

Transport decarbonisation scoping paper

About Re-energising Wales

The Institute of Welsh Affairs '[Re-energising Wales](#)' project is a 3 year project (April 2016-April 2019) that will outline a plan to enable Wales to meet its projected energy demands entirely from renewable sources by 2035.

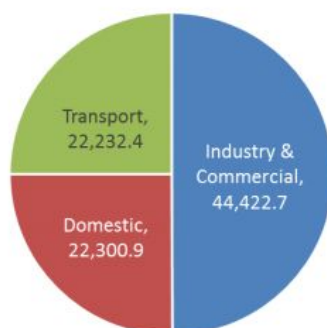
There are 6 core work packages to the 'Re-energising Wales' project as outlined in the "Project Objectives" document [here](#).

Alongside the work packages, the project aims to deliver a range of short papers which consider overarching issues. The first short paper written within the project, entitled 'Funding renewable energy projects in Wales', can be seen [here](#). The transport decarbonisation short paper will be the project's second short paper, identified by the project steering group meeting as a key area that needs to be considered when looking at renewable energy opportunities, and tackling carbon emissions and air quality in particular.

Context

BEIS figures for Wales (Department for Business, Energy & Industrial Strategy, 2017), show that transport accounted for around 25% of energy consumption in Wales during 2015, as shown in the graphical overview below:

Total Wales Consumption GWh by Sector - BEIS 2015



Welsh Government is committed to an annual reduction of 3% in greenhouse gas emissions under its control. The Environment (Wales) Act 2016 has committed to put in place statutory emission reduction targets, which include at least an 80% reduction in emissions by 2050 and carbon budgeting to support their delivery.

Welsh Government have already consulted on implementing part 1 of the Environment (Wales) Act and decided how they will account for Welsh emissions. They are currently working through the evidence for part 2 (setting Targets and Budgets) and have established the working groups under Part 3 to develop the Low Carbon Delivery Plan.

Eight cross government working groups have been established to develop policies and proposals for the Low Carbon Delivery Plan (LCDP), with a draft LCDP due to be produced by June 2018. Transport is one of those groups. The group will propose measures to reduce transport emissions. This will include identifying measures to move to low carbon transport as well as modal shifts. There are a number of motivations for decarbonising transport and encouraging more walking and cycling beyond just carbon emissions, with key problems such as air quality also becoming more prominent within the political debate. In considering The Well Being of Future Generations (Wales) Act 2015, positively transforming the way we approach transport and in particular reducing our reliance on fossil-fuelled based modes of transport, would improve all seven of Wales' national well-being goals. Transport has a massive impact on the way we plan our lives and more sustainable choices could be our route to a healthier and happier lifestyle.

Aim

This short paper will support existing work by identifying key actions needed in Wales to move to low carbon transport, as well as by considering modal shifts. This paper will seek to influence the draft LCDP which, as noted above, is being produced by June 2018.

The aim of the paper is to identify key interventions in Wales that will reduce energy demand for transport, and ensure that Wales works towards the potential to meet its remaining projected energy demands for transport entirely from renewable sources by 2035 (in line with the objectives of the Re-energising Wales project).

Key considerations include:

- Reducing energy demand for transport through behaviour change in favour of active travel (including electric bikes)
- Encouraging public transport use

- Transition to lower carbon forms of transport e.g. transport modes powered by electricity from renewable sources, hydrogen, etc.
- The role of automation and digital infrastructure

Methodology

Desk based review:

An initial desk based exercise will be necessary to identify and analyse key documents to provide evidence to inform recommendations made in this paper. An initial list of some of the useful literature is provided below.

Expert interviews:

Interviews with 15 to 20 experts from the energy and transport sectors, within and outside of Wales, to inform recommendations made in the paper. A list of suggested experts is below.

The appointed individual will need to develop research questions for agreement.

This follows the same methodology as set out in the ‘Funding renewable energy projects in Wales’ [report](#). This paper will ultimately also come up with a clear, realistic and achievable list of recommendations.

Upcoming event

The IWA are working in partnership with a range of organisations to support Cynnal Cymru’s ‘Future Car Wales’ event on Thursday 15th February in Cardiff. The aim of this event is to examine the current status of the electric car market in Wales, discuss its potential development and ensure that Wales has the necessary infrastructure to support the growth of electric cars, ensuring that they make an overall positive contribution to the environmental, economic, social and cultural well-being of Wales. This event will be used to develop policy recommendations for electric vehicles and could therefore be used to develop evidence for the transport short paper.

Resource and Structure

Amount for organisation/consultant: **£4,500 (TBC)**

The IWA are seeking to tender part of this work to an organisation or consultant to help deliver the short paper. The organisation/consultant would initially work with the IWA in finalising the research scope including identifying core reports, drafting interview questions and identifying the interviewees. The organisation/consultant would then carry out the desk based review and interviews themselves and write up

a draft report with key themes and findings. The IWA would then work with the organisation/consultant to finalise the report ready for launch. The organisation/consultant would be expected to attend one launch event.

Timescales

- Scope of desk review to be agreed by mid February
- Research questions to be agreed by mid February
- Bulk of interviews to be carried out before the end of March
- Draft paper to be submitted early May

The intention is for this paper to be launched at the Senedd in May/June 2018.

Potential organisations to interview

Sustrans Cymru

Transport for Wales

Transform Scotland

Cardiff Bus

Caro Wild at Cardiff Council

Welsh Government

Welsh Automotive Forum

National Trust

Cardiff University, Centre of Excellence Electric Vehicles

Living Streets

Arup

Mott MacDonald

Construction Elite International/TFL

Riversimple

Trade bodies like Society of Motor Manufacturers and Traders

Planners

Rail franchise

City Region contacts - examples of good practice elsewhere

Network Wales

Smart Parking Technology

LIG Consultancy Services LLP

Royal College of Physicians

HSBC

Cabinet Secretary for the Environment, Climate Change and Land Reform, Scottish Government

Swansea University

Local Partnerships

University of South Wales (Hydrogen)
The Means

Interviewees based outside UK:

European Environment Agency
Freiburg Regional Transport Association
Vice Mayor for Environment and Transport, City of Oslo
Deep Decarbonization Pathways Project

Useful Literature

- [Report](#) of the Low Carbon Expert Steering Group in Wales
- [Changing travel behaviour](#): Lessons from 'behavioural economics'
- [Reducing Energy Demand](#) in the Transport Sector
- [UK may consider electric vehicle subsidy](#) to increase cycling
- [Swapping cars for bikes](#), not diesel for electric, is the best route to clean air
- [Next steps](#) for improving air quality in Wales
- [Autumn Budget 2017](#): Key climate and energy announcements
- [Plug-in hybrid vehicles](#) among the 'highest-polluting' company cars
- [Bike Life](#) Cardiff
- [Transform](#) Scotland
- [Grid poverty](#); is mid-Wales vulnerable?
- [Electric](#) buses
- [Statement by the Cabinet Secretary](#) for Economy and Transport: Connecting Wales, a strategic approach to Transport
- [Page 38](#), Prosperity for All: economic action plan
- [Opinion](#) Blog
- [Electric cars](#) key to driving change in UK's energy supply industry
- [Air pollution solutions](#): clean air for the UK
- [Business benefits](#): is it take-off time for electric vehicles?
- [The Liverpool-Manchester](#) Hydrogen Clusters project
- [Air pollution](#) and cardiovascular disease
- [Car](#) Clubs
- [Transport](#) in north Wales
- [Four ways technology](#) will change how we commute in the future
- <https://talybontenergy.co.uk/community-projects/community-fund-201415/>
- [Alstom](#) reveals zero-emission regional train
- [Ebbs and Flows](#) of Energy Systems Project

- [The 'vicious circle of decline'](#): How is congestion affecting the Welsh bus sector?
- [Gearing up for the transition](#): The role of transport in a Northern energy strategy
- [Driving to France?](#) Check NOW if you need a new emissions sticker to avoid a possible £60+ fine
- [Britain](#) 'to ban all petrol and diesel vehicle sales by 2040'
- [Towards Winning Business Models](#) for the EV-Charging Industry
- [General procurement guidance](#) for electric vehicle charge points
- [Assembly to debate](#) congestion report by the Economy, Infrastructure and Skills Committee: Taming the Traffic
- [Explanatory Memorandum](#) to the Well-being of Future Generations (Wales) Act 2015 (Assessments of Local Wellbeing) Regulations 2017 (key for air pollution and noise)
- [Intelligent Management](#) of Electric Vehicle Charging
- [Analysis](#): Switch to electric vehicles would add just 10% to UK power demand
- [Diesel](#) sales
- [Automotive](#) technology roadmaps
- [Electric cars](#) already cheaper to own and run than petrol or diesel
- [WELSH TRANSPORT](#) PLANNING AND APPRAISAL GUIDANCE
- [Clean Growth](#) Plan
- [Leeds approach](#) to emissions in city centre
- [The future](#) of transport
- [South East Wales](#) Transport Model Presentation