



DESIGN
COMMISSION
FOR WALES
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20th April 2020

BY EMAIL - National Infrastructure Commission for Wales

Design Commission for Wales - Response to the Call for Evidence 2019 – Key Issues

Dear Colleagues

Please find here our thoughts in response to the NICFW call for evidence topics Annex 2. Thank you for the extended submission deadline in the context of the disruption experienced due to the Coronavirus Covid-19 pandemic.

As previously discussed with the NICFW, the Design Commission has not focussed solely on learning from the past – though our considerable experience of settlement, transport and energy projects in Wales has a bearing on our comments, as does the expertise of our network of practitioners working in these fields on a daily basis. We have sought to prompt lines of enquiry/questions appropriate to emerging and future needs. Some issues are of course characterised by complex realities and potential conflicts. We have addressed each of the issues identified in order and provided a short note on Governance which we view as an essential consideration across the piece. Where there is potential misalignment with existing legislation, direction of policy or public commitments, we have highlighted the need to investigate further and prepare for difficult decisions or courses of action to be recommended. We also urge consideration of the intersections and relationship between each topic.

We trust you find this helpful and will be happy to assist in any manner appropriate as you distil submission findings and identify next steps.

Whilst the Coronavirus Covid 19 measures are in place our office is closed, however you can still contact us at connect@dcfw.org or through Sue Jones at sue.jones@dcfw.org for all general enquiries. My direct email address is also shown below.

Yours sincerely

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For and on behalf of the Board of Directors

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Governance

Future infrastructure needs of many and various kinds will require fully resourced Governance arrangements that can demonstrate integrity, be highly skilled, robust and transparent. It will be important to develop the capacity and capability to facilitate sound analysis and evaluation of evidence and research findings, in order to allow long term decision making, beyond political cycles, terms of government and elections, and any wider form of partisan influence. It is essential that all Governance arrangements reflect the structure, skills capacity and capability to ensure robustness and transparency, to avoid the pitfalls of undue influence of any kind.

National and international good practice and technical requirements such as those outlined by the ITU are recognised as particularly relevant for digital communications, connectivity, data access, use and privacy, public services or supplies, and in the public interest.

Digital Communications

Issue 1: We understand the need to consider the UK focus on extending fibre. We also understand and support the socially inclusive principles informing the NICFW focus on superfast broadband provision for as many households in Wales as possible, via low cost technology and extended fibre by 2033. However, we urge a wider perspective that recognises the business needs in addition to households, particularly where access is currently difficult. Download speed should not be the only measure: for business use capacity and upload speed may be as critical as download speed. Most "household" services offer upload at a significantly lower rate than download. User needs would benefit from being considered in this broader scope and also encompass entrepreneurs needs, home working and live/work facilities and capacity for access in more rural areas currently poorly served. Investigating needs in this wider context is important, perhaps more so given the changes to live/work arrangements, some of which may become permanent, post Coronavirus Covid-19 public health measures.

Issue 2: Long term value is critical for consideration of the suitability of 4G and 5G. These are only suitable substitutes for fibre where services are available at an affordable monthly fee and, crucially, without data capping or risk of unreasonable and/or unaccountable 'throttling' of speed or data quantity. An affordable and unlimited data service is easily undermined by control of data capacity or speed - a key consideration for business and individual users alike.

Energy

Issue 3: This is among a number of issues that will need to be examined through the prism of devolution, but in collaboration with others - they cannot be considered in isolation from England. A meaningful relationship with the UK NIC would bear fruit, learning from and sharing the work they have already done to set out future needs has further merit. In this context consideration of further grid connections between Wales and Eire or Northern Ireland might usefully be considered and tested. There is a need and opportunity for this to be driven by a Welsh strategy for the location of power generation. This has been done in England via the process of revising and refining siting criteria and requirements reflected in the UK National Policy Statement (NPS) for New Nuclear above 1GW beyond 2025. It establishes the case for NSIPs (Nationally Significant Infrastructure Projects) of this type, defined in the Planning Act 2008 (Eng); considers the appropriate planning framework; identifies and designates potential sites and sets criteria. An examination of the case for such provision in Wales (for all types of

large-scale power generation), the planning context and the interface with the emerging NDF may be valuable in considering electricity generation needs. We do not doubt that this and other similar work will be accompanied by difficult decisions, but it is difficult to see how the substantial private or public sector investment required would ever be made without the security of clear planning policy decisions. The NICFW should be in a position therefore to inform decision makers through carefully examined and analysed findings, used to inform clear recommendations.

Issue 4: Work is already underway on the development of national Marine energy policy and it is likely to be a vital source for decarbonisation of the power supply by 2050. This should be driven by decarbonisation as the key benefit and in the context of ensuring the right mix of reliable generating capacity. The benefits of a comprehensive Marine policy could be also be examined against the costs/benefits of any nuclear new build set out in the UK's current commitments. It could be valuable to examine and learn from the Hendy Review and consider the role and resources of the Crown Estate, where appropriate. Care should be taken to assess alignment with any statutory guidance in Wales, commitments under the Paris Accord, Climate Emergency declarations and the WCFG Act Wales.

Issue 5: Inconsistent policy on power upload tariffs has been a significant risk and has constrained smaller scale power generation. Tariff guarantees must be linked to pay back periods for investment in infrastructure, irrespective of whether they are household solar panels or nuclear new build. Consistency and long-term policy positions are essential enablers and need to be further considered.

Transport

Issue 6: In Wales a new and comprehensive transport and wider connectivity strategy is an urgent necessity. The findings and recommendations of the South East Wales Transport Commission (SEWTC Chaired by Lord Burns), when they are available, will no doubt have a part to play and should be anticipated and analysed by NICFW as part of its work. The desired outcomes of increased capacity and reduced congestion (6a) are unlikely to be achieved concurrently with a focus on provision for private car use alone. Overall, road, rail/light rail, bus and greater pedestrian and cycle access all need significant and rapid examination. This will perhaps need to consider the rebuilding of confidence in the use of mass public transport, post-pandemic and in light of heightened awareness of public health issues. Transport is deeply enmeshed in strategic planning policy and strategy and needs to be considered in this context. Travel needs should be considered as a key strategic aim linked to land use and transport planning as well as other infrastructure that allows alternative ways of working such as more home/remote or flexible working practice and patterns. Overall, far more work is needed to analyse, test and be in a position to deliver enabling infrastructure in development at the earliest stages – not the other way around.

In Wales many long-standing road and highway projects arising from strategies reaching back decades are at advanced design, public inquiry and construction phases. The 2019 decision not to pursue the proposed M4 relief road was not accompanied by sophisticated thought as to ready alternatives. The decision, however it is perceived, has been made, will not be overturned and future opportunities for South East Wales will be informed by the SEWTC, and should feed a renewed national transport strategy. How far the development of a new national strategy should be influenced by the private sector might bear examination.

Longer term, pollution and congestion are becoming decoupled by the potential of electric vehicles and an examination of the nature of future congestion levels should be examined with a view to proposals as to how to address it. Housing, education, health and employment location and distribution in Wales is heavily reliant on the car and private vehicle use, especially for new development. Clear and strategic policy as to where development goes and why, is crucial part of infrastructure planning. The emerging NDF and changes to local and regional development planning have a key role to play. Sufficient density of development drives the provision of public transport. Public transport is only an effective alternative to car use when it is clean, affordable and convenient – i.e. when it is possible to turn up without consulting a timetable due to frequency of services – including late into the evening and throughout weekends, including evenings. Public transport provision should be in place as soon as new developments are occupied and travel behaviours established.

An examination is needed as to which parts of Wales might be occupied at sufficient density for effective public transport. This is likely to reveal only a few locations where public transport is a realistic option for most travel – perhaps a few cities – and will require consideration of how frequent, convenient and affordable transport can work elsewhere. Two quite different policies are likely to be necessary to address this issue.

Too little attention is afforded the potential of buses. It seems obvious that regulation is needed to unlock the potential and that appropriate Welsh powers are needed. London operates the only regulated bus services in the UK and TfL's outer borough services may offer useful lessons for Wales.

Broad assumptions that, partly as a result of advancing technology and work practices, the need for travel and transport may reduce need closer examination as to the more complex picture comprehensive transport provision presents. Transport is an enabler for commuters but also for leisure, goods and services.

Better connections might shift more employment and economic opportunity to the capital city rather than creating new opportunities further afield. Cardiff for example, may begin to have the same effect as the 'London bubble' in England. It will be useful and essential therefore to examine what might constitute a successful future for valley towns or rural heartland and what needs are generated. What does this look like? Regional positions to date assume the desire and need to travel to Cardiff – testing of this assumption may be valuable. Establishing a better regional transport network with a focus on a city will also allow for greater connectivity from the city out to surrounding towns which could provide further opportunities and alternative offers. Shifting industry away from the M4 corridor seems unlikely on any useful scale.

It is necessary to examine how better air and sea connections contribute to commitments under the Paris accord. Trends post-pandemic may lead to considerable change or rapid return to previous patterns, this needs analysis. Thought as to what length of journey should be by rail rather than air should form part of the investigation in order to minimise carbon footprint. The assertion that the Wales' policy context should strongly support a single UK hub airport with exemplary onward connections to Wales and the rest of the UK could be usefully, independently examined.

The rationale for seeking better alternative connections within the UK, such as rail, as point to point services should be examined as it constitutes the most polluting form of air travel. If better

international connections are a priority, capacity as to the number of destinations served is crucial – this can only currently be achieved through hub airports. Are hub airports the right long-term answer? Is this the right use of investment when use of very large aircraft is declining and that decline has been accelerated by the impact of recent public health measures? This might be examined in the context of Wales' closest markets and trade functions as well as journey lengths. Short haul flights are heavy polluters and increasingly subject to taxation, while investment in excellent rail connections offers more sustainable options. Are electric flights a likely part of Wales' aviation future and if so, how will this impact the considerations of capacity and environmental impact?

Issue 7/8/9: Interior connections (North/South Wales) could benefit from improved rail and we question whether there has been sufficient examination of this to date. Connections to England are economically and practically important, even if politically challenging.

2040 is far too late a target for zero emission readiness. Further examination of alternatives (and multiple attendant issues) is necessary. Overall routes that exist or which are currently being developed arise from decades-old strategies and no or little thought has been given to how the routes themselves can contribute to energy generation, and/or diminishing emissions (as per many examples in mainland Europe alone). Examination is also needed as to the potential of hydrogen fuel-cell vehicles as part of the future for low-density populations with longer distance travel patterns than city dwellers. Generation, storage and battery technologies all bear examination. What will power long distance road freight? What can be done to manage the creation and disposal of batteries related to transport? What role does the future of natural gas play? When is gas going to stop being supplied to homes and businesses through gas grid? Does this provide a potential future hydrogen grid?

Confidence in charging infrastructure is paramount and comprehensive policy can only be led by the public sector. How do you charge an electric car if you live in a flat, or have a parking space/garage with no power supply, or live in a house with no driveway? A multitude of on street private sector suppliers will be inefficient and overly complex. Anywhere that permits on-street parking will need recharging infrastructure at 5m intervals. How should limited space on existing urban streets be prioritised for this alongside demands for better walking, cycling or car share provision? Existing electrical infrastructure (such as lighting) will be unlikely to be suitably located for such use. Will people still own cars or will they be leased, shared, hired by the hour as trends might suggest? What could offer readily affordable and convenient models? What is the government vision and how can it flex in response to changing technology, demand, preferences?

Examination of these issues could usefully usher in an era of experimentation with failure costs factored in. It should not be reactive and should be focussed on what users will need rather than what suppliers can or wish to do. Such an approach could helpfully accelerate innovation.

In rural areas there are considerable challenges for conventional public transport which is unlikely to ever to meet user need. Journey start and end points are often too dispersed for car hire/share options to be effective. Taxis may often be relied upon but rarely have the capacity of those in urban areas. Can electric charging ever work in this context? Examining patterns of user journeys is essential to understanding user need and journey patterns – what need are we trying to serve? Embracing the use and analysis of cell phone tracking data will be a likely necessity for such examination.

Travel reduction has attractive benefits for carbon decoupling, more efficient use of time, reduction in brake and tyre dust (and transport bi-product pollution – manufacturing materials and processes as well as suitability of tyres etc for large scale recycling), noise, air pollution, road traffic collisions. However, it remains essential for goods, leisure and services and demand continues to increase. The possibilities of compact, well connected location of homes, businesses and leisure is the driver of travel and transport need. Comprehensive consideration is required to establish need and desire and in the context of what the future of villages, towns and city centres could or should be. A number of aspects should be considered as retail increasingly becomes a virtual experience and delivery based; when property use-patterns change as a result of changed working practices; in light of the recognition that shorter active travel opportunities such as cycling do not necessarily mean no congestion – for e.g bicycles, whilst more benign and fewer in number, are still vehicles. Their increased use requires far better direct route availability. Compactness of development needs comprehensive consideration as to how to achieve the highest quality for liveable densities and create more pleasant environmental conditions. Transit oriented development is promoted in planning policy and has the potential to provide many environmental, social and economic benefits but is yet to be fully unlocked or embraced.

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