 Minutes and Matters Arising

- 2.1 The minutes of the Commission meeting held on 12 December 2018 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1.
- 2.2 Commissioners asked for an update on the proposed 'New Year's Resolutions' letter to the chancellor. The Chief Executive (PG) said this had not been sent because it would not have received sufficient attention in the current political environment. Commissioners were content with this decision, and indicated that the Secretariat should not continue with the letter given the impending publication of the Annual Monitoring Report.

3 Chief Executive's Update

- 3.1 PG provided an update on recent developments. The Annual Monitoring Report will be circulated to Commissioners in early February. It was noted that commissioners could assist in raising expectations about the government's response to NIA recommendations.
- 3.2 PG noted that the terms of reference for the regulation study had still not been published but that it was anticipated they would be released within the next two weeks.
- 3.3 PG informed Commissioners of progress in recruitment of new staff to the secretariat following the release of the NIA. It was anticipated staffing would return to pre-NIA levels within the next few months.
- 3.4 PG highlighted the Treasury's forthcoming review of infrastructure finance for the future to replace the role of the European Investment Bank. It was noted that the NIC had been promised a chance to comment on the terms of reference before publication.
- 3.5 Commissioners noted the list of key meetings, visits and events undertaken by the Chief Executive at appendix 1.

4 Young Professionals Panel Update

- 4.1 Henry Metcalf (HM) gave an update on the YPP's work, noting that the panel planned to direct a piece of research into how millennials and Generation Z might change demands on infrastructure.
- 4.2 HM suggested two possible outputs for the research: A survey of applicants to the YPP to draw together trends and commission research resulting in a broad vision; or to explore how millennials and Generation Y might influence existing trends highlighted by NIA research, resulting in specific policy proposals.

4.3 Commissioners welcomed the progress with the Panel's work but suggested that they focus less on evidence-based research and more on providing Gen Z and millennial perspectives which may challenge existing NIC thinking. It was noted that the YPP will report back in February's Commission meeting.

5 Freight Study

5.1 SL provided Commissioners with a draft conclusion and provisional

recommendations for the freight study. SL explained that on the issue of congestion the report recommended a holistic planning approach which incorporated freight and a Freight Optimisation Fund to support a 'regulatory sandbox' to support innovation in freight planning. On the issue of decarbonisation, SL highlighted that the report proposed decarbonising freight by 2050 but that the role of rail freight would be uncertain in this environment.

- 5.2 SL asked Commissioners for guidance on the general direction of recommendations as well as the specific proposals for rail freight and the proposed publication date given Brexit uncertainties. Key points from the discussion included:
 - The need to examine pinch points in the system which pose specific problems for freight
 - The importance of the tone of planning recommendations focussing on the benefits of freight planning for Local Authorities
 - The importance of considering noise and particulate emissions produced by freight
 - The need to take into account the wider European perspective when considering approaches to decarbonisation and pricing and payment models
 - The importance of including a transparent discussion of the consequences of decarbonisation for rail freight in the final report.

6 Resilience Review

6.1 MC updated on the proposed scope of the resilience study, highlighting the

proposed focus on digital, power, transport and water, excluding solid waste and limiting consideration of flood management.

- 6.2 MC invited Commissioners to reflect on whether the study should deliver a framework for NIA2 rather than a comprehensive assessment and whether the initial priorities were correct or whether other topics should be considered. Key points from the discussion included:
 - The importance of clarifying the extent of consideration of flood management
 - The need to look at complete infrastructure systems as well as local case studies
 - The importance of considering the impact of increased reliance on services such as GPS, as well as the interaction of digital and physical networks, on overall system resilience
 - The need to consider the public's concerns in relation to infrastructure resilience
 - The importance of the study's focus on a cross-sectoral approach.
- 6.3 MC noted that a draft scoping report would be presented to Commissioners at the Commission Meeting on 2 May.

7 NIA Recommendations Update

- 7.1 Katie Black (KBI) updated Commissioners on progress against NIA recommendations, noting that good progress had been made in some areas, particularly within DEFRA, which has published a resources and waste strategy and endorsed the NIA's recommended leakage target. In other areas which require cross-departmental working or the devolution of power, less progress has been made.
- 7.2 KBI emphasised the importance of influencing the government's National Infrastructure Strategy, due to be published before or alongside the forthcoming spending review. Commissioners were invited to consider how they could support the secretariat's approach consisting of a focus on press and media, moving from explaining the NIA says to more directly seeking to influence the content of the National Infrastructure Strategy, including through building and demonstrating support for the NIA's recommendations. Key points from the discussion included:
 - The need for materials for Commissioners to use which contain a clear message
 - The importance of the government engaging properly with recommendations, including outlining reasons for the rejection of any recommendations
 - The value of influencing government through a range of avenues including the opposition and select committees
 - The need to develop a strategy for engaging with companies which support the NIA
 - The importance of championing success with the adoption of NIA recommendations.

Decision: Commissioners agreed that the Secretariat should develop a strategy outlining required Commission support and bring this to the Commission meeting in February.

8 Website Refresh

8.1 KT provided details of the website refresh tender process, noting the need to

differentiate reports from background research and to include more creative content including podcasts and videos.

8.2 Commissioners agreed with the process, noting the importance of having both creative content and an internal search function.

9 A.O.B.

9.1 It was noted that JC has replaced KT as Commission Secretary.

Meeting: Commission Meeting Date: 21 February 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt (Chair)		
Dame Kate Barker DBE	(Commissioner)	
Professor Sir Tim Besley	CBE (Commissioner)	
Andy Green	(Commissioner)	
Julia Prescot	(Commissioner)	
Bridget Rosewell	(Commissioner)	

Young Professionals Panel Members:

Annette Jezierska	(Young Professionals Panel Member)
Sakthy Selvakumaran	(Young Professionals Panel Member)

Secretariat:

Philip Graham	(Chief Executive)
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
	(Modelling Adviser)
	(Policy Adviser (Finance))
	(Commission Secretary)
	(Head of Private Office)
	(Project Director – Regulatory Study)
	(Senior Policy Adviser)
	(Head of Freight Study)
	(Senior Modelling Adviser)
	(Head of Strategic Communications and Media)
	(Principal Regulatory Adviser)
	(Generating Geniuses Intern)
	(Policy Adviser)
	(Senior Economics Adviser)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from Professor Sadie Morgan and Professor David Fisk CB.

2 Minutes and Matters Arising

- 2.1 The minutes of the Commission meeting held on 30 January 2019 were agreed as an accurate record of proceedings. Commissioners noted the action log at appendix 1.
- 2.2 Commissioners asked for clarity on point 6.1 of the minutes. It was noted that 'limiting consideration of flood management' in the resilience review referred to restricting the consideration of flood management to its impact on the resilience of the water, power, electricity and transport networks.

3 Chair's Update

- 3.1 The Chair gave a brief overview of his engagements and activity since the last Commission meeting.
- 3.2 Commissioners asked about the Commission's engagement with the Infrastructure Commission for Scotland and the National Infrastructure Commission for Wales. Commissioners noted the differences in the structure of both organisations in relation to the NIC, including that neither organisation has a fiscal remit which is set out as a proportion of GDP.
- 3.3 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

4 Chief Executive's Update

- 4.1 The Chief Executive (PG) gave a brief overview of his engagements and activity since the last Commission meeting. It was noted that the terms of reference and call for evidence for the Regulation Study were published on Monday 18 February.
- 4.2 PG noted that the Annual Monitoring Report would be published on Friday 22 February, the Lessons Learnt Report will be published in March and the Freight Study will be published in April, dependent on wider political developments which might impact the Freight industry.
- 4.3 PG noted the Whitehall and Industry Group's conference on the National Infrastructure Assessment on 13 March, the programme for which had been developed in partnership with the Commission. A draft agenda would be circulated to Commissioners after the meeting.

5 NIA Lessons Learnt

- 5.1 TW and EV introduced the key findings of the Lessons Learnt report and outlined the proposed next steps to implement its findings.
- 5.2 EV noted that feedback was overwhelmingly positive, with eight areas for improvement identified: addressing cross-cutting issues in depth; managing stakeholder engagement;

inclusive stakeholder engagement; managing external consultants; improving communication of trade-offs; addressing local and regional issues; and overall work programme management.

- 5.3 EV and TW asked for Commissioner approval of the report's headline recommendations and the proposed structure of the report. Key points in the discussion included:
 - The importance of considering the length of the report. It was noted that the evaluation process section should be an annex, with the report focusing on learning and recommendations.
 - The value of condensing the report's recommendations into a small number of organisational learning points which could be measured and tracked.
 - The need to reconsider publishing the Traverse report in full as an annex. It was agreed that the findings would be incorporated into the main body of the report, with quotes included to be approved by the relevant stakeholders before publication.
 - The need to provide clear meta-data in reports to respond to the recommendations around transparency. It was felt that while the Commission had been transparent, its data labelling could be improved to ensure readers knew where to access source data.

6 Freight Study

- 6.1 SL introduced the draft executive summary of the Freight Study, noting that the report had identified choices for government on options for decarbonising rail freight. SL explained that these had not been narrowed down because currently the merits of each option remained uncertain.
- 6.2 SL asked Commissioners to approve the recommendations in the draft executive summary and to agree for lead commissioners to sign off the full final report for publication in the spring. Key points in the discussion included:
 - The need to ensure that the time-scale for the introduction of electric HGVs is based on evidence from a range of stakeholders. A majority of Commissioners noted that the timescales referred to did reflect their own engagement with stakeholders.
 - The potential differential impacts on the cost for future road maintenance of electric and hydrogen fuel cell HGVs, which should be referenced in discussion of the costs and benefits of these options.
 - The significance of highlighting that the issue of whether electricity or hydrogen ends up as the predominant low-carbon HGV fuel source would be resolved through the wider approach taken by vehicle manufacturers and users across Europe, rather than any decisions taken in isolation in the UK (and hence the need for continuing international engagement).
 - The importance of freight receiving thorough consideration within the UK planning system, which was felt to be the key recommendation for the report.
 - The value of highlighting at the start of the report the importance of the freight industry to the UK economy and its future development.
 - The need to clarify the wording of recommendation 3 to indicate who should be funding and managing proposed freight distribution centres.

Decision: Subject to the minor revisions discussed, the Commissioners agreed to sign-off the executive summary and the publication timeline.

7 NIA Recommendations Update

- 7.1 Katie Black (KBI) updated on plans to influence the National Infrastructure Strategy and shared materials under development which could be used by Commissioners when raising awareness of the Commission's recommendations in the NIA.
- 7.2 PG noted that one aim of engaging stakeholders outside of government was to raise awareness within government of the breadth of support for the NIA's recommendations.
- 7.3 Commissioners agreed with the strategy but suggested that the engagement material should include examples of previous recommendations influencing government policy, including on water and CaMKOx.
- 7.4 Commissioners were asked to inform the Secretariat of any personal contacts amongst the key stakeholders listed (whether individuals or organisations).

8 PPPs Workstream

8.1 AB updated Commissioners on work on PPPs since the publication of the NIA,

noting that the NIA proposed an analytical framework capturing a holistic, rather than just economic, analysis of public and private procurement.

- 8.2 AB noted emerging findings including that the lack of consistent data among publicly and privately procured projects led to challenges in conducting a comparable whole life evaluation of projects and in designing an analytical framework.
- 8.3 AB said the analytical framework would continue to be refined and asked commissioners whether they thought this work should be conducted alongside a detailed analysis of the costs and benefits of financing models; or whether the research should inform future thinking on models of infrastructure financing. Key points in the discussion included:
 - The need to clarify the distinction between PPPs and the Regulated Asset Base model in the wording of the analysis.
 - The importance of highlighting that the lack of comparable data was a key finding which indicated the need for better data capture throughout an infrastructure project's life cycle.
 - The value of defining whether the initial problem analysed was how to encourage more private financing; or whether it was to determine whether it was better to deliver privately through the DBFO (Design-Build-Finance-Operate) model or publicly.
- 8.4 Commissioners agreed that, given that the significant data gaps prevented more detailed analysis, the project should bring this phase to an end and identify the conclusions that could be drawn regarding data availability, and then that the next phase should focus on developing a programme of work which could inform thinking on new models of infrastructure financing.

9 NIC Data Hub

9.1 DM outlined the proposed scope of the NIC Data Hub. DM highlighted that the

hub would be used internally, to ensure the consistent use of data across the secretariat, and externally to promote the NIC as a source of quality data on infrastructure.

- 9.2 DM asked Commissioners to agree the high level scope of the data hub and to consider whether the hub should target a specific external audience. Key points in the discussion included:
 - The importance of curating content so that the hub does not become overly resource intensive and expensive to maintain.
 - The value of the NIC acting as a quality kite mark by sharing existing high quality infrastructure data.
 - The importance of public data in shaping the debate. It was noted that the sample infographic was highly effective and could inform public perspectives on infrastructure.
 - The potential for including qualitative as well as quantitative data.
 - The need to develop the hub incrementally.

Action: It was agreed that the development of the hub would begin with collating a small number of the most important data sets across each of the six sectors, alongside one in depth data library for a sector where the Commission has made more contested recommendations, such as energy.

10 Young Professionals Panel Update

- 10.1Sakthy Selvakumaran (SS) and Annette Jezierska (AJ) fed back on the YPP's work including proposals for a YPP podcast series, a programme of 'infra cafes' to engage young professionals in infrastructure, contributions to an InfraHack event aimed at promoting innovation in the sector, and the next steps for their research on generational shift and infrastructure.
- 10.2 SS and AJ highlighted that the generational shift research, looking at potential changes to the demands placed on UK infrastructure, would begin with a call for evidence to be sent out to the 500 initial applicants to the YPP.

11 Regulatory Study

- 11.1 SH outlined the terms of reference of the regulatory study, noti^{ng that} study's question was 'what is the purpose of economic regulation of the energy, telecoms and water markets and is it delivering for current and future consumers?' and explained that a call for evidence had now been issued alongside the publication of the terms of reference.
- 11.2 SH highlighted that the call for evidence would come to an end on 12 April 2019 and that in the meantime stakeholder panel discussions would be ongoing. Commissioners were asked to take note of the outline plan for the study. Key points in the discussion included:
 - The need to plan for the tight timescale imposed on the study when compared to its broad scope.

- The importance of high quality engagement workshops with consumers, to facilitate an informed discussion on the impact of regulation.
- The value of engaging with a diverse range of stakeholders including those outside of the regulatory field. It was noted that tech companies do not always respond to written calls for evidence and so the Secretariat would seek to engage them through roundtables.
- The potential to interrogate data from Ofwat's current price review to inform the study.
- The potential for the study to make recommendations on mechanisms to give the public greater trust in infrastructure regulation.

12 A.O.B.

12.1 No items of A.O.B. were noted, and the meeting closed at 16.30.

Meeting: Commission Meeting Date: 20 March 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)	
Professor Sadie Morgan	(Commissioner)	
Dame Kate Barker DBE	(Commissioner)	
Professor Sir Tim Besley CE	BE (Commissioner)	
Professor David Fisk CB	(Commissioner)	
Julia Prescot	(Commissioner)	
Bridget Rosewell CBE	(Commissioner)	

Young Professionals Panel Members:

Rosie Hughes	(Young Professionals Panel Member)
Annette Jezierska	(Young Professionals Panel Member)

Secretariat:

ief Executive)
ief Economist)
rector of Policy)
ssistant Director – Transport/Economics)
ssistant Director – Transport)
icy Adviser)
mmunications Manager)
vate Secretary)
nmission Secretary)
icy Adviser)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from Andy Green.

2 Minutes and Matters Arising

2.1 Commissioners agreed that point 8.2 of the minutes of the meeting on 21 February should be amended to state 'AB noted emerging findings including that the absence of any data on publicly procured projects and the lack of consistent data on privately procured projects led to

challenges in conducting a comparable whole life evaluation of projects and designing an analytical framework.'

2.2 Pending the above changes, the minutes of the Commission meeting held on 21 February were agreed as an accurate record of proceedings.

3 Chair's Update

- 3.1 The Chair gave a brief overview of his engagements and activity since the last Commission meeting.
- 3.2 Commissioners discussed how to engage with the Infrastructure Finance Review consultation launched on 13 March 2019. It was agreed that the Commission should engage with the review in the consultation phase as well as when findings are published.
- 3.3 Commissioners noted the list of key meetings, visits and events undertaken by the Chair at appendix 1.

Action: AB to compile an account of the Commission's recommendations on infrastructure financing to circulate to Commissioners. The final version will be published before the end of the consultation period on 5 June 2019.

4 Chief Executive's Update

- 4.1 The Chief Executive (PG) provided an update on recent developments. PG noted that the Chair of HS2 would be attending the meeting on 2 May. Commissioners suggested other potential speakers for future meetings:
 - The Chief Economist of the International Energy Agency
 - The Chair and/or Chief Executive of the Committee on Climate Change
 - Leading officials within relevant government departments
 - Leading local officials from Manchester and Birmingham to discuss city transport
- 4.2 PG noted that the freight report was on schedule for an April publication date and that applications for the design group had closed with 91 applications. The next cities challenge events will take place in Birmingham on 27 March and in Stoke at the end of April.
- 4.3 PG noted that the interim Head of Communications would be in place from the start of April and that recruitment of a permanent post holder was underway. The recommendations monitoring lead is also now in place.

Action: Secretariat to ask leading officials within Whitehall departments to attend forthcoming Commission meetings to discuss their response to NIA recommendations.

Action: Commission Secretary to include a Commission meeting forward look in future sets of Commission papers.

5 Young Professionals Panel Update

- 5.1 Rosie Hughes (RH) and Annette Jezierska (AJ) fed back on the YPP's work including proposals for a YPP podcast series, a programme of 'infra cafes' to engage young professionals in infrastructure, contributions to an InfraHack event aimed at promoting innovation in the sector, and the next steps for their research on generational shift and infrastructure.
- 5.2 RH and AJ highlighted that the first Infra Café would take place in July at Central St Martins. Each café will target c.50 people and will aim to include a panel of three speakers and a chair.
- 5.3 RH and AJ noted that a press release promoting the YPP's intergenerational shift research was released on 5 March and that a consultation with the initial 500 applicants to the YPP on themes to include will run for six weeks.
- 5.4 RH and AJ noted that the first YPP podcast would feature Gergely Raccuja, winner of the Wolfson Prize for economics, discussing air quality.

Action: YPP to circulate a one page summary on the Infra Cafés including draft dates and themes.

Action: YPP to notify Commissioners of subscription details for YPP podcast series.

6 Multi-Modal Transport

6.1 SR outlined the Commission's proposed work on transport. SR noted that at

present no effective tool exists to compare the merits of different strategic transport schemes or to compare spending on strategic transport with other forms of infrastructure spending. SR proposed developing options to address this with a view to publishing a discussion paper for publication by the Commission in summer 2020.

- 6.2 SR asked Commissioners whether they agreed with the aims set out in the paper and whether there were other areas which should be considered. Key points in the discussion included:
 - The value of considering alternative means of funding transport, outside of the fiscal remit and the wider issue of public versus private funding of transport.
 - The need to take manufacturers plans into account as future technologies may influence the type of infrastructure, and the levels of spending, required.
 - The importance of benchmarking against strategic transport spending in comparable countries.
 - The need to consider how transport use has changed historically when thinking about future changes in patterns of transport use.
 - The need to consider alternatives and supplements to traditional cost benefit analysis.

Decision: Commissioners agreed to progress the workstream subject to the considerations outlined above.

7 Diversity Strategy

- 7.1 GM provided an update on the Commission's work to support diversity and inclusion. GM outlined the three objectives of the work: to promote diversity in the infrastructure sector; to ensure that diverse stakeholders inform NIC work; and to promote diversity and inclusion within the NIC.
- 7.2 GM noted the Commission's ongoing work including the Chief Executive and Julia Prescot's public speaking engagements to promote diversity in infrastructure, efforts to learn from stakeholder experiences of the NIA, the efforts to ensure the diversity of the YPP, a 'no undiverse panels' rule, and an NIC recruitment inclusion checklist.
- 7.3 GM outlined new work to be undertaken in 2019 including a policy project on the representation of different groups in infrastructure decision-making and working with stakeholders to promote ethnic diversity in the sector. GM asked Commissioners for comments and suggestions for future work. Key points in the discussion included:
 - The importance of considering the impact of socio-economic diversity and geographic diversity on infrastructure spending decisions.
 - The importance of securing a diverse range of stakeholders for focus groups. It was noted this was largely achieved in the NIA but that regional focus groups only reflected the diversity of the regions they were held in.
 - The potential for Sustainability First to support with running focus groups with people from less well-off socio-economic backgrounds.

Decision: Sadie Morgan and Julia Prescot agreed to act as lead Commissioners for this workstream.

8 International Engagement Update

- 8.1 PG updated on the Secretariat's international engagement activities. PG noted that he had attended the OECD working group on Strategic Infrastructure Planning in Paris from 28 February 1 March. The group identified four workstreams: processes and institutions; assessment of need approaches and tools; distributional issues and equity; and cost benefit analysis and evaluation. The group aims to produce its final report in summer/autumn 2020.
- 8.2 PG noted that the G20's Global Infrastructure Hub was interested in the Commission's design workstream and that MM was providing them with information on the Commission's work on infrastructure resilience. He also pointed out that the NIC had been positively received in the EU's latest country report on the UK.
- 8.3 Commissioners noted the need to continue to engage with international bodies, especially the IMF and the OECD which are particularly influential on government thinking.

9 A.O.B.

9.1 It was noted Allan Cooke, Chair of HS2, will be attending the next Commission meeting.

MINUTES

Meeting: Commission Meeting Date: 2 May 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Professor Sadie Morgan	(Commissioner)
Professor David Fisk CB	(Commissioner)
Julia Prescot	(Commissioner)

Young Professionals Panel Members:

Laura Hawkins	(Young Professionals Panel Member)
Charlotte Mitchell	(Young Professionals Panel Member) (items 9-11)

Secretariat:

Philip Graham	(Chief Executive)
	(Assistant Director – Transport)
	(Policy Adviser)
	(Acting Head of Communications)
	(Private Secretary)
	(Commission Secretary)
	(Secretariat Design Lead)
	(Senior Policy/Technical Adviser)
	(Senior Economics Adviser)
	(Assistant Director)
	(Head of Resilience Study)

External Speakers:

Tom Kelly	(Strategic Director for Stakeholder Engagement, HS2 Ltd) (Item 1)
Clive Maxwell	(Director General, High Speed and Major Rail Projects, Department for Transport) (Item 1)
Professor Jim Hall	(Professor of Climate and Environmental Risks, University of Oxford) (Item 8)
Professor Liz Varga	(Professor of Complex Systems, University College London) (Item 8)
Dr Richard Smith-Bingham	(Director, Emerging Risks, Marsh & Mclennan Insights) (Item 8)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from Kate Barker, Tim Besley and Bridget Rosewell.

2 HS2 Speakers

- 2.1 The Chair invited Tom Kelly (TK) and Clive Maxwell (CM) to present on the HS2 project. They provided an overview of project milestones noting that notice to proceed on phase one was due to be signed off in 2019 and that royal assent for Phase 2a (the West Midlands to Crewe) was expected in 2019 and in 2023 for Phase 2b (Crewe to Leeds and Manchester).
- 2.2 CM noted that at present 11,000 jobs, 250 apprenticeships and 2000 businesses were linked to the project. TK and CM then opened to questions from Commissioners. Key points in the discussion included:
 - The challenge of using benefit cost ratios for measuring large scale projects whose benefits include a regional impact which is difficult to capture with traditional measures.
 - The need to learn from the Crossrail project and ensure that systems integration is considered from the beginning of the project.
 - The importance of considering whether the shadow operator system was a strong enough mechanism to ensure the end user company can make the decisions during construction phase that will affect the operation of the railway in the long term.
 - The need to consider the railway's goals from a public policy perspective, as well as an economic perspective.
 - The importance of integrating HS2 with Northern Powerhouse Rail once funding has been made available and design plans can be signed off.
 - The importance of considering continental management structures for the project, and whether UK management structures may contribute to higher construction costs in the UK.
 - The potential impacts of increasing capacity on railway fares and fare structures.
 - The strong desire for city centre stations in northern and midlands cities.
 - The need for two London stations to provide a range of options for onward travel, which would make terminating at Old Oak Common extremely challenging.

3 Minutes and Matters arising

3.1 The Chief Executive (PG) noted that the Commission's letter in response to the Infrastructure Finance Review's consultation would be shared with all Commissioners with a view to publishing before the end of the consultation on 5 June.

4 Chair's update

4.1 The Chair gave an overview of his activities since the last meeting, including an appearance on PM and Times Red Box piece discussing Extinction Rebellion's climate change policy demands.

- 4.2 Commissioners discussed engagement activity including a more outward facing 'rebuild Britain' communications strategy and efforts to build relationships across Whitehall through senior departmental invites to Commission meetings, a letter to the chancellor setting out the 'four tests' for the National Infrastructure Strategy and working with BEIS on infrastructure's role as a 'foundation' within the industrial strategy.
- 4.3 Commissioners noted that the NIC's recommendations on water formed the substance of the Environment, Food and Rural Affairs Committee's oral evidence session on the Water Resources Infrastructure National Policy Statement on 20 March.

5 Chief Executive's update

- 5.1 PG updated on business since the last meeting including noting that the freight study had been published and that the calls for evidence for the resilience and regulation studies had closed. The challenge panels for the cities programme started with a challenge panel in Leeds on 17 April. PG also noted that the new Head of Communications would start on 1 July.
- 5.2 PG noted external events which influenced the NIC's work, including the publication of the Committee on Climate Change's report recommending that the UK aim to be carbon neutral by 2050, the favourable High Court judgement on Heathrow Expansion on 1 May and the upcoming spending review, which will include a review of the overall cost of the NIC.
- 5.3 PG noted that he and the Chair had met with Charles Roxburgh, Second Permanent Secretary to the Treasury, to discuss the reappointment process for Commissioners approaching the end of their first five-year term. It was agreed that if Commissioners are reappointed it is likely that new Commissioners would be added, to a maximum of 10 overall.

6 Energy Efficiency

6.1 PG noted that an error had been highlighted in the NIA fiscal remit table on energy efficiency during his attendance at the Business, Energy and Industrial Strategy select committee and that this could be amended without affecting the overall fiscal remit. Commissioners agreed this approach.

7 Design Update

- 7.1 KH outlined progress on the design workstream since the Commission was last updated in December 2018. She noted that the design principles had been agreed and that the added value that design brings work had been put out to tender. However, following an unsatisfactory response, the design lead was now re-examining options to re-frame the research proposals.
- 7.2 KH noted that the design group had now been appointed and that the 8 members included 3 men and 5 women, one BAME representative and one representative from the Young Professionals Panel. The membership will be officially announced on 7 May, their first meeting will be on 10 May, and this will be followed by 4 meetings per year.

- 7.3 Commissioners asked if any of the membership had a digital background. It was noted that they did not, but also that there were no digital specialists on the long list. The panel would engage with other communities to ensure it incorporated their concerns, but the focus remained on design in the built environment.
- 7.4 PG suggested that one way to get the public interested in design was through engagement with the Open House programme. Commissioners noted that this could include part-completed projects such as Thames Tideway.

ACTION: Secretariat to consider potential for the NIC supporting an 'Open House infrastructure' event, including considering secretariat capacity and staffing options.

8 Resilience

- 8.1 MC introduced three external speakers to discuss infrastructure resilience: Professor Jim Hall, Dr Nick Smith-Bingham and Professor Liz Varga.
- 8.2 Professor Hall (JH) outlined that resilience was a concern because of the direct damage and harm caused by infrastructure failure, the interdependencies between infrastructure networks leading to systemic risks, the potential for cascading disruption to infrastructure services and supply chains and the loss of confidence in national resilience. He outlined efforts to model resilience and new initiatives to tackle the problem including the Data Analytics Facility for National Infrastructure, an international Coalition for Disaster Resilient Infrastructure, comprised of 33 countries, and the infrastructure track of the Global Commission on Adaptation.
- 8.3 Dr Smith-Bingham (NS) discussed how the impacts of resilience failures could be measured, potential solutions and how to ensure that solutions were implemented. He pointed out that the impact of resilience failures could not just be measured in economic terms but had to include societal impacts. For example, the Genoa bridge disaster had a low economic impact but high societal impact. He highlighted the importance of considering government vs. operator priorities, solutions which lie outside of operators' control, voluntary vs. compulsory regulatory frameworks and financing resilience investment while maintaining shareholder value.
- 8.4 Professor Varga (EV) outlined the findings from her expert input workshop, commissioned by the NIC. She outlined that experts felt that it was difficult to know all of the vulnerabilities in a system because of interdependencies between systems, but that a story-led approach helped explain systemic resilience risks to stakeholders. They noted that one difficulty in securing investment for resilience was the lack of a 'blue ribbon' event to promote its importance to the media and other stakeholders. Finally, she outlined scoping work on the frameworks which exist for measuring resilience including the creation of a 'passport' for each framework indicating its overall purpose and the data input needed to make it function.
- 8.5 Commissioners were invited to ask questions of the guest speakers. Key points in the discussion included:
 - The value for investors of treating resilience measurement as a process rather than a screen through which systems pass.

- The need to consider the potential increased systemic resilience risk created by increased digitisation.
- The need to avoid overlap with existing government work by the Civil Contingencies Secretariat, the National Cyber Security Centre and the Centre for the Protection of National Infrastructure. It was noted that the resilience study was unique because it focused on systemic rather than individual resilience risks and that it was not considering the impact of foreign interference on infrastructure systems.
- 8.6 MC noted that the study aimed to lay the groundwork for the NIA2. Its three proposed outputs are: identifying infrastructure sectors where short-term action is needed to improve resilience; considering how the interdependency of systems affects resilience; and exploring how institutional frameworks either enable or inhibit infrastructure resilience. MC said he would bring a paper on the scoping for the resilience study to the Commission meeting on 21 May.

9 Whitehall Departments attending Commission meetings

9.1 CB discussed the proposed format for senior representatives in Whitehall

departments appearances before the Commission between May and September 2019. CB noted that each meeting would last one hour and would focus on four pre-agreed questions. A briefing pack would be circulated in advance of the meeting including the background policy context and some suggested follow-up questions.

- 9.2 CB asked Commissioners to indicate whether they were happy with the process outlined in the paper and whether the meetings should be on the record or off the record. Key points in the discussion included:
 - The need to use the meetings to make senior staff in Whitehall departments aware that the NIC does not consider a continuation of existing government policy to be a satisfactory response to NIA recommendations.
 - The value of open conversation with departmental leads, which might be closed down by an on-the-record discussion.
 - The value of using the meetings to indicate what the NIC thinks an acceptable response to its recommendations should be, so that it can highlight that this message had already been conveyed to departments prior to the publication of the National Infrastructure Strategy.

DECISION: Commissioners agreed that the meetings should be held off the record, with the caveat that a Chatham House rules note of the discussion would be published as part of the scheduled publication of Commission minutes.

10 Young Professionals Panel update

10.1 Laura Hawkins (LH) and Charlotte Mitchell (CM) fed back on the YPP's work including proposals for a YPP podcast series, a programme of 'infra cafes' to engage young professionals in infrastructure, contributions to an InfraHack event aimed at promoting innovation in the sector, and the next steps for their research on generational shift and infrastructure. They noted that the YPP had a day-long meeting to commemorate their first anniversary on 25 April.

- 10.2 LH and CM highlighted that the YPP podcast had now aired two episodes, on air quality and data visualisation, and that six more are planned on tunnels, the privatisation of public space, battery technology, inclusivity, the circular economy and electric vehicles.
- 10.3 LH and CM highlighted that the YPP would be contributing, alongside the NIC Secretariat, to the 'infrahack' event taking place from 16-19 May. The YPP's challenge would focus on the question "using London as a case study, how can we visualise travel data to identify where to invest in infrastructure for new mobility options?"
- 10.4 LH and CM updated on the generational shift research piece, noting that the four main themes emerging from pilot polling are flexible working, online consumerism, an increasing urban-rural divide and changing models of ownership.

11 Future Projects

11.1 PG circulated a hard copy of the updated list of lead Commissioners and noted that scoping work was beginning on the place & geography and technology & efficiency workstreams.

12 A.O.B.

12.1 No items of AOB were recorded.

MINUTES

Meeting: Commission Meeting Date: 21 May 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Dame Kate Barker	(Commissioner)
Professor Sir Tim Besley	(Commissioner)
Andy Green	(Commissioner)
Professor Sadie Morgan	(Commissioner)
Julia Prescot	(Commissioner)

Young Professionals Panel Members:

Matthew Ball (Young Professionals Panel Member)

Secretariat:

Secretariat.	
James Richardson	(Chief Economist)
Katie Black	(Director of Policy)
	(Acting Head of Communications)
	(Private Secretary)
	(Commission Secretary)
	(Assistant Director)
	(Head of Resilience Study)
	(Policy Adviser)
	(Assistant Director)
	(Monitoring Manager)
	(Senior Technical Adviser – Water)

External Speakers:

Chris Stark	(Chief Executive, Committee on Climate Change) (Item 1)
James Heath	(Director of Digital Infrastructure, DCMS) (Item 7)

1. Apologies and Welcome

- 1.1 The Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from David Fisk, Bridget Rosewell and Phil Graham.
- 1.2 The Chair welcomed Charlotte Goodrich to the secretariat.

2 Chris Stark, Committee on Climate Change

- 2.1 The Chair invited Chris Stark (CS) to introduce the Committee's May 2019 Net Zero report. CS noted the report's target of net zero emissions of all greenhouse gases by 2050, and that this could not be achieved by the current policy of adding costs to consumer bills because the regressive economic impacts of this approach were not sustainable. CS pointed out that the CCC believed that net zero could be achieved with existing technology, within a fiscal cost of 1-2% of GDP per year, and without an adverse impact on the UK's global competitiveness.
- 2.2 CS highlighted that the net zero target also included aviation and shipping and that it should be achievable without using carbon credits. In part this target could be reached by encouraging industries to invest in carbon capture and storage. For example, in aviation, ccs would add £20 to the cost of the average ticket from London to New York. CS pointed out that the 1-2% of GDP cost of net zero is based against the counterfactual of doing nothing, minus the savings gained from decarbonising. It is not exclusively a cost to the public sector as with the NIC's fiscal remit. CS opened to questions. Key points in the discussion included:
 - The importance of considering the UK's global carbon impact. The CCC's report focuses on territorial emissions, but makes the case for the need to reduce territorial emissions because of the UK's high emissions from consumption of overseas products.
 - The need to consider the differing perspectives of the NIC and the CCC on carbon capture and storage, which the CCC believes will be necessary to decarbonise industries such as aviation.
 - The challenge of the trade-off between measures which are economically inexpensive but politically unpalatable, such as changes in the population's diet.
 - The importance of hydrogen in decarbonising heat and the requirement for carbon capture and storage to ensure hydrogen production is carbon neutral.
 - The ambitious nature of the afforestation target set out in the report, as a 30% increase in forest cover would return it to pre-industrial levels.
 - The need for the NIC and the CCC to work together to coordinate shared messages.

Action: NIC to draw up a comparison of CCC and NIC recommendations to assess reasons for differing conclusions and scope for collaboration.

3 Minutes and Matters arising

3.1 No comments were noted on the minutes of the meeting of 2 May.

4 PPPs and the Nuclear RAB model

4.1 AB outlined final work on the PPPs pilot and next steps including a summary

report, external quality assurance, exploring opportunities to apply the framework to different contexts and international engagement. In the construction phase PPP-style innovation was more likely to lead to delivery on time or before the deadline, but innovation in the operation and management phase was more likely to lead to improvements in large contracts such as the M25. AB proposed applying the principles from the pilot to compare the value for money of the nuclear RAB and alternative options, to be published in June ahead of the energy White Paper.

- 4.2 AB outlined the NIC's proposed response to the Infrastructure Finance Review which argues for a replacement institution if access to the EIB is lost and highlighting other Commission recommendations on future infrastructure delivery models and data collection.
- 4.3 AB asked Commissioners for comments on the findings, their implications for NIA recommendations and the proposal for using the framework for the nuclear RAB model. She also asked for comments on the proposed response to the Infrastructure Finance Review consultation. Key points in the discussion included:
 - The challenge of comparing public and private sector procurement in the pilot given the differences in data availability and in the times at which schemes were procured.
 - The value of exploring the structure of the industry as a whole to examine whether it has the capacity to deliver the projects the NIC proposes over the next thirty years.
 - The need to manage stakeholders who may be resistant to the findings because they regard private finance as an impediment to establishing projects because of protracted contractual negotiations and the higher number of actors involved.
 - The value of engaging internationally on the pilot methodology to see if it can be applied more widely.
 - The possibility that the model could be of more value for comparing schemes which are more closely comparable in sectors outside of infrastructure, such as schools and hospitals.
 - The value of the European Investment Bank for increasing innovation in the public sector as well as improving discipline.
 - The need to include a reference in the letter to the UK's status as chief beneficiary of green finance from the EIB and to emphasise that it was particularly in the public sector that effective data was lacking.

Action: AB to circulate final draft of the letter to lead Commissioners before submission.

5 Chair's Update

- 5.1 The Chair updated Commissioners on his activities since the last meeting and asked them to note the Chief Executive's activities in his absence.
- 5.2 Commissioners discussed lines to take on HS2. The Chair noted that the Commission had always publicly supported HS2 whilst noting that it is not in the Commission's remit. This remit decision may change subject to any change in government.

6 YPP Update

- 6.1 Matt Ball (MB) provided an update on the YPP's workstreams, noting that the InfraHack ran from 16-19 May with 30-40 attendees and that the next podcast would focus on energy storage. MB asked Commissioners to pass on any suggestions for future podcast speakers.
- 6.2 MB highlighted that the research into changing demands on infrastructure created by generational shift was due to be published in Spring 2020 to coincide with the 2-year anniversary of the YPP. The research has narrowed its focus to four specific trends and is now determining the lenses through which to examine those trends. MB also noted that he would be meeting the CEO of the intergenerational foundation to discuss their potential involvement in the research.

7 DCMS meeting

- 7.1 The Chair welcomed James Heath (JH), Director of Digital Infrastructure at the Department for Digital, Culture, Media and Sport, to the meeting to update on the department's emerging response to the NIA's recommendations. JH pointed out that the Future Telecoms Infrastructure Strategy, published in July 2018, reached broadly the same conclusions as the NIA and OfCom about an 'outside in' strategy for rolling out digital infrastructure. He noted that the department estimated the cost of rolling out full fibre to 10% of the country that would not be reached by the market at £3 billion.
- 7.2 JH updated on progress including removing barriers created by wayleave applications by introducing legislation to allow magistrates to grant access to properties if absentee landlords do not engage with the wayleave application process. He also noted that access to Openreach's duct and pole infrastructure network for competitors was being closely monitored. The Chair opened to questions. Key points in the conversation included:
 - The value of digital champions at local level and the need to encourage more than the existing 60 local authorities to adopt digital champions.
 - The importance of securing a commitment to funding full fibre rollout not just in the twoyear spending review period but also to allocate an indicative budget beyond that to give industry certainty.
 - The need to remind HM Treasury in the spending review process that full fibre rollout was the number one priority in the first years of the NIC's fiscal remit and is therefor a key indicator of the government's commitment to infrastructure investment.
 - The value of balancing the need to pilot rollout techniques such as the hub and spoke model in the first years of the programme with the need to publish long term plans to increase investor confidence in commitment to the programme.
 - The importance of clarifying how much of the proposed £400 million for the first two years of the full fibre rollout programme is allocated to England, rather than devolved, to ensure that HM Treasury is meeting the commitments set out in the fiscal remit.
 - The value of arguing for full fibre rollout to support innovation in public services such as online NHS services, rather than by arguing that it will increase productivity as that case is weaker.
- 7.3 JH also updated on progress on rural roaming and infrastructure sharing, noting that the four operators had submitted a joint proposal for infrastructure sharing in rural areas. Commissioners noted the need to monitor the action in this area and to ensure there is clarity on what coverage standards are.

8 Resilience

8.1 MC updated on the progress of the resilience study, noting that the purpose of the session was to agree the study's scope. He highlighted progress to date including a public consultation on the study's scope, which closed on 1 April, working with experts at UCL to define the problem that the study will address, and commissioning social research from Britain Thinks to support phase 2 of the study.

- 8.2 MC noted that the study would not cover sector, asset and organisation specific risks, specific hazards, issues related to skills, finance-related issues, risk-based assessments and tools for practitioners. Commissioners commented that the best way to handle stakeholders who would have liked to see these areas included was to be frank on the rationale for their exclusion.
- 8.3 MC said that the study had been grouped into three sets of hypotheses: systemic issues that make infrastructure vulnerable to current shocks and future changes; the public acceptability of infrastructure services; and resilience governance and decision making. The first two hypotheses will identify the issues around resilience that the commission should seek to address in future NIAs while the third, on governance, will allow for solutions to be identified and recommendations developed.
- 8.4 MC asked Commissioners to respond to the following questions: Is this the right approach for the main phase of the study and have the correct themes been identified?; Which, if any, of the proposed activities should be prioritised?; Should the scoping report be used to call for evidence?; Can approval for the scoping report be delegated to the Chair? Key points in the discussion included:
 - The value of learning from international examples such as Australia where a lot of work has been done on infrastructure resilience.
 - The need to focus on systemic interdependencies which influence resilience levels.
 - The importance on moving from an exploration of systemic issues to making governance recommendations which can address problems with infrastructure resilience.
 - The value of engaging with the design workstream because resilience issues often relate to fundamental decisions taken at the design stage.
 - The need to extend the call for evidence beyond the initial proposed period and to initiate the analysis work while the call for evidence is ongoing.
 - The importance of developing a methodology for assessing resilience while leaving its application to individual cases to academics.
 - The need to allow additional time, beyond the four weeks proposed, for the call for evidence.
- 8.5 MC noted that the scoping report would be published in in late June following consultation with lead commissioners. A call for evidence will then be launched in late June.

Decision: The call for evidence period should be extended beyond the proposed four weeks until the start of September. The Commission were happy for the Chair to sign off the scoping report following consultation with lead Commissioners.

9 NIA Recommendations Update

9.1 AS and CB introduced the proposed engagement plan in the run up

to the publication of the National Infrastructure Strategy and to get Commissioners agreement on their schedule of meetings with stakeholders set out in the paper. Commissioners agreed with this schedule of meetings.

9.2 Commissioners noted that the '4 tests' letter to the Chancellor had been positively received. Commissioners suggested that the engagement strategy should include focusing on identifying partner organisations to work with to highlight the importance of infrastructure as one key piece vital to achieving wider policy goals.

9.3 Commissioners suggested exploring possible counter-narratives to the NIC recommendations and setting out NIC responses to them.

10 A.O.B.

10.1 No items of AOB were recorded.

MINUTES

Meeting: Commission Meeting Date: 19 June 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Professor Sir Tim Besley	(Commissioner)
Andy Green	(Commissioner)
Professor David Fisk	(Commissioner)
Bridget Rosewell	(Commissioner)

Young Professionals Panel Members:

Victor Frebault	(Young Professionals Panel Member)
Madeleine Kessler	(Young Professionals Panel Member)

Secretariat:

(Chief Executive)
(Chief Economist)
(Director of Policy)
(Private Secretary)
(Diary Secretary)
(Communications Manager)
(Chief Operating Officer)
(Head of Economic Analysis)
(Senior Policy Adviser)
(Assistant Director)
(Project Director)

External Speakers:

Professor Diane Coyle	(Bennet Professor of Public Policy, University of Cambridge) (Item 1)
Joanna Whittington	(Director General, Energy and Security, BEIS)
Ashley Ibbett	(Director, Clean Electricity)
Dan Monzani	(Director, Energy Security, Networks and Markets)
Dan Osgood	(Director, Clean Heat)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from Julia Prescot, Kate Barker and Sadie Morgan.

2 Diane Coyle: Furman Review of Digital Competition

- 2.1 The Chair invited Diane Coyle (DC) to deliver her presentation on the Furman Review. DC talked through the potential opportunities and challenges the emerging digital economy could pose to competition and pro-competition policy. DC then opened to questions. Key points in the conversation included:
 - The need to consider potential uses of data including for targeted advertising and increasing the price of valued products or services.
 - The importance of recognising challenges posed by growing monopolies in the digital market.
 - The need to consider the impact of digital monopolies entering new markets, such as energy, using data collected from consumers using their platforms.
 - The importance of recognising that digital providers entering new markets would enter at retail level and be regulated by existing regulators.
 - The value of considering how competition has been stimulated in other markets, such as broadcasting, where the BBC as a not-for-profit organisation has enabled healthy competition among broadcasters and advertising organisations.
 - The need to recognise the distinction between issues arising from regulating digital competition to those arising from the Commission's regulation study, while at the same time learning lessons where applicable.

3 Minutes and Matters arising

3.1 No comments were noted on the minutes of the meeting of 21 May.

4 Chair's Update

- 4.1 The Chair updated Commissioners on his activities since the last meeting, noting that the meeting with the Chair of the Geospatial Commission, noting common ground between the two organisations. It was noted that it was not yet clear whether the Geospatial Commission will be more focused on the commercial aspect of their work.
- 4.2 The Chair noted that he had attended the DAFNI launch and it was pointed out that DAFNI would be used to support the resilience study as it was the best facility to undertake the modelling the study requires.

5 Chief Executive's Update

5.1 The Chief Executive (PG) gave an update on his activities since the last meeting, noting that he was on leave from 20-31 of May.

6 BEIS Meeting Discussion

- 6.1 PG gave an update on the upcoming discussion with officials for BEIS and Commissioners agreed lines to take on the Commission's recommendations on energy, heat and electric vehicles.
- 7 Meeting with Joanna Whittington, Director General for Energy and Security, Department for Business, Energy and Industrial Strategy
- 7.1 The Chair welcomed Joanna Whittington, Director General for Energy and Security, Ashley Ibbett, Director of Clean Electricity, Dan Monzani, Director of Energy Security, Networks and Markets and Dan Osgood, Director of Clean Heat.
- 7.2 The Chair noted that the purpose of the meeting was to discuss BEIS's response to the Commission's National Infrastructure Assessment recommendations. Key points in the discussion included:
 - The importance of providing a route to market for onshore wind and solar in the UK through Contract for Difference auctions and of recognising that government could support both onshore and offshore wind.
 - The Conservative Party's 2017 manifesto commitment that 'more large-scale onshore wind power is [not] right for England'.
 - The importance of keeping future energy options open whilst meeting the net zero target.
 - The challenges in procuring new nuclear power stations and in keeping their costs down during the construction phase.
 - The importance of recognising that the future development of both nuclear and renewables is uncertain and the case therefore of keeping both options open.
 - The benefits of a target for a high percentage of the energy mix to come from renewables for the renewables industry and research.
 - The potential incompatibility between planning directly for a large new nuclear fleet and driving towards a highly renewable energy mix.
 - The value of undertaking large-scale community trials of hydrogen as a replacement for natural gas once the safety case has been made and for incorporating an element of hydrogen production using CCS into this trial.

8 Young Professionals Panel Update

- 8.1 The Chair welcomed Victor Frebault (VF) and Madeleine Kessler (MK) to provide an update on the activities of the Young Professionals Panel since the last meeting.
- 8.2 VF highlighted the upcoming Infra Cafe on 11 July focussing on the circular economy and the upcoming episodes in the YPP's podcast series.
- 8.3 Commissioners welcomed progress with the YPP's workstreams.

9 Congestion and Road Pricing

- 9.1 TW updated on the road pricing project, recommend that the project focus on the issue of congestion, with road pricing as one possible solution, that members of assemblies would be asked to rank a series of policy options in order of preference and that more than one assembly would be held to capture views in different locations. TW also noted that the outputs from the study would be a report from the recruited social research company on the findings of the assemblies and an independent evaluation of the process which would comment on the effectiveness of the process for engaging the public on infrastructure policy.
- 9.2 TW asked Commissioners whether they agreed with the proposed approach. Key points in the discussion included:
 - The value of independently evaluating the approach to determine its applicability to other areas of infrastructure policy.
 - The need to think critically about the methodology, and to consider the arguments of its detractors about its fairness and affordability.
 - The importance of ensuring that the assemblies were representative of the areas in which they were held.

Decision: Commissioners agreed to proceed with the approach set out by TW and to initiate the procurement of a social research provider.

10 Change of Government

- 10.1 PG opened the discussion around how the Commission would respond to a change of Government. PG stated that all the current Conservative Leadership candidates had a positive stance on infrastructure.
- 10.2 The Commission concluded that it would be useful to invite the appropriate new Treasury Minister to a Commission Meeting once they are in post.

ACTION: Invite new Exchequer Secretary to a future Commission meeting

11 A.O.B.

11.1 No items of AOB were recorded.

MINUTES

Meeting: Commission Meeting Date: 31 July 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Dame Kate Barker	(Commissioner)
Professor Sir Tim Besley	(Commissioner)
Andy Green	(Commissioner)

Young Professionals Panel Members:

Jennifer Holgate	(Young Professionals Panel Member)	
Christian O'Brien	(Young Professionals Panel Member)	

Secretariat:

Secretariati			
Phil Graham	(Chief Executive)		
James Richardson	(Chief Economist)		
Katie Black	(Director of Policy)		
Charlotte Goodrich	(Chief Operating Officer)		
	(Private Secretary)		
	(Commission Secretary)		
	(Communications Manager)		
	(Project Director – Regulation	Study) (Items 1-4)	
	(Principal Regulatory Adviser)		
	(Assistant Director)		
	(Assistant Director)	(Items 1-4)	
	(Senior Policy Adviser)	(Items 1-4)	
	(Monitoring Manager)	(Item 9)	

External Speakers:

Sally Randall	(Director for Floods and Water, DEFRA)	(Item 6)
	(Deputy Director for Resources and Waste, DEFRA)	(Item 6)
	(Economic Adviser, DEFRA)	(Item 6)
	(Team Leader, Water Resource Infrastructure, DEFRA) (Item 6)	

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, noting apologies for absence had been received from David Fisk, Sadie Morgan, Julia Prescot and Bridget Rosewell.

2 Minutes and Matters Arising

2.1 Commissioners asked whether the new minister responsible for the Commission at HMT had been appointed. The Chief Executive (PG) noted that all ministers were in post but their exact responsibilities had yet to be defined. The new minister will be invited to a future Commission meeting once they are identified.

3 Chair's update

- 3.1 The Chair updated Commissioners on his activities since the last meeting, noting the seriousness with which stakeholders were responding to the ongoing regulatory study, as indicated by Johnson Cox's speech to the regulatory dinner.
- 3.2 The Chair clarified that the UK 2070 Commission was an independent enquiry into rebalancing the UK economy and encouraging regional growth, particularly focussing on the potential of national spatial economic networks to enable and support local actions and priorities. It is chaired by Lord Kerslake.
- 3.3 The Chair noted he had written to new ministers in relevant departments, as well as the chancellor and the Prime Minister highlighting the Commission's priorities, particularly in relation to the National Infrastructure Strategy.

4 Regulation Study Executive Summary

4.1 SH introduced the regulation study's executive summary, explaining that the

current system had driven investment but was not designed to tackle long term strategic objectives including increasing resilience to drought and decarbonising heat. SH pointed out that the government had also failed to set a direction through strategic policy statements.

- 4.2 SH also highlighted a crisis of public confidence caused by a perception of unfair pricing and returns, decisions about distributional impacts being lost between government and regulators, and a lack of customer representation. All of this threatened investment in the system.
- 4.3 SH asked for feedback on whether Commissioners agreed with the core narrative on facilitating investment and building public confidence; how far they wanted to go on public confidence; whether they wanted to address pricing and service (such as in the energy retail market) and whether they wanted to address the question of representation of devolved authorities at local and national level. SH pointed out that at this stage the regulation team were looking for priority areas, rather than specific recommendations, as these will be presented at the September Commission meeting. Key points in the discussion included:
 - The importance of disaggregating regulators within the executive summary text, to highlight differences between them.

- The need to be clear on why 20-30% consumers switching energy providers is not sufficient to drive market competition.
- The value of highlighting the system's success in driving private investment in the executive summary text.
- The importance of identifying the appropriate level of risk in investing in regulated sectors because it is not as high as the stock market average, but the price control regime's level of returns assumes it is.
- The need to be clear about what is meant by the claim that the government are not holding companies to account.
- The importance of recognising that systemic legitimacy is the most important issue in the study as this weakens public confidence and ultimately threatens investment.
- The need to take strategic investment decisions outside of the current regulatory system through asking regulators to put forward advice with distributional consequences for bills which government can either accept or reject.
- The value of addressing the issue of executive pay, which influences public confidence, by asking regulators to ensure pay is aligned to consumer outcomes, without setting out what pay should be.
- The value of a coordinating body for regulators to manage shared capabilities, such as on data, and to provide challenge, as long as the body remained streamlined and was not a step towards a super regulator because such a body would still need external challenge.

Decision: Commissioners agreed with the narrative set out in the draft executive summary, said regulators should have a role in corporate governance as part of the legitimacy debate and agreed with a streamlined coordinating body which was not a step towards a super regulator.

5 Young Professionals Panel

- 5.1 Jennifer Holgate (JH) and Christian O'Brien (CB) provided an update on the YPP's activities since the last meeting. They noted that the research on the role of generational shift on infrastructure demand would be complete by December, with a report due by March 2020. They pointed out this research would look at 'millennials' as a whole, while acknowledging attitudinal shift at the extremes of the age group.
- 5.2 JH said the podcast series was ongoing, with four podcasts complete. Additionally, two infra cafes had been held, on innovation in infrastructure in Newcastle and on the circular economy in London with 7 more planned including events in Cardiff, Bristol, Leeds and Sheffield.
- 5.3 JH noted that the YPP was also making links with the GLA Young Professionals and the Nuclear Institute's Young Generation Network as well as planning to host workshops with some of the original 500 YPP applicants.

6 Meeting with DEFRA officials

6.1 The Chair welcomed Sally Randall, Director of Floods and Water, CP, Deputy Director for Resources and Waste, JI Economic Adviser, and EB, Team Leader for Water Resource Infrastructure.

NATIONAL INFRASTRUCTURE COMMISSION

6.2 The Chair noted that the purpose of the meeting was to discuss DEFRA's response to the Commission's National Infrastructure Assessment recommendations. Key points in the discussion included:

Water:

- The value of encouraging companies to plan for resilience levels of 1 in 500 in 2024 Water Resource Management plans.
- The fact that industry has accepted the importance of reducing leakage by 50% by 2050.
- The need to consult on the full range of tools for reducing water use, including building regulations and product labelling as well as compulsory metering.
- The value of enacting plans for more reservoir capacity now, rather than after the next round of Water Resource Management Plans in 2024.
- The importance of managing local stakeholders when producing plans for additional water capacity.
- The value of the NIA in providing an independent voice quantifying the level of additional capacity needed.

Floods:

- The need to consult on whether a metric approach was useful to developing place sensitive flood planning before accepting the NIA's flood resilience standard. The DEFRA consultation will result in a policy statement by the end of the year.
- The importance of recognising that a national standard is not designed to result in enforcement measures but to release resources to fund local solutions.
- The value of identifying who is responsible for tackling surface water flooding, potentially through upcoming legislation such as the Environment Bill.

Waste:

- The importance of recognising that the 56% plastics recycling target for 2030 was based on what current models said was achievable and was revisable as the environment changes.
- The need to recognise that unrealistic targets could result in large-scale non-compliance and prosecution.
- The value of including an ambition for improvement on the current target in the second round of consultation on waste management.

7 NIA Recommendations Update

- 7.1 AS and CB updated on progress on the implementation of the NIA
- recommendations. May-July highlights include the government's review into the delivery of a rapid charging network for electric vehicles; the positive outlook of the Environment Agency's consultations on flood resilience standards; and further validation of the Commissions cost estimates for droughts.
- 7.2 AS and CB noted that August-September would include social media coverage of recommendations that resonate with consumers and a "Cities Summit" on 11 September with elected mayors and city leaders to demonstrate support for the Commission's devolution recommendations.

7.3 Commissioners asked whether the 1.2% fiscal remit was at risk. It was noted that this was not likely but that it was possible that GDP might be smaller than the Commission's initial calculations allowed. In this case the Commission would need to decide whether to drop items of expenditure or push for increased spending as a percentage of GDP.

8 Chief Executive's Update and Change of Government

- 8.1 PG noted that the secretariat was beginning the transition from post-NIA1 to pre-NIA2. He noted that a one-year spending review would not delay the National Infrastructure Strategy because any spending review would cover around three years while the strategy should extend to 2050.
- 8.2 PG highlighted the forthcoming review of HS2, to be chaired by Douglas Oakervee, which would be a short, focussed piece of work but which might lead on to further work, particularly in relation to Phase 2b. Current HS2 Chair Alan Cook's ongoing review of the cost of HS2 phase 2 will feed into the evidence base of the Oakervee review.
- 8.3 PG noted that aviation capacity would be considered as part of NIA2 and that a scoping paper on exploring the cost and benefits of different transport modes, alongside the evidence for their impact, will be presented to the Commission in October.

9 A.O.B.

9.1 No items of AOB were recorded.

MINUTES

Meeting: Commission Meeting Date: 18 September 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)	
Dame Kate Barker	(Commissioner)	
Professor Sir Tim Besley	(Commissioner)	
Professor David Fisk CB	(Commissioner)	
Andy Green	(Commissioner)	
Professor Sadie Morgan	(Commissioner)	
Julia Prescot	(Commissioner)	
Bridget Rosewell CBE	(Commissioner)	

Young Professionals Panel Members:

Sakthy Selvakumaran	(Young Professionals Panel Member)
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Secretariat:

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Phil Graham	(Chief Executive)		
James Richardson	(Chief Economist)		
Katie Black	(Director of Policy)		
Charlotte Goodrich	(Chief Operating Officer)		
	(Private Secretary)		
	(Commission Secretary)		
	(Communications Manager)		
	(Project Director – Regulation Stu	udy) (Items 1-4)	
	(Principal Regulatory Adviser)	(Items 1-4)	
	(Senior Policy Adviser)	(Items 1-4)	
	(Principal Economic Adviser)	(Items 1-4)	
	(Assistant Director)	(Items 5-6)	
	(Senior Policy Adviser)		

External Speakers:

Tricia Hayes	(Director General for Roads, Places a	nd the Environment, DfT) (Item 6)
Tom Walker	(Acting Director General Decentralisa	ation and Growth MHCLG) (Item 6)
	(DfT)	(Item 6)
	(MHCLG)	(Item 6)
	(MHCLG)	(Item 6)

1. Apologies and Welcome

1.1 The Chair welcomed attendees and opened the meeting, with no apologies noted.

2 Minutes and Matters Arising

2.1 The Chief Executive (PG) noted that HM Treasury's minister responsible for the NIC was confirmed as Jesse Norman MP, Financial Secretary to the Treasury. PG noted he would be invited to a future Commission meeting.

3 Chair's update

3.1 The Chair updated Commissioners on his activities since the last meeting, noting the success of the Cities summit on 11 September and his productive meeting with the Commission's new responsible minister at HM Treasury, Jesse Norman MP.

4 Regulation Study Recommendations

4.1 SH introduced the regulation study's draft recommendations, noting that the

study had found that the current regulatory system had delivered in the past, through increased investment, but needed to adapt to future challenges including the need to meet the net zero target.

- 4.2 SH noted that the eight recommendations were split into two halves, with the first four focused on increasing investment by: increasing investment to meet long term needs; ensuring investment decisions reflected the priorities of the whole of the UK; updating regulators' duties to prioritise long-term investment and increasing the use of competition to drive innovation.
- 4.3 SH said that the second half of the recommendations focused on enabling a more stable regulatory environment and building public confidence by: rebalancing regulation in favour of consumers; making retail markets work for consumers; ensuring regulation acts fairly; and improving the coordination and monitoring of the regulators.
- 4.4 SH asked Commissioners to comment on the draft recommendations, the timeframe for publication and whether they were content for lead Commissioners to sign off the final report. Key points in the discussion included:
 - The importance of ensuring that the tone of the recommendations, particularly with reference to recommendation 2.1, was backed up in the text by the supporting evidence.
 - The need for more precise language in recommendation 2.1.2 to ensure that the Commission is arguing regulators should be careful when setting the cost of capital and not that these decisions have necessarily been incorrect in the past.
 - The importance of distinguishing clearly between the need for greater investment in new infrastructure and the need to accept a lower rate of return for investment in existing infrastructure.

- The need to replace the term 'safer investment' with 'lower risk'.
- The value of considering the media reaction to the report, including the need for the wording not to amplify a potential negative response to the argument for increased funding through bills.
- The importance of emphasising that the report says the regulatory system has worked but challenges the status quo because the current system cannot address net zero and other strategic investment challenges.
- The need to ensure that alongside asking regulators to tender to market rather than continuing the current presumption for incumbents, the government should ensure that regulators have the resources and expertise to manage complex tenders.
- The importance of ensuring legal clarity around recommendations as well as identifying which areas will require legislation.
- The need to adjust the tone of the draft language on executive pay to ensure it reflects the available evidence.
- The value of ensuring that 5g is mentioned alongside broadband investment and that the needs of vulnerable customers are explicitly mentioned in the text.
- The importance of addressing all forms of price discrimination, rather than focusing specifically on loyalty penalties, to prevent new forms of price discrimination emerging.
- The distinction between empowering regulators to rule on what constitutes unjustified price discrimination, and the Commission attempting to determine this, with the former being the preferred approach.
- The importance of not repeating work on regulating digital markets covered by the Furman review.
- The value of appointing an independent chair for the UK Regulators Network.

DECISION: Commissioners agreed with the aim for the study to be published on 10 October and for lead Commissioners and Chair to sign off the report.

5 Discussion of DfT and MHCLG meeting

5.1 PG briefed Commissioners on the need to press DfT and MHCLG officials on providing responses to our recommendations which meet the four tests the Chair set out to the Chancellor, including that they engage specifically with recommendations rather than with the 'direction of travel'.

6 Meeting with DfT and MHCLG officials

- 6.1 The Chair welcomed Tricia Hayes, Director General for Roads, Places and Environment at the Department for Transport, Tom Walker, Director General for Decentralisation and Growth at the Ministry of Housing, Communities and Local Government and their accompanying officials.
- 6.2 The Chair noted that the purpose of the meeting was to discuss DfT and MHCLG's responses to the Commission's National Infrastructure Assessment recommendations. Key points in the discussion included:

Devolution and funding for major projects outside of London:

• The importance of recognising the varying capabilities of local authorities to manage transport projects.

- The need to provide powers to local authorities so that they can attract the right people and build transport planning capacity.
- The value of recognising successes so far including the Transforming Cities Fund, the powers granted in the Bus Services Act and subnational transport budgets for bodies including Transport for the North.
- The challenge of devolving powers where there is no directly elected body accountable for them.
- The need to recognise that for major projects even directly elected mayors are not entirely accountable because the electoral cycle does not match the much longer project delivery cycle (though the same is true for the national electoral cycle).
- The challenge of devolving powers to organisations without a substantive balance sheet like TfL.
- The value of empowering local authorities with revenue raising powers to build the asset base necessary to develop their own plans.
- The importance of recognising that the debate is not just about powers and funding, it is also about the structure of funding, because longer term funds create the certainty needed to plan.
- The value of simplifying funding to include all funding in one long term pot.
- The need to recognise that the Commission is not proposing complete devolution for major projects, over which DfT should still have oversight.

Crossrail 2:

- The importance of recognising the strength of the economic and strategic case for Crossrail 2.
- The significance of the inclusion of further development funding for the project in the one year spending review.
- The need to resolve the source of the local share of funding for the project before moving ahead.
- The importance of recognising that excessive caution at the decision making stage can lead to longer delays in project delivery than any cost or construction overruns.

Electric Vehicles:

- The need to recognise that currently 80% of EV charging takes place at home.
- The importance of recognising that in rural areas it is people visiting the area who will need street charging.
- The shared recognition of the urgent need to decarbonise transport given the challenges of meeting carbon budget 5.
- The concern that state intervention might suppress the emerging charge point market, but also the need to note that the Commission is only recommending very limited intervention: setting aside £10 million to provide a few chargers in places where the market won't deliver, rather than any programme of mass subsidy.
- The importance of recognising that the debate about state intervention in building networks is not new. It happened with the electricity and water networks and reached the same conclusion, state intervention on the fringes is generally necessary.
- The binary choice between perfect economic efficiency and delivering the net zero target.
- The need to consult on changing building regulations and on requirements for local authorities to make parking spaces accessible for charging infrastructure.

• The importance of recognising that EV technology is on an uptake S curve and that while 100% sales by 2030 may be challenging, putting the infrastructure in place to support it is not.

7 NIC Strategy

- 7.1 PG noted that Giles Stevens would be taking over from Katie Black as acting Director of Policy.
- 7.2 PG outlined the strategic plan, noting its goal was to develop the organisation so it could prepare for the second NIA. He noted the aim was to focus more on influencing and thinking about how to change the structures of decision making rather than advising on individual decisions.
- 7.3 PG asked Commissioners for comment on the four organisational priorities. Key points in the discussion included:
 - The value of outlining the NIC's work in addressing the need for the UK to be globally competitive.
 - The need to emphasise the NIC's role as the leading source of knowledge on infrastructure beyond the existing data hub project.
 - The importance of including reference to addressing net zero in the organisation's strategy.
 - The need to draw a link between diversity and better decision making in the infrastructure sector.

DECISION: Commissioners approved the draft strategy.

8 YPP update

- 8.1 The Chair invited Sakthy Selvakumaran (SS) to update on the YPP's activities since the last meeting. SS noted that work had begun to procure an interactive web platform to showcase the YPP's intergenerational infrastructure trends research project.
- 8.2 SS highlighted the forthcoming programme of Infracafes and welcomed suggestions for future themes. Commissioners suggested that the Cambridge infracafe could focus on data. SS also noted that the Infra[un]structured podcast series was now being recorded in house.

9 Corporate Governance

- 9.1 The Chair invited the Chief Operating Officer (CG) to give a paper on the organisation's corporate governance. CG noted the organisations non-traditional split between the Commission and Oversight board with the Commission Chair also chairing oversight board. The COO also said that the Audit and Risk Assurance Committee had also recently been refreshed.
- 9.2 PG highlighted that HM Treasury had been advised that Sir Tim Besley, Bridget Rosewell CBE and Professor Sadie Morgan should be reappointed for a second five-year term and that following the completion of this process they would be looking to appoint two new

Commissioners. Commissioners were asked for comment on the paper and key points in the discussion included:

- The need to standardise the publication of minutes.
- The importance of appointing new Commissioners whose specialisms would enhance the Commission's existing expertise, such as in the fields of ecology or technology.

10 A.O.B.

- 10.1 Commissioners passed on their thanks to the Director of Policy, before she left for maternity leave.
- 10.2 Andy Green [AG] noted a potential conflict of loyalty with his role as a trustee of the WWF who have launched an appeal against a third runway at Heathrow. AG said that he was not involved in the decision and that the organisation had noted this.

MINUTES

Meeting: Commission Meeting Date: 16 October 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Dame Kate Barker	(Commissioner)
Professor David Fisk CB	(Commissioner)
Andy Green	(Commissioner)
Professor Sadie Morgan	(Commissioner)
Julia Prescot	(Commissioner)
Bridget Rosewell CBE	(Commissioner)

Young Professionals Panel Members:

Charlotte Mitchell	(Young Professionals Panel Member)
John Bradburn	(Young Professionals Panel Member)

Secretariat:

Phil Graham	(Chief Executive)		
James Richardson	(Chief Economist)		
Charlotte Goodrich	(Chief Operating Officer)		
	(Head of Private Office)		
	(Commission Secretary)		
	(Head of Communications)		
	(Communications Manager)		
	(Senior Policy Advisor)		
	(Senior Policy Adviser)		
	(Assistant Director)		
	(Monitoring Manager)	(Item 5)	
	(Assistant Director)	(Items 9-10)	
	(Policy Advisor)	(Item 10)	

1. Apologies and Welcome

1.1 The Chair noted apologies from Sir Tim Besley and welcomed Ben Wilson, the new NIC Head of Communications, who will be starting on 21 October.

2 Minutes and Matters Arising

2.1 The Chief Executive (PG) noted that the Financial Secretary to the Treasury had agreed to attend the next Commission meeting on 20 November.

3 Chair's Update

- 3.1 The Chair updated Commissioners on his activities since the last meeting, including positive meetings with Andrew Tyrie on the regulation study and the Committee on Climate Change on shared interests. He also met Doug Oakervee to discuss the ongoing HS2 review.
- 3.2 The Chair noted that he would be meeting Charles Roxburgh, Second Permanent Secretary to HM Treasury, on Tuesday 22 October to discuss Commissioner recruitment. Commissioners requested that the recruitment panel and the range of candidates being invited to interview should be diverse.

4 Chief Executive's Update

- 4.1 PG said that HM Treasury were likely to publish the National Infrastructure Strategy alongside the budget on 6 November. Additionally, HM Treasury had indicated that Ministers were considering launching a competition to appoint two new Commissioners, ideally with expertise in the environment (outside of carbon reduction) and with a regional perspective. Finally, he considered that HM Treasury could also include the launch of a new study, for example on energy, HS2 and NPR or cross border infrastructure, as part of the overall announcement.
- 4.2 PG highlighted that the paper on the Nuclear Regulated Asset Base (RAB) would be published this week. The paper aims to set out how to accurately compare the costs of a RAB model versus that obtained under Contracts for Difference auctions.

5 Quarterly NIA Recommendations Update and NIS Response

- 5.1 The Chair invited CB to outline the proposed NIC response to the National Infrastructure Assessment. CB noted that the NIS was likely to fall short of the Commission's expectations and outlined a proposed robust response.
- 5.2 CB asked Commissioners if they agreed with the proposed minimum acceptable response, whether they were content to plan for a non-acceptable response and with the tone of the planned response, and whether they were content to share concerns with external stakeholders. Key points in the discussion included:
 - The need to replace the column 'nice to have' with 'what we expect' and 'acceptable response' with 'minimum acceptable response'
 - The importance of including aggregate numbers for energy efficiency measures in the 'what we expect' column

- The need to move the requirement for OfGem to take wider network benefits into account when preparing for electric vehicles into the 'minimum acceptable response' column
- The need to include land use recommendations on compulsory purchase powers, council tax banding and business rates uplift in the table.
- The value in being as assertive in response to the NIS as is outlined in the paper.
- The need to emphasise in the response, should it be unacceptable, that while the Government has not delivered, the Commission has.
- The value of engaging external stakeholders to amplify the response.
- The need to plan for announcements trailed prior to budget day and to prepare a response for potential eye-catching, but non-strategic, infrastructure schemes.

DECISION: Commissioners agreed the proposed response and for the Chair to determine whether the published strategy meets the Commission's minimum requirements.

6 Strategic Plan Update

- 6.1 The Chair invited PG to provide an update on the NIC strategic plan. PG noted that the overall plan would cover the period to the next NIA in 2023, but that the workplan under discussion focused in more detail on 2020 and 2021. Over that period, it was envisaged that the organisation would continue to conduct two formal studies at any one time, but also undertake four six-month cross cutting thematic reviews, focusing on place and geography; decision making; technology; and asset management and maintenance. These would run sequentially until the end of 2021.
- 6.2 PG asked commissioners if they were content with a five-yearly NIA cycle culminating with NIA2 in 2023, whether they accepted the proposed approach to sequencing projects and whether they accepted the approach to planning for new studies. Key points in the discussion included:
 - The need to avoid repeating existing work on the delivery of rail infrastructure.
 - The distinction between the HS2/NPR study and ongoing work on the balance of investment between road and rail.
 - The need to look beyond the energy sector in considering the impact of the government's adoption of a net-zero carbon target on the NIA recommendations.

7 YPP Update

- 7.1 The Chair invited Charlotte Mitchell (CM) and John Bradburn (JB) to provide an update on the Young Professionals' Panel's activities since the last meeting.
- 7.2 CM noted that the fifth infra[un]structured podcast on tunnels was due to go live with a further podcast to be recorded. Infracafes have been held on the circular economy and electric vehicles with an upcoming infracafé on infrastructure finance being held in conjunction with the Infrastructure Projects and Finance Authority on 20 November. An infra café on transport mobility and another in conjunction with NIC Wales are planned for the new year.
- 7.3 CM noted that Commissioners could appear in future podcast episodes and that the YPP would circulate information on the commitment involved.

NATIONAL INFRASTRUCTURE COMMISSION

- 7.4 JB said that every member of the YPP was writing a 500 word think piece on the four identified generational shift trends: changing consumer behaviours; automation and digitisation; flexible working; and changing models of ownership. Commissioners noted that this research should consider what isn't going to change as well as what is going to change along with which behaviours have been changed by changing generational attitudes and which have been changed by changing market prices.
- 7.5 Bridget Rosewell (BR) noted that hack partners were running hacktrain on 15-17 of November and that she would put the YPP in touch with them to discuss collaboration.

ACTION: YPP to circulate information to Commissioners on how to get involved with the Infra[un]structured podcast.

8 Infrastructure and Place

- 8.1 The Chair invited NW to introduce the scoping paper for the infrastructure and place project. NW noted that this was a six-month project to help develop the early thinking for the second NIA and that it had four aims resulting in four work packages: synthesizing existing evidence in a literature review; providing a picture of how infrastructure works at local level through a series of case studies; positioning the NIC and design group as facilitators of the debate through a symposium; and drawing initial conclusions.
- 8.2 NW asked Commissioners if they were content with the proposed scope and whether the outputs were achievable and valuable. Key points in the discussion included:
 - The challenge of defining 'place' in a coherent and consistent manner
 - The value of partnering with academics including the Bartlett School of Planning and the LSE Cities programme and asking them to prepare articles in advance of participation in the symposium
 - The need for the definition of 'liveable place' to be discussed in academic terms because it is a continuing academic debate
 - The value of considering whether infrastructure 'feels' different in small towns or coastal communities to more urban environments
 - The need to consider whether the NIC can have a unique voice in this debate
 - The importance of considering spatial critiques of the NIA and not just the debate around 'place'
 - The value of considering how infrastructure (e.g. bypasses) might prevent liveable, connected, places, as well as creating them
 - The value of the project for shaping how place is considered in NIA2, and whether 'place' is a useful lens through which to consider infrastructure from a local perspective
 - The need to ensure that a limited proportion of the NIC's workplan at any one time is exploratory.

9 Decision Making

9.1 The Chair invited GM to introduce a scoping paper for the infrastructure decision making workstream. GM noted that the project had four objectives: to understand how decisions are made in practice; to examine informal influences on decision making; to

assess the representation of diverse groups in decision making; and to consider opportunities to improve decision making processes to help target recommendations more effectively.

- 9.2 GM noted that the project would consider strategic decisions at local and national level across sectors and that the outputs would be a literature review and new research including policymaker interviews. GM asked Commissioners if they agreed the objectives of the work and if they had any comments on the scope, methods and outputs proposed. Key points in the discussion included:
 - The need to consider international comparisons of decision making processes in the literature review
 - The importance of considering decision making at the policy making and consent stages to explore the quality of evidence informing decisions and how that evidence is used.
 - The value of considering decisions about how major projects such as Crossrail and HS2 are delivered
 - The need to consider how public consensus is or is not gained around decisions.
 - The value of exploring non-decisions as well as decisions taken.
 - The need to consider whether public sector decision makers spend enough time considering why certain projects should go ahead and not just *how*.
 - The value of the case studies approach to draw conclusions from individual projects.
 - The importance of considering case study projects over time to incorporate not just when decisions are made but also how long it took for decisions to be reached.
 - The usefulness of considering whether HM Treasury's green book guidance on how to evaluate policies, projects, and programmes is an accurate description of how decisions are taken.

10 Cities Update

10.1

The Chair invited RW to update on the *Next Steps for Cities* programme. RW noted that the final product would include a joint statement from Commissioners and the leaders of the five case study cities, key principles to consider when developing a local infrastructure strategy, exemplar approaches, and summaries and lessons learnt from case study cities to press the case for the NIA recommendations.

- 10.2 RW outlined four potential scenarios for future work: continuing to focus on the cities agenda to cement progress following government acceptance of the NIA recommendations; the Commission continuing to press for devolution despite a negative response from government to the NIA recommendations; the Commission moving on to consider a new piece of work on urban infrastructure; or the Commission moving away from urban infrastructure to examine place and infrastructure in a new way.
- 10.3 RW asked the Commissioners for comments on the final product and for views on what the next steps for the workstream should be. Key points in the discussion included:
 - The need to ask partner cities how they would like to take the local decision-making agenda forward before the Commission makes a decision on next steps.
 - The value of Commissioners touring the country in 2020 to explore local priorities and, potentially, holding one Commission meeting a year outside of London.

11 Regulation Study Update

- 11.1 The Chair invited PG to provide an update on responses to the regulation study. PG noted that while the study was not covered widely in the national media, it received a positive response with no major objections from key stakeholders. Commissioners noted that they had heard that the UKRN was content with its proposed role.
- 11.2 PG highlighted that the Chief Economist and the Chair would be attending the next meeting of the UKRN's CEOs meeting.

12 Young Professionals Panel Review

12.1 The Chair invited EV to outline proposals for the second Young Professionals

Panel as the first YPP ends its term in April 2020. EV noted successes with the first scheme, including that it had resulted in a similar network being established by the GLA, but also that it had been a pilot and that lessons should be learnt for the second panel.

- 12.2 EV proposed that the second panel should be reduced from 16 to 10 members who would each have up to 8 days per year instead of five, the second panel should be entirely new, that the maximum number of years of experience should be reduced from 10 to 6, and that the group be asked to elect a chair or co-chairs. EV also proposed that the YPP be given a set of identified work programme deadlines and that they report to Commissioners at specific points rather than at every meeting. EV asked Commissioners if they were content with these proposals. The Commissioners expressed broad agreement with the proposal to continue with a Young Professionals Panel, but asked for the following key points to be considered as the approach was developed in more detail:
 - The need to consider whether the YPP was the only way to incorporate younger voices in the Commission's thinking.
 - The value of the YPP focusing on outreach initiatives such as podcasts and infra cafes, rather than research projects, to engage a younger generation and get broader insight into its interests.
 - The importance of an 'alumni offer' to the existing YPP to recognise the contributions that have been made.
 - The need to consider whether asking the new YPP to elect chairs is workable and whether it might be worthwhile recruiting a chair or appointing an existing YPP member as a chair.
 - The importance of a clear induction process for the new YPP to bring them up to speed quickly.

Decision: Secretariat to present a revised proposal to Commissioners via email.

13 A.O.B.

13.1 No items of AOB were noted.

Meeting: Commission Meeting Date: 20 November 2019 Time: 1.00pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Dame Kate Barker	(Commissioner)
Professor Sir Tim Besley	(Commissioner)
Professor David Fisk CB	(Commissioner)
Andy Green	(Commissioner)
Professor Sadie Morgan	(Commissioner)
Julia Prescot	(Commissioner)
Bridget Rosewell CBE	(Commissioner)

NIC Oversight Board Members:

Dennis Skinner	(Member of the NIC Oversight Board)	
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Young Professionals Panel Members:

Christian O'Brien (Young Professionals Panel Member)
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Secretariat:

Phil Graham	(Chief Executive)	
James Richardson	(Chief Economist)	
Charlotte Goodrich	(Chief Operating Officer)	
	(Head of Private Office)	
	(Commission Secretary)	
	(Head of Communications)	
	(Senior Policy Adviser)	
	(Assistant Director)	
	(Monitoring Manager)	(Item 5)
	(Assistant Director)	(Items 9-10)
	(Policy Advisor)	(Item 10)

External Guests

Anthony Dewar	(National Infrastructure Design Group member)	(Item 7)
Clare Donnelly	(National Infrastructure Design Group member)	(Item 7)
Shashi Verma	(Chief Technology Officer, Transport for London)	(Item 9)
Lucy Yu	(Director of Public Policy, FiveAI)	(Item 9)

Chris Lane	(Head of Transport Innovation, Transport for the West Midlands) (Item 9)
Neil Fulton	(Chief Operating Officer, Connected Places Catapult) (Item 9)

1. Apologies and Welcome

1.1 No apologies we received. The Chair welcomed Giles Stevens as the acting Director of Policy and Dennis Skinner, who was observing the meeting as a recently appointed non-executive member of the NIC's Oversight Board.

2 Minutes and Matters Arising

2.1 The Chair noted that bullet point 5.1 on the previous meeting's minutes should read 'National Infrastructure Strategy' rather than 'National Infrastructure Assessment'.

3 Chair's Update

3.1 The Chair updated Commissioners on his activities since the last meeting, including a positive meeting with the Chancellor to discuss the National Infrastructure Strategy. He also noted a positive meeting with the National Audit Office but said that the NIC should establish permanent points of contact with the NAO's secretariat.

4 Chief Executive's Update

- 4.1 The Chief Executive (PG) noted that some high-level work had been done to calculate the potential implications of the two main political parties' fiscal policy announcements on the Commission's fiscal remit. He also pointed out that decisions on new studies would now be on hold until after the general election.
- 4.2 PG highlighted a visit to the National Infrastructure Commission for Scotland and noted with multiple organisations being set up across the four nations of the UK, there was a role for the Commission in coordinating them.
- 4.3 PG said the advert for the CEO role was now live and he had had meetings with a number of candidates interested in applying.

5 Post-election Influencing Strategy

- 5.1 The Chair invited BW to outline the proposed organisational influencing strategy in the period following the general election. BW proposed that significant lobbying should wait until the new year, rather than seeking to gain traction immediately after the election, but that a lower profile public-facing campaign in December would be worthwhile. He also outlined the key message proposed for the Chair at his speech in central London on 23 January.
- 5.2 Commissioners suggested that an early response might be of value immediately after the election, to avoid the NIC appearing to leave a vacuum in its messaging, even if the more high-profile communications activity would not take place until January. In particular, it was felt that this might provide a clear position that the NIC's stakeholders could cite post-election.

ACTION: BW and CB) to draft options for a day 1 story, reflecting potential election outcomes, for release immediately after the 12 December election.

6 Housing

6.1 The Chair invited JC and OP to introduce a paper on the

interaction between infrastructure and housing. JC noted that the paper had highlighted four key issues: a lack of transparency in what connection charges are for; a limited understanding of utilities and regulation among developers; engagement and coordination not happening at the right stages; and that risks and costs are not always allocated fairly so delay and inefficient delivery are created by lack of risk appetite.

- 6.2 JC asked Commissioners for feedback on the four key issues identified, for delegated authority for the final product to be signed off by the Chair and lead Commissioners, and to propose a preferred option for next steps following the publication of the position paper. Key points in the discussion included:
 - The option of treating the paper as a consultation document to seek further feedback from stakeholders.
 - The need to consider how the problems identified might be exacerbated by future technologies such as the need for EV charging.
 - The importance of incorporating case studies outside of London and of considering smaller scale developments as well as large scale ones.
 - The potential catch-22 in which some developers find themselves unable to agree an approach to connections with utilities providers before they have been granted planning permission.
 - The value of data on bond overruns held by the National House Builders Confederation for illustrating the scale of the problem.
 - The need to recognise that the state can only intervene to pre-fund electricity connection where large-scale developments are involved.
 - The value of considering how some of the issues identified in the paper could be taken forward in the Commission's future work programme, such as the place and geography study.

Action: Lead Commissioners (Kate Barker and David Fisk) and Chair were given delegated authority to sign off the document. It should both provide shorter-term conclusions on how the immediate issues could be addressed, and identify areas for longer-term consideration through the Commission's wider work programme (rather than consulting on the document itself).

7 Design

- 7.1 The Chair invited EV to introduce the National Infrastructure Design Group's draft design principles.
- 7.2 EV noted that the National Infrastructure Assessment recommended that all design panels should use the Commission's design principles, but that Government had been reluctant to do so before the principles were published. The delayed National Infrastructure Strategy meant

that the group could launch its principles in mid-January before the Strategy, addressing one of a key concern that had been raised around government adopt of the Commission's recommendation.

- 7.3 EV introduced Anthony Dewar (AD) and Clare Donnelly (CD), members of the National Infrastructure Design Group, to outline the importance of the principles. AD noted that design principles could make a real difference, citing the example of the alterations to Reading Station after the initial draft proposals. CD noted that the most powerful recommendation was to find opportunities to use design to improve quality of life rather than focussing purely on mitigating the impact of infrastructure on the built environment.
- 7.4 EV asked if Commissioners were content for the design principles to be published. Key points in the discussion included:
 - The value of the environmental, social and corporate governance metrics used by investors for informing the document.
 - The importance of ensuring that designing in safety was emphasised in the document.
 - The need to consider the relationship of the document with the Ministry of Housing, Communities and Local Government's design guide.
 - The importance of considering how design can be protected when cuts are needed on a project.
 - The need to consider the wider relationship between design and climate, beyond reductions in carbon emissions.
 - The importance of emphasising that design should be centred on people.

Decision: The Commission were content for the principles to be published subject to considering the points raised above.

8 Future Transport Speakers

- 8.1 The Chair invited Shashi Verma (SV), Lucy Yu (LY), Chris Lane (CL) and Neil Fulton (NF) to outline which future transport technologies would have on how we move and they might interact with existing infrastructure systems.
- 8.2 SV noted that at the AM peak in London public transport accounts for 96% of journeys. This efficiency, and the agglomeration benefits it brings, are why London is twice as productive as the rest of the country. SV stressed that this could only be achieved through rail and that the most important future technology was high capacity railway signalling. He noted that resignalling the Piccadilly Line would increase capacity by 60-70%.
- 8.3 LY explained current progress in the development of connected and autonomous vehicles. She noted that while the technology had been at the peak of the Gartner Hype Cycle in 2015, there was now a more realistic view of its stage of development. She explained that Five AI were designing vehicles which would not rely on external infrastructure connections to operate.
- 8.4 CL highlighted Transport for the West Midlands' future mobility zone which was exploring how travel preferences would influence the uptake of new technologies. He said that mobility as a service was unlikely to stop people owning private cars and that greater availability of data

would improve TfWM's resilience and incident planning capabilities. He also explained a car scrappage mobility credit scheme which allowed people to receive credit for use on public transport in return for scrapping old cars.

8.5 NF explained that the Connected Places Catapult was funded through BEIS to support the growth of promising organisations in the field of future mobility. He noted that they were focusing on four key trends using the acronym ACES: automation, connectedness, electrification and shared services.

8.6 The Chair invited questions from Commissioners. Key points in the discussion included:

- The value of additional technologies for increasing capacity of stations, such as Oyster and contactless payment.
- The need to remember that driver assistance technology may remain distinct from automated vehicles, which might need to be designed from scratch.
- The increased challenges of autonomy on European roads which tend to be narrower and have more obstacles than American highways.
- The need to remember that automated trains are much easier to operate underground, but that complexity increases when trains are required to operate on the overground network, combined with the importance of achieving exceptionally high confidence levels before driverless operation can be considered.
- The value of demand responsive transport for improving access to employment sites.
- The need to consider the drivers of consumer behaviour, including that investments in safety and improved comfort helped drive the increased use of London buses in the early 2000s.

9 Strategic Transport

- 9.1 The Chair invited SR to introduce an update on the strategic transport workstream. SR highlighted that strategic transport funding decisions made by government do not always reflect a coherent set of strategic priorities and that there was no way of convincingly comparing between complex projects across mode.
- 9.2 SR noted that since discussing the programme at the March Commission meeting the policy team were working on four broad themes: identifying alternatives to cost-benefit analysis which capture the wider impact of transport on society; reviewing different funding options and their implications; the impact of privately driven technology including emphasising the uncertainty in this area; and a more specific identification of the problem.
- 9.3 SR noted that the Commission was also considering whether and how this work might be applied to decisions on major transport projects. The proposed way to prepare for this was to develop a multi-criteria approach for assessing strategic transport schemes. SR asked Commissioners if they agreed with the outlined problem-definition and the proposal for a multi-criteria approach. Key points in the discussion included:
 - The value of defining what transport is for and outlining how different data sources could be combined to measure this.
 - The need to consider how future trends might impact on the value of different transport modes.

• The importance of focusing on strategic transport and not on intra-urban travel which will be covered by other Commission projects.

10 Young Professionals Panel update

- 10.1 The Chair invited Christian O'Brien (CB) to update on the YPP's activities since the last meeting. CB reflected that the main milestone had been the deadline for contributions to the YPP's intergenerational shift publication although many of these remained to be submitted.
- 10.2 CB noted that the next YPP may benefit from mentoring by members of the current YPP.

11 A.O.B.

11.1 No items of AOB were noted.

Meeting: Commission Meeting Date: 11 December 2019 Time: 10.00am Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)
Dame Kate Barker	(Commissioner) (Items 1 – 6)
Professor Sir Tim Besley	(Commissioner) (Items 1 – 7)
Professor David Fisk CB	(Commissioner)
Andy Green	(Commissioner)
Professor Sadie Morgan	(Commissioner)
Julia Prescot	(Commissioner) (Items 3 – 11)
Bridget Rosewell CBE	(Commissioner)

Young Professionals Panel Members:

Victor Frebault	(Young Professionals Panel Member)	
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Secretariat:

Phil Graham	(Chief Executive)	
James Richardson	(Chief Economist)	
Giles Stephens	(Director of Policy)	
Charlotte Goodrich	(Chief Operating Officer)	
	(Commission Secretary)	
	(Head of Communications)	
	(Assistant Director)	(Items 3 – 11)
	(Director of the Regulation Study)	(Item 7)
	(Policy Advisor)	(Item 10)

External Guests

Sir Peter Gershon	(Chair, National Grid)	(Item 2)	
John Pettigrew	(Chief Executive, National Grid)	(Item 2)	

1. Apologies and Welcome

1.1 No apologies we received.

2 External Speakers: Sir Peter Gershon and John Pettigrew

2.1 The Chair welcomed Sir Peter Gershon (SPG) and John Pettigrew (JPe). They discussed the lessons learnt from 9 August power cuts and National Grid's role in meeting the net zero emissions target by 2050.

Network resilience

- 2.2 On network resilience, JPe highlighted the increasing role of intermittent supply from renewables in the grid's energy mix which he believed presented three challenges: managing voltage volatility; increased distributed generation; and the need to find mechanisms for black starting the system after power failures which are not dependent on large scale gas generators.
- 2.3 In response to these challenges the grid was developing new products and services such as battery storage, instituting new commercial arrangements such as daily auctions to encourage new players to enter the market and working with European partners to explore whether Europe-UK interconnectors could provide a black start service.
- 2.4 JPe noted that the 9 August power cut was a one-in-ten-year event and that power was lost for only 8 minutes. He believed the event revealed the need for common standard for systems connected to the electricity grid as the biggest disruption was caused by trains which tripped off and could not be restarted.
- 2.5 JPe said that in terms of resilience, the Grid's biggest investment driver was the need to insulate the system against cyber-attacks, and that ethical hackers were being used to test the system's resilience.

Net zero

- 2.6 JPe highlighted that the grid was working on proposals for a network of ultrafast charging stations at 54 service stations across the UK, meaning no driver would ever be more than 50 miles from an ultrafast charging station. He supported the Commission's NIA recommendations, noting that in California the market has not provided ahead of demand.
- 2.7 JPe noted that decarbonising heat was the most challenging aspect of achieving the net zero emissions commitment. He said that National Grid were exploring whether the methane network could be repurposed for hydrogen, and how that could be financed, as well as trialling hydrogen production with carbon capture and storage. He opened to questions from Commissioners and key points in the discussion included:
 - The need for government intervention as there are no international examples of progress in this area driven by the market.
 - An agreement on the Commission's regulation study recommendation that regulators' decisions support and are consistent with the net zero target.
 - The importance of investment ahead of need to ensure forward planning, for example by limiting the number of new reinforced connections on the shoreline.
 - The need for primary legislation to enhance the grid's remit so that private competition is based on early models rather than on financing.

- The importance of the UK-EU interconnectors for both sides, meaning they should not become involved in the Brexit negotiations.
- The need for a coordinating body to oversee net zero preparations such as a number 10 delivery unit.

3 Minutes and Matters arising

3.1 The Chair and Commissioners agreed that feedback should be sourced from city leaders on how they would like to follow up on the cities workstream in time to inform discussion of the programme's executive summary at the 22 January Commission meeting.

4 Chair's summary

4.1 The Chair noted a productive meeting with Network Rail at which it was pointed out that the Oxford-Cambridge rail link may require the remodelling of Oxford station, and a successful meeting with Homes England whom he said the Commission should engage with further in future.

5 Chief Executive's Update

5.1 The Chief Executive (PG) outlined that the purpose of the meeting was to agree the Commission's strategy in the days, weeks, and months, following the election.

6 Manifesto Analysis and Commission Positioning

- 6.1 The Chair invited BW to outline the proposed response to the election result on 13 December. He invited Commissioners' views on the two sets of messages in the pack. Key points in the discussion included:
 - The need for a measured tone in the immediate aftermath of the election, especially as either government will be focused on dealing with Brexit until the end of January.
 - The need to remind either government of our recommendations and the need for a response without commenting on the achievements and actions of the previous government.
 - The importance of emphasising the role of infrastructure in meeting the net zero target.

Action: BW to redraft statement and release final statement in the aftermath of the election in consultation with the Chair.

7 Data as Infrastructure

7.1 The Chair invited SH to introduce a paper on scoping work on data as

infrastructure. SH said data both required physical infrastructure to support it and that a set of mechanisms were required to coordinate and make sense of data. She noted that the proposed approach treated data as a cross-sectoral issue rather than as a sector in its own right.

7.2 SH asked for feedback on eight proposed areas for the Commission to consider as part of its forward work programme. Key points in the discussion included:

- The need to avoid focusing on the physical storage of data, which may be transformed by 5G systems.
- The importance of avoiding involvement in debates around privacy and data sharing which do not neatly fall into the Commission's remit.
- The need to limit the focus on data to discussing how data on infrastructure specifically could be better used or better structured.
- The value of allowing the digital framework task force to take forward a lot of the issues around data and infrastructure.

8 YPP Update

- 8.1 The Chair invited Victor Frebault (VF) to update on the YPP's activities since the last meeting. VF noted that all 16 content pieces from the intergenerational shift had been submitted, and that the content piece would be published in interactive format on the YPP website.
- 8.2 VF noted an infracafe on Funding and Financing had been rescheduled for 22 January 2020 as a result of purdah, and that podcasts were being recorded with NIC Commissioners and the secretariat's senior management team on topics ranging from design to infrastructure and housing.

9 Annual Monitoring Report

9.1 The Chair invited CB to outline the proposed strategy for the publication of the

Annual Monitoring Report in 2020. CB proposed that the report be ready for publication by late January and that it incorporate the six studies which pre-date the NIA and introduce a new, more rigorous, monitoring methodology. CB noted that a final decision could be taken at the Commission meeting in January 2020.

- 9.2 CB asked Commissioners if they were content with the timing, scope and messaging for the 2020 AMR, and for the Chair to take a view on these assumptions in light of the election result. Key points in the discussion included:
 - The value of mentioning the still-awaited response to the Freight and Regulation studies.
 - The need to emphasise how the Commission's recommendations align with, and help to achieve, the net zero target.
 - The importance of considering the report alongside other work being presented to the Commission in January: an assessment of how the NIA's recommendations aligns with the net zero target and a revision of the aurora modelling of the future energy mix.
 - The need to be firmer with the government in the Chair's planned speech on 23 January.
 - The importance of noting that HM Treasury are reviewing infrastructure investment due to long-term low interest rates for infrastructure investment.
 - The importance the government having an ambitious strategy for net zero in advance of COP26, including on infrastructure.

10 Mobile Connectivity on Road and Rail

- ^{10.1} The Chair invited RW to outline the results of the deep dive into mobile connectivity on road and rail. RW proposed that the output committed to continuing to monitor progress on road connectivity, while identifying four areas in which the Commission could seek to make progress on rail: leadership and direction; access to trackside land; tackling commercial barriers; and addressing evidence gaps.
- 10.2 RW asked if Commissioners agreed with the deep dive's conclusions and recommendations. Key points in the discussion included:
 - The value of focusing on rail connectivity, while continuing to monitor road connectivity.
 - The importance of highlighting to government the need to consider the role of public subsidy in delivering rail network improvements and potentially indicating latest evidence as to the level of subsidy required.
 - The value of welcoming existing progress and stressing that schemes underway, including on the London to Brighton Line and the south western route should be delivered as planned, while also highlighting a longer term need to draw evidence from these procurements.
 - The need to think carefully about the recommendation to appoint a new single ministerial contact as this might hamper existing progress.
 - The importance of disaggregating two issues: what passengers need, or what the Commission feels should be available; and how trackside assets could be used to provide a more general service such as supporting the rollout of rural broadband.
 - The advantage of the ambiguity around what constitutes a 'mainline route', meaning that the Commission's recommendations could begin by focusing on the most commercially viable routes.
 - The value of publishing the deep dive separately from the annual monitoring report so that its recommendations, which are relatable for the public, do not distract from the report's key messages.

Action: secretariat to present revised proposals to lead Commissioners in advance of publication of the annual monitoring report.

11 A.O.B.

11.1 No items of AOB were noted.

Meeting: Commission Meeting Date: 22 January 2020 Time: 1pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

(Chair)	
(Commissioner) (Items 1 – 7)	
(Commissioner)	
(Commissioner)	
(Commissioner)	
Professor Sadie Morgan OBE (Commissioner)	
(Commissioner)	
(Commissioner)	

Young Professionals Panel Members:

Petra Marko	(Young Professionals Panel Member)
Matthew Ball	(Young Professionals Panel Member)

Secretariat:

James Richardson	(Interim Chief Executive)	
Giles Stephens	(Director of Policy)	
	(Commission Secretary)	
	(Senior Technical Adviser)	
	(Technical Adviser)	
	(Assistant Director)	(Item 6)
	(Director of the Resilience Study)	(Item 7)
	(Assistant Director)	(Item 8)
	(Policy Adviser)	(Item 8)
	(Senior Policy Adviser)	(Item 8)

External Guests

Rachel Fletcher	(Chief Executive Officer, Ofwat)	(Item 5)
David Black	(Senior Director, Water 2020, Ofwat)	(Item 5)

1. Apologies and Welcome

1.1 Apologies were received from Charlotte Goodrich.

2 Minutes and matters arising

2.1 No comments were made on the minutes of the last meeting. The Chair noted the actions in the action log.

3 Chair's update

- 3.1 The Chair highlighted the publication of the first report of the Infrastructure Commission for Scotland, noting that their Commission's remit covered social as well as economic infrastructure and that they proposed a system of paying for road use as a replacement for fuel duty.
- 3.2 The Chair noted that Dame Kate Barker would be leaving the Commission to take up a role as the Head of the Universities' Superannuation Scheme. Commissioners congratulated her on her new role.

4 Chief Executive's Update

- 4.1 The Interim Chief Executive (JR) congratulated Andy Green and Sadie Morgan on their respective CBE and OBE in the 2020 New Year's Honours list.
- 4.2 JR noted that the government had committed to publishing the NIS alongside the budget on 11 March, and that they would also respond to the Freight Study and the Infrastructure Finance Review on budget day, but that it was not clear whether they would include a response to the Regulation study at the same time.
- 4.3 JR highlighted the Commission's forward work through February, including the publication of the deep dive into connectivity on rail and road, the Chair's speech to the All Party Parliamentary Group for Infrastructure on 12 February, and the publication of the Annual Monitoring Report.

5 External Speakers: Rachel Fletcher and David Black

5.1 The Chair invited Rachel Fletcher (RF) and David Black (DB) to present on Ofwat's Price Review 2019. RF gave a summary of Ofwat's future plans, citing the influence of the Commission's Strategic Investment and Public Confidence and Preparing for a Drier Future reports.

6 Annual Monitoring Report

6.1 The Chair invited CB to update the Commission on the scope and timing of the

2020 Annual Monitoring Report. CB noted that the deep dive on road and rail connectivity would be published on 5 February, and the Annual Monitoring Report would be published on 18 February.

DECISION: The commission agreed to delegate sign-off of the text to the Chair subject to the text being shared among Commissioners in advance.

7 Resilience update

7.1 The Chair invited MC to update on the progress of the resilience study. MC

highlighted the two imperatives for conducting the study: that continuing changes to infrastructure systems impact resilience; and that transformational changes provide both challenges and opportunities.MC asked Commissioners for comments on the imperative for the study and to agree the proposed programme to publication.

DECISION: The Commission agreed the proposed programme to publication and for the report to be signed-off by the Chair and lead Commissioners.

8 Net zero analysis and new energy modelling

- 8.1 The Chair invited JC to outline the Commission's updated energy modelling and analysis of the impact of the net zero target on the NIA recommendations. JC highlighted that the net zero analysis underlined the urgency in delivering the Commission's recommendations and that the Commission's recommended energy mix is still consistent with the net zero target.
- 8.2 JC noted that the proposed output was a short note on the impact of net zero in the Annual Monitoring Report, the publication of new energy modelling prior to the NIS, and a blog post reemphasising messaging after the publication of the NIS.
- 8.3 JC asked the commission to agree the proposed messaging plan, the outline content and timeline for publication, and to delegate the sign-off of the final product to the Chair and lead Commissioner.

DECISION: Commissioners agreed to the proposed outputs and timelines.

9 Forward work programme 2020-21

The Chair invited JR to outline the NIC's forward work programme for 2020-21. JR noted that the work plan set out the Commission's priorities but that it may be subject to change depending on future government study announcements. JR asked for agreement on the plan and agreement on the list of lead Commissioners. **DECISION: Commissioners agreed to the proposed work plan for** 2020/21 and the proposed allocation of lead Commissioner roles.

10 Young Professionals Panel update

- 10.1 The Chair invited Petra Marko (PM) and Matthew Ball (MB) to provide an update on the Young Professionals Panel's activities since the last meeting. PM and MB noted that since the last meeting they had published a podcast featuring Bridget Rosewell on infrastructure for cities and that an Infracafe on funding and financing was held with Julia Prescot on 22 January.
- 10.2 PM and MB noted that the recruitment advert for the new YPP panel was now live and that the new panel would consist of 10 members, including a Chair appointed by the Commission, and eligible candidates would have no more than 6-years work experience.

11 AOB

11.1 Commissioners asked the secretariat to investigate an e-filing system such as diligent or board intelligence to store Commission papers.

ACTION: Commission secretary to investigate options for an e-filing system for Commissioners which is cost efficient and compatible with HM Treasury IT security requirements.

Meeting: Commission Meeting Date: 19 February 2020 Time: 1pm Place: Finlaison House, 15-17 Furnival Street, London EC4A 1AB

Attendees

Commission Members:

Sir John Armitt	(Chair)	
Dame Kate Barker	(Commissioner)	
Professor Sir Tim Besley	(Commissioner)	
Professor David Fisk CB	(Commissioner)	
Andy Green CBE	(Commissioner)	
Professor Sadie Morgan OB	E (Commissioner)	
Julia Prescot	(Commissioner)	
Bridget Rosewell CBE	(Commissioner)	

Young Professionals Panel Members:

Sakthy Selvakumaran	(Young Professionals Panel Member)	(Items 6 – 10)
Charlotte Mitchell	(Young Professionals Panel Member)	(Items 6 – 10)

Secretariat:

(Interim Chief Executive)		
(Director of Policy)		
(Chief Operating Officer)		
(Head of Communications)		
(Commission Secretary)		
(Assistant Director)	(Item 5)	
(Senior Policy Advisor)	(Item 5)	
(Assistant Director)	(Item 6)	
(Policy Advisor)	(Item 7)	
(Head of Economic Analysis)	(Item 8)	
(Economic Adviser)	(Item 8)	
	(Director of Policy) (Chief Operating Officer) (Head of Communications) (Commission Secretary) (Assistant Director) (Senior Policy Advisor) (Assistant Director) (Policy Advisor) (Head of Economic Analysis)	(Director of Policy)(Chief Operating Officer)(Head of Communications)(Commission Secretary)(Assistant Director)(Item 5)(Senior Policy Advisor)(Item 5)(Assistant Director)(Item 6)(Policy Advisor)(Item 7)(Head of Economic Analysis)

External Guests

Douglas Oakervee	(Chair, Oakervee review)	(Item 5)
	(Generating Genius student)	(Items 6 – 10)
	(Generating Genius student)	(Items 6 – 10)

1. Apologies and Welcome

1.1 No apologies were received.

2 Minutes and matters arising

2.1 No comments were made on the minutes of the last meeting. The Chair noted the actions in the action log.

3 Chair's update

- 3.1 The Chair provided an update on his activities since the last meeting.
- 3.2 The Chair noted that the Natural Capital Committee has asked for the Commission to consider natural capital as a form of infrastructure. It was agreed that the Commission would, and had, considered natural capital when making recommendations, but that it was the role of HM Treasury to set the Commission's remit. It was agreed that the secretariat should produce a paper for a future meeting, setting out how the Commission had addressed natural capital issues, within its remit, to date and areas for possible further work.

ACTION: Director of Policy to produce a paper for a future meeting setting out how the Commission has addressed natural capital within its remit and identifying possible future work on this topic.

4 Chief Executive's Update

- 4.1 The Interim Chief Executive (JR) provided an update on Commission business since the last meeting, noting the launch of the design principles, the in-depth review on mobility connectivity on road and rail and the Chairman's speech to the All-Party Parliamentary Group for Infrastructure. Sadie Morgan (SM) congratulated the secretariat on their work on the design principles launch event.
- 4.2 JR noted that the Budget was now confirmed for 11 March.
- 4.3 JR highlighted the study into rail connections in the north and midlands, announced by the Prime Minister on 11 February. The Director of Policy (GS) noted that while a formal terms of reference had yet to be received, there were three strands to the government's plans: a government led integrated rail plan to be published by December; an Infrastructure Projects Authority lessons learned report exploring governance, procurement, risk allocation, engineering specifications and delivery; and the Commission's assessment of the rail needs of the Midlands and the North. The key tasks for the Commission are to explore the scoping, phasing, and sequencing of HS2 2b, northern powerhouse rail, and other proposed rail investments, and to examine how best to deliver rail connectivity with Scotland.
- 4.4 GS noted that the secretariat were examining the option of securing an SCS secondee to lead the study; and office space in the North or Midlands for secondees from the region.

5 External Speakers: Douglas Oakervee

5.1 The Chair invited Douglas Oakervee (DO) to outline the findings of his review into HS2. DO noted that the key findings were that the government should proceed with HS2 subject to strict conditions on scheme governance and management.

6 Cities programme final report

- 6.1 The Chair invited GM to discuss the proposed outputs from the Next Steps for Cities programme.
- 6.2 GM highlighted that the final output would consist of simultaneously published reports on practical guidance for local authorities and on international comparisons, subject to quality assurance of the latter to ensure it is consistent with existing Commission metrics. He noted the proposed publication date was now May, after the local election purdah period.

DECISION: The Commission agreed to publish the document in May and to consider in future how it can support local authorities with their carbon reduction ambitions.

7 Response to the National Infrastructure Strategy

7.1 The Chair invited EA to outline the proposed response to the National Infrastructure Strategy, due to be published on or around budget day on 11 March.

DECISION: The Commission agreed a response to the strategy, subject to reviewing the detailed strategy document.

8 Competitiveness

8.1 The Chair invited BH to introduce a paper on developing a definition of the

Commission's competitiveness objective. BH noted that there was not an existing consistent definition of competitiveness, but whichever definition the Commission decided to use, it need to be relevant to infrastructure, have evidence underpinning the definition, and that it needed to be measurable. BH asked Commissioners to agree one of the definitions set out in the paper.

Decision: Commissioners agreed to publish the discussion paper, subject to reviewing its conclusions on the definition of competitiveness.

9 Young Professionals Panel update

- 9.1 The Chair invited Charlotte Mitchell (CM) and Sakthy Selvakumaran (SS) to update on the YPP's activities since the last meeting. They noted that two more podcasts were due to be recorded, with Professor Sir Tim Besley and Antony Dewar of the National Infrastructure Design Group. They highlighted that the episodes had had an average of 150 listens on Soundcloud, not including Apple and Spotify listens.
- 9.2 CM and SS highlighted three planned infra cafes in Bristol, London, and one in Cambridge on 19 March on data gaps. Commissioners suggested Diane Coyle and Caroline Criado Perez as possible speakers.

9.3 CM and SS said that the Generational Shift opinion pieces would be hosted on the Commission's website.

10 AOB

10.1

No items of AOB were recorded.

Meeting: Commission Meeting Date: 19 March 2020 Time: 1pm Place: Video conference

Attendees

Commission Members:

Sir John Armitt	(Chair)	
Dame Kate Barker	(Commissioner)	
Professor Sir Tim Besley	(Commissioner)	
Professor David Fisk CB	(Commissioner)	
Andy Green CBE	(Commissioner)	
Professor Sadie Morgan OE	3E (Commissioner)	
Julia Prescot	(Commissioner)	
Bridget Rosewell CBE	(Commissioner)	

Young Professionals Panel Members:

Annette Jezierska	(Young Professionals Panel Member)	
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Secretariat:

Secretariat.			
James Richardson	(Interim Chief Executive)		
Giles Stephens	(Director of Policy)		
Charlotte Goodrich	(Chief Operating Officer)		
	(Head of Communications)		
	(Commission Secretary)		
	(Assistant Director)		
	(Senior Policy Adviser)	(Items 5 and 8)	
	(Senior Policy Adviser)	(Items 5 and 8)	
	(Policy Adviser)	(Item 5)	
	(Economic Adviser)	(Item 5)	
	(Economics Apprentice)	(Item 5)	
	(Senior Policy Adviser)	(Item 5)	
	(Senior Policy Adviser)	(Item 6)	
	(Assistant Director)	(Item 6)	
	(Policy Advisor)	(Item 7)	
	(Head of Resilience Study)	(Items 7 and 8)	
	(Policy Adviser)	(Item 8)	
	(Senior Technical Adviser)	(Item 8)	
	(Senior Adviser)	(Item 8)	

External Guests

Charles Roxburgh	(Second Permanent Secretary to HM Treasury)	(Item 5)
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1. Apologies and Welcome

1.1 No apologies were received.

2 Minutes and matters arising

- 2.1 No comments were made on the minutes of the last meeting. The Chair noted the actions in the action log.
- 2.2 JC noted that a trial of new board software should be in place for the next meeting.

3 Chair's update

- 3.1 The Chair provided an update on his activities since the last meeting.
- 3.2 The Chair noted that it was Dame Kate Barker's last meeting as a Commissioner and thanked her for her service on the Commission, particularly for her work on the water and flood recommendations for the National Infrastructure Assessment and for acting as a lead commissioner for the Infrastructure to Support Housing paper and on the resilience study.
- 3.3 The Chair highlighted a productive meeting with the Chancellor which discussed the Budget and the National Infrastructure Strategy.
- 3.4 Commissioners asked about the response to the revised energy modelling paper. The Interim Chief Executive (JR) noted that it had received positive coverage in The Times but that there had been no official response yet.

4 Chief Executive's Update

- 4.1 JR provided an update on Commission business since the last meeting, noting the contingency measures which had been put in place following the COVID-19 pandemic including asking all staff to work from home and holding meetings via video conference.
- 4.2 JR noted that the organisation planned to prioritise the resilience and rail studies and the response to the National Infrastructure Strategy, while the cities and congestion publications would be delayed until the autumn and the site visits for the place study would be postponed. JR noted other Commission work would continue as planned and that a detailed revised workplan would be brought to the April Commission meeting.
- 4.3 JR noted that since the last meeting the housing paper and revised energy modelling had both been published and that James Heath had been publicly confirmed as the organisation's CEO. James will start in early May.

5 Rail Needs Assessment

- 5.1 The Chair invited the Director of Policy (GS) to outline the plan for the rail needs assessment.
- 5.2 RW outlined the proposed stakeholder engagement strategy, noting the limits imposed by COVID-19.

DECISION: The Commission agreed the draft methodology. The Commission agreed the stakeholder engagement strategy. The Commission agreed that the Call for Evidence should be published on 24 March, subject to sign-off by lead Commissioners and the Chair. The Commission also agreed that while Bridget Rosewell and Andy Green would act as lead Commissioners for the study, all Commissioners would be involved with stakeholder engagement. Commissioners agreed the proposed timeline.

6 Congestion and Deliberative Engagement

6.1 The Chair invited PB to outline the findings of the deliberative engagements on tackling congestion and the proposed next steps. PB noted that the proposed outputs of the project were a report on findings from the social research, an independent evaluation of the process and methodology and a position paper by the Commission.

DECISION: The Commission agreed to publish the findings in the autumn alongside the outputs of the cities programme, and that a position paper should be published alongside the social research and evaluation reports.

7 External speaker: Charles Roxburgh

7.1 The Chair invited Charles Roxburgh (CR) to outline the infrastructure priorities set out in the budget and the government's plans for the National Infrastructure Strategy. CR noted that the timeline for the National Infrastructure Strategy was uncertain given the COVID-19 crisis.

DECISION: CR will return to the Commission to discuss the contents of the National Infrastructure Strategy once the publication timeline is clear.

8 Resilience

8.1 The Chair invited MC to introduce the resilience study's draft recommendations.

DECISION: Commissioners agreed that final recommendations should be brought to the next Commission meeting and that the Commission should aim to publish the report in May as planned. Commissioners agreed that the narrative of the report should refer to the COVID-19 crisis and the resilience issues it had highlighted.

9 Young Professionals Panel update

- 9.1 The Chair invited Annette Jezierska (AJ) to update on the YPP's activities since the last meeting. AJ noted that a podcast would go ahead in April but remotely given one of the participants was due to travel from Denmark.
- 9.2 AJ noted that infra-cafes were currently on hold but that the YPP would look into hosting them virtually. AJ highlighted that the Generational Shift thought pieces were currently being peer-reviewed and would be published on the website. AJ also noted that a virtual celebration event may be held in April to mark the end of the YPP's tenure.

10 AOB

10.1

No items of AOB were recorded.

Meeting: Commission Meeting Date: 22 April 2020 Time: 1pm Place: Video conference

Attendees

Commission Members:

Sir John Armitt	(Chair)	
Professor Sir Tim Besley	(Commissioner)	(Items 1-6, Item 9)
Professor David Fisk CB	(Commissioner)	
Andy Green CBE	(Commissioner)	
Professor Sadie Morgan OB	3E (Commissioner)	
Julia Prescot	(Commissioner)	
Bridget Rosewell CBE	(Commissioner)	

Secretariat:

(Interim Chief Executive)	
(Chief Operating Officer)	
(Head of Communications)	
(Commission Secretary)	
(Incoming Chief Executive)	
(Senior Policy Adviser)	(Item 5)
(Senior Policy Adviser)	(Item 5)
(Policy Adviser)	(Item 5)
(Senior Technical Adviser)	(Item 5)
(Senior Adviser)	(Item 5)
(Head of Resilience Study)	(Items 5 and 6)
(Policy Adviser)	(Item 6)
(Assistant Director)	(Item 6)
(Head of Economic Analysis)	(Items 6-8)
(Assistant Director)	(Item 7)
	(Chief Operating Officer)(Head of Communications)(Commission Secretary)(Incoming Chief Executive)(Senior Policy Adviser)(Senior Policy Adviser)(Policy Adviser)(Senior Technical Adviser)(Senior Adviser)(Head of Resilience Study)(Policy Adviser)(Head of Economic Analysis)

External Guests

Ian Russell	(Chair, Infrastructure Commission for Scotland)	(Item 8)
Tony Rose	(Director of Secretariat, Infrastructure Commission for Scotland) (Item 8)
John Lloyd Jones	(Chair, National Infrastructure Commission for Wales)	(Item 8)

1. Apologies and Welcome

1.1 No apologies were received.

2 Minutes and matters arising

2.1 No comments were made on the minutes of the last meeting. The Chair noted the actions in the action log.

3 Chair's update

- 3.1 The Chair provided an update on his activities since the last meeting.
- 3.2 The Chair noted a productive meeting with the Crown Estate. The ongoing problem of landing points was raised.
- 3.3 The Chair also noted a discussion with the Infrastructure Projects Authority on the impact of Covid-19 on infrastructure and on their role in supporting the government's integrated rail plan.

4 Chief Executive's update

- 4.1 The interim Chief Executive (JR) welcomed the incoming Chief Executive, James Heath, to the meeting.
- 4.2 JR noted that the rail needs assessment call for evidence, a discussion paper on the Commission's competitiveness objective, and the corporate plan had been published since the last meeting. He also noted that the team for the rail needs assessment was now almost complete. Bridget Rosewell (BR) noted that it would be useful for lead Commissioners to meet with the team leads once they were in place.

ACTION: Commission Secretary to set up meeting between rail needs assessment leads and lead Commissioners once the team is in place.

5 Resilience study executive summary

5.1 The Chair invited MC to discuss the resilience study executive summary. MC noted that the recommendations were distinct from each other so that they could be accepted or rejected independently.

DECISION: Commissioners were content with the recommendations and the executive summary. They felt that stress tests should be published in summary form and that an enforcement mechanism should be set out to encourage infrastructure owners' compliance with the need for stress tests and resilience strategies. Commissioners were content for the study to be signed off by the Chair and lead Commissioner.

6 Positioning our recommendations for the recovery (NIA 1A)

6.1 The Chair asked CB to introduce a discussion on the implications of Covid-19 for the economy, and the role of infrastructure in the recovery. CB noted that Covid-19 had delivered an

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unprecedented fiscal and economic shock and that there was no consensus on the shape of the recovery.

7 Scoping for the next National Infrastructure Assessment:

7.1 The Chair invited JC to introduce the work plan leading towards an NIA2 baseline assessment in March 2021. She asked the Commission to agree the overall approach, and the potential list of topics outlined in the paper.

Decision: The Commission agreed to the themes, scope, approach and topics contained within the workplan.

8 Scottish and Welsh Infrastructure Commissions

- 8.1 The Chair invited Ian Russell (IR) and John Lloyd Jones (JLJ) to present on the role and priorities of the Infrastructure Commission for Scotland and the National Infrastructure Commission for Wales. IR noted that the infrastructure Commission for Scotland was a temporary body created for 18 months and that its remit included social as well as economic infrastructure. He highlighted the recommendations made by the Commission's report, including that a permanent independent body should be set up to explore infrastructure policy. He also noted that the Commission had been asked to advise on the delivery of infrastructure and that it would report on this in June 2020.
- 8.2 JLJ noted that the National Infrastructure Commission for Wales was founded in October 2018 and that its first report was delivered in November 2019, with a more comprehensive report due in 2021. JLJ noted that it was a permanent body and that its remit did not extend to social infrastructure, though there was some overlap in areas such as housing. He noted that the three key themes of their work were decarbonisation, connectivity and resilience.

9 Communications Strategy 2020-23

9.1 The Chair invited BW to introduce the Communications Strategy for 2020-23. BW asked Commissioners whether the proposed strategic choices around audience prioritisation were appropriate, whether the strategic approach was effective and whether the core narrative set out the right high-level messaging in the run up to NIA2.

Decision: Commissioners approved the communications strategy.

10 AOB

- 10.1 Sadie Morgan (SM) noted that the National Infrastructure Design Group had hoped to set up a design award next year but the British Construction Industry Association had now noted that they may be able to run an award this year. SM said she would keep the Commission updated on developments.
- 10.2 Commissioners noted that the Commission should pass on its thanks to the Young Professionals Panel for their two years of service.