

Adran yr Economi a'r Seilwaith
Department for Economy and Infrastructure



Llywodraeth Cymru
Welsh Government

**THE CHESTER TO BANGOR TRUNK ROAD (A55) (JUNCTIONS 16 AND 16A
IMPROVEMENT REALIGNMENT AND SLIP ROADS) ORDER 202-**

**THE CHESTER TO BANGOR TRUNK ROAD (A55) (JUNCTIONS 16 AND 16A
IMPROVEMENT REALIGNMENT AND SLIP ROADS) (SIDE ROADS) ORDER 202-**

**THE WELSH MINISTERS (THE CHESTER TO BANGOR TRUNK ROAD (A55)
(JUNCTIONS 16 AND 16A IMPROVEMENT REALIGNMENT AND SLIP ROADS))
COMPULSORY PURCHASE ORDER 202-**

SUMMARY PROOF OF EVIDENCE

Note: See Document Reference WG 1.02.02 for full evidence and referencing

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WELSH GOVERNMENT, CLIMATE CHANGE AND CARBON

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1 Author

- 1.1 I am Simon Declan Price, the Climate Change Witness for the A55 Junctions 16 and 16A Improvements Scheme. My Proof of Evidence addresses the climate change considerations of the Scheme. The opinions expressed are my own unless I state otherwise.

2 The UK and Welsh Government Climate Legislation and Policy

- 2.1 The Climate Change Act 2008 is the basis for the UK's approach to tackling and responding to climate change. The 2050 Target Amendment Order imposes a duty on the Secretary of State to reduce UK wide Greenhouse Gas (GHG) emissions to net zero by 2050 (reductions of least 100% from the 1990 baseline by 2050).
- 2.2 In April 2019 The Welsh Government declared a climate emergency, being the first country in the world to do so. In February 2021 following a recommendation report from the independent Climate Change Committee (CCC) the Welsh Government set out its legal commitment to achieve net zero emissions by 2050. Following the commitment to net zero, in March 2021 the Welsh Government published Llwybr Newydd: The Wales Transport Strategy.
- 2.3 In July 2021 the UK Government published the Decarbonising Transport: A Better, Greener Britain which sets out the pathway for the UK transport sector to be Net Zero by 2050.
- 2.4 In addition to action on carbon the Climate Change 2008 Act established a requirement to undertake a Climate Change Risk Assessment (CCRA) every five years and develop a programme for adaptation action in response to risks identified. The UK Government commissions the UK Committee for Climate Change (CCC) to undertake the risk assessment.
- 2.5 In response to CCRA2 the Welsh Government published Prosperity for All: A Climate Conscious Wales in March 2019, detailing actions to reduce the risks of climate change to Wales over the period 2020 to 2025.
- 2.6 In June 2021 the CCC published their advisory report to inform the UK CCRA3 due in 2022 together with a technical report and summary for Wales.
- 2.7 The Welsh Government has committed to reviewing climate adaptation actions and processes in light of the updated evidence within the CCRA3.

3 The Climate Change Assessment

- 3.1 An assessment of the Scheme under the heading of climate change is presented in Chapter 16 of the Environmental Statement (ES).
- 3.2 Since publication of the ES, the Design Manual for Roads and Bridges (DMRB) guidance has been updated with new information on Climate Change Assessment in LA 114 Climate.
- 3.3 Three aspects were considered as part of the ES climate assessment:
- a) Greenhouse Gas (GHG) Emissions Assessment;
 - b) Climate Change Resilience (CCR) Assessment; and
 - c) In-combination Climate Change Impact (ICCI) Assessment – The Greenhouse Gas (GHG) Emissions Assessment
- 3.4 A GHG assessment has two components, those GHG emissions which arise from the construction of the Scheme and those which arise from its operation.

GHG Emissions from the Construction of the Scheme

- 3.5 The ES reported that construction of the Scheme would result in the release of approximately 11,700 tonnes of Carbon Dioxide equivalent (tCO₂e), or approximately 0.0005% (five ten thousandths of 1%) of the UK's 3rd carbon budget (2018-2022).
- 3.6 To put the impact of the Scheme in context, the annual Welsh carbon budget baseline from 1990 is 56 million tCO₂e. Annual carbon emissions for Wales averaged 41.2 million tCO₂e (2016 to 2020) and Carbon Budget 2 for 2021 to 2025 is reduced to 35.5 million tCO₂e per year. The total construction GHG emissions for the proposed project are estimated to be about 11,700tCO₂e. This therefore represents about 0.03% (three hundredths of 1% or about 1/1700th) of the carbon budget and is not expected to materially affect the Welsh Government's ability to achieve its target. On this basis therefore GHG emissions are not considered significant.
- 3.7 Further requirements to minimise carbon will be put into the contract documents should the Scheme proceed.

GHG Emissions from the Operation of the Scheme

- 3.8 This assessment shows an increase of 45 tCO₂e in the opening year when comparing the situation of the Do Minimum (DM) against the Do Something (DS) (i.e., with and without the Scheme).
- 3.9 Since the assessment undertaken for the ES, the UK Government Decarbonising Transport Plan (DTP) has been published and the Emissions Factor Toolkit (EFT) updated. Therefore, the assessment of the operational

GHG emissions over the appraisal period has now been updated to reflect this new advice.

- 3.10 For the Scheme this means that the additional annual carbon of 45 tCO₂e in the assumed opening of 2022 will fall to zero by 2050. Over the 60 year appraisal period the additional annual carbon would be 1,005 tCO₂e.
- 3.11 To place this in context, the impact of fleet decarbonisation would mean a fall in GHG emissions over the same period of more than 387,000 tCO₂e with or without the Scheme.

Climate Change Resilience

- 3.12 A Climate Change Resilience Assessment (CCRA) for the Scheme has been undertaken to assess the risks to the Scheme from current climate and future climate change.
- 3.13 Recognising that the design of the Scheme already included allowances for climate change, for example allowances for increased rainfall as a result of climate change in the sizing of drainage infrastructure, the ES CCRA concluded that climate change posed no significant risk to the Scheme and that no further mitigation measures were required.
- 3.14 In line with the requirements of LA114 the Scheme has now undergone an additional assessment to consider a range of more extreme climate scenarios known as H++ scenarios.
- 3.15 For the A55 two safety critical features have been identified, drainage and earthworks.
- 3.16 The assessment has concluded that there are no significant new impacts arising from the H++ scenarios which require further mitigation.

The In-combination Climate Change Impact (ICCI) Assessment

This assessment evaluates the combined effect of the Scheme and potential climate change impacts on the receiving environment during construction and operation.

- 3.17 The ICCI assessment concludes that climate change is unlikely to alter the significance of any of the effects identified in the impact assessment. This assessment is not addressed within LA114 and therefore unaffected by it.

4 Objections to the Scheme

4.1 Objections have been made that raise matters that fall within the scope of my proof of evidence. In summary the matters raised are:

- a) The scheme is not consistent with the declaration of a Climate Emergency; and
- b) Construction of the Scheme will produce significant greenhouse gases.

5 Conclusions and Declaration

- 5.1 The construction emissions are approximately 11,700 tCO₂e. This is likely to be lowered as contractors respond to the additional requirements to minimise GHG emissions. Nevertheless, there will be excess GHG emissions compared to the Do Minimum.
- 5.2 Whilst the Scheme will lead to additional annual GHG emissions from traffic these are small and will decline as the fleet is decarbonised.
- 5.3 However, overall and when seen in the context of the Welsh Government carbon budgets and, taking into account the scale and timing of these GHG emissions, it is in my opinion unlikely that these emissions will materially affect the Welsh Government's ability to achieve its budget.
- 5.4 Turning to climate resilience the assessment demonstrated the resilience of the Scheme under a wide range of climate change impacts including those arising from what are currently considered to be extreme climate change scenarios. Further the detailed design of the Scheme will continue to refine the response to these impacts. Therefore, in my opinion the Scheme is resilient to the impacts arising from the currently advised range of climate change scenarios.
- 5.5 Finally the assessment of the combined effect of the Scheme and potential climate change impacts on the receiving environment during construction and operation demonstrates that climate change is unlikely to alter the significance of any of the effects identified in the ES..
- 5.6 My evidence includes facts which I regard as being relevant to the opinions which I have expressed. In my opinion the Climate Assessment has been undertaken in accordance with published professional guidance.
- 5.7 I believe the facts I have stated in this proof of evidence are true and that the opinions expressed are correct.
- 5.8 I understand my duty to the Inquiry to assist it with matters within my expertise and believe that I have complied with that duty.